THE ARTE OF LOGICKE.

Plainly taught in the *Engliſh* Tongue, according to the beſt approoued AVTHOVRS.

Very neceſſary for all STVDENTS in any *Profeſsion, how to defend any Argument againſt all* ſubtill Sophiſters, and cauelling Schiſmatikes, and *how to confute their falſe Syllogiſmes, and captious Arguments.*

By M. BLVNDEVILE.

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To the Reader.

MInding here to treate of the Art of Logicke in our vulgar tongue, for the profit of those my Countreymen, that are not learned in forraine tongues: I thinke it no shame nor robberie to borrow termes of the said Art from the Latines, aswell as they did from the Greekes: and specially such termes as cannot bee aptly expressed in our natiue speech: and yet therewith I doe not forget plainly to shew the signification of euery such terme, so as euery man may easily vnderstand what each terme signifieth: thinking it much better so to doe, then to faine new words vnproper for the purpose, as some of late haue done. And as my minde is hereby to please the vnlearned, that are desirous of learning, hauing both good wits, and also good disposition with aptnesse to learne. So my hope is not to offend the learned, who, I am sure doe well allow of Aristotle, *in saying, that euery good thing, the more common it be, the better it is: neyther are they ignorant, that in old time past, aswell the Greekes as the Latines, of what Arte soe-*

uer they wrote, each one wrote the same, for the most part, in his owne vulgar speech. Euery man is not able in these costly dayes, to find either himselfe or his Childe at the Vniuersitie, whom if God notwithstanding hath indued with a liuely wit, and made him so apt to learning, as hauing some helpe at home, he may by his owne industry, attaine vnto right good knowledge, and be made thereby the more able to glorifie God, and to profit his Countrey. Truly, I see no cause why the learned should disdaine, or bee miscontent that such Man or Child should bee freely taught this or any other good Arte, without any cost or charge. Wherefore arming my selfe with assured hope, that with this my labour, I shall greatly profit and pleasure the vnlearned, and not hinder or displease the learned, I will boldly follow mine enterprize, and here briefly shew the order of my said Worke, which is diuided into sixe Parts or Bookes: for sith Logicke is chiefly occupyed in discussing of Questions, and that such Questions, both simple and compound doe spring of words, the first Part of my Booke shall treate of Words, shewing which bee Simple, which bee Compound, and also which comprehend more, and which comprehend lesse: and which be of affinitie, and which bee not: leauing out no necessary Rules belonging thereunto, that are taught either by Aristotle, *or by any other Moderne Writer.*

Se-

Secondly, becauſe all ſimple Queſtions conſiſting of ſingle words, are to bee diſcuſſed by Definition and Diuiſion: the ſecond Part treateth of them both, and therewith ſheweth alſo with what methode and order ſuch ſimple Queſtions are to be handled. Thirdly, becauſe all compound Queſtions are to bee diſcuſſed by reaſoning or argumentation, and that euery kind of argument doth conſiſt of Propoſitions: the third Part treateth of a Propoſition, and of all things belonging thereunto. Fourthly, becauſe no ſound argument can be made to proue or diſprooue any thing that is in queſtion, vnleſſe the Diſputer know from whence to fetch his proofes: the fourth Part of my Booke treateth of all the places from whence any argument is to be fetched. And the fifth Part treateth of Argumentation, and of all the kinds thereof, teaching how euery kind is to be performed. The ſixt and laſt Part treateth of Confutation, ſhewing how all Sophiſticall arguments are to be confuted.

A Postscript.

Burnell

THough I wrote this Booke many yeeres past, whilest I sojourned with my most deare Brother in Law, Master *William Burnel*, a man of most singular humanitie, and of great hospitalitie, at his house in Winkborne in Nottinghamshire, not farre from Southwell: yet notwithstanding vpon diuers necessary considerations (as I thought) since that time moouing me thereunto, I still stayed it from the Presse, vntill now of late that I was fully perswaded by diuers of my learned friends, to put it in print, who hauing diligently perused the same, and liking my plaine order of teaching vsed therein, thought it a most necessary Booke for such Ministers as had not beene brought vp in any Vniuersitie: to many of which Ministers though God had giuen the gift of vtterance, and great good zeale to set forth in good speech the true Christian doctrine: yet, if they should haue to deale with subtil Sophisters and cauelling Schismatikes (whereof in these dayes, the more is the pittie, there are too many) they were not able without the helpe of Logicke, to defend the Truth of Gods Word, and orderly to confute such false Conclusions as peruerse Schismatikes and Heretikes are wont to gather out of the very words of holy Scripture: wherefore, through my said friends perswasions, I haue now at length committed my said Booke to the Presse, praying all those that shall vouchsafe to reade it, as thankfully to accept the same, as of my part it is friendly offered:

Vale.

The

The Contents of the Chapters contayned in these sixe Bookes of *Logicke*.

THE FIRST BOOKE.

Treating of a Question, and of Words, both Singular and Vniuersall.

WHat Logicke is, of what parts it consisteth, and whereto such parts doe serue. Which bee the two chiefe offices of Logicke, and wherein Logicke is chiefly occupyed, that is, in discussing of Questions, which is done by Definition, Diuision, and Argumentation. Chap. 1.

What a question is, and that euery question is eyther simple or compound, also of what parts a compound question consisteth (that is to say) of two parts, called the Subiect and the Predicate, and what those termes doe signifie. Because all questions doe consist of words either simple or compound, in this Chapter are set downe three principall diuisions of words. First, which be simple, and which be compound. Secondly, which be of the first intention, and which bee of the second intention: and thirdly, which be singular, called in Latine Indiuidua, *and which be vniuersall.* Chap. 2.

What Indiuiduum *is, and all the foure kinds thereof (that is)* Indiuiduum determinatum, Indiuiduum demonstratiuum, Indiuiduum vagum, *and* Indiuiduum ex hypothesi *(that is to say) by supposition.* Chap. 3.

Of vniuersall words, whereof some are called Predicables, and some Predicaments, and first, of the fiue Predicables (that is) Genus, Species, Differentia, Proprium, *and* Accidens, *and how euery one is diuided, and to what vses they serue, but first of* Species, *and then of the rest.* Chap. 4.

Of

Of Predication, and of the diuers kinds thereof. Chap.5.

Of the ten Predicaments in generall, which be these, Substantia, Quantitas, Qualitas, Relatio, Actio, Passio, Vbi, Quando, Situm est, *and* Habere. Chap.6.

Of the foure predicaments, and shewing which they bee, and to what end they serue. Chap.7.

Of the ten Predicaments in speciall, shewing what substance is, and how many kinds there be, and what properties it hath, whereto is added the Table of Substance. Chap.8.

Of Quantitie, both whole and broken, called in Latine, Quantitas continua, & discreta, *and of the diuers kinds of both quantities, and what properties quantity hath, whereto is added a Table of quantitie.* Chap.9.

Of Quality, and of the foure kinds thereof, and in this Chapter are defined the fiue intellectuall habits, that is, Intelligence, Science, Prudence, Art, and Sapience: it sheweth also what properties qualitie hath, and to euery of the foure kinds of quality is added his proper Table. Chap.10.

Of Relation, and of the kinds thereof, together with a Table shewing euery kind, and finally what properties Relation hath. Chap.11.

What Action is, and how it is diuided, and what properties doe belong thereunto. Chap.12.

What Passion is, and what properties doe belong thereunto. Chap.13.

What the Predicament Vbi *is, and how it is diuided, and what properties doe belong to that Predicament.* Chap.14.

What the Predicament Quando *is, how it is diuided, and what properties belong thereunto.* Chap.15.

What the Predicament Situm esse *is, what it comprehendeth, also what Descriptions are to bee fetched from this Predicament, and what things are said to alter their situation, and finally what propertie it hath, to which Predicament is added a briefe Table.* Chap.16.

The diuers significations of the Predicament Habere, *also what words it comprehendeth, with a Table shewing the same, and finally what properties it hath.* Chap.17.

The

The manifold vses of the aforesaid ten predicaments. Chap.18.

Of the Postpredicaments, *which are in number fiue, that is,* Oppositio, ante *and* post, simul, motus, *and* habere, *and first of Opposition, and how many things are said to agree together, to be diuers, or to be contrary one to another.* Chap.19.

How many wayes things are said to be one before or after another, and to what end that Postpredicament seruetb. Chap. 20.

Of the Postpredicament Simul, *shewing how many wayes things are said to be together.* Chap.21.

Of the Postpredicament Motus, *shewing how many kinds of mouings there be.* Chap.22.

How many wayes the word Habere *is to be vnderstood.* Chap.23.

THE SECOND BOOKE.

Treating of Definition, and of Diuision, and of Methode.

OF Definition, and shewing how many kinds of Definitions there bee. Chap.1.

How many Precepts are to bee obserued to make a true definition: Chap.2.

Of Diuision, and of the diuers kinds thereof. Chap.3.

How many Precepts are to bee obserued to make a true Diuision. Chap.4.

Of Method, and of the three kinds thereof, that is, Compositiue, Resolutiue, and Diuisiue, and Methode is to be obserued in handling either of a simple, or of a compound question. Chap.5.

THE THIRD BOOKE.

Treating of a Proposition.

OF a Proposition, shewing of what parts it consisteth, and how many wayes it is diuided, and what questions are to bee asked

of a Categoricall or simple proposition, being diuided according to substance, qualitie, and quantitie. Chap. 1.

Of the three properties belonging to a simple Proposition, that is, Opposition, Equiualency, and Conuersion. Chap. 2.

Of the Lawes and conditions belonging to the foure Opposites, and also of the threefold matter of a Proposition, that is, Naturall, Casuall, and Remote, and then of Opposition, shewing how many wayes simple propositions are said to be opposite one to another. Chap. 3.

Of the Equiualency of simple propositions. Chap. 4.

Of the Conuersion of simple propositions, shewing how manifold it is. Chap. 5.

Of a modall Proposition, and of the two kinds thereof, that is to say, Coniunct and Disiunct. Chap. 6.

Of the Opposition, Equiualency, and Conuersion, belonging to Modall propositions. Chap. 7.

Of Opposition belonging to Modall propositions. Chap. 8.

Of Equiualency and Conuersion of Modall propositions. Chap. 9.

Of an Hypothetically or compound Proposition; shewing how it is diuided, that is, into a Conditionall, Copulatiue, and Disiunctiue, and of what parts it consisteth, and also what things are to be considered in a compound Proposition. Chap. 10.

Of the truth and falshood of all the three kinds of compound Propositions, first, of the Conditionall; secondly, of Copulatiue; and thirdly, of the Disiunctiue. Chap. 11.

The Fourth Booke.

Treating of Logicall places.

WHat a place is, and that it is twofold, that is, eyther of Persons or of Things. Againe, the places of things bee either artificiall or inartificiall, and the artificiall places of things are either inward, outward, or meane: and the inartificiall places of things are sixe in number, comprehended vnder the place of authoritie, as the Table of places set downe in the beginning of this Chapter doth plainly shew. Also this Chapter sheweth to what end such manifold diui-

diuisions of the places serueth, and howplaces are diuided according to the Schoolemen, that is, into Maximes, and difference of Maximes. Chap.1.

Examples of all the places belonging to persons. Chap.2.

Of the places of things, and first of artificiall places, whereof some be inward, some outward, and some meane: and first of inward places, whereof some belong to the substance of things, and some doe accompany the substance, giuing examples of euery place, together with their proper Maximes or generall Rules, belonging to the same, and how Arguments are to be fetched from euery such place, either affirmatiuely or negatiuely, or both wayes. Chap.3.

Of outward places, shewing how Arguments are to be fetcht from euery such place, together with the generall Rules or Maximes belonging to the same. Chap.4.

Of meane places, giuing examples, and shewing how Arguments are to be fetcht from such places, together with the Rules belonging thereunto. Chap.5.

Of the sixe inartificiall places comprehended vnder the place of authoritie, whereunto is added a Table of authoritie. And in this Chapter is not only declared to what end the knowledge of all the foresaid places doe serue, but also it sheweth by one example how to vse them when need is, either to proue or to dilate any Theame, which example is taken out of Hunneus. *The Theame whereof is thus:* Man ought to embrace Vertue. Chap.6.

THE FIFT BOOKE.

Treating of Argumentation; and of Demonstration.

OF Argumentation, and of the foure kinds thereof in generall, and also of the first principles of a Syllogisme, aswell materiall as regular.

What a Syllogisme is, how it is diuided, and of what parts it consisteth, that is, of matter and forme.

What that matter and forme is, and that the matter consisteth of

three termes and three propositions, and the Forme to consist of Figure and Mood. Also by what meanes the meane terme or proofe is to be found out. And finally, it defineth the three Propositions, whereof a simple Syllogisme consisteth, shewing how they are named, and how to frame the same to make a true Syllogisme. Chap. 3.

What Figure or Mood is, whereof the forme of a Syllogisme consisteth, and how many such Figures there be, and when a Syllogisme is said to conclude directly or indirectly: it sheweth also how many Moodes doe belong to euery Figure, and how they are named. And finally, what the foure Vowels A, e, i, o, *doe signifie in any such Mood or Vocable of Art.* Chap. 4.

Certaine rules aswell generall as speciall belonging to the three Figures. Chap. 5.

Examples of the foure perfect Moodes, belonging to the first Figure. Chap. 6.

Examples of the fiue vnperfect Moodes, belonging to the first Figure. Chap. 7.

Examples of foure Moodes, belonging to the second Figure. Chap. 8.

Examples of the sixe Moodes, belonging to the third Figure. Chap. 9.

Of a Syllogisme expository, shewing why it is so called. Chap. 10.

Answere to an obiection concerning the three Figures and Moods, belonging to the same. Chap. 11.

Of Reduction, and of the kinds thereof, and also of the signification of certaine Consonants in the words of Art, seruing to Reduction. Chap. 12.

Of Reduction by impossibility, shewing vnto which of the perfect Moodes, euery vnperfect Moode is to bee reduced by impossibilitie. Chap. 13.

Of a Syllogisme made in oblique cases, and of the six abilities, and three defects of a Syllogisme. Chap. 14.

Of a compound Syllogisme, shewing that it is threefold, that is, Conditionall, Copulatiue, and Disiunctiue, and that the truth of a compound Syllogisme is to bee found out by reducing the same into a simple Syllogisme. Chap. 15.

Of a Consequent, shewing what it is, and of how many parts it con-

consisteth, and how it is diuided, also by what meanes, and by what Rules the goodnesse of a Consequent is to be knowne. Chap.16.

Of a Syllogisme demonstratiue, shewing what it is, and of what manner of Propositions it consisteth, which Propositions are here defined, it sheweth also the three properties belonging to the Predicate and Subiect of a demonstratiue Proposition, and also sheweth what definitions Aristotle *maketh of demonstration, and it defineth what Science is, and thereby giueth example of a Syllogisme demonstratiue.* Chap.17.

Of the three things, whereon dependeth the certayntie of Mans knowledge, that is, vniuersall experience, principles, and mans naturall knowledge in iudging of Consequents, shewing how principles are defined by Aristotle, *and how they are diuided by the Schoolemen.* Chap.18.

That the Schoole-men doe diuide Demonstration into two kinds, that is, either perfect or vnperfect, wherein is declared what is to be obserued in either kind of demonstration. Chap.19.

Of Science, Opinion, Ignorance, Wit, and the foure scientiall questions. Chap.20.

Of a Syllogisme Dialecticall, shewing what it is, and of what kinds of Propositions it is made, and what things are said to be probable: Againe, it sheweth how the Schoole-men doe make the matter, whereof a Syllogisme consisteth to be twofold, that is, Materia remota, *and* Materia propinqua, *and what each matter contayneth. And finally, it sheweth the difference betwixt a Dialecticall Proposition, a Probleme, and a Position.* Chap.21.

Of a sophisticall Syllogisme, shewing what it is, and that it may be false three manner of wayes. Also in this Chapter is declared another kinde of false Syllogisme, called Syllogisinus falsigraphus. Chap.22.

Of Induction, shewing what it is, and what is to be obserued therein, and that it is twofold, that is, perfect and vnperfect. Chap.23.

Of an Enthimeme, shewing what it is, of what parts it consisteth, and from whence that kind of Argument is to be fetched. Chap.24.

Of an example, shewing what it is, and wherein it differeth from all the other formes of Arguments, and to what end it seruetb, and

what is to be obſerued in reaſoning thereby. And finally, from what places ſuch Argument is to be fetched. Chap.25.

Of an Argument called Sorites, *ſhewing how it proceedeth, and wherein it differeth from the Argument of the Rhetoricians called* Gradatio. Chap.26.

Of diuers other kinds of captious Arguments, and firſt of Dilemma, ſhewing of what parts it conſiſteth, and how many kinds of captious Arguments it comprehendeth, which are theſe foure, that is, Ceratins *or horned Arguments,* Crocodelites, Aſsiſtatons, *and* Pſeudomenons, *euery one of which is here defined, and example giuen thereof.* Chap.27.

Of an argument called Enumeratio, *ſhewing what it is, and how it is to be confuted.* Chap.28.

Of an Argument called Simplex concluſio, *ſhewing what it is.* Chap.29.

Of an Argument called Subiectio, *ſhewing what it is, and that it differeth not much from* Enumeratio *before deſcribed.* Chap.30.

Of an Argument called Oppoſitio, *made of parts repugnant.* Chap.31.

Of an Argument called Violatio, *which is more meete to confute then to proue.* Chap.32.

The Sixth Booke.

Treating of Confutation.

Confutation is twofold, whereof the one belongeth to the Perſon, the other to the Matter: and that of Matter is diuided into two kinds, that is, Generall and Speciall, and the generall confutation is done three manner of wayes, that is, either by denying the Conſequent, by making diſtinction, or elſe by inſtance, any of which three wayes, when it is to be vſed, is here ſet downe. Chap.1.

Of ſpeciall confutation, ſhewing how it is done, and what order Ariſtotle *obſerueth in treating of ſpeciall confutation, whoſe order is briefly here ſet downe, and firſt of an* Elench. Chap.2.

Of

Of Disputation, and sheweth how manifold it is. Chap.3.

Fiue markes of Sophistrie, that is, Reprehensio, Absurdum, Paradoxis, Solecismus, *and* Nugatio, *with their examples.* Chap.4.

There be thirteene Fallaxes, whereof sixe doe consist in Words, and seuen in Things, and first it treateth of the sixe Fallaxes consisting in Words, and sheweth how to confute the same. Chap.5.

Of the seuen Fallaxes consisting in Things, and sheweth by examples how to confute the same. Chap.6.

THE

THE ARTE OF LOGICKE.

The first Booke.

CHAP. I.

Of the Arte of Logicke, and of the parts and offices thereof.

What is Logicke?

Logicke is an Art, which teacheth vs to dispute probably on both sides of any matter that is propounded.

Of what and how many parts doth it consist?

Of two: that is, Inuention and Iudgement.

Whereto serue these parts?

Inuention findeth out meete matter to prooue the thing that yee intend: and Iudgement examineth the matter, whether it be good, or not; and then frameth, disposeth, and reduceth the same into due forme of argument.

What is the chiefe end or office of Logicke?

The chiefe end or office of Logicke is twofold: The one to discusse truth from falshood in any manner of speech; the other is to teach a compendious way to attaine to any Art or Science.

And therefore it is defined of some, to be the Art of Arts, and Science of Sciences; not for that it teacheth the principles of euery Art or Science (for those are to be learned of the Professors of such Arts or Sciences) but because it sheweth the method, that is to say, the true order and right way that is to bee obserued in seeking to come to the perfect knowledge of any Art or Science. Of which methodicall part, mine olde friend *M. Iacomo Aconcio Tridentino* hath written in the Latine Tongue a very proper and profitable Treatise. And therefore I minde here to deale onely with the first office, which is to discusse and to discerne truth from falshood in any speech or question that is propounded.

How is that to be done?

By three speciall instruments: that is, by Definition, Diuision, and Argumentation: whereof we shall speake hereafter in their proper places. In the meane time, because questions are the matter wherein Logicke is chiefly occupied, wee will speake first of a question.

CHAP. II.

Of a question, and of certaine diuisions of words.

What is a question?

A question is a speech whereof some doubt is made and vttered with some interrogatorie: as, How, What, or Whether: and such question is either simple or compound.

Which call you simple, and which compound?

It is called simple, when the question consisteth onely of one word: as when I aske what Iustice is, or what Fortitude is, and such like; and is to bee discussed by defining and diuiding the same. It is called compound, when it consisteth of many words ioyned together by rules of Grãmar, to make some perfect sentence; as when I aske whether it bee lawfull for the Christians to make warre vpon the Turkes, or not: and such like questions, which are to bee discussed by arguing and reasoning on both sides: for Definition, Diuision, and Argumentation, as I said before, are the three especiall instruments whereby Logicke findeth out the truth in any doubtfull matter.

Of

Of what parts doth a compound question consist?

Of two, that is, the subiect and the predicate.

What meane you by these words, subiect and predicate?

The subiect is the word or sentence, whereof another word or sentence, called the predicate, is spoken: as when I say, Man is a sensible body; here this word Man is the subiect, and sensible body is the predicate: or each of them may containe many words, as this, To be learned in the Law requireth a long study; here To be learned in the Law is the subiect, and all the rest is the predicate.

How shall I know in long speeches, and specially being preposterously set, which is the subiect, and which is the predicate?

By asking this question, Who, or What: for that which answereth to this question, is alwaies the Subiect, as in this example: It were meet to learne my Grammar perfectly, before I entred into my Logicke: here if you aske, What is meet, you shall find that to learne my Grammar perfectly is the Subiect, and all the rest to bee the predicate. And note that these two words, Subiect and Predicate, are said to bee the termes, limits, or extreme bounds of a proposition, wherof we shal speake hereafter.

Sith euery question doth consist of words, we thinkes it were necessary to shew how words are diuided.

Of words the Schoolemen make diuers and manifold diuisions, of which I mind here to recite but three onely, whereof the first is this: Of words some be simple, which they call *Incõplexa*; and some bee compound, which they call *Complexa*. Simple or single words, are such as are sole or seuered one from another, not making any sentence, as Man, Horse, Wolfe. The compound are wordes ioyned orderly together by rules of Grammar, to make some perfect sentence, as Man is a sensible body. And hereof the questions are said to bee either simple or compound, as hath beene said before.

What is the second diuision of words?

Of words, some be of the first Intention, and some of the second.

Which are they?

Words of the first Intention are those, whereby any thing is

ſignified or named by the purpoſe and meaning of the firſt Author or Inuentor thereof, in any ſpeech or language whatſoeuer it be: as the beaſt whereon wee commonly ride, is called in Engliſh a *Horſe*, in Latine *Equus*, in Italian *Cauallo*, in French *Cheual*. Words of the ſecond Intention are termes of Art, as a Noune, Pronoune, Verbe, or Participle, are termes of Grammar: likewiſe *Genus*, *Species*, *Proprium*, and ſuch like, are termes of Logicke.

What is the third diuiſion of words?

Of words ſome be called *Indiuidua*, that is to ſay, particular; or rather ſingular; and ſome be called *Vniuerſalia*, that is to ſay, vniuerſall, common or generall.

CHAP. III.

Of ſingular and moſt particular words, called Indiuidua.

Hat is Indiuiduum?

Indiuiduum is that which ſignifieth but one thing only, and can be applyed but to one thing only; as this name, *Iohn*, or *Robert*, ſignifieth but one certaine man, and not many.

How many kinds of Indiuiduums be there?

Foure, that is, *Indiuiduum determinatum*, *Indiuiduum demonſtratiuum*, *Indiuiduum vagum*, and *Indiuiduum ex hypotheſi*.

What is Indiuiduum determinatum?

Indiuiduum determinatum, that is to ſay, certaine or determined, is the proper name of ſome one certaine thing, whatſoeuer it be, as *Iohn* or *Thomas* is the proper name of ſome or one man: againe, *Bucephalus* is the proper name of great *Alexander* his Horſe: and *London* is the proper name of the chiefeſt Citie in *England*.

What is Indiuiduum demonſtratiuum?

Indiuiduum demonſtratiuum, which is as much to ſay, as ſhewing or pointing, is a common word or name ioyned with a Pronoune demonſtratiue, to ſignifie ſome one certaine thing onely; as when we ſay, this man, or that horſe: and *Indiuiduums* demonſtratiue be more redy to ſignifie particular things, as wel in accidents,

dents as in ſubſtances, then are *Indiuidua determinata*: for This, or That, and ſuch like Pronounes, doe point out a thing, as it were, with the finger, when proper names oftentimes doe faile: yea, the Pronoune demonſtratiue is of ſuch force, as being ioyned to the moſt generall word that is, maketh it *Indiuiduum*, as well as when it is ioyned to the moſt eſpeciall: for, this ſubſtance or this body is *Indiuiduum*, as well as this man or that horſe.

What is Indiuiduum vagum?

Indiuiduum vagum, that is to ſay, wandering or vncertayne, is a word betokening ſome one certayne thing but not certainly: as when I ſay, There was a certayne man here to ſeeke you; by this ſpeech is meant but one man, and yet vncertayne who it was: and therefore, to make the thing more certayne, we vſe to adde ſome token or marke; as we reade in the *Acts* of the Apoſtles, *There was a certayne man which was halt and lame from his mothers wombe, whom they laid daily before the gate of the Temple, &c.* And note, that like as we doe vſe *indiuidua, demonſtratiua*, and *determinata*, in declaring things either preſent, or certainly knowne: ſo in ſpeaking of things abſent, or vncertainly known, we expreſſe our minds oftentimes by *indiuidua vaga*.

What is Indiuiduum ex hypotheſi?

Indiuiduum ex hypotheſi, that is to ſay, by ſuppoſition, is a word which of his owne naturall ſignification being common and vniuerſall, is made notwithſtanding by ſuppoſition a ſingular word, and to ſignifie but one thing onely: as for example, this word, *The ſonne of Marie*, is a common terme, and yet by ſuppoſition is made to ſignifie none but *Chriſt* onely: likewiſe when we ſay, *The Greecke Poet*, we meane none but *Homer*.

CHAP. IIII.

Of words vniuerſall or generall.

Hat words are ſaid to be vniuerſall or generall?

Thoſe words are ſaid to be vniuerſall, which are ſpoken of many things, that is to ſay, which may be applyed to many things, or comprehend many things, as this word *Animal* (which is as

much to say as a sensible body) comprehendeth both Man, bruit Beast, Fish, Fowle, Bird, and euery thing else that hath feeling and mouing.

How are such words diuided?

Into Predicables and Predicaments.

Of the fiue Predicables.

WHat call you *Predicables?*

Predicables are certayne degrees, or rather pedigrees of words that be of one affinitie, shewing which comprehend more, and which comprehend lesse.

How many such be there?

There be fiue, that is to say, *Genus, Species, Differentia, Proprium, & Accidens*: which may be Englished thus, Generall kind, Speciall kind, Difference, Propertie, and Accident. But we thinke it best to begin first with *Species*, because it is next to *Indiuiduum*.

Of the speciall kind, called in Latine Species.

WHat is *Species?*

Species is a speciall kind, which is spoken of many things, that is to say, it comprehendeth many things differing only in number, in asking the question, what the thing is: as when I aske, What is *Iohn*? it is rightly answered, to say, A man: for this word *Man* is an vniuersall word, comprehending both *Iohn, Thomas, Robert*, and all other singular men.

How manifold is Species?

Twofold, that is, *Infima* and *Subalterna*. *Infima*, that is to say, the lowest or most especiall kind, is that which comprehendeth many things differing only in number, and therefore cannot be a generall kind, as Man, Horse, and such like speciall kinds. *Species subalterna*, is that which comprehendeth many things differing in kind, and in diuers respects may be both *genus* and *species*, as these words, *Animal* or sensible body, Bird, Fish: for this word *Bird*, in that it comprehendeth diuers kinds of birds, as a Blackbird, a Mauys, a Goldfinch, and many other kinds of birds,

it

it is a generall kind: but in respect of these words, Substance, Body, or *Animal*, it is but *species*.

How is species called of the Greeks?

It is called *Idea*, which is as much to say, as a common shape conceiued in the mind, through some knowledge had before of one or two *Indiuiduums* hauing that shape: so as after wee haue seene one Wolfe, or two, we beare the shape thereof continually in our minds, and thereby are able to know a Wolfe whensoeuer we find him, or (if need be) to paint him. But *Genus* extendeth too farre, and comprehendeth too many speciall kinds to be so easily painted. And note that such shapes or *Idea* are said also to be perpetuall.

Why are they said to be perpetuall?

Because they continue in the mind, though the things themselues cease to haue any being: as the shape of a Rose continueth in our minds in the cold heart of Winter, when there is no Rose indeed. And this is the true meaning of *Plato* touching *Idea*, that is, to be perpetuall in the mind, not separate from mans intelligence, as some men faine: for vniuersalities are alwayes to bee comprehended in mans mind, but not *Indiuidua*: which, because they are infinite, there can be had of them no certayne science or knowledge.

Of the generall kind, called Genus.

WHat is *Genus*?

Genus is a generall kind which may be spoken of many things differing in speciall kind, in asking the question, what the thing is: as if I aske, What is man, or horse? It is rightly answered, to say, *Animal*: for this word *Animal* comprehendeth both man, horse, lyon, and many other speciall kinds of beasts.

How is it diuided?

Into two, that is, *Genus* most generall, and *Genus* subalternate.

What is Genus most generall?

It is that which in no respect can be *species*, as these, Substance, Quantitie, Qualitie, and all the rest of the ten Predicaments, which be the highest kinds, comprehending all other kinds, and are comprehended of none.

What is that which you call subalternate?

It is that which in diuers respects may be both *genus* and *species*, as these, *Animal* or sensible body, stone, tree, fish, bird: which being compared to their Superiors, as to substance or body, be speciall kinds: but if to their Inferiors, as this word sensible body being compared to man or horse, or this word stone to a flint or Diamond, or this word tree to an Apple-tree or Peare-tree, or this word fish to a Salmon or Pickerell, or this word bird to a Mauys or Goldfinch, and such like, then they be generall kinds. The order of all which kinds, as well generall as subalternate, as also most especiall, you may see here in the Table following taken out of the Predicament of substance: in which Table, Substance is the highest or most generall kind, vnder which are placed the lesse generall or speciall kinds, according as they be in degrees high or low, nigh or farre from substance. Moreouer, on each side of the generall kinds, are set downe in this Table the differences whereby the said generall kinds are diuided euery one into those inferior kinds which it comprehendeth. And the like Table may be made of all the rest of the Predicaments.

A Table shewing the order and degrees of generall kinds and especiall kinds, taken out of the Predicament of Substance.

Differences, { Generall and Speciall kinds, } Differences, { Examples.

With body, { *Substance is either* } *Or without body, as* { *An Angell, A Spirit, The soule of a man separated from the body.*

Compound of the four Elements, as all naturall bodies, and vnnatural } *If with body, it is either* { *Or simple, as* { *The 11. Heauens. The 4. Elements.*

Liuing,

Liuing,	*Body compound is eyther*	*Or vnliuing, as*	*Stones, Metals, Liquors.*
Sensible,	*Againe the liuing bodie is eyther*	*Or vnsensible, as*	*Tree, Herbe, Shrubbe.*
Reasonable, as man	*The sensible body, called in Latine* Animal, *is eyther*	*Or vnreasonable, as*	*Foure footed beasts Creeping beasts, Fish, Fowle, or Bird.*
	The reasonable body is man, called in Latine Homo, *which is a most especiall kind:*	*As*	Socrates, Plato, *and euery other singular man.*

Of Difference, called of the Latines, Differentia.

WHat *is difference?*

Difference is that whereby things doe differ one from another, or any thing from it selfe.

How many kinds of differences be there?

According to *Porphyrius*, there be three kinds, that is to say, common, proper, and most proper or especiall, called of the Latines, *Differentia specifica.*

What call you a common difference?

A common difference is some separable accident, whereby one thing differeth from another, or from it selfe: as a hot man from a cold, or a man standing from himselfe sitting.

What is proper difference?

A proper difference is some inseparable accident, whereby one thing differeth from another, or from it selfe: as the Swan by whiteneſſe differeth from the Crow, the gray-eyed man from another man that hath blacke eyes, or from himselfe, as hauing now an vnmoueable skarre in his face, whereas before hee had none.

What is the most proper difference?

The most proper difference, only receiued and allowed of the Logicians, is that which is spoken of many things differing in kind or number, in asking the question what manner of thing any thing is, as this word reasonable or vnreasonable: for if I aske the question, what manner of thing this man or that man is, as *Iohn*, *Thomas*, or *Richard*, &c. it is rightly answered, to say, A reasonable body. Likewise if I aske what manner of thing a Horse is, it is truly answered, to say, An vnreasonable body: for these be the most proper and especiall differences, whereby men and bruit beasts doe differ one from another.

How manifold is the office of a Logicall difference?

Twofold: the one to diuide the generall kind into his especiall kinds, and the other to constitute or make the selfe-same special kinds. Wherefore such differences are said in diuers respects to be sometimes diuisiue, and sometimes constitutiue, yea and sometimes both; as these differences, corporate and vncorporate, liuing and vnliuing, sensible and vnsensible, reasonable and vnreasonable; which, in that they do diuide some generall kind into other kinds, eyther more speciall, or not so generall, they may be called differences diuisiue: but in that they constitute or make any speciall kind, as this difference reasonable being added to a sensible body, maketh the speciall kind, man; such difference may be well called a difference constitutiue, or rather specificatiue, as the former Table of generall kinds and differences doth plainly shew.

What other diuision doe the Schoolemen make of this Logicall difference?

They say, that of these differēces some do extend further then some, for some may be applyed to many speciall kinds, as liuing,

and

and vnliuing, ſenſible and vnſenſible, and alſo the difference vnreaſonable, but the difference reaſonable can be applyed but to one ſpeciall kind onely, which is man.

Of Propertie, called in Latine Proprium.

VV*Hat is propertie?*

It is a natural inclination or property incident to one eſpeciall kind, which is to be vnderſtood foure māner of waies.

Shew how.

Firſt, it is called *Proprium*, which is proper to one onely kind, but not to the whole kind, as to be a Poet or Muſician, is proper to man, but not to euery man: Secondly, it is called proper that belongeth to all the kind, but not to that kind alone: as to bee two-footed, belongeth to all mankind, but not to that kind alone: for all flying Fowles are alſo two-footed: Thirdly, it is ſaid to be proper, when it belongeth to one only kind and to all that kind, but yet not alwayes: as to be hore-headed or bald, is proper to man in olde-age, but yet not alwaies: Fourthly, it is ſaid to bee proper, or rather moſt proper, which is incident to one kind alone, to all that kind and alwaies, as to haue a naturall aptneſſe to laugh or to ſpeake is proper to man onely, to euery man, and alwayes, and therefore this kind of property is ſaid to bee conuertible, with the kind whereunto it belongeth, as whatſoeuer hath naturally power to ſpeake or laugh, the ſame is man, and whatſoeuer is man, the ſame hath power to ſpeake or laugh.

Of an accident, called in Latine, Accidens.

VV*Hat is an accident?*

An accident is a voyce or word ſignifying things caſuall, cleauing to ſubſtances or ſubiects, without which ſubiects they haue no being at all, and it is thus defined. An accident is that which may bee abſent or preſent without corruption of the ſubiect whereto it cleaueth, becauſe it is no ſubſtantiall part of the ſubiect, and of ſuch accidents ſome bee called ſeparable, and ſome vnſeparable.

What is a ſeparable accident?

A ſeparable accident is that which may bee eaſily ſeparated

from the ſubiect, as outward heat or cold from a mans body, whiteneſſe or blackneſſe from a wall.

What is an vnſeparable accident?

An vnſeparable accident is that which cannot bee ſeparated from his ſubiect in deed, but only in thought or imagination, as heat from the fire, heauineſſe from lead. And ſuch accidents bee either incident to certaine ſubiects, or ſubſtances in particular, as ſome men to bee gray-eyed, or red-headed; or elſe to ſome whole kind in generall, as to all Rauens to be blacke, and all Swannes to be white.

Of the manifold vſes of the aforeſaid fiue Predicables.

TO how many vſes doe the Predicables ſerue?

To theſe foure neceſſarie vſes: Firſt, they ſhew which words doe comprehend more, or extend furtheſt, and which comprehend leſſe or leaſt; and what affinitie is betwixt word and word, ſo as in making any definition, a man may eaſily perceiue how euery word ought to be expounded one by another, that is to ſay, the leſſe common by that which is more common; as if you would define a Spaniell, you muſt ſay that he is a dog: for this word dogge is a more common word then Spaniell, becauſe it comprehendeth both Spaniell, Grey-hound, Hound, Curre, Maſtiffe, and euery other kind of dogge. Secondly, they ſhew the nature of propoſitions, which be neceſſary, and which be caſuall or accidentall.

Which call you neceſſary, and which caſuall?

That propoſition is ſaid to be neceſſary, whereof the predicate is eyther a generall kinde, a ſpeciall kinde, a ſpeciall difference, or propertie, and is neceſſarily coupled to his ſubiect; as when I ſay, *Iohn* is a ſenſible body, *Iohn* is a man, *Iohn* is reaſonable, *Iohn* is apt to ſpeake.

When is a propoſition ſaid to be accidentall?

When the predicate is an accident, as when I ſay, *Iohn* is learned or vnlearned, white or blacke. Thirdly, they yeeld matter meet to make definitions and diuiſions: for Logicall definitions be made of the nigheſt general kinds ioined together, with their true differences or properties; as in defining a man, we ſay that man

man is a ſenſible body endued with reaſon; and in making diuiſions, wee either diuide the generall kinds into their eſpeciall kinds, as a ſenſible body into man and bruit beaſts, or the ſpeciall kinds into their *Indiuiduums*, as man into *Iohn*, *Thomas*, *&c.* or elſe we diuide ſubiects into their accidents, as of men, ſome be free, and ſome be bound, and ſuch like. Fourthly, they helpe much towards the inuention of arguments: for arguments bee fetched from the common places, as from the generall kinde, the ſpeciall kinde, the difference, the propertie, and from other like places of inuention, as ſhall be taught hereafter in his proper place. And note, that of theſe Predicables doe ſpring certayne Predications, whereof we come now to ſpeake.

CHAP. V.

Of Predication, and of the diuers kinds thereof.

What is Predication?

Predication is a certayne kinde or phraſe of ſpeech, whereby one word is ſpoken of another, and aptly applyed to another, as when wee ſay, *Iohn* is a man; for this word man is a generall word, and is ſpoken of *Iohn*, *Thomas*, *Richard*, and euery other ſingular man.

How many kinds of Predications be there?

Two, that is, Eſſentiall and Accidentall.

What is eſſentiall predication?

It is a naturall and vſuall kind of ſpeech, whereby one thing is naturally and properly ſpoken of another, or as the Logicians ſay, when words ſuperiour are ſpoken of their inferiors being of one ſelfe affinitie, as when the generall kinde is ſpoken of any his ſpeciall kinds, or the ſpeciall kind of any his *Indiuiduums*, or when the difference or propertie is ſpoken of their ſpeciall kinds, or of any of the *Indiuiduums* comprehended vnder the ſaid ſpeciall kinds; as when we ſay, Man is a ſenſible body, or that *Iohn* is a man, or, *Iohn* is reaſonable, or, *Iohn* is apt to ſpeake, or ſuch like: for ſuch ſpeeches are both naturall, and of neceſſitie, becauſe the predicate is aptly applyed to his ſubiect. To this

kinde of predication some men doe also referre two other kinds of speeches.

Which be they?

Predication, Identicall and vnusuall.

What is Identicall predication?

It is a kinde of speech, whereby one selfe thing is spoken of it selfe, as when we say, *Iohn* is *Iohn*, which though it be essentiall, yet because nothing is expounded thereby, it is not allowed of the Logicians.

What is vnusuall Predication?

It is a kinde of speech seldome vsed, as when we reade in the holy Scriptures, God is man, The Word was made flesh; for these be most essentiall and necessarie speeches, though not vsuall in any other science then in Diuinitie.

What is predication accidentall?

Predication accidentall is, when an accident is spoken of his subiect, as, Wine is sweet, or, Wine is sowre, *Socrates* walketh; for this is a casuall kinde of speech, imploying no necessitie, as doe the other essentiall or naturall speeches before recited. To this also may be referred Predications by way of similitude, as when we say, One man is a God or Deuill to another, A Tyrant is a Wolfe or Fox, that is to say, like a Wolfe or Fox, which are otherwise called figuratiue or metaphorical speeches. But whilst we talke here of accidentall predications, it shal not be amisse to shew you that the Schoolemen, the more distinctly to expresse the nature of accidents, doe vse two termes, *Abstractum* and *Concretum*. *Abstractum* is the bare shape of any subiect separated by imagination from the same, as the whitenesse or blacknesse of a wall, or any other thing that is either white or blacke, which abstract cannot be properly spoken of his subiect; for it were no proper speech, to say, that this wall is whitenesse: wherefore we must vse the adiectiue called *Concretum*, signifying the shape, together with the subiect, as when wee say, This wall is white.

CHAP.

CHAP. VI.

Of Predicaments.

What are Predicaments?

Predicaments are certayne Titles or Tables contayning all things that be in the world: for euery thing, whatsoeuer it be, is either a substance, or accident: and if it be a substance, it is found in the Table of substance hereafter following: if it be an accident, it belongeth either to quantitie, qualitie, relation, action, passion, time, place, to be seited, or to haue: for these be the Tables of accidents, in one of the which euery accident is easie to be found. So that in all there be ten Predicaments or Tables, one of substance, and nine of accidents, and these be called the highest and most generall kinds, albeit there be others indeede higher then they, called of the Schoolemen, *Transcendentia*, that is to say, surpassing, as these, *Res, ens, vnum, aliquid, verum, bonum*: which may be Englished thus; a thing, a being, one, somewhat, true, good. But forsomuch as these be not spoken of the other higher kinds according to one selfe signification, but may be diuersly applyed, they are excluded from the order of Predicaments.

What other words are excluded from the order of Predicaments?

All compound words, called of the Schoolemen *Complexa*, as Goodman, *Plato* disputeth: and all doubtfull words hauing diuers significations, otherwise called Equiuokes, and also termes of Art, as a Noune, a Pronoune, a Verbe, which be termes of Grammar; and as *genus, species, differentia*, which bee termes of Logicke, and such like; which termes of Art are called of the Schoolemen, names of the second intention, as hath beene said before. Notwithstanding, differences cõstituting especial kinds, doe belong to the Predicament of the same speciall kinds, and the parts of any whole thing doe belong to the Predicament wherein the whole is contayned: and first, principles doe belong to the Predicament or Table of those things whereof they bee principles, as a point or pricke belongeth to the Predicament of quantitie, all which shall be plainly declared vnto you, immediatelyy

diately after that wee haue ſomewhat talked of thoſe things which the Schoolemen call *Antepredicamenta*, that is to ſay, Forepredicaments.

CHAP. VII.

Of Forepredicaments.

WHat meane you by Forepredicaments?

Forepredicaments be certayne definitions, diuiſions, and rules taught by *Ariſtotle* before the Predicaments, for the better vnderſtanding of the ſame, and therefore are called *Antepredicamenta*, that is to ſay, Forepredicaments.

What, and how many things defineth he?

Three, that is, Equiuokes, Vniuokes, and Denominatiues.

What call you Equiuokes?

Equiuokes be ſuch things as haue one ſelfe name, and yet be diuers in ſubſtance or definition; as a naturall Dogge, and a certayne Starre in the firmament, are both called by one name in Latine, *Canis*, yet they be nothing like in ſubſtance, kind, or nature. And note that the Schoolemen doe call the word or name it ſelfe, *Equiuocum Equiuocans*, and the thing ſignified by the word, *Equiuocum Equiuocatum*. They make alſo two kinds of Equiuokes, that is, Equiuokes by chance, and Equiuokes of purpoſe. The firſt is, when one ſelfe name is giuen to many things by chance, and not for any likeneſſe that is betwixt them, as in Engliſh this word Hart ſignifieth as well the Hart of a man or beaſt, as a certayne beaſt called a Hart in the Forreſt. The ſecond is, when one ſelfe name is giuen to diuers things of purpoſe, for ſome likeneſſe that is betwixt them, as a painted man is called man as well as the liuing man; for wee will commonly ſay, Here is King *Henrie* the Eighth, when indeed it is but his picture. But yee muſt note, that all Equiuokes being generally pronounced without addition, ought to be vnderſtood according to their chiefe and moſt principal ſignification, as this word man being generally ſpoken, ought to be taken for a liuing man, and not for a painted man: but no Equiuokes ought to be placed in any Predicament, neither can it bee defined, vnleſſe it bee firſt

brought

brought to one certaine ſignification; and therefore all Equiuokes are vtterly barred from all manner of Diſcipline.

What call you Vniuokes?

Vniuokes bee thoſe things that haue one common name, which is ſpoken of them eſſentially, or really, as a man, a horſe, a Lion, whoſe common name is *animal*, or ſenſible body; for in asking what either of them is, it is rightly anſwered, to ſay, *animal*. And I ſay here really, becauſe it is not enough for Vniuokes to haue a common name, vnleſſe the ſame be alſo reall or eſſentiall, wherby are excluded all common names or vnderſtandings that be accidentall: for though white or blacke, ſwift or ſlow, or ſuch like, is a common name, and is commonly applyed both to man and beaſt, yet that is accidentally, and not really or ſubſtantially. Moreouer, the Schoolemen doe call the common word it ſelfe *Vniuocum Vniuocans*, and the thing ſignified by the word *Vniuocum Vniuocatum*.

What call ye Denominatiues?

Denominatiues are thoſe accidents that be of like name, and differ only in caſe, or finall termination; as humble, humilitie; proud, proudneſſe: for of humilitie, a man is ſaid to be humble; and of pride, to be proud: and according to the Schoolmen, that word whereof the name doth ſpring, is called *Denominator*, and the name it ſelfe *Denominatiue*, and the thing or perſon ſo called, the *Denominated*; as if I ſhould ſay of valiantneſſe, *Peter* is ſaid to be valiant; here valiantneſſe is the Denominator, valiant the Denominatiue, and *Peter* the Denominated: for *Peter* is the ſubiect whereunto the Denominator doth cleaue. The Grammarians doe call the Denominator *Abſtractum*, that is, a ſubſtantiue, and the Denominatiue *Concretum*, that is, an Adiectiue.

To what end doth Ariſtotle *chiefly vſe theſe definitions?*

To ſhew the differences of predications, or kinds of ſpeeches, which are to be allowed, and which not: againe, to know which be predications eſſentiall, and which bee accidentall: for according to the three definitions before rehearſed, there bee three Predications, that is to ſay, Predication Equiuocall, Vniuócall, and Denominatiue.

What is Predication Equiuocall?

Predication Equiuocall, is when the Equiuoke is ſpoken of any of the things that it ſignifieth, as to ſay, His Letter was a Letter of the matter, meaning perhaps a hinderer of the matter: but ſuch kind of ſpeeches ought to bee reiected from all good diſcipline, as hath beene ſaid before.

What is Predication Vniuocall?

It is when the generall kinde is ſpoken of his eſpeciall kinds, or the eſpeciall kinde of her inferiours, or the ſpeciall difference of that ſpeciall kinde which it maketh, or of the Indiuiduums contayned vnder the ſame ſpeciall kinde, as when wee ſay, Man is a ſenſible body, Man hath reaſon, or, *Iohn* is a man.

What is Predication Denominatiue?

It is when ſome accident is ſpoken of his ſubiect, as when we ſay, *Peter* is proud, humble, or valiant.

What, and how many diuiſions be there?

Two: The firſt diuiſion is touching words ſimple and compound, whereof though we haue ſaid ſomewhat before, yet it ſhall not grieue vs, here againe to ſet it downe in ſuch order as the Logicians vſe.

Shew how.

Of words, ſome be ſimple, called in Latine, *Incomplexa*, and ſome be compound, called *Complexa*. Simple words bee diſtinct and ſeuerall words, not ſet together by any rule of Grammar, to make any perfect ſentence, as, good, iuſt, a man, a horſe, to ſtand, to goe. Compound words, be words ſignificatiue, which are ioyned together by rules of Grammar to make ſome perfect ſentence, as, *Iohn* is learned.

What is the ſecond diuiſion?

The ſecond diuiſion is foureſold, as followeth: Firſt, of things that be, ſome be ſpoken of a ſubiect, and yet be in no ſubiect, as, man, horſe, and ſuch like vniuerſall natures or ſubſtances: for they be no accidents. Secondly, ſome be in a ſubiect, and yet be not ſpoken of any ſubiect, as all particular accidents, as this or that colour, for theſe be Indiuiduums, and therefore not predicable. Thirdly, ſome be in a ſubiect, and alſo be ſpoken of a ſubiect, as all vniuerſall accidents, as Science, Grammar, Logicke, and ſuch like: for of theſe ſome be generall, and ſome be ſpeciall

kinds,

kinds, and therefore are said to be predicable accidents. Fourthly, some be neither in a subiect, nor spoken of a subiect, as *Iohn*, *Thomas*, this man, or that man, this horse, or that horse; for these bee first natures or substances, and therefore are subiects themselues not predicable.

Whereto seruetb this diuision?

By this diuision ye may learne the diuersity of these two speeches, to be spoken of a subiect, and to be in a subiect: for to be spoken of a subiect, is to be spoken really or essentially of some thing that is part thereof, as this word *animal*, or sensible body, is really spoken of man, horse, & of euery other thing that hath life and feeling; for they bee substantiall parts of that generall kinde: for if it be demanded what a man or horse is, it is rightly answered, that he is a sensible body. But to be in a subiect, is to be spoken of another thing accidentally, and not essentially, as this word white or blacke is spoken accidentally of man, or of any other subiect, and not essentially; for neither is man any essentiall part of white, nor white any essentiall part of man, and therefore cannot be in man, or in any other subiect, but accidentally: and for that cause it is spoken of his subiect accidentally, and not really.

Now tell how many, and what these rules bee, whereof you spake before.

There be two rules. The first is thus: When one thing is spoken of another essentially, as of his subiect, then whatsoeuer may be spoken of that predicate, must needes be also really spoken of the same subiect: for as this word sensible body is spoken of man or horse essentially, as when wee say that man is a sensible body; so this word liuing body, being spoken essentially of a sensible body, as when wee say that euery sensible body is a liuing body, is also as really spoken of the foresaid subiect, man, in saying that man is a liuing body; for this word, liuing body, is a more generall kind then sensible body is.

What is the second rule?

The second rule is thus: Diuers generall kinds not contained one of another, nor both of a third, haue diuers speciall differences, which doe make diuers speciall kinds, as a sensible body and

ſcience: for the ſpeciall differences of a ſenſible body are theſe, reaſonable and vnreaſonable, making both man and bruit beaſt: but the differences of ſcience be theſe, contemplatiue and diſputatiue, and ſuch like, whereby are made ſpeciall kindes of knowledge: for the difference contemplatiue maketh naturall Philoſophie, and the difference diſputatiue maketh Logicke.

To what end ſerue theſe rules?

To the end it might be eaſily knowne what words are of affinitie, and which bee of one ſelfe predicament, and which not. Thus farre as touching fore-predicaments. Now to the predicaments themſelues. And firſt we will ſpeake of ſubſtance.

CHAP. VIII.

Of Subſtance.

What is ſubſtance? and how many kindes of ſubſtances be there?

Subſtance is a thing conſiſting of it ſelfe, and needeth no helpe to ſuſtaine the being thereof: and yet it is clad with accidents; for otherwiſe we could not diſcerne with our outward ſenſes, whether it were a ſubſtance, or not: for we cannot ſee the ſubſtance of any thing with our bodily eyes, but only with the eyes of our mind & vnderſtanding; but we may ſee the ſhape, the quantitie, the colour, and ſuch like accidents cleauing to the ſubſtance, without the which thoſe accidents haue no being at all: and therfore in ſeeing ſuch accidents, we may aſſure our ſelues that there is a ſubſtance ſuſtaining thoſe accidents, which doth alwayes remaine, though the accidents doe faile or change neuer ſo often. As for example: We ſee in water, that though it be ſometime hot, and ſometime cold, now of one colour, and now of another, yet the ſubſtance of water doth ſtill remaine, ſo as wee may perceiue thoſe accidents to be one thing, and the ſubſtance of water to be another. Now as touching the kindes of ſubſtance, according to *Ariſtotle*, there be two, that is, firſt and ſecond.

What call yon firſt ſubſtances?

Firſt, ſub an ces be thoſe ſubſtances which the Logicians call

In-

Indiuidua, as *Iohn*, *Thomas*, this man, or that man, this horse, or that horse, and by reason of their accidents are to bee discerned with outward senses.

Which call you second substances?

Second substances are those which they call speciall kindes, and generall kindes, as man, a sensible bodie, a liuing bodie, and such like, which are to bee comprehended only by mans reason, and be not subiect to our outward senses, as first substances bee. And these second substances are otherwise called of the Schoolmen, vniuersall natures.

How many properties doe belong to substance?

These three: First, substance is contained in no subiect, as an accident is: for though the parts of a mans body be contained in the whole, yet euery such part is a peculiar body or substance, and hath his proper being of it selfe so well as the whole, whereas accidents without substance haue no being at all. Secondly, substances are said to bee diuers, but not contrarie one to another: for neither is fire, as touching his substance, contrarie to water, nor the Wolfe contrary to the Lambe, but onely in respect of their qualitie, whereunto contrarietie doth properly belong. Thirdly, of substances, one cannot be more or lesse then another; for the greatest Giant, as touching substance, is no more a man then the least Dwarfe that is; neither is a man full growne, more a man, then a child newly borne: for more or lesse appertaineth properly to quantitie, and not to substance. But if you will vnderstand how farre the predicament of substance doth extend, and what it comprehendeth, consider well this Table following, whereby you may learne how to define any kind of substance, whatsoeuer it bee: for there you shall find all the kinds, both generall and speciall, together with their differences, most plainly set forth.

The Table of Substance.

- Substance is either
  - without body, as
    - An Angell, as *Gabriel, Michael, &c.*
    - A spirit or soule separate from the body, as the spirit or soule of this or that dead man.
  - Or with body: if it bee with body, it is eyther
    - Simple, if it be simple, it is either
      - Celestiall, as the eleuen Heauens, and all the starres and planets,
      - Or elementall, as fire, ayre, water, earth.
    - Or compound: if it bee compound, it is either
      - liuing: if it be liuing, it is either
        - Sensible, if it be a sensible body, called in Latine, *animal*, it is either
          - Reasonable, as man, as
            - *Socrates,*
            - *Plato,*
            - *Virgil.*
          - Or vnreasonable, as
            - A bird or fowle, as a Larke, &c.
            - A 4. footed beast as a horse.
            - A fish, as a salmó
            - a creeping beast as a worme, a snake, a viper.
        - Or vnsensible, as a plãt, which is eyther
          - A tree, as an Oke, an Apple-tree, &c.
          - A shrubbe, as bryers, broome, &c.
          - Or herbe, as Thyme, Isope, Margerum.
      - or vnliuing, if it be vnliuing, it is eyther
        - Perfect, if it bee perfect, it is eyther
          - Metall, as Gold and Siluer, &c.
          - Or stone, which is eyther
            - Naturall, as a precious stone, a flint.
            - Or artificial, as a tile or bricke.
          - Or liquor, as Wine, Honie, &c.
        - or vnperfect, as
          - Fiery impressions, as thunder, lightning.
          - Or watry impressions, as raine, haile, snow, &c.

CHAP. IX.

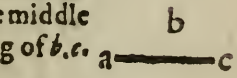
Of Quantitie.

What is quantitie, and how is it diuided?

Quantitie is that which comprehendeth the greatneſſe and number or multitude of things, and is diuided into two kindes, that is, whole and broken.

What is whole quantitie?

Whole quantitie, called in Latine, *quantitas continua*, is that whoſe parts are ioyned together with ſome common bound or limit, which is the ending of one part, and the beginning of another, as the parts of the line here ſet downe in the margent, marked with the letters *a. c.* are coupled together with the middle point *b.* which point is the ending of *a.b.* & the beginning of *b.c.*



How many kinds of whole quantitie be there?

Of whole quantitie there be three kinds, that is *linea, ſuperficies*, and *corpus*.

Shew how they are defined and diuided.

Linea (in Engliſh, a line) is a length without either bredth or thickneſſe, which is either right, or crooked; right, as a yard, an ell, or pole; crooked, as a hoope, or circle.

Superficies (which wee may properly interprete to be the vpper face of any thing) is a length and bredth without depth or thickneſſe; and that is either plaine, or bowing; plaine, as a plain or ſmooth floore; bowing or compaſſing, as a vault or ouen, whereof the outward ſide is called conuex, and the inward ſide concaue or hollow.

Corpus (which is as much to ſay as a body) is that which hath both length, bredth, and depth, and that is either round, or with angles; round, as a bowle or ball; with angles or corners, as a ſquare die, or ſuch like thing. All which three kinds of quantitie are to be conſidered onely with the minde mathematically, as things abſtract, and ſeparated from all kind of matter, that is to ſay, as things that haue no being at all, but imaginatiuely, & yet ſo neceſſarily inuēted by man, as nothing can be meaſured without

out them. To these three kinds of whole quantitie may bee also added two other kinds, that is to say, mouing, and time, being taken for the measure, space, or distance of place or time wherein any thing is moued.

How many kinds of this mouing be there, and which be they?

Of this mouing there be three kindes, that is, right, circular, and mixt. The right belongeth to the foure Elements, and to bodies without life: for their natural mouing is either right vpward or else right downward, as the fire, whose proper mouing is alwayes to ascend right vp, and the mouing of a stone, or such like heauie thing, is to fall right downward: for (according to the rules of Philosophie) all light things doe moue vpward, and all heauie things downward. Circular or round mouing, belongeth to the Heauens, and celestiall bodies, which do turne round like a Cart wheele. The mixt mouing (that is to say, partly right, and partly round) belongeth to all liuing beasts, that goe sometime forward, sometime backward, or sidelong, sometime vpward, and sometime downward.

How is time diuided?

Time is diuided into three kinds, that is, into time past, time present, and time to come: and vnder time are comprehended yeeres, moneths, weekes, dayes, houres, and all other words signifying distance or difference of time.

What is broken quantitie?

Broken quantitie, called of the Latines, *quantitas discreta*, is that, whose parts are not ioyned with any common bound or limit, but be loose and seuerall one from another; which quantitie is diuided into two kinds, that is, number and speech.

What is number, and how is it diuided?

Number is a multitude or summe of vnities or ones gathered together: and such number is either simple, respectiue, or figuratiue: Simple, as two, three, foure, fiue, &c. Respectiue, as halfe, double, treble, quadruble, and such like: Figuratiue, as a three-square or foure-square number, like to these here figured ∴ :: and such like.

What things are comprehended vnder broken quantitie?

All names of measures, whereby we measure any thing, either dry

drie or liquid, as gallon, quart, pint, bushell, pecke, pound, dram, scruple, graine, &c.

How is speech here taken?

Speech is taken here for the measure or quantitie of syllables, wherof some be long, and some be short: and such quantitie is to be considered either in harmonie, in rythme, or verse; of which things, the generall and speciall kindes, together with the rest that haue beene said touching quantitie, are orderly set forth in the table of quantitie here following.

What, and how many properties doe belong to quantitie?

To quantitie belong three properties: First, to haue no contrarietie; for great and small be not of themselues contrarie, but only by way of comparison. Secondly, to be greater or lesser, but not more or lesse, spoken aduerbially; for a little quantitie is a quantitie as well as the greatest quantitie of all. The third and chiefest propertie of quantitie, is, to be equall or vnequall.

The Table of Quantitie.

- Quantitie is either
  - Whole, if it bee whole it is either
    - permanent, if it be permanent, it is either
      - A line, which is either
        - Right, as a yard, an ell.
        - Or crooked, as a hoop, or bow, &c.
      - A superficies, which is either
        - Plaine, as a smooth floore, &c.
        - Or bowing, as a vault, or oven, &c.
      - Or a body, which is either
        - Round, as a bowle or ball.
        - Or with corners, as a square die, &c.
    - Or moueable, if it be moueable, it is either
      - Motion, which is either
        - Right,
        - Circular,
        - Or Mixt.
      - Or time, and that is either
        - Time past,
        - Time present,
        - Or time to come.
  - Or broken: if it be broken quantitie, it is either.
    - Number, which is either
      - Simple, as euen or odde, &c.
      - Respective, as double, treble, &c.
      - Or figuratiue, as three-cornered, foure-cornered, &c.
    - Or measure of speech, which consisteth either
      - In composition of syllables, as Dactilus, Spondeus, &c.
      - In harmonie, as a third, a fift, &c.
      - In rythme, as charme, harme.
      - Or in verse, as hexameter, pentameter, Iambicke.

CHAP.

CHAP. X.

Of Qualitie.

Hat is qualitie?

Qualitie is an affection, ſhape, or forme of the minde or bodie, wherof the thing ſo affected or formed taketh his name: as of wiſdome a man is ſaid to be wiſe, and of iuſtice hee is called iuſt.

How many kindes of qualitie be there?

Of qualitie there be foure kinds, that is, habit and diſpoſition, naturall power and impotencie, paſſion and paſſible qualitie, figure and forme.

What is habit, and how is it diuided?

Habit is a conſtant and abſolute perfection in any thing, not giuen by nature, but gotten by long vſe and exerciſe; and it is twofold, that is, of the minde, and of the body: againe, habit of the minde is twofold, whereof the one is called intellectuall, belonging to the reaſon and vnderſtanding of man, and the other morall, belonging to the will of man. Of intellectuall habits, according to *Ariſtotle*, there be fiue, that is, Intelligence, Science, Prudence, Art, and Sapience.

1 Intelligence is the knowledge of ſpeculatiue principles, as 2. and 2. make 4. the whole is more then his part; take equall from equall, and equall remaine, and ſuch like.

2 Science is the knowledge of true concluſions, conſiſting of moſt certaine and infallible propoſitions; as, Man is a ſenſible body, Man is apt to learne: and vnder Science are comprehended the ſciences rationall, as Grammar, Rhetoricke, and Logicke; alſo the ſciences Mathematicall, as Arithmeticke, Geometrie, Muſicke, and Aſtronomie, which are otherwiſe called Quadriuials, that is to ſay, the foure waies or kindes of mathematicall diſcipline; and finally, the ſcience phyſicall, that is to ſay, naturall, as the naturall philoſophie of *Ariſtotle*, or of any other Writer treating of the ſecrets of nature.

3 Prudence is an habit working with true iudgement and according to right reaſon in all things appertaining to man, bee they good or euill. Prudence may be diuided into prudence mo-

nasticall, domesticall, and politicall. Monasticall teacheth to gouerne one sole person: domesticall, to gouerne a houshold or familie; and politicall, to gouerne a Common-wealth.

4 Art is an habit of knowledge consisting of assured and certaine rules, tried and approued by experience, and learned by exercise, teaching to do or to make something that is profitable to mans behoose: and Art comprehendeth all Arts, both liberall and mechanicall, that is to say, handie-crafts. 5. Sapience, consisting both of intelligence, and of science, is the head and chiefe of those knowledges that be most honourable in nature, comprehending two notable Sciences, that is, the Christian Diuinitie, and the Philosophers Diuinitie, otherwise called Metaphysical, that is, supernaturall. And all these intellectuall habits are contained vnder a certaine and most sure knowledge, which is alwaies true: for vncertaine knowledge is sometimes true, and sometimes false: whereto belongeth opinion, suspition, coniecture, and such like. Thus much of habit intellectuall.

What is morall habit, and how is it diuided?

It is a qualitie of the minde, gotten by custome and doctrine, teaching and inuiting mans will to worke, either well or euill; and is twofold, that is, either good, or euill: to the good belong all kinde of vertues, as iustice, liberalitie, fortitude, temperance, &c. to the euill al kinde of vices, as pride, couetousnesse, cowardlinesse, and such like. And note, that of vertues, some bee called morall, and some theologicall, that is to say, diuine.

Which call you theologicall or diuine?

Those that be not gotten by custome, or mans industrie, but are the meere gifts of God, as faith, hope, and perfect charitie, and all other gifts of the holy Ghost, as the gifts of the tongues, of prophecying, of healing, and such like: which some doe attribute to habit infused, making a difference betwixt habit infused, & habit acquired or gottē, as you may see in the Table following.

What is habit of the bodie?

Habit of the body is a certain aptnesse & agility of doing any thing with the body, not giuen by nature, but gotten by custom & exercise, as to ride well, to run, to leape, to daunce, to wrestle, to shoot, to fence, to dart, to swim, to write, to paint, and such like.

The

The Table of Habit.

- Habit is either
  - Of the body, as
    - To fence,
    - To dart,
    - To shoot,
    - To wrestle,
  - Or of the minde, if it bee of the minde, it is either
    - Infused, as
      - Faith,
      - Hope,
      - Charitie,
    - Or acquired, if it bee acquired, it is either
      - Intellectual, intellectuall cõprehendeth both
        - Knowledge certain, if it bee certaine it containeth the five intellectuall habits before defined, that is,
          - Intelligence,
          - Science, which is
            - Rationall, as
              - Grammar,
              - Logicke,
              - Rhetoricke.
            - Mathematicall, as
              - Arithmeticke,
              - Geometrie,
              - Musicke,
              - Astronomie.
            - Physicall, as
              - Knowledge of the secrets of Nature and of the Soule.
          - Prudence is either
            - Monasticall,
            - Domesticall,
            - Politicall, which are before defined.
          - Art is either
            - Liberall, as
              - Husbandrie,
              - Architecture,
            - or Mechanicall, as
              - Tailors craft,
              - Shoomakers craft.
              - Carpenters craft.
          - And Sapience, which containeth both
            - Christian Diuinitie, & also Philosophers Diuinitie, otherwise called Metaphysicall and supernaturall wisdome.
        - And knowledge uncertaine, as
          - Opinion,
          - Suspition,
          - Coniecture.
      - Or Morall, which comprehendeth both
        - Vertue, as
          - Iustice,
          - Fortitude,
          - Temperance, &c.
        - And vice, which is eyther
          - By excesse, as
            - Rash boldnes,
            - Prodigality.
          - By defect, as
            - Cowardlines,
            - Couetousnes.

What is disposition, and how is it diuided?

Disposition is an habit begun, but not perfected; and it is either of the body, or of the minde: for to disposition may be referred whatsoeuer was before attributed to habit (perfection in the thing only excepted) in which they differ for lacke of continuance, by reason whereof, disposition is said to bee easily remooued, but habit not so, because it is thorowly grounded: as for example, of the disposition that a man hath to learning, he is said to be studious: but of perfect habit, gotten by continuall studie in learning, hee is said to bee learned, which importeth a perfection, which is more then a disposition.

Of naturall power and impotencie, the second kinde of Qualitie.

What is naturall power?

It is a naturall abilitie to doe, to suffer, or to resist, not gotten by exercise, but giuen by nature to the minde or body: to the minde, as to haue a good wit or memorie, to be apt to learning, and such like: to the body, as to bee healthfull, nimble, strong, and such like.

What is naturall impotencie?

It is a naturall weaknesse either of the minde or body: of the minde, as to bee dull of wit, to bee forgetfull, or vnapt to bee taught, and such like: of the body, as to be sickly, to bee weake and feeble, and vnapt to suffer any thing that an able body can doe or suffer.

What is comprehended vnder this second kind of qualitie?

To this kind may be referred all the naturall powers and impotencies of the soule vegetatiue, sensitiue, and intellectiue: also all naturall powers or vertues of herbs and stones, and the naturall influences of the Heauens, Stars, Elements, and of all the superiour or vpper bodies. All which things you may see plainly set forth in this Table following.

- Naturall power is either
  - Of the body, as
    - Health,
    - Hardineſſe,
    - Nimbleneſſe,
    - Strength.
  - or of the minde, if it bee of the minde, it is either
    - Power vegetatiue is either
      - Principall, as
        - Nutritiue,
        - Augmentatiue,
        - Generatiue,
      - Or adiuuant, as
        - Attractiue,
        - Immutatiue,
        - Retentiue,
        - Expulſiue.
    - Power ſenſitiue is either
      - Comprehenſiue, which is either
        - Interior, as
          - Common ſenſe,
          - Phantaſie,
          - Memorie.
        - Exterior, as
          - Sight,
          - Hearing,
          - Smelling,
          - Taſting,
          - Feeling.
      - Or motiue, which is either
        - Appetitiue, which is either
          - Concupiſcible or iraſcible, whereof ſpring all the perturbations and paſſions of the minde, as loue, hate, wrath.
        - Progreſſiue, as
          - To goe,
          - To flie,
          - To ſwimme.
    - Or power intellectiue, which is either
      - Speculatiue, as
        - To contemplate,
        - To vnderſtand,
      - Practiue, as
        - To will,
        - To nill,
        - To command,
        - To chuſe.

Naturall impotencie is either
- Of the body, as
  - To be ſicke,
  - To be weake,
  - To be feeble,
- Or of the minde, as
  - To be forgetfull,
  - To be vnapt to be taught.

Of

Of passion and passible qualitie, the third kinde of qualitie.

WHat doth the third kinde of qualitie comprehend?
Passion and passible qualitie.

What is passion?

It is a sudden motion of the minde or body, that endureth not long, and therefore easie to be remoued. Passion of the minde is a sudden feare or ioy conceiued of some euill or good that is offered: and of the body, as palenesse of colour, blushing, or trembling of the flesh.

What is passible qualitie?

It is an inueterate affection or motion of the minde or body, not easie to be remoued: of the minde, as madnesse growne of some continuall sorrow or melancholie: of the body, as blacknesse of the face by continual boiling heat of the bloud, or palenesse by continuall sicknesse of the body: and therefore passible qualitie is compared and likened to habit, and sudden passion to disposition.

What is comprehended vnder passible qualitie?

All the obiects of the fiue outward senses, as colours, light, brightnesse, which be the obiects of the sight; sounds, voices, and noises, the obiects of hearing; sauours, the obiects of tasting; odours and smels, the obiects of smelling; tangible qualities, which be the obiects of feeling: of which tangible qualities some are said to be first, and some second: the first be these, heat, coldnesse, moistnesse, drinesse: the second be hardnesse, softnesse, heauinesse, lightnesse, roughnesse, smoothnesse, and such like.

Which be the chiefe passions or affections of the minde?

The chiefe affections be these foure, ioy, lust, sorrow, feare.

How is ioy defined, and what good or euill branches doe spring thereof?

Ioy is a sweet and delectable motion of the heart, wherewith it is stirred and delighted, whilest it enioyeth some good that is present, or (at the least) seemeth good: and hereof springeth delight, boasting, maleuolence, reioycing at other mens euill.

What is lust, and what affections doe spring thereof?

Lust is a motion of the minde, stirred vp by thinking of some

good

good indeed, or ſeeming good, that is abſent, whereof do ſpring theſe affections, Hope, Deſire, Loue, Anger, Wrath, & Hatred.

What is ſorrow, and what affections doe ariſe thereof?

It is a grieuous motion of the heart, cauſing it to ſhrinke together, whileſt it flyeth ſome preſent euill, that is euill indeed, or ſeemeth euill: and hereof ſpring theſe affections, Enuie, Slandering, Mercy, Agony, Lamenting, Calamitie, Careful-neſſe, Griefe and Deſperation.

What is feare, and what affections doe riſe thereof?

Feare is a grieuous motion, cauſing the heart to ſhrinke together, whilſt it flyeth ſome euill that is to come: and hereof ſpring theſe affections, Heauineſſe, Shame, Terrour, Sownding, and ſuch like: all which things you may ſee briefly ſet forth in the Table next following.

The Table of paſſion and paſſible qualitie.

Paſſion is eyther
- *Of the minde, as*
  - *Ioy,*
  - *Luſt,*
  - *Sorrow,*
  - *Feare.*
- *or of the body, as*
  - *Sudden paleneſſe,*
  - *Sudden bluſhing,*
  - *Or*
  - *Trembling of the fleſh.*

Paſſible quality, contayneth
- *All the inueterate paſſions both of minde and body before ſet downe:*
- *And alſo all the obiects of the fiue Senſes, as*
  - *Colours,*
  - *Sounds,*
  - *Odours,*
  - *Sauours,*
  - *Tangible qualities,*
  - *The Obiects*
    - *Of the ſight,*
    - *Of hearing,*
    - *Of ſmelling,*
    - *Of taſting,*
    - *Of touching,*
    - *Or feeling.*

Why are theſe obiects of the ſenſes called paſſible qualities?

Becauſe they make the ſenſes to ſuffer, as the colour of any thing, by ſtriking into the eye, maketh the ſight to ſuffer, and

 cauſeth

cauſeth eyther pleaſure or griefe to the ſight: ſo likewiſe the ſweetneſſe of hony in ſtriking the taſte, delighteth it: and contrariwiſe, the bitterneſſe of Gall, or ſuch like thing, endued with a bitter ſauour, offendeth the taſte.

Of figure and forme, the fourth kind of qualitie.

VVHat difference is betwixt figure and forme?

Figure, according to ſome, is that which is incloſed with one bound or limit, or with many, as a Circle enuironed with one round line, called the circumference, or as a triangle or foure-ſquare figure, whereof the one is encloſed with three lines, and the other with foure, and ſuch like: but forme is the drawing or deſcribing of the ſaid figure. Againe, according to the opinion of ſome, figure is compared to an image repreſenting ſome liuely thing: and forme is ſaid to be the due proportion and feature of the ſame. Some againe doe attribute figure to things without life, and forme to things that haue life, briefly ſet downe in this Verſe following:

Formam viuentis, picti dic eſſe Figuram:

Engliſhed thus:

The ſhapes of painted things they Figures call:
But liuing things (they ſay) are formed all.

What doth this fourth kind of qualitie comprehend?

It comprehendeth the accidentall figures and formes, as well of naturall, as artificiall things: of naturall, as the ſhape of man, beaſt, or fowle: or artificiall, as the ſhape or figure of a Houſe, Temple, Ship, or ſuch like: alſo it comprehendeth all Geometricall figures, as well perfect as vnperfect.

Which call you perfect?

Thoſe that are incloſed within ſuch bounds as nothing can be added or taken away from them, without marring or altering the ſame, as a Circle, a Triangle, a Square, and ſuch like: whereof ſome are plaine, incloſed only with Lines, as Circles, Triangles, Squares, and ſuch like: and ſome are ſolid or whole bodies, encloſed with vpper faces, either one or many, as round Spheres, ſharpe Pinacles, Cubes, as a Dye, and round Pillers.

Which call you vnperfect?

Thoſe

Those which are not so enclosed with their bounds, but that some one thing may bee added or taken away from the same, without changing or altering of the figure, as the rightnesse, roundnesse, concauitie, or conuexitie of vnperfect figures, may be lengthned or shortned, and yet the former shape thereof shall still remaine, and not be altered, but only in quantitie.

A Table of figure and forme.

- *Figure and forme is eyther*
  - *Perfect is either*
    - *Plaine, as*
      - *A perfect Circle.*
      - *A Triangle, whereof there be sixe kindes.*
        - *Isopleurus,*
        - *Isosceles,*
        - *Scalenon,*
        - *Ambligonius,*
        - *Oxygonius,*
        - *Orthogonius.*
      - *A quadrangle, as*
        - *A perfect square,*
        - *A long square,*
        - *A square like to a Thorne-backe, called Rhombus.*
      - *Or hauing many Angles as*
        - *A figure of 5.6.or 7. Angles, or more.*
    - *Or solid, which is eyther*
      - *Sphericall,*
      - *Pyramidicall,*
      - *Cubicke, or Piller-like.*
  - *Or vnperfect, which is eyther*
    - *Right,*
    - *Circular,*
    - *Conuex,*
    - *or*
    - *Concaue.*

But the true descriptions of all the figures contayned in this Table, are to be learned of the Geometricians, and not of the Logicians.

Of the properties of qualitie.

HOw many properties doe belong to Qualitie?

Three: First, to bee contrarie, as Vertue is contrarie to Vice, Heat to Cold, White to blacke: yet such contrarietie belongeth not to euery kind of Qualitie; for Triangles bee not contrarie to Squares, nor round pillers to sharpe pinacles.

What is the second propertie?

To be more or lesse: for one man may bee more vertuous, or lesse vertuous; more learned, or lesse learned; more healthfull, or lesse healthfull; more or lesse hot or cold. Yet this propertie belongeth not to euery kind of Qualitie; for one Triangle is no more a Triangle then another. The like may bee said of the rest of the perfect Figures, as well plaine as solid.

What is the third propertie?

To be like or vnlike: and this is the chiefest propertie belonging to euery kind of Qualitie: as, two Grammarians be like one to another in their profession, two healthful or vnhealthfull, two white or two blacke, two Triangles or two squares are said to be like or vnlike one to another.

How define you likenesse or vnlikenesse?

Likenesse, according to *Boetius*, is when diuers things haue one selfe quality. Vnlikenes is, when they haue diuers qualities.

CHAP. XI.

Of Relation.

Hat is Relation?

It is the referring, comparing, or applying of one thing vnto another, for some respect of affinitie or likenesse, wherewith they are knit so together, as the one cannot be well vnderstood without the other: and therefore the things so compared are called Relatiues, or rather Correlatiues; for of things, some are said to be absolute, and some respectiue or relatiue.

Which call you absolute?

Absolute are those which may be vnderstood by themselues, without

without being applyed to any other thing, as ſubſtance, quantitie, qualitie.

Which are ſaid to be relatiue or reſpectiue?

Thoſe that cannot be wel vnderſtood of themſelues, without hauing relation to ſome other thing, as the Father and the Son, the Lord and the Bondman, the Maſter and the Scholer, &c. Here note, that of the Schoolemen the thing from which the application is made, is called in Latine, *Fundamentum*, in Engliſh, *The foundation*; and the thing whereunto the relation or application is made, is called in Latine, *Terminus*, in Engliſh, the *bound*, *end*, or *terme*, as in theſe Correlatiues, the Father and the Sonne, the Lord and the Bondman, the Schoolemaſter and the Scholer. Here, the Father, the Lord, and Schoolemaſter, are called, euery of them, *Fundamentum*; but the Sonne, the Bondman, and Scholer, euery of them is called, *Terminus*, that is, the end or terme; and the application of the one to the other is called relation.

How many kinds of Relatiues be there?

Two: Relatiues *ſecundum eſſe*, that is, indeed, and Relatiues *ſecundum dici*, which we may call, Relatiues in name.

Which call you Relatiues indeed?

Thoſe which according to their principall ſignification haue relation to ſome other thing, without which they cannot bee vnderſtood: as a Father is not to be vnderſtood, without there bee a Sonne, nor a Sonne, vnleſſe there bee a Father. The like may be ſaid of a Tutor and Pupill, the Maſter and his Scholer, and ſuch like.

What call you Relatiues in name?

Thoſe that according to their principall ſignification may be vnderſtood, without hauing relation to any other thing; and yet, becauſe in ſome reſpect they haue relation to ſome other thing, they are called Relatiues, but not properly, for they differ not from the abſolute things before defined, as Vertue, Vice, Habit, Diſpoſition, &c.

What other diuiſions is there of Relatiues?

Of Relatiues, ſome are ſaid to be of one ſelfe name, and ſome of diuers: of one ſelfe name, as like, vnlike, equall, vnequall, ſchoole-fellow, neighbour, and ſuch like: of diuers names, as the

Father, the Sonne, the Lord and Bondman, &c. And of such, some be more worthy, and some be lesse worthy, as the Father is more worthy, the Sonne lesse worthy; the Master more worthy, the Scholer lesse worthy: which diuisions this Table doth shew.

The Table of Relation.

- *Relation is either*
  - *In deede, if in deed, it is eyther*
    - *Of one selfe name, as*
      - *A Schoole-fellow,*
      - *Like,*
      - *Vnlike,*
      - *Equall,*
      - *Vnequall,*
      - *Kinsman,*
      - *Neighbour.*
    - *Or of diuers names, whereof some bee*
      - *More worthy, as*
        - *The Master,*
        - *The Father,*
        - *The double,*
        - *The cause,*
        - *The whole,*
        - *The Captaine.*
      - *And some bee lesse worthy, as*
        - *The Scholer,*
        - *The Sonne,*
        - *The one halfe,*
        - *The effect,*
        - *The part,*
        - *The Souldier.*
  - *Or in name, as* { *Substance, Quantitie, Qualitie,* } *and such like absolutes.*

Of the properties of Relation.

How many properties doe belong to Relation?

Fiue: First, to haue contrarietie, as Vertue and Vice, Science and Ignorance. But this propertie belongeth not to all: for double and the one halfe hath no contrarietie, nor the Father and the Sonne.

What

What is the second propertie?

The second is to be more or lesse, as to bee more like, or lesse like; or more equall, or lesse equall. Yet this belongeth not to all: for double hath neither more or lesse, nor one Father is said to be more or lesse then another.

What is the third propertie?

The third is, that all Relatiues (which are Relatiues indeed) are conuertible: for he is a Father, that hath a Sonne, and he is a Sonne, that hath a Father, &c.

What is the fourth propertie?

The fourth is, that one Correlatiue is not before another, but are both together: as the Father is called no Father, vntill he hath begotten a childe, and a childe is called no Sonne, before he be begotten of the Father. For this is a generall rule of Correlatiues: If the one be, the other must needs be: If the one be taken away, the other must also be taken away.

What is the fift propertie?

The fift is, that whosoeuer assuredly knoweth the one Correlatiue, must needes know the other: for whosoeuer certainly knoweth that I am a Father, must needes also certainly know that I haue a childe. The like may be said of all that be Correlatiues indeed, to whom this propertie only belongeth, as *Aristotle* saith.

CHAP. XII.

Of Action.

Hat is action?

Action is some accidentall forme or shape, whereby any thing is said to doe or to worke vpon his subiect.

What meane you here by this word subiect?

The thing that suffereth, as the water is the subiect whereon the fire induceth the shape of heating: for here the water is said to be passiue, and the fire actiue.

How is action diuided?

Into actions of the soule, and of the body. The actions of the soule, are those which the soule doth: for, according to his power vege-

vegetatiue, his actions are to nourish, to increase, and to ingender; and according to his power sensitiue, to see, to heare, to smell, to taste, to feele; and according to his power intellectiue, to vnderstand, to will, to nill, and such like.

The actions of the body are those that doe immediately belong to some body or corporall accident, as to cut, to strike, to heat, to coole, to moysten, to dry, to make white, to make blacke, and such like.

Is there no other diuision of action?

Yes diuers, but such as doe rather belong to naturall Philosophers, and to Diuines, then to Logicians: and therefore wee leaue to speake any further of them.

What doth this predicament comprehend?

All Nounes and Verbes of the actiue signification: as these Nounes, generation, corruption, augmentation, diminution, alteration, moouing from place to place, and such like: also all Verbes actiue, as, to engender, to corrupt, to increase, to diminish, to alter or change, and to mooue from place to place, and such like Verbes of the actiue signification.

How many properties doe belong to action?

Two: First, to admit contrarietie, not simply, but *per accidens*, as to kindle, and to extinguish: secondly, to bee more or lesse, and yet accidentally, as one fire to burne more, and another lesse, one water to coole more, and another lesse.

CHAP. XIII.

Of Passion.

Hat is Passion?

It is the relation or application of the Patient to the Agent: as for example, whilest the water suffereth to be heated by the fire, this sufferance is called Passion.

What doth this predicament comprehend?

All Verbes of the passiue signification, as to bee engendred, corrupted, increased, diminished, or altered, and such like.

What properties doe belong to Passion?

The same that haue beene said before to belong vnto action.

CHAP.

CHAP. XIIII.

Of the Predicament Where, *called in Latine*, Vbi.

How define you the predicament Vbi?

Vbi is to bee in some place, as when a body is inclosed within a place, and therefore is defined of some, to bee the description of the place wherein any thing is said to bee, or to be done or made, as in the Heauens, in the Earth, in the Temple, in the House, and such like.

How is this predicament diuided?

Into *Vbi simplex*, and *Vbi compositum*, that is to say, simple and compound.

When is it said to be simple?

When a thing indiuisible is in some indiuisible place, as an Angell in *Puncto*; or when a thing indiuisible is in a place diuisible, as an Angell in the Temple; for the Temple may bee diuided into many parts, though the Angell cannot.

When is it said to be compound?

When some diuisible body is contained in a place diuisible, as the being of things corporal in the water, or in the ayre; for corporall things be so diuisibly placed in their places, as euery part of the thing placed, is answerable to euery part of the place wherein they are contained; and so contrarily, as to the parts of a mans body enuironed with the aire, one part of that aire is answerable to the head, another to the feet, & so consequently of all the rest: and therefore the Schoolemen say, that *Vbi compositum*, is to be in a place circumscriptiuely, but *Vbi simplex*, is to bee in a place definitiuely, that is to say, in some certaine place, though not according to the position or order of placing the parts. But when a thing is said to be in a place circumscriptiuely, then such place and thing may be both diuided according to the parts of position or placing, as this part here, and the other part there, whereof spring these differences, aboue, beneath, before, behind, on the right side, on the left side, and such like. And finally, this predicament comprehendeth whatsoeuer answereth to this question, where any thing is said to be or to be done.

What properties doe belong to the predicament, Where?

Three: First, to admit no contrarietie; for though to bee aboue and beneath seeme to be contrary, yet that is to be vnderstood physically, and not dialectically: secondly, it admitteth neither more nor lesse; for to be in the Temple, is no more to be in place, then to bee in the market, or in any house: but the third and chiefest propertie of *Vbi* is to containe.

CHAP. XV.

Of the predicament When, *called in Latine*, Quando.

How define you this predicament?

This is said to bee a relation or application of a thing measured by time, vnto time it selfe, and containeth the differences of times, whereby any thing is said to be, to haue beene, or shall be, to doe, or to suffer: and to speake briefly, it comprehendeth all words that answere to this question *When*, as yesterday, to morrow, the next day, and such like.

How is Quando *diuided?*

Two manner of wayes; for sometime it is said to be definite, that is, certaine, as in this or that houre, day, or yeere, which is certaine; and sometime indefinite; that is, vncertaine, as to haue beene, without any limitation of time, which is vncertaine. Secondly, *Quando* may be diuided into his parts of succession, as into time past, present, and to come.

VVhat properties doe belong to this predicament?

First, to haue no contrarietie: Secondly, to admit neither more or lesse: Thirdly, to bee alwayes flitting or fluxible, and neuer permanent, which propertie it hath by reason of time which continually passeth away.

CHAP.

CHAP. XVI.

Of the Predicament, to be situated, called in Latine, Situm esse.

Hat is Situm esse?

Quintilian saith, that *Situm esse* is as much to say, as to bee situated, ordered, or placed some manner of way; and it is a generall word, comprehending all names that doe expresse the site or ordering of the body and parts thereof, as to stand, to sit, to lye either groueling, or right vp, or on the one side: and finally, it comprehendeth all those words which answer to this question, how any thing is situated, as when it is required how *Norwich* standeth from *London*, either Northward, Southward, Westward, or Eastward.

How is site diuided of the Schoolemen?

Into site naturall and casuall.

Which call you naturall site?

That whereby euery part of the body hath his naturall place; as in mans body, the head to stand aboue, the belly in the midst, and the feet beneath; and so in a tree, the root to be lowest, the body in the midst, and the boughes or branches to be highest.

What call you site casuall?

That whereby the position or ordering of the parts is altered any way by accident, as, now to stand vpright, now to stoop, now to sit, or to lye downe, this way, or that way.

What descriptions are to be fetched from this Predicament?

The descriptions of places.

What properties doe belong to this Predicament?

Two: First, to admit no contrariety; for though vpward seemeth to be contrary to downward, yet that is vnderstood physically, and not dialectically. Secondly, it hath neither more, nor lesse; for to stand is no more a site, then to sit, nor sitting more then standing.

Which things doe alter their situation, and which not?

All things without life and feeling, doe keepe their site, if by

violence they be not changed: but all things hauing life and feeling, doe alter their site, when and as often as it pleaseth them, as a beast to stand vp, or to lye downe, and so forth.

The Table of Site.

Site is eyther	*Naturall, as*	*The head to stand aboue,* *The belly to be in the midst,* *And the feet beneath.*
	Or casuall, as	*Going,* *Standing,* *Lying groueling, or* *With the face vpward.*

CHAP. XVII.

Of the predicament, To haue, *called in Latine,* Habere.

WHat doth this word to haue *signifie?*

It hath three speciall significations: First, to be clad with garments, Armour, or ornament: secondly, to possesse any thing, as to possesse wife, lands, or goods: thirdly, to containe any thing, as a vessell to containe eyther liquid or dry matter that is powred therein: and therefore this predicament comprehendeth all such words as are deriued of the names of garments, as to bee gowned, cloked, or coated: also of Armour, as well defensiue as offensiue; defensiue, as to be armed with a Corselet, Iacke, or shirt of Male, and such like: offensiue, as to bee armed with a Sword, Dagger, Caliuer, Halbert, or Pike. Also beasts and fishes are said to be armed with Nayles, Hornes, Tallons, Beakes, Scales, Finnes, and such like. Also it comprehendeth words of ornament, as to be decked with Chaines, Iewels, and Tablets: also words of possession, as to haue lands or goods: also words of contayning, as to bee full of Wine, Oyle, or Hony, as you may see in the Table following.

The

The Table of the predicament *To haue.*

To haue is threefold, that is,	*To be clad*	*With garments, as to be gowned or cloked.*
		With Armour, as with a Corselet or Halbert.
		Or with ornaments, as with Tablet or Chaine.
	To possesse, as to possesse lands or goods.	
	To containe, as a Vessell to be full of liquor, &c.	

What properties doe belong to this predicament?

Two: First, to admit more and lesse: for a man at Armes is said to bee more armed then a light Horseman, and a Pikeman more then a Caliuer or Harquebuzier. Againe, hee that is clad with two coats, is more clad then he that weareth but one. Secondly, this predicament admitteth in some sort contrariety: for to be armed and vnarmed, clad and naked, are contraries by priuation, but not otherwise.

CHAP. XVIII.

Of the vse of the Predicaments.

TO what vse or end doe these Predicaments serue?

To many good vses. First, if you will define any thing, you shall be sure in some of these Predicaments to find out the generall kind thereof, together with all the differences (for the most part) belonging to the same: which if they bee not set downe, then they are to bee gathered out of the proper accidents incident to the thing which you would define. Secódly, if you would diuide any thing, here you shall find both the generall kinds, speciall kinds, yea, and diuers examples of the Indiuiduums comprehended vnder the same kinds. Thirdly, out of these Predicaments you may gather matter apt to proue any question, either generall or particular.

CHAP. XIX.

Of Post-predicaments.

WHat meane you by Post-predicament?

They bee interpretations of certaine words more plainly expounded after the predicaments, for the better vnderstanding of certaine of the said predicaments.

Which are they?

These fiue, *Oppositio, prius & posterius, simul, motus, & habere*, that is to say in English, *Opposition, before and after, together, moving*, and *to haue*: euery one whereof may be taken and interpreted diuers wayes.

What is opposition?

Opposition is the repugnancy or contrariety of two extremes which are contrary one to another, in such sort as none of them is in like manner repugnant to any other thing: as for example, white and blacke being two extremes, are more contrary one to another, then eyther of them is to any other colour, as to red, yellow, russet, or blue.

Sith some things are said to be agreeable one to another, and some contrary one to another, and some diuers one from another; it were not amisse, first, here to tell how, and when things are said to bee agreeable, diuers, or repugnant one to another.

Things are said to be agreeable one to another three manner of wayes: First, when they agree in generall kind, as those which are subiect to one next generall kind, as man and horse do agree in generall kind, because this word *animal*, or sensible body, is the next generall kind to them both. Secondly, things are sayd to agree in speciall kind, as *Edward* and *Iohn* are both comprehended vnder this word *man*. Thirdly, things are said to agree in number, as wordes hauing one selfe signification, called in Greeke *Synonyma*, as a blade, a rapier, a curtilas or stucke, signifying a sword: also things of like substance or definition, as man, and a sensible body endued with reason. And by these three wayes things are sayd also to differ one from another; for they may

may differ one from another in generall kind, in ſpeciall kind, and in number: in generall kind, as a ſenſible body, and a tree; inſpeciall kind, as a Horſe, and an Aſſe: againe, they may differ in number, as the Indiuiduums that be cõprehended vnder one ſpeciall kind, as *Iohn* and *Edward*, doe differ only in number.

Is it all one, to be diuers, and contrarie?

No: for thoſe things are ſaid to be diuers, which differ any of the wayes abouesaid, or by any other difference, be it cõmmon, proper, or moſt proper. Yet few or none of theſe things are contrary one to another: for no ſubſtance admitteth contrarietie, nor yet many accidents, vnleſſe it bee by reaſon of qualitie, whereunto contrarietie doth properly belong.

How many wayes are things ſaid to be contrary one to another?

Foure manner of wayes, that is, relatiue, contrarie, priuatiue, and contradictory, that is to ſay, by relation, by contrarietie, by priuation, and by contradiction.

Which things are ſaid to be oppoſite or contrarie by relation?

Thoſe things are oppoſite by relation, which according to their owne ſignifications, haue mutuall relation one to another, neither can they be both verified of one ſelfe thing in one ſelfe reſpect, as the father and the ſonne, the Lord and the bondman: for one man cannot be both a father and a ſonne in one reſpect, but in diuers reſpects hee may: for euery man that hath a ſonne, is notwithſtanding a ſonne to his owne father, and a father to his owne ſonne.

Which things are ſaid to be oppoſite by contrarietie?

Thoſe things are ſaid to bee contrary, which being comprehended vnder one ſelfe kind, doe moſt differ one from another, and yet both may be one after another in one ſelfe ſubiect meet to receiue the ſame, becauſe the one giueth place to the other, vnleſſe it be ſuch a thing as is naturally incident to the ſaid ſubiect: as heat and cold, being contayned vnder qualitie, are moſt contrary one to another, and yet may bee one after another in mans body, or any other ſubiect apt to receiue the ſame: for many times heat driueth out cold, and cold heat. Yet in fire it is not ſo: for heat is alwayes naturally incident to fire, and will neuer giue place to cold, ſo long as it is fire, and not extinct.

How are contraries diuided?

Of contraries, some haue a meane, called of the Schoolemen, *Contraria mediata*, and some haue no meane, called, *Contraria immediata.*

When are they said to haue a meane?

When the two contraries are such, as neither of them is of meere necessity, in any subiect meet to receiue the same, as white & black: for that subiect which is apt to receiue them both, may be yellow or russet, & so the subiect is neither white nor blacke.

When are they said to haue no meane?

When the one of the two contraries may be alwaies truly affirmed of any subiect apt to receiue the same, as sicknesse and health; for man or beast is truly said to be either sick, or whole. Also vice and vertue haue no meane: for a man is said to be eyther good, or euill: yet some make good and euill to haue a meane, called a thing indifferent. Likewise, hot & cold to haue a meane, that is to say, Luke-warme. And betwixt health and sicknesse, *Galen* maketh a meane estate, that is to say, neither whole nor sicke, but betwixt both.

Which are opposites by priuation?

Opposites by priuation are two contraries belonging to one selfe-subiect apt to receiue the same, in the which subiect, when the one is wanting at such time as nature doth appoint, the other must needes bee, as sight and blindnesse in the eye, hearing and deafenesse in the eare, light and darknesse in the skie, or in any other thing meet to receiue both.

Wherefore doe you adde this clause, at such time as nature doth appoint?

Because it is not needfull that one of these opposites be in the subiect in all times: as for example, the whelpe which is not nine dayes old, though as yet he seeth not; yet is hee not said to bee blind, because Nature hath appointed him no sooner to see.

Which be opposite by contradiction?

They be two contraries, hauing no meane, and doe consist in contradiction, that is to say, in denying the one the other: and such contradiction consisteth either in propositions, or else in simple or single tearmes.

Giue

Giue Examples of both.

In propositions thus: *Iohn* is honest, *Iohn* is not honest: *Plato* disputeth, *Plato* disputeth not: in which kinde of propositions, there is no meane of truth or falshood; for of necessitie the one of them must alwayes be either true or false, in such sort, as both cannot be true together, nor both false together. In simple terms thus: a man: to know, not to know: to be, and not to be: and therefore opposites by contradiction be most contrarie, and doe differ from all the rest; for in all the other Opposites, it is easie to find out some meane subiect, whereof neither of them can be truly spoken or affirmed.

CHAP. XX.

Of before and after, called in Latine, Prius & Posterius.

Ow many wayes is a thing said to bee before and after?

Fiue manner of wayes, that is, by time, nature, order, honour, and cause, contained in these two Latine Verses:

Tempore natura, prius ordine dic & honore:
Et causa effectis dicitur esse prior.

Giue Examples of euery one.

First, by time, *Cicero* is said to be before *Quintilian*, and *Socrates* before *Aristotle*, and such like. Secondly, by nature, that thing is said to bee first, or before, from which the consequent cannot returne backward: by which way all generall kinds are said to be before their speciall kindes, and speciall kindes before their Indiuiduums: for if man be, then sensible body (which is the generall kinde) must needs be, but not contrarily: so likewise, if *Iohn* be, man must needs be, but not contrarily; for it followeth not of necessitie, Because it is a sensible body, *Ergo*, it is a man, or because it is a man, *Ergo*, it is *Iohn*. Thirdly, by order one thing is said to be before another, as one before two, and two before three, letters before syllables, and syllables before words, and words before speech. To this also appertaineth that which is said

to be before by ſituation, as in going from *Norwich* to *London*, *Thetford* is before *Newmarket*, and *Newmarket* before *Ware*, and ſo forth. Fourthly, by honour or dignitie, an Emperour is ſaid to be before a King, a King before a Duke, a Duke before an Earle, an Earle before a Baron, &c. Fiftly, the cauſe is ſaid to be before his effect, as the riſing of the Sunne is ſaid to be before day; ſo the difference is ſaid to be before his ſpeciall kinde, and the ſpeciall kinde before his propertie. And theſe be conuertible: for if it be day, the Sunne muſt needs be vp: and if the ſpeciall difference be, the ſpeciall kinde muſt needs be, and ſo contrarily.

To what end ſerueth this manifold way of before and after?

To the intent that wee may the better vnderſtand what hath beene ſaid before touching oppoſites by relation, that is to ſay, that Relatiues are alwayes together by order of nature, and not one before another, but only by their fourth way, that is to ſay, by honour or worthineſſe, which way, as *Ariſtotle* ſaith, of all the other wayes, is moſt vnproper, and leaſt to the purpoſe.

CHAP. XXI.

Of the word Together, *called in Latine*, Simul.

How many wayes are things ſaid to be together?

Two wayes, that is, by order of time, and by order of nature. Firſt, by order of time, the heat and ſhining of the Sunne are ſaid to bee in the Sunne together, that is, at one time: alſo the Angels were created all together, and at one time. Secondly, thoſe things are ſaid to bee together by order of nature, which haue naturall relation one to another, and bee conuertible, neither is the one cauſe of the other, as the father and the ſonne, ſingle and double, and ſuch like: and many doe adde hereunto diuers ſpeciall kindes and differences ſubiect to one ſelfe generall kind, as man and bruit beaſt, reaſonable and vnreaſonable, are ſubiect to the generall kinde, ſenſible body, or *animal*.

CHAP.

CHAP. XXII.

Of Mouing or Motion, called in Latine, Motus, *and of the kindes thereof.*

Herefore is mention made here of Mouing?

For the better vnderſtanding of the Predicament Action, whereunto Mouing belongeth.

How many kinds of Motion or Mouing be there?

Six, briefly touched before in the predicament of Action, that is to ſay, Generation, Corruption, Augmentation, Diminution, Alteration, and Mouing from place to place.

Define theſe kindes.

1 Generation is a proceeding from the not being of a ſubſtance, to the being of the ſame, as from an Acorne to an Oke.

2 Corruption (contrariwiſe) is a proceeding from a being to a not being, as from an Oke to chips or aſhes.

3 Augmentation is the increaſing of a great quantitie in the whole: as from a childe to a man.

4 Diminution is contrariwiſe a decreaſing or diminiſhing of quantitie in the whole, as a bodie that conſumeth or pineth by diſeaſe or otherwiſe.

5 Alteration is a proceeding or changing from one qualitie into another, as from hot to cold.

6 Mouing from place to place, is, as the mouing of the Sun out of the Eaſt into the Weſt.

CHAP. XXIII.

Of the word Habere, *that is,* to haue, *and how many wayes it is to be vnderſtood.*

Ow many ſignifications hath this word, to haue?

Eight.

1 Firſt, to haue a qualitie, as Science, Vice, or Vertue.

2 To haue a quantitie, as to bee ſix, ſeuen or eight foot long.

3 To be clad, as to haue a Cloke or Coat.

4 To haue ſome part of the body clad or decked with ſome thing, as the finger with a ring, the necke with a chaine.

5 To haue a part, or member, as a hand, a head, or foot.

6 To containe, as a hogſhead that hath therein beere or wine.

7 To poſſeſſe, as to haue lands, tenements, or goods.

8 To haue a Wife, which (according to *Ariſtotle*) is vnproperly ſaid, becauſe nothing can be properly ſaid to haue, which is had it ſelfe of the ſame: for the wife hath the man, as well as the man the wife; and therefore this way of hauing ſerueth to little purpoſe.

Here endeth the first Booke of Logicke.

THE

THE ARTE OF LOGICKE.

The ſecond Booke.

CHAP. I.

Of Definition.

HAuing hitherto ſufficiently ſpoken of the Predicables and Predicaments, and of all things belonging vnto them, without the knowledge whereof, no true definition, nor good diuiſion can bee well made; me thinkes it were meete now to treate of definition and diuiſion.

What is Definition, and how manifold is it?

Definition is a ſpeech, whereby either ſome name or thing is declared: and it is twofold, that is, of a name, and of a thing.

What is definition of a name, and how manifold is it?

Definition of a name, is a ſpeech whereby the ſignification of ſome word is declared: and it is ten-fold.

1 Definition verball, as when a word leſſe knowne is declared by a word more knowne, as thus, To imitate, is as much to ſay, as to follow, or to counterfeit: againe, to accompliſh, is to fulfill.

2 Definition by difference; as, He is a King, which ruleth by Law; but he that ruleth by force, is a Tyrant.

3 Definition metaphoricall, or by figure; as, Adolescence is the flower of mans age: Good Preachers are the salt of the earth.

4 Definition by contrarie; as, Vertue is, to flee vice.

5 Definition by circumlocution; as, The writer of the *Troian* Warre, that is to say, *Homer*.

6 Definition by example, as to say, that this word reasonable or vnreasonable is a speciall difference.

7 Definition by want, or defect; as, That is three quarters, which lacketh a quarter of a yard, or any such like thing.

8 Definition by prayse, or dispraysе: by prayse, as, Logicke is an Art of Artes, and Science of Scieuces: Iustice is the Queene of all Vertues. By dispraysе, as, Idlenesse is the corruption or destruction of youth.

9 Definition by similitude; as, The Sunne is the eye of the World; A Citie without a Magistrate, is as a Ship without a Gouernour.

10 Definition by Etymologie; as, He is rightly called goodman, because he is a good man indeed, and full of good workes.

When is definition of the name needfull to be vsed?

When some doubtfull word is cause of the controuersie.

Of the definition of a thing.

What is the definition of a thing?

It is a speech, which declareth briefly, plainly, and aptly, the very nature and substance of the thing which is defined.

How is the definition of a thing diuided?

Into these six kindes, that is to say, into definition essentiall, causall, by the Relatiue, by the effects and offices, by numbering vp of the parts, and by heaping vp of accidents.

What is definition essentiall?

It is that which consisteth of the next generall kinde, ioyned with some speciall difference or property belonging to the same kinde; as when I define a man to be a sensible body, endued with reason, or apt to speake: and this is the Logicall definition most

sure

ſure of all others, but not eaſie to bee made of euery thing, for lacke of ſpeciall differences and naturall properties.

When is it ſaid to be a cauſall definition?

When it is made of the generall kinde, and of the proper cauſes of the thing defined.

How many chiefe kind of cauſes be there?

Foure, that is, matter, forme, cauſe efficient, and end.

How define you matter?

Matter is that whereof any thing is made, as cloth is the matter whereof a cloake or coat is made, and wooll is the matter of cloth.

What is Forme?

Forme is the ſhape whereof any thing taketh both his being and his name: and therefore the Schoolemen do define forme to be that which giueth a being to any thing, bee it naturall or artificiall, as in the Examples before recited, the coat or cloake hath both his being and name of the ſhape which it hath, and not of the matter.

What is the cauſe efficient?

That which maketh or worketh any thing, and is the authour thereof, as the Carpenter is the cauſe efficient of the houſe, and Ship wright of the Ship.

What is the end or finall cauſe?

It is that for whoſe ſake any thing is done, as the end of warre is to haue peace, the end of ſtudie is to get learning and knowledge.

Giue Examples of definitions made of euery one of theſe cauſes.

Of matter let this bee your Example: Beere is a Drinke made of Mault, Water, and Hops. Of forme thus: Man is a ſenſible bodie, endued with a Soule intellectiue or reaſonable, which is the true ſhape of man. Of the cauſe efficient thus: That is a Decree of the Senate, which the Senate commandeth and ordaineth; for the Senate is the cauſe efficient of the Decree. Anger or wrath is the boyling of the bloud about the heart, through the ſtirring vp of choler. Of the end thus: A houſe is a building made to defend our bodies from the iniuries of the aire and weather.

May not a good definition be made of many of theſe cauſes ioyned together?

Yes indeed.

Giue Example.

Lo here the example of *Demoſthenes*, in defining what Law is. Law (ſaith he) is the inuention and gift of God, and the decree of wiſemen, the correction of crimes, either raſhly or aduiſedly committed, and a common couenant or conſent of the Citie, according to the which all men ought to liue. In this definition, the firſt and chiefeſt cauſe efficient is God, the ſecond cauſe efficient is the common couenant or conſent of the Citie: the matter is the decree of the wiſe: the end is the correction of crimes, and the keeping of the Citizens in good order of life.

When is a definition ſaid to be made by the Relatiue?

When one Relatiue is interpreted by another; as thus, He is a Father, which hath a Sonne; and he is a Maſter, which hath a Seruant.

When is a definition ſaid to be made by the effects, vertues, or offices of the thing defined?

When the nature of the thing is plainly declared by ſhewing the ſaid effects or offices, as thus: An adamant ſtone is that which being laid nigh to Iron or Steele, draweth the Steele vnto him: Iuſtice is a vertue which giueth euery man his right.

When is a definition ſaid to be made by numbering vp of the parts?

When it contayneth either the chiefe, or all the parts of ſome whole thing, or elſe all the ſpeciall kindes of ſome generall kinde.

Giue Examples of both theſe wayes.

Of the firſt thus: A Houſe is a building, hauing a foundation, walles, and couering. Of the ſecond way thus: A ſenſible bodie is that which comprehendeth both man and bruit beaſt.

When is a definition ſaid to be made by heaping vp of accidents?

When a thing is rather deſcribed, then defined, by ſuch common and proper accidents as doe belong to the ſame, as fire is an Element that is hot and dry, and exceedeth all other Elements in lightneſſe: and therefore this laſt kind of definition ought rather to be called a deſcription then a definition, which is vſuall to the

Poets,

Poets, Orators, and Hiſtoriographers, in deſcribing either perſon, fact, or thing: alſo to the Phiſicians, in deſcribing their ſimples, as Roots, Plants, Herbes, and ſuch like.

CHAP. II.

Of the precepts to be obſerued in Definition.

Ow many precepts are to bee obſerued in making a true definition?

Theſe three: Firſt, that it briefly expreſſe the whole power and nature of the thing defined: Secondly, that there bee nothing therein ſuperfluous, nor any thing wanting: Thirdly, that the definition bee not common to many things, but proper to that thing only which is defined, ſo as it may make it to differ from all other things.

What order is to be obſerued in making a dialecticall definition?

Firſt, you muſt know in what predicament the thing is contained which you would define, to the intent that in deſcending from the moſt generall kinde, downe towards the moſt ſpeciall kinde of the ſame predicament, ye may find out by the way that which is next generall kinde to the thing that is to bee defined: which next generall kinde being found out, yee muſt then ſeeke out the ſpeciall difference or propertie, the proper cauſe, effect, or common accidents belonging to the ſame: as for example, if ye would define what vertue is, ye muſt reſort to the predicamẽt of qualitie, wherein vertue is contained: then in deſcending from quality, proceed to habit, from habit to habit of the mind, which is two-fold, that is to ſay, intellectuall and morall, & not finding it vnder habit intellectall, proceed to habit morall, for that is the next generall kind to vertue: that done, ſeeke out the difference or propertie, true cauſe or effect: the difference is to bee good, wherein it differeth from vice, for vice is alſo a morall habit as well as vertue: the effect of vertue is to incline mans will to doe alwaies according to right reaſon or true iudgement: ſo ſhal you make a true definition of vertue, in ſaying that vertue is a good morall habit, inclining mans will to doe alwaies according to

true iudgement. And after this sort yee may learne to define any other thing.

CHAP. III.

Of Diuision.

WHat is Diuision?

Diuision is the parting or diuiding of a word or thing that is more generall, vnto other words or things lesse generall: for Diuision is twofold, that is, of a name, and of a thing.

When is it said to be the diuision of a name?

When some Equiuoke or doubtfull word is diuided into his manifold significations, as this word Wolfe into a man hauing that name, into a foure-footed beast, into an vlcerous sore, and into a certaine fish, each one called by the name of Wolfe: which kind of distinction or diuision is very necessarie, to auoid ambiguitie of speech, which ambiguitie causeth many times great errour.

How manifold is the diuision of a thing?

It is threefold, that is, substantiall, partible, and accidentall.

When is it properly said to be substantiall?

When any generall kind is diuided by his speciall differences into his proper speciall kinds: as thus; of sensible bodies, one is reasonable, as man, & another is vnreasonable, as a bruit beast.

When is this kind of diuision to be vsed?

When the speciall kindes lacke proper names, as most commonly the speciall kindes subalternate doe, which may be diuided againe as generall kindes into more speciall kindes: as for example, of vnreasonable beasts some bee terrestriall, some bee aquaticall, and some aierie: againe, euery one of these may bee diuided into their speciall kinds, euen vntill ye come to the lowest of all, and vnto the *Indiuiduums* comprehended vnder the same; and that not only of things contained in the predicament of substance, but also in any other predicaments of accidents, as of magnitudes, one is long, as a line, another is broad, as a superficies, and another is thicke, as a body. This diuision, though it be

be of accidents contained in the predicament of quantitie, yet it is called a ſubſtantiall diuiſion, becauſe the generall kind here is diuided by his ſpeciall difference into his proper ſpeciall kinds.

What call you a partible diuiſion?

I call that a partible diuiſion, which diuideth ſome whole thing into his parts, which is called of the Latines, *partitio*; as if yee would diuide the Romane Common-wealth into Senators, Knights, and Commons. You may alſo diuide a houſe into his principall parts, as into the foundation, wals, and roofe thereof. But the better to vnderſtand this kind of diuiſion, it ſhall not be amiſſe to ſhew you here what kindes of whole, and what kindes of parts there be: for there is whole ſubſtantial, and whole integrall: againe, of parts, ſome are called ſubſtantial, and ſome integrall; and of parts integrall, ſome are called ſimilar or like, and ſome diſſimilar or vnlike: againe, of the diſſimilar, ſome are called principall, and ſome not principall: of all which things I minde here briefly to ſpeake.

First, I pray you tell what you meane by whole ſubſtantiall, and whole integrall.

Whole ſubſtantiall, is that which conſiſteth of ſubſtantiall parts cleauing wholly together, and not ſeuerally diſtinct in number, as whole man, conſiſting of ſoule and body: but whole integral is that which conſiſteth of integral parts, which though they cleaue together, yet they are diſtinct and ſeuerall in number, as mans body, conſiſting of head, breſt, belly, legs, &c.

How define you ſubſtantiall parts?

Subſtantiall parts are the firſt and chiefe parts whereof any thing is compounded, of which parts if any bee wanting, the whole muſt needs periſh, and loſeth his name, as the matter and forme of any compound thing, be it naturall or artificiall, as the body and ſoule are the firſt and chiefe parts of man; the metall and faſhion of a ſiluer cup are the firſt & chiefe parts of the cup, whereof neither can be wanting: for the ſoule without the bodie is a ſpirit, and not man; and the body without the ſoule is but a dead carcaſſe: againe, the cup without matter or ſhape, is no cup at all.

Which be called integrall parts?

Certaine secondarie parts, which being all gathered together, do make the whole perfect, as the head, breſt, belly, armes, hands, thighes, legges, and feet, are the integrall parts of mans body: and of theſe integrall parts, ſome are called ſimilar, and ſome diſſimilar, that is to ſay, like and vnlike.

Which are ſimilar, and which diſſimilar?

Similar, or like, are thoſe that be of one kind, and of one ſelfe name; and being diuided into parts, euery ſuch part, be it neuer ſo ſmall, beareth alſo the name of the whole, as fleſh, bone, ſinew, skin, and ſuch like: for euery little part of the fleſh is called fleſh, and euery part of bone is called bone; and ſo of all the reſt. Hitherto alſo may be referred water, fire, gold, iron, or any other ſimple metall, wine, wood, ſtone, and ſuch like: for euery drop of water is called water, and ſo of the reſt.

Which call you diſſimilar or vnlike?

Thoſe parts that differ both in kinde and name, as the head, breſt, belly, armes, and legges, are the parts diſſimilar of a mans body: likewiſe a houſe, a ſhip, and many other things, haue alſo ſuch parts, of any one of which parts the whole cannot be ſpoken: for you cannot ſay, Becauſe here is the head of a man, *Ergo* here is a man. Againe, of theſe diſſimilar parts, ſome are called principall, whereof if any be wanting, the whole muſt needs periſh: as without the head, belly, heart, liuer, or guts, mans body cannot be. The not principall are thoſe parts, without the which the body may be: for though thoſe parts bee wanting, yet the body is counted a whole thing, though not perfect in euery point, as without armes, hands, legges, or feet, the body may liue: that building alſo that hath a foundation, walles, and roofe, is counted to be a whole houſe, though it hath neither doores nor windowes, yet not perfect in euery reſpect.

Wherein doth partition and diuiſion differ?

In diuers points: for in diuiſion any generall kinde may bee rightly ſpoken of euery ſpeciall kind contained vnder the ſame; as this word, *ſenſible body*, which is ſpoken both of man & beaſt. But in partition, the whole cannot bee ſpoken of euery part: for you cannot ſay that the ſoule or body of man is whole man, nor that the head or foot is his whole body. Again, diuiſion diuideth

vni-

vniuersall things into their particulars, and partition diuideth particulars into their parts, and most commonly followeth diuision, helping to make subdiuisions: as for example, when diuision hath diuided a sensible body into man and beast, then followeth partition, and diuideth man into soule and body, and the body into his integrall parts, as head, brest, belly, legges, and such like.

How manifold is diuision accidentall?

Threefold: for by that we either diuide some subiect into his accidents, or some accident into his subiect, or some accident into his accidents.

Giue Examples of all these three wayes?

Of the first let this be your Example: Of men, some bee free, and some be bond; some be vertuous, and some be vicious: and after this sort you may diuide the predicameut of substance into as many accidents as you will, running thorowout all the nine predicaments of accidents. Of the second way thus: Of goods, some are said to be of the minde, some of the body, and some of fortune. Of the third thus: Of good things, some are said to bee honest, some profitable, and some pleasant or delectable: which kind of diuision is much vsed of the Orators. To this also may be referred the common order of diuiding any speech or oration into his parts, which the Orators call partition or distribution, whereby is set downe in what order euery thing shall be vttered and declared, which first, and which last, and so forth.

CHAP. IIII.

Of the precepts to be obserued in Diuision.

How many precepts are to be obserued in making a true diuision?

Three: First, that the generall kind bee diuided into his next speciall kindes, by such speciall differences as are meerely repugnant one to another, and doe comprehend the whole nature of the thing diuided: as thus; Of sensible bodies, some be reasonable, and some be vnreasonable: for it were no good diuision, to say, of sensible bodies, one is reasonable, & another is two-footed.

What is the second precept?

That the parts, being ioyned together, may bee equall to the whole, and may comprehend neither more nor lesse then the thing which is diuided, as reasonable soule, and carnall bodie, being the chiefe parts of man, do comprehend neither more nor lesse then whole man.

What is the third precept?

That no part or speciall kinde be vsed as a generall kinde, nor the generall kinde as a part or speciall kinde: as in this diuision which *Cicero* reprouetb. I will shew that through the concupiscence, boldnesse, and couetousnesse of our aduersaries, all mischiefes haue chanced to the Common-wealth: here couetousnesse is mingled with concupiscence, wherof it is a part: for concupiscence is the generall kinde of all lusts or desires. But this precept seemeth rather to appertaine to a Rhetoricall partition, then a Dialecticall diuision.

To what end serueth Diuision?

To diuers good ends. First, as *Cicero* saith, it helpeth greatly to teach plainly to define, & to make things that be compound, intricate, or confused, to appeare simple, plaine, and certaine: Secondly, by diuiding things orderly into their parts, it greatly helpeth memorie: and thirdly, it helpeth to amplifie any kind of speech, and to make it more copious.

CHAP. V.

Of Method.

Hauing hitherto sufficiently spoken of words, both singular and vniuersal, & also of Definition and Diuision, which are the two chiefe instruments wherby all simple questions are discussed, I minde here to shew with what order or method euery such question is to be handled.

What is Method?

Method is a compendious way of learning or teaching any thing: and it is three-fold, that is to say, Compositiue, Resolutiue, and Diuisiue or definitiue.

What

What is method compositiue?

It is that whereby we compound the whole of his parts, beginning at the ſmalleſt, and ſo proceed from greater to greater, vntill we come to the chiefe end whereto we tend, which kinde of order or method we obſerue here in writing this Logick: for firſt we treat of words or terms, then of a propoſition, and laſt of all of a Syllogiſme. So likewiſe hee that will teach the nigheſt way from *Norwich* to *London* by order compoſitiue, will bid him firſt go to *Windham*, from *Windham* to *Atleborough*, from *Atleborough to Thetford*, from *Thetford* to *Newmarket*, from *Newmarket* to *Barkway*, from *Barkway* to *Ware*, from *Ware* to *London*.

What is method reſolutiue?

It is that whereby any whole thing is reſolued into his parts: or when wee proceed from the end to the next and immediate cauſe therof, and from that to the next cauſe of that, and ſo from one to another, vntill we come to the firſt cauſe of all, and moſt remote & furtheſt off: as when we reſolue a Syllogiſme into his Propoſitions, and a Propoſition into his vttermoſt bounds or termes, which are the ſubiect and the predicate: and this way is vnlike to the other before recited, becauſe it goeth backward, as in the former example. If ye will teach the way from *Norwich* to *London* by method reſolutiue, ye muſt ſay that there is a Towne called *Ware*, twentie miles from *London*: next to that is a Towne called *Barkway*, and ſo till yee come to that which was firſt in method compoſitiue. To theſe two methods *Galen* addeth the third method, that is, method diuiſiue or definitiue.

What is that method?

It is, when in defining and diuiding we deſcend orderly from a moſt generall kind to all the ſpecial kinds contained vnder the ſame, and ſo to the loweſt of all: as hauing to ſpeake of qualitie, we define it, and diuide it into his foure ſpeciall kinds, and euery ſuch ſpeciall kind into his parts and members, euen till we come to the loweſt of all, as you ſee in the Table of quality before deſcribed. Which kinde of method is more fully handled by my friend *Accontio*, in his little Treatiſe which hee wrote in Latine, *de methodo*: the effect of which Booke I thinke it not out of purpoſe to ſet downe euen here.

The

The effect of Accontius *his Booke*, de methodo, *which he affirmeth to be the second part or office of Logicke.*

FOr the first office of Logicke teacheth how to finde out the truth in any speech: but method teacheth how to attaine to the Arte or knowledge of any thing. In which method, three things (as he saith) are to be considered: First, what method is: Secondly, what is the effect or vttermost end thereof: Thirdly, what be the causes of that end or effect.

Method is a certaine right way, whereby we may search out the knowledge of any thing; & hauing attained it, how to teach the same commodiously to any other, without examining whether it bee true or false; for that belongeth to the first part of Logicke.

The effect or vttermost end of method, is the knowledge of any thing.

The causes of that end are these three, forme, matter, and cause efficient.

Forme here seemeth to bee that which is knowne by all the parts of such knowledge, being gathered together (as it were) into one selfe body: which parts are these; first, what the thing is; secondly, what be the causes thereof, and also what bee the causes of those causes, euen to the last or vttermost cause: thirdly, what be the effects, and also what bee the effects of those effects, as well when the thing is taken generally, as for some whole thing, or as when the whole is diuided into all his parts, euen vnto the parts indiuisible.

Matter here is generally taken, and not for the matter of any determinate or certaine kind: vnto which matter do appertaine all things that be finite, perpetual, and immutable, that is to say, all vniuersals.

The causes efficient are partly those things that are more knowne, as first, to know what the thing is by definition consisting of the generall kind, and of the differences thereto belonging: secondly, what is the effect or end of the thing, as in those things which doe not depend vpon our will: and thirdly, what be

bee the causes of that end or effect, the consideration of which end belongeth to those things which doe depend vpon our will, and partly the cause efficient is the right applying or ordering of the more knowne things, which order containeth two parts: for first we must proceed alwaies from the most general kinds to the next generall kinds, as hauing to begin with the definition of the thing which you seeke to know, when need requireth, you must proceed from the most generall kind of all, that is to say, from the highest general kinde, and so descend downward, vntill you come to the thing that is to be defined: but if you haue to begin from the vttermost end of the thing, then next of all consider that, from whence the end doth immediately spring, and what doth follow next to that, and so proceed from one to another, till you come to the first cause of all. Finally, if you haue to begin from the first causes, then you must orderly proceed from that which is first vnto the second, and so to the third, and so forth vntill you come to the vttermost effect or last end.

Now as touching the second part of applying or ordering the more knowne things, you must haue consideration of euery whole thing, and of all his parts: wherefore if you haue to define any thing, Art, or Science, wherof you treat, you must define the whole, and then euery part therof, vntill you come to the lowest part thereof, and yet euery one in his proper place. And if you cannot comprehend in one definition all those things that are to be referred to one head, then vse diuision in diuiding the whole into his parts, and define euery such part in order. But if all the parts which the thing containeth, haue not one selfe end, but diuers, then diuide it by such differences as euery part may haue his proper end.

Moreouer, if the forme, matter, or cause efficient haue diuers respects and considerations, then (according to that diuersitie) make diuers diuisions, and first declare what is common to all the parts in general, & what is proper to euery one in particular.

Finally, if some one whole thing lyeth hidden, then it is to be found out by looking into some of the particular parts thereof. And these are all the chiefest points cōtained in the *Latine* Treatise which my friend *Acontius* wrote *de Methodo*. And though

that *Petrus Ramus* maketh but one kind of method, that is to ſay, to proceed from the firſt principles or elements: yet I am ſure he wil not denie, but that to goe forward and backward, be two diuers things, though not contrarie, as doth well appeare by the compoſitiue and reſolutiue method before defined.

I doe not yet perfectly vnderſtand by all this, with what method a ſimple queſtion is to be handled: therefore I pray you ſhew the true way and order thereof.

The method or way in handling a ſimple queſtion, dependeth vpon theſe nine Interrogatiues, that is to ſay, 1. Firſt, what ſignifications the name or word hath, whereof the queſtion is made, and how it is to be taken. 2. Secondly, whether there be any ſuch thing, or not. 3. Thirdly, what it is. 4. Fourthly, what be the parts or ſpeciall kinds thereof. 5. Fiftly, what be the cauſes. 6. Sixtly, what be the effects. 7. Seuenthly, what things be incident or appurtenant vnto it. 8. Eightly, what things are like vnto it. 9. And ninthly, what things be contrarie to it. All which queſtions *Ariſtotle* reduceth into theſe foure, that is to ſay, Whether it be? What it is? What manner of thing it is? and, Why it is?

Giue example of a ſimple queſtion handled according to the nine queſtions before recited.

As for example: If wee haue to treat of vertue, firſt, wee muſt ſhew the diuers ſignifications of Vertue; for Vertue ſignifieth ſometime power and abilitie, as when we ſay, Vertue attractiue, Vertue digeſtiue, or Vertue expulſiue: but here Vertue is to be taken for a morall habit, bringing forth good and commendable actions. Secondly, whether Vertue be, or not, it plainly appeareth by the diuers doings of men, whereof ſome be good, ſome be bad. Thirdly, what Vertue is, we know by the definition thereof, in ſaying, that Vertue is a morall habit, inclining mans will to do that which is alwaies good, and agreeable to true iudgement. Fourthly, the kinds of vertue be diuers, as Prudence, Iuſtice, Temperance, Fortitude, Modeſtie, and ſuch like. Fiftly, the cauſes of Vertue be alſo diuers; for the cauſe efficient thereof is good, and mans will obedient to true reaſon, and to true iudgement: the matter or ſubiect of Vertue is the mind or heart of man: the

finall

finall cauſe is bleſſedneſſe. Sixtly, the effect of vertue is tranquillitie of the minde, and many proſperous ſucceſſes, and alſo publike vtilitie and peace. Seuenthly, things incident to vertue are theſe, the honour, prayſe, and commendation of good men. Eightly, things of affinitie or like to vertue, be all good inclinations, diſpoſitions, or good naturall affections, as to bee louing, kind, and mercifull. Ninthly, things contrary to vertue, bee all manner of vices, as Pride, Couetouſneſſe, Hypocriſie, Diſſimulation, &c.

What method is to be obſerued in handling a compound queſtion?

A compound queſtion is to be handled by arguing and reaſoning on both ſides, whereof wee ſhall treat hereafter. In the meane time we haue to ſpeake of a Propoſition, without the which no argument can bee made: for all arguments dee conſiſt of propoſitions.

Here endeth the ſecond Booke of Logicke.

THE ARTE OF LOGICKE.

The third Booke.

CHAP. I.

Of a Propoſition.

Hat is a Propoſition?

It is a perfect ſpeech, whereby ſomething is manifeſtly declared to bee true or falſe.

Whereof is ſuch ſpeech ſpecially compounded?

Of Noune and Verbe, which Noune would bee of the Nominatiue caſe, and the Verbe of the Indicatiue Moode, as when I ſay, Man is a ſenſible body; for the Logicians doe ſeldome allow any ſuch ſpeeches as are eyther of the Optatiue, Imperatiue, Interrogatiue, or Vocatiue Moode, as, I would to God I had a good Horſe: this ſpeech is not accounted to bee ſo true or certaine, as to ſay, I haue a good Horſe.

Of how many parts doth a Propoſition conſiſt?

Of three, that is to ſay, the Subiect, Predicat, and Copulat.

What is the Copulat?

It is the Verbe Subſtantiue, called in Latine, *Sum, es, fui*, that is, to be, which doth couple or ioyne the Predicat with his Sub-

iect,as when we ſay,Man is a ſenſible body : here in this propoſition, the word *man* is the ſubiect, and the word *ſenſible body* is the predicat, and the Verbe *is*,is the copulat : which copulat is not alwayes incident to euery propoſition, and ſpecially when the predicat is ſome other Verbe,and not the Verbe ſubſtantiue; as,*Plato* diſputeth,*Socrates* walketh; which is as much to ſay, as *Plato* is diſputing,*Socrates* is walking.

How many wayes is a propoſition diuided ?

Three manner of wayes, that is, according to ſubſtance,quality,and quantity.According to ſubſtance thus:Of propoſitions, ſome are ſaid to be categoricall,that is,ſimple, and ſome hypotheticall, that is, compound, of which compound propoſitions we mind not to ſpeake, before we haue treated of all things belonging to a categoricall and ſimple propoſition,which is twofold, that is to ſay, abſolute and modall.

What is an abſolute categoricall propoſition ?

It is a ſpeech which affirmeth or denyeth ſomething abſolutely, without any reſpect; as when we ſay,God is true, or, Euery man is a lyer : and this is otherwiſe called of the Logicians, *Propoſitio categorica de ineſſe.*

How is a ſimple propoſition diuided according to qualitie ?

Into an affirmatiue and negatiue propoſition.

When is it ſaid to be affirmatiue, and when negatiue ?

It is ſaid to bee affirmatiue , when the predicat is affirmed of the ſubiect; as when I ſay, that *Iohn* is learned : and that is negatiue, when the predicat is denyed of the ſubiect; as, *Iohn* is not learned. And note, that in ſuch kind of ſpeech, the negatiue is alwayes ioyned to the Verbe.

How many waies is a ſimple propoſition diuided according to quantitie ?

Foure manner of wayes, that is to ſay,into an vniuerſall,particular, indefinite, and ſingular propoſition.

When is it ſaid to be vniuerſall?

When ſome vniuerſall ſigne is added to the ſubiect.

Which words are ſaid to be vniuerſall ſignes?

Theſe : all, euery,whatſoeuer,whoſoeuer,none,no body,not one,none at all,euery where,no where, and ſuch like ; as Euery man is a Lyer, No man is true.

When

When is it ſaid to be a particular propoſition?

When ſome particular ſigne is added to the ſubiect.

Which call you particular ſignes?

Theſe: ſome, any, many, few, and ſuch like; as, Some man is wiſe, Few are wiſe.

When is it ſaid to be indefinite?

When the ſubiect is a common word, hauing neither vniuerſall nor particular ſigne added vnto it; as when we ſay, Men in theſe dayes be giuen to great follies.

When is it ſaid to be ſingular?

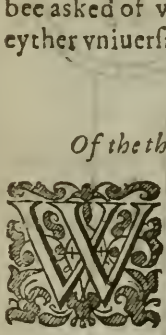
When the ſubiect is ſome *Indiuiduum*, as when wee ſay, that *Cicero* is eloquent.

What, and how many queſtions doe riſe of theſe three diuiſions?

Theſe three: that is, of what kind? of what qualitie? of what quantitie? in Latine thus, *quæ? qualis? & quanta?* for if it bee asked what kind of propoſition it is, then you muſt anſwere, that it is eyther categoricall, or hypotheticall, that is, ſimple or compound: and if it be demanded of what qualitie it be, then you muſt anſwere, that it is either affirmatiue, or negatiue: if it bee asked of what quantitie, then you muſt anſwere, that it is eyther vniuerſall, particular, indefinite, or ſingular.

CHAP. II.

Of the three properties belonging to a ſimple propoſition.



Hich are thoſe?

Theſe: Oppoſition, Equiualencie, and Conuerſion.

What is Oppoſition?

It is the repugnancie of two ſimple propoſitions, hauing one ſelfe ſubiect, and one ſelfe predicat.

How many kinds of oppoſite propoſitions be there?

Foure: Contrarie, Subcontrarie, Contradictorie, and Subalternat.

Which are ſaid to be contrary?

An vniuerſall affirmatiue, and an vniuerſall negatiue; as, Euery man is iuſt. No man is iuſt.

Which are ſaid to be Subcontrarie?

A particular affirmatiue, and a particular negatiue; as, Some man is iuſt, Some man is not iuſt.

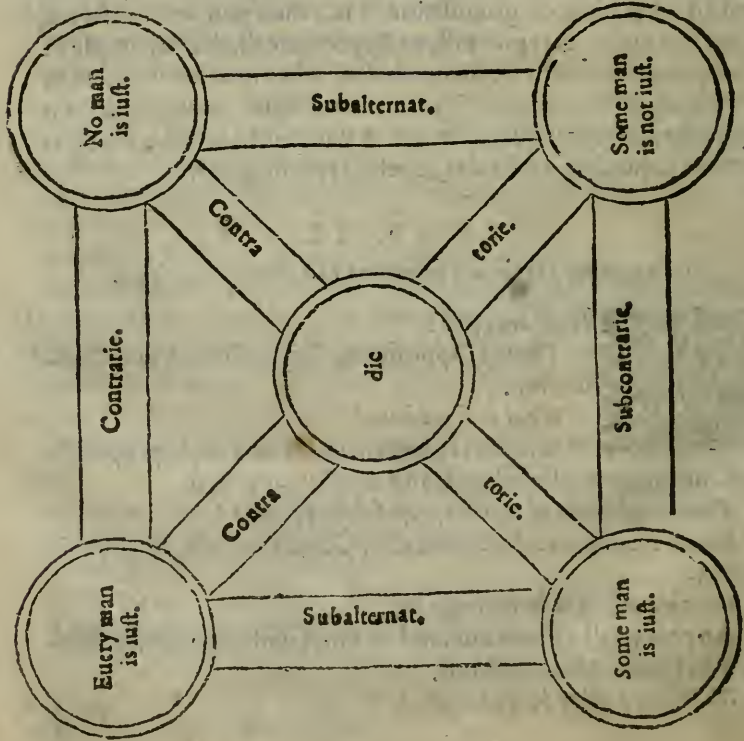
Which are ſaid to be Contradictorie?

Either an vniuerſall affirmatiue, and a particular negatiue, or elſe an vniuerſall negatiue, and a particular affirmatiue; as, Euery man is iuſt, and, Some man is not iuſt: or, No man is iuſt, Some man is iuſt.

Which are ſaid to be Subalternate?

Either an vniuerſall affirmatiue, and a particular affirmatiue, or elſe an vniuerſall negatiue, and a particular negatiue: as, Euery man is iuſt, and, Some man is iuſt: No man is iuſt, and, Some man is not iuſt.

All which kind of oppoſites you may the better remember, by conſidering with what order they are placed in this Figure following.



CHAP. III.

Of the Lawes and conditions belonging to these foure kinds of opposites before recited: and of the diuers matter of a Proposition.

FOr the better vnderstanding of the lawes belonging to the opposites, it shall be necessarie to speake somwhat of the matter of a proposition, whereupon the said lawes doe partly depend.

How manifold is that matter?

Threefold, that is to say, naturall, casuall, and remote or vnnaturall.

When is a proposition said to consist of matter naturall?

When the predicat agreeth with his subiect essentially, or at the least necessarily: as when the generall kind is spoken of his speciall kinde, and the speciall kinde of his Indiuiduums, or the difference of his speciall kinde, or the propertie of his subiect: as, Euery man is a sensible body, *Iohn* is a man, Euery man is reasonable, Euery man is apt to speake.

When is a proposition said to consist of matter contingent?

When the predicat agreeth with his subiect accidentally, so as it may either be, or not be; as, *Iohn* is learned.

When is a proposition said to consist of matter remote or vnnatural?

When the predicat agreeth no manner of way with the subiect; as, A man is a horse, A man is a stone, &c.

What are the lawes of contrary propositions?

Contrarie propositions can be true no way both together; as Euery man is a sensible bod y, No man is a sensible body: but they may be both false, and specially consisting of matter contingent; as when I say, Euery man is iust, No man is iust, which are both false.

What are the lawes of subcontrarie propositions?

Subcontrarie propositions, consisting of matter natural, cannot bee both false at once; as, Some man is a sensible body, Some man is not a sensible body: but consisting of matter contingent; both may bee sometime true; as, Some man is iust, Some man is not iust.

What be the lawes of contradictorie propositions?

Those can neither be true nor false both at once: for if one be true, the other must needs be false, whether the matter be naturall, or contingent; as, Euery man is iust; Some man is not iust: No man is iust; Some man is iust.

What be the Lawes of subalternate propositions?

If the vniuersall be true, the particular must needs be true; as, Euery man is iust, *Ergo*, Some man is iust; but not contrarily. Againe, if the particular be false, the vniuersall also must needs be false; as, Some man is a stone, Euery man is a stone.

What good is to be reaped by the knowledge of these opposites?

It teacheth to know what speeches be repugnant one to another, and thereby to discerne truth from falshood.

CHAP. IIII.

Of the equiualencie of simple propositions.

Hat is equiualencie?

It is the reconciling or agreeing of two propositions, hauing one selfe subiect, and one selfe predicate, in such sort, that though they bee diuers in words, yet they are made to bee all one in signification.

How is such reconciliation made?

By the helpe of signes, either vniuersall or particular, that are of like value, and equall one to another, and thereby make the speeches equall.

Giue example.

As thus: Who knoweth not this to be true? Euery man knoweth this to bee true: There is none but that knoweth this to bee true. All these are of like value, and doe signifie one selfe thing. Againe, Some men are wise, Few men are wise, All men are not wise, Not many are wise, are also equiualent speeches. The Schoolemen doe giue diuers rules touching the equiualencie of speeches; but such as, in mine opinion, are neither necessarie, nor profitable, for that they cause many times barbarous, vnusuall, and intricate speeches. And therefore I thinke good here to passe them ouer with silence, wishing all men to iudge the equiualencie of speeches, rather by the eare, and by custome of speaking,

king, and by vſuall manner of taking the ſame in euery ſeuerall tongue or language, then by any rules, which perhaps will ſerue in one tongue, but not in another.

CHAP. V.

Of conuerſion of ſimple propoſitions.

What is conuerſion?

It is the changing or turning of the ſubiect and predicate, the one into the others place.

How manifold is ſuch conuerſion?

It is threefold, that is, ſimple, by accident, and by contrapoſition.

What is ſimple conuerſion?

It is that whereby the termes are onely changed the one into the others place, the ſelfe ſame quantitie and qualitie being ſtill reſerued.

What propoſitions are conuerted by this manner of conuerſion?

An vniuerſall negatiue, and particular affirmatiue.

Giue examples of both.

Of the firſt thus: No vertue is diſcommendable, *Ergo*, no diſcommendable thing is vertue. Of the ſecond thus: Some man is a Philoſopher, and ſome Philoſopher is a man. And by this way ſometime vniuerſall affirmatiues may be alſo conuerted, as thoſe whoſe termes are conuertible, as the ſpeciall kind and his difference or propertie; as, Euery man is reaſonable, and euery reaſonable thing is man: or, Euery man is apt to ſpeake, and euery thing that is apt to ſpeake, is man.

What is conuerſion by accident?

It is that whereby the termes are changed, and alſo the quantitie of the propoſitions, but not the qualitie.

What propoſitions are conuerted this way?

An vniuerſall affirmatiue into a particular affirmatiue, and an vniuerſall negatiue into a particular negatiue.

Giue examples.

Euery Patience is Fortitude: *Ergo*, ſome Fortitude is Patience. Againe: No Vertue is Vice: *Ergo*, ſome Vice is not Vertue.

What is conuerſion by contrapoſition?

It is that whereby neither quantitie nor qualitie is changed,

but only termes finite into termes infinite, that is to ſay, termes limited into termes vnlimited.

Which call you termes infinite?

All Nounes hauing a negatiue ſet before them, as, not man, not beaſt.

What propoſitions are conuerted this manner of way?

An vniuerſall affirmatiue into an vniuerſall affirmatiue, and a particular negatiue into a particular negatiue.

Giue examples.

Of the firſt thus: Euery man is a ſenſible body, and euery thing that is not a ſenſible body, it not man. Of the ſecond thus: Some vertue is not Iuſtice: *Ergo*, ſome thing that is not Iuſtice, is not vertue. Theſe ſpeeches in Engliſh haue ſome ſauour; but to be ſpoken in Latine, after the Schoole manner, are very barbarous, or rather monſtrous, as *Valerius* termeth them, as to ſay, *Quædam non Iuſtitia non eſt non virtus.*

CHAP. VI.

Of a Modall Propoſition.

What is a modall propoſition?

It is that which affirmeth or denyeth ſomething, not abſolutely, but in a certaine reſpect, ſort, or mood, which mood is commonly the predicat in this kinde of propoſition, and all the reſt of the ſubiect called of the Logicians, *Dictum.*

What is a mood?

Mood is a word determining and limiting the ſignification of ſome other word whereunto it is ioyned, as a wiſe man, a white horſe; for here this word *wiſe* being added to *man*, doth limit and reſtraine the generall ſignification of the word *man*, which otherwiſe of it ſelfe comprehendeth both wiſe and fooliſh. And the like is to be ſaid of any other generall word, whereunto any ſuch addition is put: but of moods making modall propoſitions, there are but theſe foure, that is, Poſſible, Contingent, Impoſſible, and Neceſſarie.

How manifold is a modall propoſition?

Twofold, that is, Coniunct and Diſiunct.

When is it ſaid to be Coniunct?

When

When the mood is placed either in the beginning or ending of a proposition; as, It is impossible that *Iohn* is sicke: or thus; That *Iohn* is sicke it is possible.

When is it said to be Disiunct?

When the mood is placed so, as it diuideth the one part of the subiect from the other; as, for *Iohn* it is possible to be sicke: and the Disiunct is said many times to bee true, when the Coniunct is false, being both made of selfe termes: as for example, the Logicians affirme this to be true, A white man it is possible to bee blacke: but this other; A white man to bee blacke it is possible, they affirme to be false.

What maketh them so to doe, sith by construction these two speeches in sense doe seeme to be all one?

Because the mood is the Disiunct, which by parting and seuering the Subiect, maketh the Proposition to seeme spoken in diuers respects; as man to be white in one respect, and blacke in another, and so the speech to be true.

CHAP. VII.

Of the proposition, equiualencie, and conuersion of modall propositions.

WEe told you before, that of modall propositions, some were called coniunct, and some disiunct: and as for the modals disiunct, they differ but little from absolute propositions before declared: And therefore we haue here chiefly to deale with opposition, equiualencie, and conuersion belonging to modall coniunct, the matter whereof being not altogether so necessary as some men affirme, I minde to make no long speech thereof. But for the better vnderstanding of opposition, equiualencie, & conuersion thereof, it is needful first to declare the quantitie and qualitie of a modall proposition: of both which things, though *Aristotle* maketh no mention, but only a little of qualitie; yet the latter Writers doe necessarily suppose modall propositions to be indued with quantitie and qualitie: for they say that the mood *necessarie* is much like to a signe vniuersall affirmatiue; the mood *impossible*, to a signe vniuersall negatiue; the moods *possible* and *contingent*, which are both of one value, are like to signes particular affirmatiue. Now as touching the qualitie, which is to be ei-

ther affirmatiue, or negatiue, like as the negatiue in absolute propositions is wont to be added to the verbe, euen so in modal propositions it is added to the mood, as by the examples set downe in the figure of opposition hereafter following, yee may easily perceiue.

CHAP. VIII.

Of the opposition of Modals.

How many wayes are modall propositions said to be opposite?

They are said to be opposite foure manner of wayes, euen as absolute propositions are, that is to say, contrarily, subcontrarily, contradictorie, and subalternately, as you see in this figure following, wherein the mood is set before in the place of the subiect, the better to shew the quantitie & qualitie of euery proposition.

CHAP. IX.

Of the equiualencie and conuersion of modall propositions.

THe Schoolemen doe affirme, that modall propositions are easily made equiualent, by reason that they may be vttered foure manner of wayes, that is to say, two manner of wayes affirmatiuely, and two manner of wayes negatiuely. The first way affirmatiuely, is, when no negatiue is added either to the subiect, or to the mood; as, for a man to be iust, it is possible, contingent, impossible, or necessarie. The second way affirmatiuely, is, when the negatiue is added to the Verbe of the subiect, the mood remayning still affirmatiue; as, for a man not to be iust, it is posible, contingent, &c. The first way negatiuely, is, when the negatiue is only added to the mood; as, a man to be iust, it is not posible, contingent, &c. The second way negatiuely, is, when the negatiue is both added to the verbe of the subiect, and also to the mood; as, a man not to bee iust, it is not posible, contingent, &c. which is all one and equiualent to this affirmatiue proposition, saying, that for a man to be iust, it is possible, contingent, &c. for two negatiues, as well in the Latine tongue, as in ours, doe alwayes make an affirmatiue. Againe, as touching the conuersion of modall propositions, they say, that the disiunct being like to an absolute or simple proposition, may be conuerted both simply and *per accidens*; but the coniunct suffereth no conuersion: and though the Schoolemen doe set down diuers and manifold rules, and haue inuented these foure words of Art, that is, PVRPVREA, ILIACE, AMABIMVS, EDENTVLI, attributing as well to the vowels, as to the consonants thereof, certayne significations, for the better vnderstanding and bearing in memorie the equiualencies and conuersions of the said modall propositions: yet because in mine opinion they are more meet to breed preposterous, intricate and barbarous speeches, then to serue to any other good purpose, I thinke it better to passe them ouer with silence, then to trouble your memorie therewith: wherefore leauing them as things superfluous, I minde now to treat of an hypothetical or compound proposition, and of al the necessary accidents thereunto belonging.

CHAP.

CHAP. X.

Of a compound or hypothetical proposition.

Hat is a compound proposition?

It is that which consisteth of two or more simple propositions, coupled together with some coniunction.

How manifold is it?

Threefold, Conditionall, Copulatiue, and Disiunctiue.

When is it said to be conditionall?

When the coniunction *If* is set before any simple proposition, as thus: If it be a man, it is a sensible body.

When is it said to be copulatiue?

When two simple propositions are ioyned together with a coniunction copulatiue; as, God is true, and man is a lier.

When is it said to be disiunctiue?

When two simple propositions are ioyned together with a coniunction disiunctiue; as thus, Either it is day, or night.

Of how many parts doth a compound proposition consist?

Of two, that is, of the antecedent, and of the consequent.

Which call you the antecedent?

That which followeth next after the coniunction, as thus: If it be iustice, it is a vertue: here this speech, If it be iustice, is the antecedent, and the rest of the speech, that is to say, It is a vertue, is the consequent: and so it should be, though the words were contrarily placed, as thus: It is a vertue, if it be iustice.

What things are to be considered in hypothetical propositions?

These: First, whether they haue any quantitie, or qualitie: then, whether any opposition, equiualence, or conuersion doe belong to them, or not: thirdly how to know the truth or falshood of euery such proposition, be it conditionall, copulatiue, or disiunctiue. And first, as touching quantitie, they haue none at all: for quantitie is to be measured by signes vniuersall, or particular, which are only incident to the subiects of categorical propositions: but qualitie they haue, in that they affirme or deny some thing, by reason whereof there may bee contradiction in

hypo-

hypotheticall propositions, but it cannot bee properly said, that they be either contrarie, subcontrarie, or subalternat, for that they are without quantitie; for want whereof they neither doe aptly admit opposition, equiualence, or conuersion, but only contradiction.

How is that contradiction to be vnderstood?

By reason of affirmation, or negation; which, as in simple propositions is to bee taken on the behalfe of the verbe copulatiue, and not of the subiect or predicate: so in compound propositions, it is to bee taken on the behalfe of the coniunction, hauing a negatiue set before it, and yet not of euery coniunction, but onely of that coniunction conditionall, If: whereof I cannot aptly giue you any example in our natiue tongue, because it is contrarie to our naturall and vsuall speech, to put a negatiue before the coniunction, If; and therefore I leaue to speake thereof any further: and to say the truth, it maketh but a strange kinde of speech in the Latine tongue, and I beleeue is seldome vsed in any disputation: as to say thus, *Non si animal est, homo est*: or, *Non si lux est, dies est*: both which are said to be negatiue speeches, according to the rule before giuen, because the negatiue is set before the coniunction *si*, and by vertue thereof (as the Schoolemen say) maketh the whole proposition to be negatiue.

CHAP. XI.

Of the truth and falshood of Hypotheticall propositions, and first, of the Conditionall.

Hat is to be considered, to know the truth or falshood of Conditionall Propositions?

First, whether they be affirmatiue or negatiue: for in the affirmatiues it sufficeth, that the one part doth necessarily follow of the other, as thus: If it be a man, it is a sensible body: and it maketh no matter, though the parts seuerally taken, be both false, so as the Consequent be good: as, If a tree be a man, a tree is a sensible bodie: for though both these parts be false, yet the

Consequent conditionally is true : for a conditionall Proposition hath no regard to the truth of the parts, but onely that the Consequent may necessarily follow of the Antecedent.

How is the truth of the negatiue Proposition to be knowne?

By the Consequent: for if the Consequent bee not rightly inferred of the antecedent, then the negatiue is true, as thus: it followeth not that because a Lyon is a sensible body, that therefore a Lyon is a man.

Of the truth and falshood of Propositions copulatiue.

WHen is a copulatiue Proposition said to be true or false?

It is said to bee true, when both the parts bee true, as when I say, God is true, and man is a lyar: againe it is said to be false, when either one part or both parts be false: as when I say, Man is a sensible bodie, and God is not a Spirit. Here because the first part is true, and the second part false, the whole Proposition is said to bee false. It is said also to bee false, when both parts are false, as thus; Man is true, and God is a lyar. Heere both parts be false.

What kinde of Propositions are wont to bee referred to this copulatiue?

Those which they call Temporall, Locall, by similitude and causall: as of time thus, When a penitent sinner prayeth, then God heareth him. Of place thus, Where two or three are gathered together in the Name of the Lord, hee is in the midst of them. By similitude thus, As a man dealeth with his neighbour, so will God deale with him. Of the cause thus, Because the Sunne shineth, it is day. And therefore certaine Aduerbes as these, When, Where, Vntill, so long as, as, so as, for, therefore, because and such like, haue the signification sometime of the Coniunction (And) and sometime of the Coniunction (If).

Of the truth and falshood of disiunctiues.

WHat belongeth properly to disiunctiue Propositions?

To consist of repugnant parts, according to the signi-

ſignification of Coniunctions diſiunctiue, ſuch as theſe bee, *vel* or either, or elſe, and ſuch like: as either it is day, or it is night, whereof the one deſtroyeth the other: for if the one bee, the other cannot bee: and therefore they cannot bee both true: but they may be both falſe, if there be any meane betwixt the two cõtraries: as when we ſay, This woman is either white or blacke, both theſe are falſe, if ſhe be browne, which is a meane colour betwixt white and blacke. But the later Writers affirme the diſiunctiue to bee true, if any one or both of the parts bee true, as thus, Either a man is a ſenſible bodie, or elſe a tree is a Subſtance: and to bee falſe when both parts bee falſe, as Either a man is true, or God is a Lyar.

The end of the third Booke of Logicke.

THE ARTE OF LOGICKE.

The fourth Booke.

CHAP. I.

Of Places.

THough immediately after the Treatise of a Proposition, the old men are wont to deale with the order of reasoning, called Argumentation, and with the formes thereof: yet sith by order of Nature it is meete to finde out matter, before wee goe about to forme, frame, or order the same, and that the matter of prouing any Question is to be fetched from certayne common Places, I thought it best to treate first of those Places, and then to shew the order of reasoning.

What is a Place?

A Place is a marke or token, shewing from whence any Argument, apt to proue the Question propounded, is to bee taken.

What difference is betwixt Argument and Argumentation?

Argument is the bare proofe or meane terme which is inuented by him that disputeth, to proue the truth of the Question: but Argumentation is the whole reasoning it selfe, of what

forme ſo euer it be, comprehending both the Queſtion, and alſo the proofe thereof: whereof wee ſhall ſpeake hereafter in his proper place, and giue you examples of both.

How manifold is Place?

Two-fold, the one of perſons, the other of things: the order and diſtribution of both which, you may plainly ſee in the Table following.

To what end ſerueth this manifold diuiſion?

That the diſputers may the more perfectly know the power and proper nature of euery Argument, according to the great or little force of the Place, from whence ſuch Arguments are fetched.

How is Place diuided according to the Schoolemen?

Into two kindes, the one called Maxim, and the other difference of Maxim.

What is Maxim?

It is a generall rule approued and receiued of all Logicians, in ſuch ſort as no man will deny the ſame, as of contrarie things there muſt needs bee contrarie conſequents. Againe, Whatſoeuer agreeth with the thing defined, agreeth alſo with the Definition of the ſame: and ſuch like.

What is the difference of Maxims?

It is the proper name of euery Place whereby one Maxim is knowne from another, and to what place euery Maxim belongeth, as from the contrary, from the Definition, from the thing defined: for by theſe names and ſuch like, wee know to what Place euery Maxim belongeth.

To what end ſerueth this diuiſion?

The Maxims ſerue as ſhoote-ankers, and as places of refuge, when the aduerſarie ſhall deny our Concluſion: againe, the differences being few in number, doe cauſe the multitude of Maxims to be the more eaſily kept in memorie.

The

The Table of Places.

- *Of Places, some be*
  - and some be of things, which be, either
    - Of Persons, as: Name, stocke, birth, nation, sex, or kinde, age, education, habit of the body, affections of the mind, state, calling, or condition of life, diet, study, or exercise, acts done, death, wonders chansing before death, or after death, monuments left of things done, or written, and kinde of Funerals shewing how well or euill the person was beloued.
    - Artificiall Places are either
      - Inward Places be either
        - Of the substance itselfe, which be these.
          - The Definition, and the things defined.
          - The Description, & the thing described.
          - The Interpretation, and the thing interpreted.
          - The Matter, and the thing made.
          - The Forme, and the thing formed.
          - The generall kind, & his speciall kind.
          - The Difference, and his propertie.
          - The whole, and his parts Integrall.
          - Principall, and not principall.
        - Or, of things accompanying Substance, as these
          - Generation, and the thing ingendred.
          - Corruption, and the thing corrupted.
          - Vse, Abuse.
          - Subiects.
          - Adiacents, and actions.
          - Apposition.
          - Common Accidents.
          - Signes and circumstances, as time, place, and meane, &c.
      - Outward Places be these
        - The Cause Efficient, and his effect.
        - The End, and the thing ended.
        - The foure Opposites, as
          - Relatiues.
          - Contraries.
          - Priuatiues.
          - Contradictories.
        - Things diuers in kinde, called in Latine, *Disparata*.
        - Comparison, as more or lesse.
        - Like or Vnlike.
        - Example and comparison.
        - Also to Comparison may be added these places.
          - From the Comparatiue to the Superlatiue.
          - From the Positiue to the Comparatiue.
          - From two Positiues to two Comparatiues.
          - From two Positiues to two Superlatiues, and contrariwise.
        - Proportion.
        - Changed proportion.
        - Disproportion.
        - Changed Disproportion.
        - Translation or Figuratiue speech.
      - Ormeane Places be these 3.
        - Coniugates.
        - Cases.
        - Diuision.
    - or Inartificiall places, which be these sixe
      - Fore-iudgements.
      - Rumors.
      - Torments.
      - Writings.
      - Oath.
      - Witnesses.

A'l which six places are comprehended vnder the place of Authoritie, as you may see in the Table of Authoritie hereafter following in which Table are set downe the said inartificiall places, together with the definitions and vses thereof.

CHAP.

CHAP. II.

Of the Places of Persons.

Glue examples of all the Places of persons.

Though the Places of persons may bee very well applyed to the place of common Accidents hereafter following, because they eyther goe before, accompanie, or follow the subiects whereunto they doe belong: yet because there is a difference betwixt persons and things, and that the Places before mentioned in the Table of persons, doe more properly belong to Persons, then to things, I thought it best to giue you examples of euery Place belonging to the person, before I come to treate of the Places of things, and first of the name, then of the stocke and family, and so forth.

Of the name.

Of this Place you may reason eyther in praise or dispraise more probably then truely, as to say thus: his name is *Goodman*: *Ergo*, he ought to bee a good man, for that name importeth good. I did once see an euill woman executed at Tyborne, whose name was *Sweepestake*, which name was answerable to her propertie, which was to sweepe all her louers purses so cleane as shee could. *Cicero* did not let to scoffe in like manner with *Verres* the Roman extortioner, against whom he made so many inueyghing Orations, saying many times, that he had not his name for nought: for *Verres* was as much to say as a sweeping thiefe, deriued of the verbe *verro*, which in English is to sweepe.

Of the stocke or birth.

Of this Place you may reason thus: Hee had strong parents: *Ergo*, he is strong. He came of an euill race: *Ergo*, it is no maruell though he be euill disposed.

Of the nation.

He is of the Iland of *Crete* or *Candie*: *Ergo* hee is a lyar. Hee is a Flemming: *Ergo*, a drunkard. He is an Englishman: *Ergo*, a glutton. He is an Italian: *Ergo*, a dissembler.

Of

Of the sex or kind.

It is the promise of a woman, *Ergo* not to bee performed or trusted.

Of the age.

He is but an Infant, *Ergo* not malicious. He is yong of age, and therefore to be pardoned.

Of education.

He was euill brought vp, and therefore can not be good.

Of the habit of the body.

He is bigge set, *Ergo* he is strong. He is redheaded, *Ergo* euill conditioned.

Of the affections of the minde.

He is giuen to excesse and ryot, *Ergo* he is not temperate or modest: to this place may be referred all manner of vertues and vices.

Of the state, calling, or condition of life.

He is a bondman: *Ergo* he can neither sue nor be sued.

Of dyet.

He loueth to fare delicately, and to lie soft: *Ergo* hee is lasciuious.

Of studie or exercise.

He is very studious and applyeth his Booke: *Ergo* no voluptuous man.

Of things done.

Pompey hath had many prosperous and noble Victories: *Ergo* he is most meet to be sent as Generall of the warre against *Mythridates.*

Of death.

The death of *Scipio* was much lamented of the Romans, *Ergo* hee was dearely beloued of the Romans. Such a one suffered death most constantly for Christs sake, *Ergo* hee was a good Christian.

Of things chancing after death.

Honourable Monuments were set vp by the people of *Rome* in the honor of *Iulius Cæsar* after his death, *Ergo* he was honored and beloued of all the people of *Rome* in his life time. There were great earthquakes, and dead bodies did arise immediately

after the death of Christ, *Ergo* hee was the Sonne of God, and was vniustly condemned.

CHAP. III.

Of the Places of things, and first of artificiall Places.

WHat be artificiall Places?

Artificiall Places are those wherein are contayned such Arguments as of their owne force and nature are able to proue or disproue: which are diuided (as I said before) into inward, outward and meane Places.

VVhat are inward Places?

Inward Places are those which yeeld Arguments either appertaining to the nature and substance of the matter in question, or else to such things as doe accompany the substance and nature of the thing.

VVhich bee the Places of Substance?

These, Definition and the thing defined, together with the rest rehearsed before in the Table.

Of Definition and the thing defined.

WHat is Definition?

It is that which briefly, plainely and properly declareth the nature of any thing, by shewing the substantiall parts thereof.

How may a man reason from this place?

Both affirmatiuely and negatiuely, aswell from the Subiect as the Predicate of the Question. Affirmatiuely thus, Euery reasonable bodie is apt to learne Letters, *Ergo* man is apt to learne Letters. Negatiuely thus, No vnreasonable bodie is apt to learne Letters, *Ergo* no brute beast is apt to learne Letters.

VVhat be the Maxims or generall rules of this Place?

The Maxims be these, Whatsoeuer agreeth with the definition, agreeth with the thing defined: and contrariwise whatsoeuer

ſoeuer agreeth not with the definition, agreeth not with the thing defined.

VVhat is the thing defined?

That, whoſe nature and propertie is declared in the definition.

How may a man reaſon from this place?

Both affirmatiuely and negatiuely: affirmatiuely, as *Peter* is a man: *Ergo* he is a reaſonable body. Negatiuely, as an Ape is no man: *Ergo* an Ape is no reaſonable body.

VVhat be the Maxims of this Place?

Whatſoeuer agreeth with the thing defined, agreeth alſo with the definition thereof: and whatſoeuer agreeth not with the thing defined, agreeth not with the definition of the ſame.

Of Deſcription, and the thing deſcribed.

VVHat is Deſcription?

It is a ſpeech declaring what a thing is, by ſhewing the properties and accidents whereby it differeth from other things.

How may a man reaſon from this place?

Both affirmatiuely and negatiuely: affirmatiuely thus, Euery laudable habit adorneth his poſſeſſor: *Ergo* vertue adorneth his poſſeſſor: negatiuely thus, no laudable habit ſhameth his owner or poſſeſſor: *Ergo* no vertue ſhameth his owner or poſſeſſor.

VVhat is the thing deſcribed?

It is that, whoſe properties eyther naturall or accidentall are declared in the deſcription.

How are arguments to be fetched from this Place?

Both affirmatiuely and negatiuely: affirmatiuely thus, This beaſt is foure-footed, hauing long eares and whole feet: *ergo* it is an Aſſe: negatiuely thus; This foure-footed beaſt hath no long eares, nor whole feet: *Ergo* it is no Aſſe.

VVhen are arguments to be confuted, being fetched from theſe places?

When the definition or deſcription is not true or proper to the thing defined or deſcribed.

Of Interpretation and the thing interpreted.

WHat is Interpretation?

It is the declaring of a name lesse knowne by another that is more knowne, as thus, Iesus is as much to say as a Sauiour, a Philosopher is a louer of Wisdome.

What is the thing interpreted?

That which is declared by the Interpretation, as this word Iesus to be a Sauiour, or this word Philosopher to be a louer of wisdome.

How may a man reason from this place?

Both affirmatiuely and negatiuely, if the termes be conuertible. Affirmatiuely thus: Hee is a louer of Wisdome: *Ergo* a Philosopher. Negatiuely thus: He is no louer of Wisdome: *Ergo* no Philosopher.

What be the maximes of these two places?

The Maxims of these Places are like: for whatsoeuer agreeth with the one, agreeth with the other, and contrariwise.

Of the Place of Matter, and of the thing made.

WHat is Matter?

That whereof any thing is made, as Siluer is the matter of a Siluer Cup, and the Cup is the thing made, called of the Logicians *materiatum.*

How is Matter diuided?

Into Matter permanent, and Matter transient.

VVhat is Matter permanent?

It is that which remaineth in the thing made, retayning still both nature and name, as stone and timber is the matter of an House.

VVhat is Matter transient?

It is that which being changed, doth not returne againe into his first nature: as flower and water being made bread, will neuer be flower and water againe.

How are arguments to be fetched from Matter permanent?

Both affirmatiuely and negatiuely: affirmatiuely thus, Here is timber, lime and stone: *Ergo* here may be an House: negatiuely

ly thus, Here is neither timber, lime nor ſtone : *Ergo*, here is no houſe.

How are arguments to be fetched from Matter tranſient?

Affirmatiuely, but not negatiuely, as, here is Water and Meale : *Ergo*, here may be bread : but you cannot ſay, here is no meale : *Ergo*, here is no bread : for the matter permanent being taken away, the effect thereof is alſo taken away : but this Maxime taketh no place in Matter tranſient, vnleſſe the Argument be made by the preterperfect Tenſe or time paſt, as thus : Here was no Meale : *Ergo*, here is no bread.

What be the Maxims of this Place?

The matter being ſet downe, the effect alſo may be according to the difference of the matter.

How may we reaſon from the thing made to the Matter?

In matter permanent you may reaſon from the preſent Tenſe to the preſent Tenſe, thus : Here are Iron weapons : *Ergo*, here is Iron. But in matter tranſient wee muſt reaſon from the preſent time to the time paſt, thus; here is bread : *Ergo*, here hath beene meale.

What be the Maxims of this place?

The thing made of matter permanent being ſet downe, the matter alſo muſt needs be : and the thing made of matter tranſient being ſet downe, the matter thereof muſt needs haue beene.

How may you elſe reaſon from theſe two places?

By adding theſe two adiectiues (good or euill) as thus : The houſe is good : *Ergo*, the timber and ſtone was good : for the goodneſſe or defect of the matter permanent, ſheweth the preſent goodneſſe or defect of the thing made : and any good or euill thing made of Matter tranſient, proueth the Matter to haue beene good or euill.

Of the Places of Forme and ſhape.

WHat is Forme?

Forme is that which giueth ſhape and being to the thing formed, whereof alſo the thing taketh his name, as the ſoule of man is the forme, and man is the thing formed.

How is Forme diuided?

Into { Forme ſubſtantiall, which is the firſt being or ſhape of any thing, and that is either { Mortall, as the ſoule of a bruit beaſt. / Or immortall, as the ſoule of man. } / And into Forme accidentall, which is a meere accident, called of the Logicians *Abſtractum*, as whiteneſſe or blackneſſe. }

How are arguments to be fetched from the Forme and the thing formed?

Two wayes, affirmatiuely from the ſubſtantiall forme, thus: Here is the ſoule of a beaſt: *Ergo*, here is a beaſt: from the accidentall forme thus: Here is whiteneſſe: *Ergo*, here is ſome white thing: from the ſubſtantiall thing formed, thus: The beaſt is here: *Ergo*, his ſoule is here: of the accidentall thing formed, thus: Here is ſome white thing: *Ergo*, here is whiteneſſe: Negatiuely from the ſubſtantiall forme, thus: Here is no ſoule of a beaſt: *Ergo*, here is no beaſt: of the accidentall forme, thus: Here is no whiteneſſe: *Ergo*, here is no white thing: of the ſubſtantiall thing formed, thus: The beaſt is not here: *Ergo*, his ſoule is not here: of the accidentall thing formed; thus: Here is no white thing: *Ergo*, here is no whiteneſſe.

Rehearſe the Maxims whereupon theſe arguments are grounded.

The Maxims be theſe, where Forme is either preſent or wanting, the thing formed alſo muſt needs be either preſent or wanting, and contrariwiſe. Yet this Maxim fayleth in the forme of man, for the ſoule intellectiue may be, and yet no man, vnleſſe you reaſon from the inbeing of the Forme in the Subiect, as, In the body is a reaſonable ſoule: *Ergo*, it is a man: for euery Subiect hath his name and being in his ſhape or forme, as hath been ſaid before.

Of the generall kind.

WHat is generall kind?

It is that which comprehendeth many things differing

ring in ſpeciall kinde, as hath beene ſaid before.

How are Arguments to bee fetched from the generall kind to the ſpeciall kind?

Both affirmatiuely and negatiuely: affirmatiuely thus, Euery vertue is to be deſired: *Ergo* Iuſtice is to be deſired. Negatiuely thus, No vice is to be prayſed: *Ergo* drunkenneſſe is not to be prayſed.

Rehearſe the Maxims belonging to the generall kind?

To what kinde ſoeuer agreeth the generall kinde being vniuerſally taken (that is to ſay) pronounced with ſome vniuerſall ſigne, as All, Euery or None, to the ſame the ſpeciall kind doth alſo agree: and whatſoeuer agreeth not with the generall kind vniuerſally taken, agreeth not with the ſpeciall kind: for if no vniuerſall ſigne be added to the generall kind, you cannot reaſon affirmatiuely, but onely negatiuely, thus: It is no ſenſible body: *Ergo* it is no man: but you cannot reaſon ſo affirmatiuely, as to ſay thus, It is a ſenſible body: *Ergo* it is a man: becauſe the vniuerſall ſigne All, or Euery, is wanting.

How many Places doth this Place of generall kind comprehend?

Foure, (that is to ſay) All or euery in quantitie, All or euery in reſpect, All or euery in place, All or euery in time.

What is All or euery in quantitie?

It is when an vniuerſall ſigne is added to the generall kinde, as euery plant liueth, therefore euery tree liueth.

When is it all or euery in reſpect?

When any generall kind is vnderſtood in ſome reſpect, and that the generall ſignification thereof is reſtrayned by ſome word added vnto it, or by ſome ſecret meaning limiting the ſame, as a white beaſt, a good man: for this word white reſtrayneth the generall ſignification of beaſt, and this word good, the generall ſignification of man.

Giue examples of this place.

God gaue his holy Spirit to all faithfull men: *Ergo* to his Apoſtles.

What is all or euery in place?

It is when the generall kinde is an Aduerbe of place, ſignifying euery where or no where, as Iuſtice is no where truly

truely executed : *Ergo*, neither in *France* nor in *England*.

What is all or euery in time ?

It is when the generall kind is an Aduerbe of time, signifying euer or neuer, as God is alwayes with vs : *Ergo*, now at this present.

What maxims doe belong to these places ?

The same that doe belong to the generall kind vniuersally taken before mentioned, by vertue whereof you may reason both affirmatiuely and negatiuely, as I said before.

Of the speciall kind.

HOw are arguments to be fetched from the speciall kinde to the generall kind ?

Affirmatiuely, but negatiuely thus ; It is a man : *Ergo*, it is a sensible body. But now you cannot say, it is no man : *Ergo*, it is no sensible body : for it may be a horse, or some other sensible thing.

VVhat be the maxims belonging to the speciall kind ?

Where the speciall kind is, there the generall kind must also needs be : againe, all the speciall kinds being taken away, the generall kind is also taken away.

Of the place of Difference.

THis place is comprehended vnder the place of definition, for difference is a good part of the definition, and yet for order sake I haue thought good to place it next to the generall kind and speciall kind before taught.

How may a man reason from this place ?

Both affirmatiuely and negatiuely, as an Oyster hath feeling : *Ergo*, it is a sensible body, a horse hath no reason : *Ergo*, hee is no man.

VVhat be the maxims in this place ?

Whatsoeuer agreeth with the speciall difference, agreeth with the thing that hath that difference, and whatsoeuer disagreeth with the speciall difference, disagreeth with the thing that hath that difference, for they be conuertible.

Of the place of Propertie.

HOw may a man reason from this place?

This place is contained vnder the place of Description before shewed. And from hence you may reason both affirmatiuely and negatiuely, as thus; He is apt to speake: *Ergo* hee is a man; He is not apt to speake: *Ergo* he is no man.

What be the maxims of this place?

Whatsoeuer agreeth with the propertie, agreeth also with the thing that hath that propertie. And whatsoeuer disagreeth with the property, disagreeth also with the thing whereto such propertie belongeth, for they be conuertible.

Of the place of whole Integrall.

WHat is the whole Integrall?

That which consisteth of parts hauing quantitie.

How may we reason from the whole to euery particular part?

Affirmatiuely, but not negatiuely, thus; It is a house: *Ergo* it hath foundation, walls and roofe: but you cannot reason so negatiuely from the whole to euery particular part, as to say thus; Here is an House: *Ergo* here is no foundation or walls.

What be the maxims of this place?

If the whole be, euery principall part must needes bee: but if the whole be wanting, some principall part must needs be wanting, though not all: for the house might bee wanting, and yet the wals and foundation may still remaine.

Of the place of Integrall parts.

WHat is an Integrall part, and how is it diuided?

It is that which certaine other parts make vp the whole, and such Integrall part is either principall, or not principall.

Define these two parts.

The principall is that without the which the whole cannot be, as the head or belly of a liuing body, or as the foundation,

walls, or couering of an houſe. The part not principall is that without the which the whole may ſtand, as a houſe without doores or windowes : or the body may liue without hands or feet.

How may we reaſon from the principall part to the whole?

Negatiuely thus; Heere is no foundation or walls: *Ergo*, here is no houſe: but you cannot reaſon ſo of the part not principall, but onely in hauing reſpect to the perfection of the whole, as thus; Heere is neither doores nor windowes: *Ergo*, the houſe is not perfect.

What be the maxims of this place?

If any principall part be wanting, the whole cannot bee. If any part not principall be wanting, the whole is vnperfect.

Of the places of things accompanying Subſtance.

WHat is the place of things accompanying Subſtance.

It is that which comprehendeth ſuch arguments as are not fetched from the ſubſtance of the thing it ſelfe, but from that which accompanieth the ſubſtance thereof.

Which be thoſe places?

Theſe: Generation, the thing ingendred : Corruption, the thing corrupted : Vſe, Subiect, Adiacents, Actions, Oppoſition, common Accidents, and Circumſtances and ſuch like.

Of the place of Generation, and of the thing engendred.

WHat is Generation?

It is the firſt being or ſpringing of any thing.

How are Arguments to bee fetched from Generation to the thing engendred?

Affirmatiuely thus: It was good that Chriſt was borne: *Ergo*, Chriſt was good; It was euill for *Rome* that *Catiline* was borne: *Ergo*, *Catiline* was euill to *Rome*.

What be the maxims of this place?

Thoſe things whoſe generation is good, muſt needs be good, and thoſe things whoſe generation is euill, muſt needs be euill.

How

How may we reason from the thing engendred to the Generation?

Affimatiuely thus: *Catiline* was euill to *Rome*: *Ergo*, the birth of *Catiline* was euill to *Rome*.

What be the maxims of this place?

If the thing engendred be either good or euill, the generation thereof must needs be also either good or euill.

Of Corruption, and the thing Corrupted.

WHat is Corruption?

Corruption is contrary to Generation, and is the destruction of the thing engendred, and the thing destroyed is said to be corrupted.

How may we reason from Corruption, to the thing Corrupted?

Thus: To execute Theeues and Murtherers, is profitable to the Common-wealth: *Ergo*, Theeues and Murtherers are hurtfull to the Common-wealth. The death of *Virgil* was a great losse to learning: *Ergo*, *Vir.* was a great furtherance to learning.

How may we reason from the thing Corrupted, to the Corruption?

Affirmatiuely thus: *Virgil* was a great furtherance to learning: *Ergo*, the death of *Virgil* was a great losse to learning.

What be the maxims of these two places?

Those things whereof the end and destruction is laudable, must needs of themselues be pernicious and hurtfull. And contrariwise, those things whose end and destruction is hurtfull, must needs of themselues bee good and profitable. Againe, of good things, the losse is euill, and of euill things, the losse is good: but in reasoning from these places, you must take heed that as well the Corruption, as the thing corrupted, bee absolutely good, or euill of it selfe, and not by Accident: for it were no good argument to reason thus; The death of Christ was good: *Ergo*, Christ was euill: for his death was good by accident for our saluation, and not for any crime that was in him. Moreouer, you must beware that you vse not one selfe predicate both in your antecedent, and in your consequent: for if good be the predicate in the antecedent, euil must be the predicate in the consequent, and if euill be the predicate in the antecedent, good

must be the predicate in the consequent: for this kind of reasoning consisteth of contraries.

Of Vse.

What is Vse?

Vse is the apt applying of euery thing to his proper end, as the vse of Wine to comfort the stomake, and to reioyce the heart of man.

How may we reason from this place?

Affirmatiuely thus: the vse of Wine is good: *Ergo*, Wine is good: the vse of art Magike is euill: *Ergo*, the art it selfe is euill.

What be the maxims of this place?

That thing is good or euill, whereof the vse is good or euill.

What is to be obserued in this kind of reasoning?

Two things; first, that the thing whereof wee speake, haue some good or euill vse of it selfe absolutely, and not by accident: secondly, that we take not the abuse in stead of the right vse, as to say, Wine will make men drunke: *Ergo*, Wine is not good.

Whereto serue most chiefly these three places last mentioned (that is to say) the place of Generation, of Corruption, and of Vse?

They chiefly serue to proue the naturall goodnesse or euilnesse of any thing.

Of the Subiect.

How is this word Subiect here taken?

For that whereunto accidents and actions doe belong: and hauing to speake here of common accidents, I thought it good to speake first of the Subiects, because all manner of Accidents must needs cleaue to one Subiect or other.

How may we reason from this place?

Affirmatiuely, and Negatiuely: Affirmatiuely thus; It is fire: *Ergo*, it is hot and apt to burne. He is a man: *Ergo*, apt to laugh or to weepe. Negatiuely thus, Dead men haue no being at all: *Ergo*, dead men are not miserable. He hath no gall: *Ergo*, hee cannot

cannot be angry. There be no Pigmeans : *Ergo*, they fight not with Cranes.

Which be the maxims of this place?

If the Subiect be, the naturall accidents and actions belonging to the Subiect must also needes bee : and the Subiect being taken away, all the accidents and actions thereof must also bee taken away.

How may such arguments as are fetched out of this place bee confuted?

When the Accidents doe not of necessity belong to the Subiect, as thus, He is a man : *Ergo*, he is a good Poet, for this accident belongeth not of necessitie to euery man.

Of Adiacents and Actions.

For so much as Adiacents, otherwise called perpetuall Accidents, and also naturall and proper Actions belonging to any Subiect, be eyther contayned vnder the place of Propertie, of Difference, or else of common Accidents, and haue like kind of reasoning, I thought good therefore to referre you to those places, whereof some are taught before, and some doe follow hereafter.

Of Apposition.

What is Apposition?

Apposition is when a thing sheweth what his owne quality or operation is, by being put or added to another thing, as, white Chalke being put to a wall, will make the wall white, and thereby Chalke sheweth it selfe to bee white : so likewise Inke being put to paper, or such like thing, will make it blacke.

How may a man reason from this place?

Affirmatiuely thus : Chalke being put to a wall, will make it white : *Ergo*, Chalke is white. Fire being put vnder a Cauldron of water, will make the water hot : *Ergo*, fire is hot. By this place also a man may prooue conuersation or companie with others to be good or euill in this sort. This young man

keeping company with that olde man is made vertuous: *Ergo*, the olde man is vertuous. Hee is become a Thiefe by keeping company with such a person: *Ergo*, that person is a Thiefe. And therefore the Scripture saith, *cum bonis bonus eris, & cum peruersis peruerteris* (that is to say) with the good thou shalt be good, and with the froward thou shalt learne frowardnesse.

What be the maxims of this place?

If one thing being put to another, endureth the same with any qualitie, that thing must needes haue the same qualitie it selfe. I doe place this place next to action, because it seemeth to me that it appertaineth to action.

Of common Accidents.

WHat call yee common Accidents?

I call those common Accidents, such things as are either alwaies, or for the most part so knit together, as the one goeth before or after the other, or els accompany each one the other: whereof some are necessary, and some probable.

How may we reason from the Necessary?

Both affirmatiuely and negatiuely, and first affirmatiuely, by the latter part thus. This Appletree hath flowres: *Ergo*, it hath budded. It hath fruit: *Ergo*, it hath both budded and flowred. This woman is brought to bed of a childe: *Ergo*, she hath conceiued. Negatiuely by the former part thus. This woman neuer conceiued: *Ergo*, she can bring forth no childe. This man neuer studied: *Ergo*, he is not learned.

What be the maxims of this place?

If the latter be, the former must needs goe before, and if the former were not, the latter cannot bee.

Of Probable Accidents, Coniectures, Presumptions, Signes, and Circumstances.

HOw may we reason from Probable Accidents?

From Probable Accidents you may reason Affirmatiuely thus: The feast of *Bacchus* is this day celebrated: *Ergo*, there

there will be many drunken this day. The generall Seſſions are holden this day: *Ergo*, there will bee ſome hanged.

What be the maxims of this place?

If the latter be, it is likely that the former went before, and if the former bee, it is like enough the latter may follow: but you muſt beware in reaſoning from this place, that you fetch not your argument from ſuch Accidents as chance but ſeldome, or bee indifferent, for ſuch bee neither neceſſary nor probable, but ſophiſticall and fallible, as to reaſon thus. Shee is a faire woman: *Ergo*, ſhee is vnchaſte.

Whereto ſerueth the place of common Accidents?

In the Iudiciall kind it helpeth greatly to prooue the fact. In the Demonſtratiue kind to prayſe or diſprayſe. In the Deliberatiue kind to perſwade or diſſwade, and to gather together all Coniectures meete for the purpoſe, and therefore this place is much vſed of naturall Philoſophers to prooue things by naturall ſignes, or by Phyſiognomie: alſo of Aſtrologers to proue Dearth, Mortality, and ſuch like, by Wonders, and Monſters, as by blazing Stars, and ſuch like impreſſions. Alſo it is much vſed of Chiromancers, Southſayers, and ſuch as vſe to iudge by Coniectures, and therefore this place extendeth very farre, and ſerueth to many vſes. Hitherto alſo are referred the places of circumſtances, and chiefly of time and place, from whence good arguments may be fetched.

Of Time.

How are arguments fetched from time?

Negatiuely thus: *Pythag.* was not borne in *Numa Pompilius* time: *Ergo*, *Numa* was not *Pythagoras* Scholler. The Ceremoniall Lawes of *Moſes* were made for a certaine time: *Ergo*, after that time they doe not bind.

What be the maxims of this place?

Nothing cannot be without time, for if time be taken away, the thing alſo muſt needs faile.

Of

Of Place.

HOw are arguments fetched from place?

Negatiuely thus: *Cicero* was not at *Rome*, when *Iulius Cæsar* was slaine: *Ergo, Cicero* slew him not.

What is the maxime of this place?

No certaine body or thing is without a place, neither is one body at one time in diuers places: and thus much touching inward places.

Of outward Places, and first of Causes.

WHich be outward Places?

Outward places bee those which appertaine to the thing, and yet doe not cleaue thereunto: of which places the first is of Causes and Effects.

What is a Cause?

A Cause is that by vertue whereof another thing followeth.

How many chiefe kinds of Causes be there?

Foure, (that is to say) the Cause Efficient, the end, matter, and shape, of the two last whereof we haue spoken before, because they be inward places, and doe belong to the Substance of the thing, and therefore wee haue to deale onely here, with the cause Efficient and end.

Of the Cause Efficient.

WHat is that cause Efficient, and how is it deuided?

Cause Efficient is that from whence proceedeth the first beginning of any thing that is made or done, and is the maker thereof. As for example, the Carpenter is the Cause Efficient of the house which he maketh, and so is euery Artificer of his owne worke. Causes Efficient are deuided into two kinds (that is to say) Cause Absolute, and Cause Adiuuant. Cause Absolute worketh by his owne force and vertue, as the fire that burneth. Cause Adiuuant worketh not by himselfe, but is a helper, and such cause is sometime principall, as vertue

tue is a Principall Cause of blessed life, and sometime not Principall, as the gifts of the body and of fortune be helpers to the happy life: but not Principall Causes thereof. Againe of Causes, some are of Necessitie, without which the thing cannot be made, as the Instrument or matter, and some are said not to be of Necessitie, as when we say, The speaking of truth causeth hatred, and yet not of Necessitie. Also of Causes Efficient, some be Vniuersall, and some Particular, as the Eclipse or euill Coniunction of certaine Planets is the Vniuersall cause of Pestilence: but the corruption of humours in mans bodie is the particular cause thereof. Againe, of causes some be called of the Latins *Propinquæ* (that is to say) nigh vnto the Effect, as the Father and Mother be the nigheſt Causes of Generation of Children. And some bee called *Remotæ*, (that is to say) remoued causes, which be further of, as the Grandsirs, and Grandames of the said children. Moreouer of Causes Efficient some work by a certaine naturall Necessity, as those that lack choice and iudgement, as fire that burneth, and the Sunne that shineth, and all other naturall things that doe worke by their own force and vertue. Some againe doe worke by Counsell, Reason, and Freewill, as Men, Angels, and most chiefly God himselfe.

How may we reason from the Efficient Cause to the Effect?

From the necessarie Efficient Cause you may reason both Affirmatinely and Negatiuely. Affirmatiuely thus: The Sunne is lately gone downe: *Ergo*, it is twilight. Negatiuely thus: The Sunne was not vp when *Troy* was destroyed: *Ergo*, *Troy* was not destroyed in the day time: but from the Efficient not Necessary, you can reason but onely Affirmatiuely thus: Hee is slaine: *Ergo*, he is dead: but you cannot say; he is not slaine: *Ergo*, hee is not dead.

What be the Maxims of this place?

The Necessary Cause Efficient not letted, the Effect must needs follow: as if he hath drunken Poyson, he must needs dye. But if such Cause faileth, the effect also must needs faile: as the Sunne is not vp: *Ergo*, it is not day. Hee neuer studied: *Ergo*, he is not learned, to which place may bee referred the places of occasion, Instrument, Meane, and Generation.

How may we reason from the Effect, to the Cause Efficient?

From the Necessarie Effect, both Affirmatiuely and Negatiuely thus, it is day: *Ergo*, the Sunne is vp it is not day: *Ergo*, the Sunne is not vp. From the Effect not Necessary you may only reason Negatiuely, thus: He is not dead: *Ergo*, He is not slaine, but you cannot reason so Affirmatiuely, as to say, Hee is dead: *Ergo*, He is slaine.

What be the Maximes of this place?

The Effect being put, the necessary Cause must needes bee, and the Effect being taken away, the necessary Cause is also taken away.

When doe Arguments fetched from this place faile?

When the Cause is not necessary or proper.

Of the End.

WHat is the End, and how is it diuided?

The End is that for whose sake any thing is done, and of ends some be chiefe and last, and some not chiefe, but helping: The chiefe is that which is desired for it selfe sake, and such is the best state of euery thing in his kinde, as blessed life to Man: courage and fiercenesse to a Horse of seruice: heate and drynesse to Fire: coldnesse and moystnesse to Water, &c. The helping end is that which is desired not for it selfe sake, but for that it helpeth to attaine the chiefest end, and of such helping ends one may be better then another, as when we desire money to buy a house, and the house to dwell in, &c.

How may we reason from this place?

Both Affirmatiuely and Negatiuely, Affirmatiuely thus, Vertue is good, because blessed Life is good: Negatiuely thus, If Adulterie be not good to allure another mans wife, To breake Wedlocke is not good.

What be the Maximes of this place?

That thing where of the end is good or euill, is also of it selfe good or euill.

Tell the vse of the places of Causes, and whereto they serue?

The vse thereof is diuers and manifold: for sith that in the Deliberatiue kind two principall questions are to be discussed;

first,

first, whether the thing be profitable; and secondly, whether it may be possible and conueniently done or not. Arguments to proue the first, are to be fetched out of the End and Effect. And to proue the second out of the Cause Efficient. Also in the kind Demonstratiue to prayse or disprayse. Arguments are to bee fetched out of the End and Effect. Thirdly, in the Iudiciall kind, wherein doubt riseth of the fact, and will of the doer. Arguments are to bee fetched from the End, to proue or disproue the same. Finally, these places, together with the other two Causes, Matter and Forme before taught, doe serue to make those kinds of Definitions which we call Causall.

Of Opposites.

WHat be Opposites?

Things contrary one to another.

How many kinds of Opposites be there?

Foure (that is to say) Relatiues, Contraries, Priuatiues, and Contradictories.

And first of Relatiues.

WHen are things said to be Opposites by Relation?

When according to their owne significations they haue mutuall Relation one to another, as the Father and the Sonne.

How may we reason from this place?

You may reason from the Affirmation of the one to the denyall of the other, thus: *Augustus* was *Octauius* his sonne: *Ergo*, He was not his Father.

What be the Maximes of this place?

Sith Relatiues bee alwayes together by nature, if the one be, the other must needes bee, and if the one bee taken away, the other is also taken away.

What is to be obserued in fetching Arguments from this place?

You must beware that you haue one selfe respect, and not diuers, for to reason thus is no good Consequent, This man is

a Father: *Ergo*, He is no Sonne: or thus, This man is his Superior: *Ergo*, Not his Inferior, for in diuers respects he may be both a Father and a Sonne; a Superior and Inferior; a Superior in one respect, and Inferior in another.

Of Contraries.

VV*Hat be Contraries, and how are they diuided?*

They be two Extremes Repugnant one to another, whereof some are called Mediate (that is to say) hauing a meane, and some Immediate hauing no meane at all.

How may we reason from these two kinds?

From the first kinde you may conclude negatiuely, thus, Hee is prodigall: *Ergo*, Hee is not couetous: from the second kind you may reason both Affirmatiuely and Negatiuely, thus, This man is whole: *Ergo*, Hee is not sicke; This man is not whole: *Ergo*, He is sicke.

What be the Maximes of this place?

The Maxime of the Affirmatiue to the Negatiue is the generall Maxime to all Opposites, thus: Whatsoeuer agreeth with the one Opposite, must needes disagree with the other Opposite: but the Maxime of the Immediate is thus: If one of the Contraries Immediate be not, the other must needs bee, as the former examples doe plainly shew.

Of Priuatiues.

VV*Hat be Priuatiues?*

Priuatiues are two Contraries, belonging to one selfe Subiect, apt to receiue the same, in the which Subiect, when the one is wanting (at such time as Nature doth appoint) the other must needes be.

How may we reason from this place?

Two wayes: first, from Affirmation of the one to the denyall of the other, which is common to all Opposites, as thus, He is blind: *Ergo*, He seeth not. Secondly, you may reason from the denyall of the one to the affirmation of the other, thus: He cannot speake: *Ergo*, He is dumbe. But this kinde of Argument is not strong, vnlesse the thing required bee applyed to his

his proper Subiect, and in ſuch time as nature hath appointed, for it were no good argument to ſay thus: a ſucking childe cannot ſpeake: *Ergo*, he is dumbe; or thus, a whelpe of two dayes old cannot ſee: *Ergo*, he is blinde: for nature commonly ſuffereth not the childe to ſpeake before it bee two yeeres old, nor the whelpe to ſee before it be nine dayes old.

What be the Maximes of this place?

If the one bee not in the Subiect apt to receiue the ſame at ſuch time as nature hath appointed, the other muſt needs be.

Of Contradictories.

WHat be Contradictories?

They bee Contraries hauing no meane, whereof the one denieth the other.

How may we reaſon from this place?

Both Affirmatiuely and Negatiuely thus: he is wiſe: *Ergo*, he is no foole: he is a foole: *Ergo*, he is not wiſe.

What is the Maxime of this place?

If the one be, the other cannot bee: for two Contradictories cannot be together at one ſelfe time, in one ſelfe Subiect, and in one ſelfe reſpect.

Of things differing in kind, called of the Latines Diſparata.

WHat be they?

They are thoſe things that doe differ in nature and kind, as a Man, a Horſe, a Stone, a Tree, whereof euery one differeth from another in kind and nature.

How may we reaſon from this place?

From the Affirmation of the one, to the Deniall of the other, as thus: *Peter* is a Man, *Ergo*, he is no Horſe.

What be the Maximes of this place?

Whatſoeuer agreeth with the one, agreeth not with the other.

What is to bee obſerued in reaſoning from all theſe kindes of Oppoſites?

That the Repugnancy conſiſt in the Predicat, and not in the

Subiect: for it were no good Consequent to say thus: whatsoeuer seeth is a sensible bodie: *Ergo*, that which is blinde is no sensible body: for heere the Contrariety consisteth in the Subiect, and not in the Predicate.

Of Comparison.

How may we reason from the place of Comparison?

Three manner of wayes, that is, either from the More to the Lesse, or from the Lesse to the More, or from Like to Like.

Of the More.

These two words, More or Lesse, how are they to be taken?

We vnderstand here by More, that which hath more probabilitie, and by the Lesse, that which hath lesse probabilitie.

How may we reason from the More to the Lesse?

Onely Negatiuely, and that three manner of wayes: first, from the Subiect, as thus: *Cicero* was not able to defend this cause, much lesse any other common Orator: secondly, from the Predicate thus: If this man be not able to beare one hundred weight, much lesse two hundred weight: thirdly, from the Subiect, and Predicate both together thus: A strong man is not able to beare a hundred weight: *Ergo*, much lesse a weake child is able to beare two hundred weight.

What is the Maxime of this place?

If it preuaileth not in the More, it cannot preuaile in the Lesse.

Of the Lesse.

How may we reason from the Lesse to the More?

Affirmatiuely, three manner of wayes, as before from the Subiect thus: A little childe was able to beare tenne pound weight: *Ergo*, much more a strong man: From the Predicate thus: If Martyrs were readie to lose their liues for Christs sake, much more their temporall goods: From the Subiect, and the Predicate both together thus: Christ suffered most

grieuous

grieuous torments for our ſakes : *Ergo*, wee ought to ſuffer a little paine for his ſake.

What is the Maxime of this place?

If the Leſſe preuaile, the More muſt needes auaile.

What is to be obſerued in reaſoning from theſe two places?

You muſt beware that you take not the More for the Leſſe, nor the Leſſe for the More, for many times that which ſeemeth to be the More in number or quantitie, is the Leſſe in purpoſe, and contrariwiſe, as for example: to beare a hundred weight, is more in quantitie, then to beare halfe a hundred weight, and yet in purpoſe it is leſſe, for it is leſſe probable, and leſſe likely to beare a hundred weight, then to beare halfe a hundred weight.

Of Like and Vnlike.

How may we reaſon from Like to Like?

When the thing which we bring to proue, is like or equall to the thing that is to be proued: from which place wee may reaſon both Affirmatiuely and Negatiuely, thus: *Peter* is mortall: *Ergo*, *Paul* is mortall. The day Labourer is worthy of his hyre: *Ergo*, the Preacher or Teacher: A man ought to be drowned in the Sea for killing his Father: *Ergo*, he ought to be executed with the like death for killing his Mother.

What is the Maxime of this place?

Of things like, like iudgement is to be made: but note that this kinde of reaſoning of Like, is more apt to teach and to print in the hearers minde a liuely repreſentation of the thing, then to vrge him by any neceſſitie of due proofe to beleeue the ſame, becauſe it is vnpoſſible, that the two things which are to bee compared can bee like in all points, and therefore this is the weakeſt kind of argument that is, and yet neceſſarie to ſuch end as is before declared, and ſpecially for Lawyers, to proue one ruled caſe, or for iudgement by another Like. To this place alſo is referred the place of Example.

Of Example.

How may we reaſon from this place?

Affirma-

Affirmatiuely thus: *Peter* slew *Ananias* for lying: *Ergo*, without all doubt God will punish those that vse to lye: the Maxime whereof is all one, with that of like before set downe.

Of Vnlike.

HOw may we reason from this place?

Negatiuely thus: God is not as man is, for man is a lyer: *Ergo*, God is true and no lyer.

What is the Maxime of this place?

Of things Vnlike, vnlike iudgement is to be made.

Of the degrees of Comparison.

TO the place of Comparison, mee thinkes it were not amisse to referre all those places which Aristotle *reciteth, and are taken out of the three degres of Comparison, which children learne in their Accidents, (that is to say) the Positiue, the Comparatiue, and the Superlatiue.*

From the Comparatiue to the Positiues.

HOw may we reason from the Comparatiue to the Positiue?

Affirmatiuely thus: *Virgil* was a more learned Poet then *Horace*: Ergo, *Virgil* was a learned Poet: Honey is sweeter then Milke: *Ergo*, Honey is sweet.

What is the Maxime of this place?

If the Comparatiue degree be truly and properly applyed to any thing: the Positiue must needes be also rightly applyed to the same. I say, heere properly to auoid Ambiguitie, for it were no good Consequent to say thus: the Sea of *Caspia* is more sweet then any other Sea: *Ergo*, it is sweet and not salt: for this word sweet hath not in this speech his proper signification, but is rather taken, for that which is lesse bitter or salt.

From the Positiue to the Comparatiue.

HOw may we reason from the Positiue to the Comparatiue?

Onely Negatiuely thus: *Zoilus* was no learned Poet: *Ergo*, he was not better learned then *Homer*.

What is the Maxime of this place?

If

If the Positiue be denyed, the Comparatiue also must needs be denyed.

From two Positiues to two Comparatiues and two Superlatiues.

HOw may we reason from two Positiues, to two Comparatiues, and to two Superlatiues at once, and contrarily?

In this manner: that which is good, deserueth iustly to bee beloued: *Ergo*, that which is better, ought more iustly to bee beloued, and that which is best, ought most iustly to be beloued. And much after this manner you may reason from a double Comparatiue, to a double Positiue thus: that which is more honest; is more laudable: *Ergo*, that which is honest is laudable.

What is to be obserued in reasoning from these degrees of Comparison?

You must take heed that the Predicate bee spoken of the Subiect naturally and necessarily, and not by Accident, for it were no good Consequent to reason thus: he that is learned, is honest, therefore he that is more learned, is more honest: for a man may haue much learning, and yet small honesty.

Of Proportion.

WHen are we said to reason from the place of Proportion?

When two like Propositions being compared together, we conclude in this or such like manner: looke what proportion is betwixt 6. and 4. the same proportion is betwixt 12. and 8. but betwixt 6. and 4. is *Proportio Sesquialtera*: *Ergo*, betwixt 12. and 8. the like proportion is: for when one number or measure doth comprehend another once, and one halfe thereof, that is called *proportio sesquialtera*, as 12. and 8. and if it contayne it once, and one third part thereof, then it is called *proportio sesquitertia*, as 8. and 6. for 8. contayneth 6. once and two ouer, which is the third part of 6.

What is the Maxime of this place?

Of things hauing like proportion, like iudgement is to bee made.

Whereto seruetb this place?

This place is necessary for Iudges and Magistrates that haue to consider of equitie in cases of Iustice, and in rewarding Vertue, or in punishing Vice, in which the Geometricall proportion would be alwayes vsed. Some doe giue such examples of this place, as in my opinion doe rather belong to the place of Like then to this place, for the arguments of this place ought properly to be fetched out of the Predicament of quantitie, and not out of qualitie, or out of any other Predicament.

Of Changed Proportion.

What is changed Proportion?

Changed Proportion is when the Foundations, and Termes of two like Proportions are answerable in proportion aswell amongst themselues, as one to another.

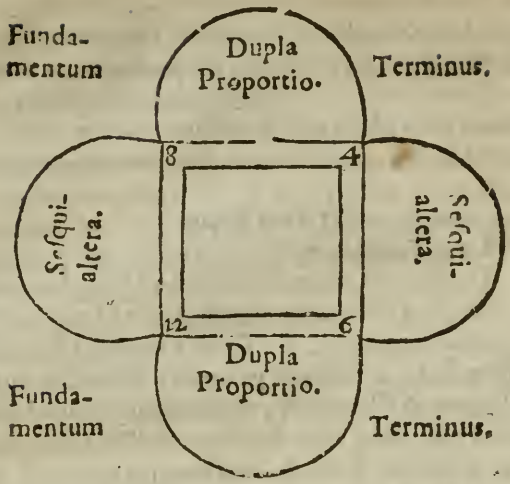
What meane you by these two words, Foundation and Termes?

The Foundation is that from whence the Comparison first proceedeth, as the Father, and the Terme, Bound or end is that whereunto the said Comparison is applyed, and endeth in the same, as the Sonne, and therefore the Sonne is called the Terme, Bound or end: whereof we haue spoken before in the Predicament of Relation.

Giue Examples of reasoning from this place.

Looke as 8. is to 4. so is 12. to 6. (that is to say) in double proportion one to the other: *Ergo*, as 12. is to 8. so is 6. to 4. for each other containeth the other once and a halfe, which is called *proportio sesquialtera*. The manifest Demonstration wherof you may see in this Figure heere following.

Funda-



Why is this Proportion said to be changed or transposed?

Because the order of numbers that are compared, is altered in the conclusion: for in the Antecedent the first is compared to the second, and the third to the fourth: but in the Conclusion the third is compared to the first, & the fourth to the second.

Of Disproportion.

How may we reason from this place?

Negatiuely thus: 12. is not to 6. as 8. to 6. but 12. to 6. is double in proportion: *Ergo* 8. to 6 is not double in proportion.

What is the Maxim of this place?

Of things hauing vnlike proportion, vnlike iudgement is to be made.

From Disproportion changed or transposed.

How may we reason from this place?

Negatiuely thus: 12. is not to 6. as 4. to 3. for betwixt the two first is a double proportion, and betwixt the two last *Sesquitertia: Ergo*, 12. is not to 4. as 6. to 3. for the one is a *tripla*, and the other double.

What be the Maximes of this place?

If the first be not to the second, as the third to the fourth, then the first shall not be to the third, as the second is to the fourth.

To whom are these places most familiar?

To those that are exercised in the Mathematicall Sciences.

Of Translation.

WHat is Translation?

Translation, otherwise called a Metaphor, is a figure of speech, whereby the proper signification of a word is changed into another vnproper, for some likenesse that is betwixt the thing signified, and being generally taken, it is rather a Trope, or Figure of Rhetorick, more meete to adorne speech, then to proue any thing thereby: notwithstanding being taken heere as a place of Logick, you may reason both Affirmatiuely and Negatiuely, in this sort: A roring Lion that seeketh to deuoure, is to be feared: *Ergo*, the Deuill is to be feared: Loue is blinde: *Ergo*, they that be in loue, are not able rightly to iudge.

What be the Maximes of this place.

Whatsoeuer agreeth with the Metaphoricall name, agreeth also with the proper name, and contrariwise.

Of Meane places.

WHat be meane Places?

Meane Places are those from whence such Arguments are to be fetched, as doe partly agree with the nature of the things to be proued, and doe partly differ from the same.

How are the Meane Places diuided?

Into Coniugates, Cases, and Diuision.

And first of Coniugates and Cases.

WHat be Coniugates or Cases?

Coniugates or Cases, be like words deriued all of one selfe word, differing onely in termination or end, as wisdome, wise, and wisely: notwithstanding some vse Coniugates and Cases as seuerall places.

Why, wherein doe they differ?

Their Difference is very ſmall, ſauing that in Arguments fetched from Coniugates, the Abſtract is mentioned, but not in thoſe that are fetched from Caſes.

How may we reaſon from theſe two places?

Both Affirmatiuely and Negatiuely, from the Coniugates thus: A iuſt man is to be praiſed, *Ergo* Iuſtice is to bee prayſed: a vicious man is not to be prayſed, *Ergo*, viciouſneſſe is not to be prayſed. From caſes thus: He doth all things wiſely, *Ergo* he is wiſe: He doth nothing wiſely, *Ergo* he is not wiſe: for in theſe two laſt examples the abſtract which is wiſedome, is not once mentioned: what abſtract is, looke before in the Chapter of predication *Lib.1.cap.5.* but you muſt beware in reaſoning from this place, that your phraſe of ſpeech be naturall and proper, and not vnproper: for it were no good argument to ſay thus: white is ſweet: *Ergo* whiteneſſe is ſweetneſſe.

What is the Maxime of theſe two places?

Whatſoeuer agreeth with one of the Coniugates or Caſes, muſt needs alſo agree with the other.

Of Diuiſion.

What is Diuiſion?

What Diuiſion is, and how many kindes there be, and what is to be obſerued in euery kind hath beene declared before, *Lib.2.cap.4.* when we ſhewed the order of defining and diuiding.

How may we reaſon from Diuiſion?

Two manner of wayes: firſt, from the denying of one part or more of the diuiſion, to affirme another part therof, as thus: Euery ſenſible body is whole or ſicke, but *Peter* is a ſenſible body and not ſicke: *Ergo*, hee is whole: or thus. Of ſenſible bodies there bee ſome whole, ſome ſicke. *Peter* is a ſenſible body and not ſicke: *Ergo*, he is whloe. In theſe two kindes of examples the diuiſion conſiſteth onely of two parts, wherein it ſufficeth to deny the one for affirming the other. But if the diuiſion conſiſt of many parts, then you muſt denie all the parts ſauing that which you would affirme, as in this example fol-

lowing: *Plato* disputeth, is a proposition, but it is neither vniuersall, particular, nor indefinite: *Ergo*, it is a singular proposition: in which kind of reasoning if you leaue out or omit any part that is to be denied, then the conclusion is naught, for it is no good consequent to say thus: this propositon *Plato* disputeth, is neither vniuersall nor particular: *Ergo*, it is indefinite. Notwithstanding, if you ioyne the part omitted in your Antecedent with a coniunction disiunctiue, the Argument may bee made good; as to say thus: this proposition *Plato* disputeth, is neither vniuersall nor particular: *Ergo*, it is either indefinite or singular.

What is the Maxim of this first way of reasoning?

The Maxim is thus: whatsoeuer agreeth with the thing diuided, must needs agree with some one of the parts thereof.

What is the second way of reasoning from Diuision?

The second way is to proceed from the affirming of one of the parts to the denying of the other, if it consist but of two, or to the denying of all the rest, if it consist of many. Of two parts let this be your example: Of sensible bodies some bee whole, some sicke, but this sensible bodie is whole: *Ergo*, he is not sicke. Of many parts thus: of propositions one is vniuersall, another particular; one indefinite, another singular: but this proposition *Plato* disputeth, is singular: *Ergo*, it is neither vniuersall, particular, nor indefinite.

What is the Maxim of this way of reasoning?

Whatsoeuer agreeth with one of the parts, must needs disagree with all the rest, for euery good diuision would be made of parts meere repugnant, or at the least diuers in kinde one from another: for it is a principall condition requisite to diuision, whereupon the second way of reasoning is grounded euen as the first way is grounded vpon another good condition belonging also to diuision, which is that the thing diuided may not containe more or lesse then his proper parts.

Of inartificiall places.

HAuing sufficiently spoken of places, inward, outward, and meane, which as I said before are places artificiall, it is

is meet now that we speake of the places inartificiall, which according to *Quintilian* be the sixe; Foreiudgements, Rumours, Torture, Writings or Euidences, Oath, and Witnesses: All which are briefly and plainely set forth in the Table of Authoritie here following, because they are all contained vnder the place of Authoritie.

Of Authoritie.

How is Authoritie here to be taken?

Authoritie is here to be taken for any testimonie worthy of credit.

How may we reason from this place?

Affirmatiuely thus: the learned Philosophers say that there bee foure elements, whereof all other things are mixt and compounded: *Ergo*, it is true. Christ saith that whosoeuer is baptized, and beleeueth in him, shall be saued: *Ergo*, it is true.

What be the Maxims of this place?

Whatsoeuer is allowed by the most part of the wise and learned, is to bee beleeued as a thing probable, neither ought we rashly to discent from their opinion and iudgement. Againe, euery man is to be beleeued in his owne Art: but for so much as Authoritie is two-fold (that is to say) Diuine and Humane, and that all Argûments fetched from this place bee not of like value, for some be true and infallible, some probable, and some Sophisticall: this Table therefore here following shall plainely set forth euery kind by it selfe, whereby you shall easily discerne the one from the other.

THE

The Table of Authoritie here following.

- *Authoritie is two-fold,*
  - *Diuine which is twofold:*
    - *Written,* — *Of the written which we call holy Scriptures, sound Arguments are made, so long as the words are truly expounded according to the meaning of the Holy Ghost. But they be weake and captious if the authoritie be corrupted either by addition, subtraction, or alteration of any word, sillable, or letter, or by wresting the sense otherwise then the Holy Ghost meant it.*
    - *or vnwritten tradition:* — *As for tradition or vnwritten verity of what value it is and what credit it hath, I leaue to the iudgement of the learned Diuines, amongst whom is no small strife and contention in these dayes for the same. The Painims were wont to referre to Diuine Authoritie the Oracles and Answeres of their false Gods, Priests, Prophets, and Southsayers, which true Christians ought vtterly to reiect, and to abhorre: notwitstanding* Lactantius *letteth not to proue the Birth, Death and Passion of Christ against the Painims by Sybils Prophesies, because he knew they would giue more credit to them then to the Holy Scriptures.*
  - *or Humane which is three-fold:*
    - *Writings, as* — *Histories, Laws, Statutes, Decrees, Iudgements, ruled Cases, Maxims, Prouerbs, generall Rules, Patents, Warrants, Licenses, Commissions from the Prince, Charters, Deedes, Releases, Court-Rolles, Extents, Accounts, Obligations, Indentures, Wills and Testaments, and such like.*
    - *Things vttered by mouth.* — *If it be by mouth, it is either free and voluntary, as voluntary Confession, or Testimony, Rumor, Opinion, and the speech of the Wise.*
      - *Or else forced by Oath or Torture.*
    - *And the third kind of Humane Authoritie, is that which is allowed by vse and custome of the people.*

As

As for such Arguments as are fetched from humane Authoritie, the Lawes doe teach at large, which bee sound, and which bee weake: notwithstanding, for so much as *Quixtilian* affirmeth, that the inartificiall places, are the six places aboue-mentioned, I haue thought good to set downe according to *Valerius*, the definition of euery place, and briefly to shew how euerie such place may be confirmed or impugned.

And first of Fore-iudgements or Ruled Cases.

What call you Fore-iudgements or Ruled Cases?

They be Iudgements or sentences heretofore pronounced, whereby Iudges take example to giue like iudgement in like Cases.

How may a man confirme or impugne Fore-iudgements?

You shall confirme them by aggrauating the authoritie of those that first pronounced them, and by the likenesse of the Cases: but you shall impugne or confute them by extenuating or diminishing the authoritie of the first pronouncers, and by the vnlikenesse of the Cases.

Of Rumor and Fame.

What difference is betwixt Rumor and Fame?

Rumor is a particular assertion or affirmation proceeding of some suspition, without any certaine Authour. But Fame is a common affirmation, hauing some certaine Authour: either of which whosoeuer will impugne, must call it an vncertaine brute or clamour, taking his beginning first of malice, and his increase through credulitie and lightnesse of beliefe, and that the same may chance to the most innocent man, that is, through the Fraud of his Enemies, publishing abroad false surmises against him. Contrarily, he that will defend Fame or Rumor, must say that it riseth not of nought, nor is spred abroad without some iust cause, and that it is accounted as a publike Testimonie, according to the old Prouerbe, which saith; *vox populi, vox Dei*, the voice of the people, is the voice of God.

Of Torture.

WHat is Torture?

Torture is a painfull kinde of punishment, inuented for the inquisition of truth, and violently to wrest or wring the same out of such as would not otherwise confesse it.

How is this place to be confirmed or impugned?

It is to be confirmed by aggrauating the necessarie vse of torture for the finding out of the truth; but whoso will impugne it, must say, that such Torture causeth many times more lyes then true tales to be told: for those that bee strong and able to endure paine, and of a resolute minde, will neuer yeeld for any torment to say otherwise then they list themselues. Againe, if they be weake and not able to suffer paine, it maketh them to say whatsoeuer you will haue them, be it neuer so false.

Of Writings and Euidences.

WHat is meant by Writings?

Deeds, Indentures, Releases, Obligations, and such like other Euidences before rehearsed.

How is this place to be impugned?

You may impugne Euidences or writings, if ye can prooue them to be vnperfect any manner of way, as to be forged, to be made by some collusion or fraude, or to bee extorted by force from some that was put in feare, and such like.

Of Oathes.

WHat is an Oath?

It is a religious affirming or denying some thing, by calling God to witnesse, which is the strongest bond that may be, to bind mans faith and conscience.

How is this place to be confirmed or impugned?

He that will prooue by this place, must aggrauate the integritie, honestie and holinesse of the parties that are sworne, saying, that the Oath of an honest, holy, and religious man is of great importance: And he that will impugne it, must doe cleane contrarie, saying, That they are naughtie men that are sworne,

and

and common Iurors, which by reason of wicked custome of swearing, will easily be forsworne: or he must say that the partie sweareth for feare, loue, hatred, for hope of gaine, reward, and such like.

Of Witnesses.

What be Witnesses?

Witnesses be proofes of things done or not done, whose office is to speake what they haue heard or knowne: the confirmation or confutation of which proofe dependeth vpon the goodnesse or euilnesse of the persons.

To what end serueth the knowledge of places?

He that will write or speake of any matter probably, wisely, or copiously: or will vnderstand the effect, tenor, arguments, and proofes of other mens speeches, and writings, hath as much need to be practised in these places, as a Huntsman is in knowing the haunts of his Game which hee hunteth, for without that, he shall wander long time in vaine, and hardly finde that which he seeketh: neither is it enough to know the places, vnlesse you can aptly apply them and vse them when occasion shall serue, in disputations made either by mouth or pen, which requireth a continuall exercise of such as will be perfect therein. And therefore to the intent you might the better learne how to exercise your selfe in the fore-said places, I haue thought good here to giue you at the least one example set downe by *Hunnens* in his Logicke: the Theame of which example is thus: Man ought to imbrace vertue: which Theame hee doth not onely handle after the Logicall manner with short speech, but also after the Rhetoricall manner with copious speech, vsing therein this threefold order: For first, he bringeth in such proofes as are to be gathered in respect of the subiect of the Theame. Secondly, those that are to be gathered in respect of the Predicate of the same: and thirdly, those that are to be had in respect of both.

The Theame or Proposition.

From the definition of the subiect.

MAn ought to embrace vertue.

What Arguments are to bee gathered on the behalfe of the subiect of this Proposition?

These that follow, and first, from the definition thus: Sith of all sensible creatures man is the most noble and most worthy creature, for that he is endued with reason and counsell, and was created like to the Image of God: it is most meete therefore that such a creature should be like his Creator, in life adorned with such vertue and goodnesse as is answerable to true iudgement, which the Logicians would briefly expresse in this manner: it becommeth euery sensible body endued with reason, to loue vertue: *Ergo*, euery man ought to loue vertue.

From the Etymologie.

IT becommeth euery creature that is made of the slime of the earth, to bee void of all arrogancie and pride, to bee lowly, humble, and obedient to his Creator, and to imbrace vertue in obseruing the Law of God deuoutly and religiously, wherefore man called in Latine *homo*, of this word *humo*, (that is to say) earth, or rather slime of the earth, taking his originall from so base and vile a thing, ought to be humble and void of all pride and arrogancie, and to loue vertue aboue all things, being alwayes obedient to God his Creator, and readie to doe his most holy Precepts and Commandements.

Logically thus:

Euery sensible creature that is created of the slime of earth, ought to bee obedient to his Creator, and to imbrace vertue, therefore man ought to be obedient to his Creator, and to imbrace vertue.

From the Matter.

MAn is made of the selfe-same Matter of which all other vnliuing dumbe and vnsensible creatures are made, (that is to say) of the foure Elements, whereby he is subiect to alteration and corruption: wherefore man ought not to bee proud or arrogant, but modest, humble, lowly, and obedient, shewing in all the actions of his life, that he is not vnmindfull of his base

base estate and condition, nor ignorant from whence hee came, and what he is, euen no better then earth and dust.

Logically, thus:

Man is made of a base matter, as all other things are, therefore Man ought not to be proud, but to loue the vertue of humilitie and obedience.

From the forme or shape of Man.

IT hath beene alwayes most firmely, and with one whole consent agreed and beleeued, euen from the beginning of the World, that the true shape of Man is a reasonable Soule, immortall, and capable of euerlasting blessednesse, which Soule God of his goodnesse did breathe into man, to the intent that he should continually serue, honour, and obey him, during this mortall life, and after death enioy eternall life: what great madnesse were it then to thinke, that Man hauing obtayned at Gods hands so noble a shape, ought not to embrace all noble vertues, and to gouerne all his actions in such godly and vertuous manner, as he may at length attayne to the euerlasting ioy, whereunto he was first created and formed?

Logically, thus:

Man consisteth of a Soule, capable of eternall felicitie: *Ergo*, Man ought to loue vertue, whereby hee may attayne to that felicitie.

From the generall kinde.

SIth it is giuen by nature to euery sensible Bodie, to seeke his owne safetie, and to be best affected (that is) to haue his full perfection according to his kinde: the loue of vertue therefore, whereby Man is made not only perfect in this life, but also attayneth thereby euerlasting ioy in the life to come; must needs be to him most naturall.

Logically, thus;

Euery sensible body willingly desireth that which is agreeable to his nature and kinde; therefore, Man must needs loue vertue, as a thing most fit for his kinde.

From the speciall Kinde.

BOth Men and Women, Rich and Poore, Yong and Old, of what state or calling soeuer they bee, if they intend to leade a good and godly life, haue need of vertue: wherefore, all Men that will liue well, ought to embrace vertue.

Logically, thus:

Both Rich and Poore, Yong and Old, ought to loue vertue: *Ergo*, Euery Man ought to loue vertue.

From the common Accidents.

EVery Man, after that hee hath ended this short course of life, must appeare at the last day before the terrible iudgement seate of God, there to render account of all his deeds and words, both good and bad, whereas euery man that hath done well, shall receiue for his good deeds a most glorious reward, euen life euerlasting: but the wicked for his euill deeds shall be condemned to hell fire, that neuer shall be quenched, a iust reward for his deserts: wherefore, all men ought in this life to flie vice, and to embrace vertue, from whence all good actions doe spring.

Logically, thus:

Euery man shall render account at the last day, of all his deeds both good and bad, and shall receiue a iust reward according to the same: *Ergo*, Euery man whilest hee liueth in this world, ought to flie vice, and to embrace vertue.

From the cause Efficient.

SIth Man was created by God, the Creator of all things, and Author of all goodnesse, excellencie, and vertue, and was formed according to the very Image and likenesse of God: it behoueth man therefore to imitate his Creator, and by leading a godly and vertuous life, to shew that hee is somewhat like him, though not able in all things to attayne to the perfection of so perfect a patterne.

Logically, thus:

God, the cause efficient, is good; therefore, Man being the effect, ought to be good.

From

From the End.

THe Prophets and Apoſtles, inſpired with the Holy Ghoſt, Author of all Truth, by many their writings doe teſtifie, that the greatneſſe and excellencie of that bleſſedneſſe, whereunto Man is created, is ſuch as no man is able to expreſſe with tongue, nor in his heart or minde to conceiue the ſame: wherefore ſith Man is created to ſuch exceeding great bleſſedneſſe, it behoueth him to imbrace vertue, which is the very meane and way to bring him to that bleſſedneſſe.

Logically, thus:

Sith moſt glorious bleſſednes is the end of Man, Man therefore ought to embrace vertue, that he may attaine to that end.

What arguments are to be gathered on the behalfe of the Predicate, and from what places?

Theſe that follow, and ſuch like, and firſt from the definition, thus:

From the Definition of the Predicate.

SIth Vertue is a morall habite, whereby Mans will and all his actions are alwayes directed to God, and gouerned according to true iudgement, and thereby are made moſt acceptable both to God and Man: Man therefore ought to embrace Vertue, from whence ſuch noble fruits doe ſpring.

Logically, thus:

Man ought to loue that habite from whence all honeſt actions doe ſpring: therefore man ought to loue Vertue.

From the Deſcription.

MAn ought with all endeuour to follow that thing whereby he may attayne not a vaine and tranſitorie glorie, but a true and euerlaſting glorie, and thereby to be made acceptable both to God and Man: Wherefore Man ought to embrace Vertue, from whence ſuch glorie ſpringeth.

Logically, thus:

That thing is worthy to be beloued of Man, which getteth him euerlaſting glorie: Therefore Vertue is worthy to bee beloued.

From

From the Etymologie.

SIth Vertue, if you diligently consider and weigh the signification of the word, is none other thing but a Noble affection of the minde, of great excellencie, and most meete for Man: it is not to be doubted, but that those (which leauing so precious a thing, doe set their whole delight in seeking after worldly riches and bodily pleasure) are much deceiued, and doe greatly offend.

Logically, thus:

Such excellencie as is most meet for Man, becommeth Man best: therefore Vertue becommeth him best.

From the generall Kinde.

SIth it is well knowne, that Man ought with all diligence to seeke after those habits, whereby humane nature is best adorned, and made most perfect: And that Vertue, amongst such habits, is the chiefe: because, that thereby the minde of Man is taught to know what Truth is, and his Will thereby is alwayes inclined to honest and laudable actions: Man therefore ought with al his power and endeuour to embrace Vertue.

Logically, thus:

Man ought chiefly to loue those habits, whereby his nature is made perfect: Therefore Man ought to loue Vertue.

From the speciall Kinde.

IT is most meete, yea most necessarie for all men to loue Fortitude and Temperance: for, by Temperance, Mans will is bridled, and kept from all euill lusts and affections; and by Fortitude, he is made free from feare of death: and as without Temperance, mans life cannot be honest; so without Fortitude, his death cannot be commendable: wherefore it plainly appeareth, how necessarie a thing it is for a man to embrace Vertue, as that which chiefly maketh his life honest and laudable, and his death glorious and honorable.

Logically, thus:

A man ought to loue Fortitude and Temperance: *Ergo*, He ought to loue Vertue.

From

From the corruption of the Subiect.

THE destruction of Vertue is the cause of most grieuous euils, for the light of Vertue being extinct, the minde is immediately wrapped in such darknesse, as it cannot see nor discerne what is honest, what is profitable, or what is hurtfull: by meanes whereof man falleth into most filthy vices, which doe so infect and corrupt the life of man as it becommeth most detestable both to God and Man: whereby it plainly appeareth how noble a thing Vertue is, and with what loue and diligence it ought to be embraced of all men.

Logically thus.

The destruction of Vertue is euill: therefore Vertue is good and worthy to be beloued.

From the vse of the Subiect.

THE vse of Vertue maketh mans life commendable, holy, glorious, and acceptable both to God and Man: then which nothing can be in this World more to be desired of man: wherefore it manifestly appeareth, that Vertue is so noble a thing, as all men ought to bestow all their studie, labour and care in obtayning the same.

Logically thus.

The vse of Vertue is good: Therefore Vertue is good.

From common Accidents.

SIth all men doe greatly desire to haue their consciences quieted, and their minds free from all euill lusts, affects, and passions, which with continuall strife doe molest the same: and thereby doe cause Man to lead a miserable life: Man therefore ought to refuse no paine nor labour, so as hee may attayne to Vertue, which is alwayes accompanyed with that tranquillitie of minde and conscience that is so much desired.

Logically thus.

The tranquillitie of the minde and conscience is to bee desired: *Ergo*, Vertue which is alwayes accompanyed with that tranquillitie is to be desired.

From the cause Efficient.

SIth true Vertue is not to be gotten by any mans labour, exercise, or industrie, without the great grace of God, who is chiefe Authour and Giuer of all good gifts: it well appeareth that Vertue is a most excellent thing, and most worthy to bee had in admiration, and therefore with feruent loue and diligence to be embraced of all men.

Logically thus:

God the chiefe Author of all good, is the cause Efficient of Vertue: therefore Vertue proceeding of so worthy a cause, must needes be an excellent thing, and worthy of all men to be embraced.

From the Effect.

TRue honour and glory hath beene alwaies had amongst all men in great admiration: because it seemeth not only by mans iudgement, but also by the diuine iudgement of God, to be alwayes attributed to Vertue: wherefore sith Vertue doth yeeld such noble fruits and effects, Vertue must needs bee a noble thing it selfe, and worthy of all men to be embraced.

Logically thus:

The Effect of Vertue, which is true honour and glory, is good, and to be desired.

From the End.

SIth euerlasting blessednesse is of such excellency, as neither tongue is able to expresse the ioyes thereof, nor minde to conceiue the same, and therefore ought to be desired aboue all things, as the iust reward of all goodnesse, and finall end of all euill, and that Vertue is the onely meane to bring man to that blessed End: who then will once thinke that Vertue is not to be esteemed aboue all things, and worthy of all men to bee embraced?

Logically thus:

The end of Vertue, which is euerlasting felicitie, is to be desired: *Ergo*, Vertue is to be desired.

Hitherto

Hitherto you haue shewed how the aforesaid Theme is to be proued with Arguments fetched aswell from the Subiect as the Predicate: now shew what arguments are to be fetched from both ioined together.

These that follow and such like, and first by Comparison, from the Lesse to the More.

From the Lesse to the More.

IF men will not let to bestow any paine, labour or cost to preserue their bodies from death, sicknesse, or any other hurt: how much more then ought they to endeuour themselues to obtayne Vertue, which will preserue their soules from all corrupt affections and euill vices, and thereby deliuer them from death euerlasting?

Logically thus:

Man ought to be carefull of his bodily health: *Ergo*, Much more of his soules health, which is chiefly preserued by Vertue.

From Similitude or Likenesse.

AS the beauty of the bodie is pleasant to mans eyes; euen so the beautie of the minde or soule is as acceptable to God: and therefore as man will bee diligent and carefull in decking and adorning his body to please the eyes of men: euen so hee ought to be most carefull to decke his soule and mind, with such Vertues, as doe make the same in Gods sight most acceptable.

Logically thus:

As the decking of the body is plesant to mens eyes so the decking of the Soule is pleasing to God.

From Authoritie.

D*auid* the Prophet in the thirty foure Psalme saith thus: Turne from euill, and do that which is good. The Prophet *Micheas* also agreeth hereunto in saying thus: Deale iustly with all men, loue mercy, and walke diligently in the way of God. By which words these two godly Prophets doe teach no

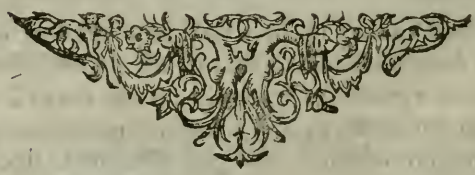
other thing, then that man forſaking all kinde of Vice, ſhould with all diligence embrace Vertue.

Logically thus:

God teacheth by his Prophet *Dauid*, and alſo by *Micheas*, that Man ſhould flye Vice, and loue Vertue: *Ergo*, Man ought to loue Vertue. By daily exerciſing your ſelfe in ſuch examples as this is, you ſhall in ſhort time learne the right vſe of the places, and be able thereby readily to apply them to euery good purpoſe.

Here endeth the fourth Booke of Logicke.

THE



THE FIFT BOOKE OF LOGICKE.

CHAP. I.

Of Argumentation, and of the foure kinds thereof in generall, and also of the first Principles of a Syllogisme.

Auing hitherto sufficiently spoken of words both simple and compound, whereof all questions doe consist, also of definition and diuision, of Method, of Propositions and of the places: It resteth now that I declare vnto you the formes and kindes of reasoning called Argumentation, which be the meanes whereby in all compound questions the truteh may bee discerned from falshood, wherein consisteth the chiefest fruit of Logicke: and therefore you shall vnderstand that there bee foure principall kindes or formes of Agumentation, (that is) a Syllogisme, an Induction, an Ethymeme, and Example, I say here principall, because there bee diuers other formes, which though they bee not so necessary, yet I will briefly treat of them hereafter: But for so much as the Syllogisme is the chiefest, whereunto all others are referred as things vnperfect, vnto a thing perfect, I will first speake of a Syllogisme, and of all the parts thereof: but yet before I define or diuide a Syllogisme, I thinke it very necessary to declare vnto you the first Principles aswell Materiall, as Regular, of a simple Syllogisme consisting of simple Propositions.

Which call you Material Principles?

Material Principles are three ſimple Propoſitions, and three termes, (that is to ſay) the Subiect, the Predicate, and the meane terme hereafter defined, whereof the Subiect and the Predicate are ſaid to bee the outermoſt limits or bounds of any ſimple Propoſition.

Why are they called termes or limits?

Becauſe they limit a Propoſition, euen as Dole-ſtones or Meares doe limit a piece of ground in the field, and bee the vttermoſt parts or bounds whereunto any Propoſition is to bee reſolued, as for example in this Propoſition, euery man is a ſenſible body: theſe two words, man, and ſenſible body, are the termes, limits, or bounds, whereof as the ſaid Propoſition is compounded, ſo into the ſame it is to bee reſolued, as into his vttermoſt parts that haue any ſignification: for letters and ſillables of themſelues be without ſignification, and therefore can limit no ſpeech, ſo that the termes of Propoſitions muſt be eyther Nounes, or Verbes, which bee only voices ſignificatiue, as haue beene ſaid before.

Which be the Principles irregulatiue?

The Principles regulatiue of a Syllogiſme be theſe two phraſes of ſpeech, to be ſpoken of all, and to be ſpoken of none.

What is to be ſpoken of all?

That is, when the predicate being truely ſpoken of the Subiect, muſt needs be alſo ſpoken of all that is comprehended vnder the ſaid ſubiect: as when I ſay euery man is a ſenſible body: here this word ſenſible body, is not only ſpoken of man in generall, but alſo of *Peter* and *Iohn*, and of euery other man in particular, comprehended vnder the foreſaid Subiect, man,

What is to be ſpoken of none?

It is when the Predicate being denyed to bee ſpoken of the Subiect, is denied alſo to bee ſpoken of any thing contayned in the Subiect: as when I ſay no man is a ſtone, here like as this word ſtone is denied to bee ſpoken of man, ſo it is alſo denied to be ſpoken of *Peter* and *Iohn*, and of euery other ſingular man: out of which Definitions are gathered two neceſſary rules.

Which

Which be they?

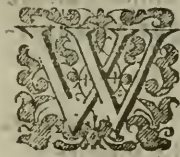
The rule is, whatsoeuer is truely affirmed of his naturall and propar Subiect, is also affirmed of all those things which are contayned vnder the said Subiect: the second rule is thus, whatsoeuer is denyed to be spoken of any Subiect, is also denyed to bee spoken of euery thing contayned vnder the said Subiect.

Whereto serue these rules?

The first rule confirmeth all Syllogismes affirmatiue, and the second confirmeth all Syllogismes negatiue.

CHAP. II.

Of a Syllogisme, what it is, how it is diuided, and of what parts it consisteth.



Hat is a Syllogisme?

A Syllogisme is a kinde of argment contayning three Propositions, whereof the two first, commonly called the premisses, being disposed according to mood, and figure, and granted the third Proposition, otherwise called the conclusion, differing from the other two, followeth of necessity, by vertue of the premisses: how these three Propositions are called, and what moode and figure is, shall be declared hereafter; In the meane time marke well the two other points touching this Definition: first, that the Conclusion must not be all one, but differing from the premisses: secondly, that the said Conclusion bee necessarily inferred of the premisses, as in this example: euery sensible body is a substence: euery man is a sensible body: *Ergo*, euery man is a substance: for if the Conclusion were thus: *Ergo*, euery sensible bodie is a substance, or euery man is a sensible body, the argument should not bee good, because the Conclusion should bee all one with one of the premisses: the reason why the Conclusion must needes bee inferred of the premisses, and so consequently follow the same, shall bee declared vnto you hereafter.

How is a Syllogisme diuided according to the Schpolemen?

First,

First, they diuide it according to the diuersity of the Propositions whereof it consisteth, into two kinds, *viz.* Categoricall, and Hypotheticall, (that is to say) simple and compound, calling that simple, which is made of simple Propositions, and that compound, which is made of compound Propositions: what simple and compound Propositions are, hath beene before defined. Againe, they diuide the simple Syllogisme three manner of wayes, first, according to the diuersity of the termes into a common and into a singular Syllogisme; for if the termes whereof the Syllogisme consisteth, bee common, or generall, and specially the meane terme, or proofe, then that Syllogisme is called a common Syllogisme: but if the meane terme or proofe be *Indiuiduum*, then that Syllogisme is said to be a singular Syllogisme, called of them, *Syllogismus expositorius*, whereof wee shall speake hereafter: Secondly, they diuide a simple Syllogisme, according to the diuersity of the figure, into a perfect, and vnperfect Syllogisme.

When is it said to be perfect?

When it needeth not to be altered any manner of way, otherwise then it is, that the consequent may manifestly appeare.

When is it said to be vnperfect?

When the Consequent doth not manifestly appeare, vnlesse the Syllogisme be altered either by conuersion, or transposing of the premisses, whereof wee shall speake hereafter: Thirdly, they diuide a simple Syllogisme, according to the matter of the Propositions whereof it is made, into three kindes, that is, into a Syllogisme Demonstratiue, Dialecticall, and Sophisticall: of which three kindes wee shall speake hereafter, and in their proper places; so as in all, the Schoolemen make foure seuerall diuisions of a Syllogisme, the first according to the diuersity of the Propositions, the second according to the diuersity of the Termes, the third according to the diuersity of the figure, and the fourth according to the diuersity of the matter of the Propositions whereof wee haue spoken before, and shewed how manifold such matter is: but in the meane time wee will shew you of what parts a simple common Syllogisme consisteth.

Of

Of how many parts doth a simple Syllogisme consist?
Of two; that is, Matter, and Forme.

CHAP. III.

Of the Matter and Forme of a simple common Syllogisme.

Hat things are said to bee the Matter of a Syllogisme?

The Matter whereof a Syllogisme is made, are three termes, and three Propositions, which wee called before Materiall principles, and the Forme consisteth of figure aud Mood, whereof we shall speake in the next Chapter.

Define what these three Termes be.

The one is called the Maior terme, or Maior extremitie, which is the Predicate of the question that is to be prooued: the other is called the Minor terme, or Minor extremitie, which is the subiect of the question: and these two Termes are knit together in the Conclusion, and made to agree by helpe of a third Terme, called the Meane terme or proofe.

What is the Meane terme?

It is the proofe of the question which is twice repeated before the Conclusion, and not once mentioned in the same.

How is such proofe to be found out?

Foure manner of wayes, (that is to say) by experiencē, by quicknesse of wit, by erudition, and by searching the common places.

Giue examples of all these foure wayes.

1. By experience, as when wee affirme that intemperance is to be fled, because wee know by experience, that it consumeth both body and goods in vaine pleasures. 2. By wit, as to proue that the couetousnesse of wicked men is infinite: because wit and reason teacheth vs, that if couetous men did either care for the Law of God, or for reason, they would not exceed so farre the bounds thereof. 3. By erudition, as to prooue that riches are not to be desired ouer-greedily, but to serue necessitie: be-

cauſe it appeareth by the Doctrine of Saint *Paul*, that ſuch as greedily ſeeke to be rich, doe fall into temptation, and into the ſnares of the Deuill. 4. By ſearching the common places: as when the proofe of any queſtion is fetched from any of the common places before taught, as from the generall kind, from the ſpeciall kind, from the difference, or propertie, and ſuch like; whereof you haue had examples before.

Which bee the three Propoſitions whereof a Syllogiſme doth conſiſt?

Theſe three: The Maior, the Minor, and the Concluſion.

Which call you the Maior?

That which conſiſteth of the Predicate of the queſtion, otherwiſe called the Maior terme, and of the Meane, or Proofe, being both ioyned together in one ſelfe Propoſition; which Propoſition is the whole ſtrength of the Syllogiſme, for it is the cauſe and proofe of the Concluſion.

Which call you the Minor?

That which conſiſteth of the Subiect of the queſtion called the Minor terme, and of the Meane or proofe ioyned together, which two Propoſitions are called by one generall name, Premiſſes, becauſe they goe before the Concluſion.

What is the Concluſion?

It is that which conſiſteth of the Predicate, and of the Subiect, and is the queſtion it ſelfe concluded.

Gine example.

For example, let this bee your queſtion: whether man bee a ſubſtance or not, here you haue two extremes or termes, wherof ſubſtance being the Predicate, is the Maior terme, and man being here the ſubiect, is the Minor terme: now to prooue that this word Subſtance, is properly and naturally ſpoken of man, as of his Subiect, and that you may truely knit theſe two extremes, or termes together, you muſt ſeeke out ſome cauſe or proofe, otherwiſe called the Meane terme, which being once found out, the Syllogiſme is ſoone made: let the Meane terme therefore be this word, Senſible body, for euery ſenſible bodie is a ſubſtance, which proofe is fetched from the generall kinde, then forme your Syllogiſme thus: euery ſen-

ſible

ſible body is a ſubſtance: but man is a ſenſible body: *Ergo*, man is a ſubſtance. Here you ſee that the Meane terme or proofe is twice repeated before the Concluſion:(that is to ſay)in the Maior Propoſition, together with the Predicate of the queſtion, called the Maior terme; and alſo in the Minor Propoſition together with the ſubiect of the queſtion called the Minor terme, and not once mentioned in the Concluſion. Thus much touching the Matter whereof a Syllogiſme conſiſteth: now of the Forme thereof.

CHAP. IIII.

Of the Forme of a Syllogiſme.

YOu ſaid before, that the Forme of a Syllogiſme comprehended Figure, and Moode, now therefore tell what Figure and Moode is, and how many of them there bee.

Figure is no other thing, but the diuers placing or diſpoſing of the meane terme in the premiſſes: which figure is three-fold; that is, Firſt, Second, and Third: for if the meane terme bee the Subiect in the Maior Propoſition, and Predicate in the Minor, as in the example aboue, then it maketh a Syllogiſme of the firſt figure, and if it chance to bee Predicate in both Propoſitions, then it maketh a Syllogiſme of the ſecond figure, as thus: no ſtone is a ſenſible body: but man is a ſenſible body: *Ergo*, no man is a ſtone: for here the meane terme, Senſible body, is Predicate in both Propoſitions: but if the meane bee ſubiect in both Propoſitions, then it maketh a Syllogiſme of the third figure, as thus: euery man is a ſubſtance: euery man is a ſenſible body: *Ergo*, ſome ſenſible body is a ſubſtance: for here the meane terme, that is, Man, is ſubiect in both the firſt Propoſitions, and to theſe three figures doe belong certaine Moods.

What is a Moode?

A Mood, called in Latine *modus*, amongſt the Logicians, is none other but the true ordering aſwell of the premiſſes, as of the concluſion in a Syllogiſme, according to due quantitie,

and quality: what the quantity and quality of a Propoſition is, hath beene taught before, *Lib.3.Cap.1.*

How many Moods doe belong to the firſt figure?

To the firſt figure doe belong nine Moods, thus named:

Barbara: Celarent: Darij: Ferio: Baralipton:
Celantes: Dabitis: Fapeſmo: Friſeſomorum.

Whereof the firſt foure, becauſe they conclude directly, are called perfect Moods, making perfect Syllogiſmes: and the other fiue, becauſe they conclude vndirectly, are called vnperfect Moods, making vnperfect Syllogiſmes.

What is to conclude directly or indirectly?

That Mood is ſaid to conclude directly, when the Maior terme is made the Predicate, and the Minor terme the ſubiect in the concluſion. But if in the concluſion the Minor terme bee the Predicate, and the Maior terme the ſubiect, then that Mood is ſaid to conclude directly: as for example: Euery ſenſible body is a ſubſtance: Man is a ſenſible body: *Ergo*, man is a ſubſtance. This Syllogiſme concludeth directly, becauſe the Maior terme, ſubſtance, is the Predicate in the concluſion: but if the concluſion were thus: *Ergo*, ſome ſubſtance is a man, then it ſhould conclude indirectly: becauſe this word man which was the ſubiect of the queſtion in this concluſion, is made the Predicate.

How many Moods doe belong to the ſecond figure?

Theſe foure: *Cæſare, Cameſtres, Feſtino, Baroco.*

How many Moods doe belong to the third Figure?

Theſe ſixe: *Darapti, Felapton, Diſamis, Datiſi, Bocardo*, and *Feriſon*: which words being otherwiſe called Termes of Art, and euery one conſiſting of three ſillables, were purpoſely inuented by the Schoolemen, to ſignifie the quantitie and qualitie of euery Propoſition contayned in a Syllogiſme, and are briefly ſet downe in theſe foure Verſes following.

Barbara, Celarent, Darij, Ferio, Baralipton:
Celantes, Dabitis, Fapeſmo, Friſeſomorum:
Cæſare, Cameſtres, Feſtino, Baroco, Darapti:
Felapton, Diſamis, Datiſi, Bocardo, Feriſon.

It seemeth to me that these names doe not eauenly consist each one of three Syllables: for in the two first Verses there bee two Moods or names, whereof the one called Baralipton, *contayneth foure Syllables, and the other called* Frisesomorum, *contayneth fiue Syllables.*

You say true, but these Syllables are no part of these two Moods, but serue only to fill vp the Verse: for this Syllable *ton*, is no part of the Mood *Baralip*: nor the two Syllables *morum*, are any part of the Mood *Frisesо*.

What is to be considered in these words of Art or Moods?

Two things, (that is to say) the Vowels and the Consonants contayned in euery Mood, and what they signifie.

Which are those Vowels, and what doe they signifie?

The Vowels bee these foure, *a. e. i. o.* whereof *a.* signifieth an vniuersall Affirmatiue, *e.* an vniuersall Negatiue, *i.* a particular Affirmatiue, *o.* a particular Negatiue: of all which you shall haue examples in the sixt Chapter of this Booke here following.

Which be the Consonants, and what doe they signifie?

Wee shall haue cause to speake of them hereafter in a fitter place.

In the meane time then, giue examples of the Moods belonging to all the Figures.

Before we giue examples, it shall not be amisse to set downe certaine rules requisite to all the three Figures, as well in generall, as in particular.

CHAP. V.

Of certaine Rules, as well Generall, as Speciall, belonging to the three Figures.

How many Generall Rules be there, which are common to all the three Figures?

Foure: two of quantitie, and two of quality.

Which is the first of those that belong to quantitie.

In euery Syllogisme it behooueth eyther one or both of the premisses to be vniuersall.

Why so?

Becauſe that of two meere particular Propoſitions, nothing by order of Logick can conſequently follow: As for example, This Syllogiſme is not good: Some ſenſible body is a Man, but ſome Horſe is a ſenſible body: *Ergo*, a Horſe is a Man. The like reaſon is alſo to be vnderſtood, when the premiſſes are indefinite Propoſitions, yea or ſingular Propoſitions, if the meane terme be not likewiſe ſingular, for then it maketh a Syllogiſme expoſitorie, whereof we ſhall ſpeake hereafter.

Which is the ſecond Rule that belongeth to quantitie?

If any of the premiſſes be particular, then the concluſion alſo muſt be particular.

Why ſo?

Becauſe the concluſion being implyed of the premiſſes, ought alwayes to follow the weaker part of the ſame premiſſes, but the particular is alwayes accounted weaker then the vniuerſall, and the Negatiue weaker then the Affirmatiue.

What is the firſt Rule belonging to qualitie?

In euery Syllogiſme it behoueth eyther one or both of the premiſſes to be affirmatiue.

Why ſo?

Becauſe that of two pure Negatiue Propoſitions nothing can be orderly concluded, as in this example: No man is a tree, but no Peare-tree is a man: *Ergo*, No Peare-tree is a tree: which Syllogiſme cannot be good, for the premiſſes are both true, and the concluſion is falſe.

Which is the ſecond Rule belonging to qualitie?

If any of the premiſſes be Negatiue, then the concluſion muſt alſo be Negatiue.

Why ſo?

Becauſe (as it hath beene ſaid before) the concluſion muſt follow the weaker part.

Which be the ſpeciall Rules belonging to the three Figures?

In the firſt foure Moods of the firſt Figure directly concluding the Minor, may not be a Negatiue, nor the Maior particular, but vniuerſall.

In the ſecond Figure, the Maior muſt not bee particular, and

and one of the premisses must bee a Negatiue.

In the third Figure, the Minor must not bee a Negatiue, nor the conclusion vniuersall: but as for the quantitie and qualitie of euery Proposition in euery kinde of Syllogisme, of what Figure soeuer it bee, it shall plainely appeare by the Vowels, or rather Syllables of the Moods, otherwise called words of Art, annexed to the examples hereafter following.

First, giue examples of Syllogismes of the first Figure, and of his foure perfect Moods directly concluding.

CHAP. VI.

Examples of the foure perfect Moods belonging to the first Figure.

THE first Mood of the first Figure, is when three termes being giuen, a Syllogisme is made of two vniuersall Affirmatiues directly concluding an vniuersall Affirmatiue, as this Syllogisme heere following: the termes whereof bee these, Sensible body, Substance, and Man placed in this sort.

Bar- *Euery sensible body is a substance,*
ba- *But euery man is a sensible body:*
ra. Ergo, *Euery man is a substance.*

The name of this Mood is called *Barbara*, diuided into three Syllables, placed in the margent right against the Syllogisme, to shew the quantity and quality of euery Proposition, according to the significations of the Vowels contayned in euery Syllable: and so are all other names of the Moods hereafter following.

The second Mood is, when three termes being giuen, a Syllogisme is made of an vniuersall Negatiue Maior, and of an vniuersall Affirmatiue Minor, directly concluding an vniuersall Negatiue: As for example, let the termes bee these: Sensible Body, a Man, a Stone, and the Syllogisme thus:

Ce-

Ce- *No sensible body is a stone,*
la- *But euery man is a sensible body:*
rent. Ergo, *No man is a stone.*
The name of this Mood is *Celarent.*

The third Mood is, when three termes being giuen, a Syllogisme is made of an vniuersall Affirmatiue Maior, and of a particular Affirmatiue Minor, directly concluding a particular Affirmatiue: As for example, let these be the termes: Sensible Body, Substance, and Man, and the Syllogisme thus:

Da- *Euery sensible body is a substance,*
ri- *But some man is a sensible body:*
j. Ergo, *Some man is a substance.*
The name of this Mood is *Darij.*

The fourth Mood is, when three termes being giuen, a Syllogisme is made of an vniuersall Negatiue Maior, and a particular Affirmatiue Minor, directly concluding a particular Negatiue: As for example, let these bee the termes: Sensible Body, Man, and Stone: and the Syllogisme thus:

Fe- *No sensible body is a stone,*
ri- *But some man is a sensible body:*
o. Ergo, *Some man is a stone.*
The name of this Mood is *Ferio.*

CHAP. VII.

Examples of the fiue vnperfect Moods of the first Figure.

ue examples of the fiue Moodes of the first Figure directly concluding.

The first Imperfect Moode of the first Figure indirectly concluding, is when the Maior and Minor, being both vniuersall Affirmatiues, doe conclude indirectly a particular Affirmatiue, as thus:

Ba-

Ba- *Euery sensible body is a substance,*
ra- *Euery man is a sensible body:*
lip. Ergo, *Some substance is a man.*

The name of this Mood is *Baralipton*, whereof the last syllable, *ton*, is only to fill vp the Verse, as hath beene said before.

The second Imperfect Mood, is when a Syllogisme is made of an vniuersall Negatiue Maior, and an vniuersal Affirmatiue Minor, indirectly concluding an vniuersall Negatiue, as thus:

Ce- *No sensible body is a tree,*
lan- *Euery man is a sensible body:*
tis. Ergo, *No tree is a man.*

The name of this Mood is *Celantis.*

The third Imperfect Mood, is when a Syllogisme is made of an vniuersall Affirmatiue Maior, and of a particular Affirmatiue Minor, indirectly concluding a particular Affirmatiue, as thus:

Da- *Euery sensible bodie is a substance,*
bi- *Some man is a sensible body:*
tis. Ergo, *Some substance is a man.*

The name of this Mood is *Dabitis.*

The fourth Imperfect Mood, is when a Syllogisme is made of an vniuersall Affirmatiue Maior, and of an vniuersall Negatiue Minor, indirectly concluding a particular Negatiue, as thus:

Fa- *Euery sensible body is a substance,*
pes- *No tree is a sensible body:*
mo. Ergo, *Some substance is not a tree.*

The name of this Mood is *Fapesmo.*

The fift Imperfect Mood, is when a Syllogisme is made of a particular Affirmatiue Maior, and of an vniuersall Negatiue Minor, indirectly concluding a particular Negatiue, as thus:

Fri- *Some sensible bodie is a substance;*
se- *But no tree is a sensible body:*
so. Ergo, *Some substance is not a tree.*

The name of this Mood is *Frisesomorum*, whereof the two last syllables (as hath beene said before) are only put to make vp the Verse.

CHAP. VIII.

Of the foure Moods belonging to the second Figure.

Iue examples of the foure Moods belonging to the second Figure.

The first Mood of the second Figure, is when a Syllogisme is made of an vniuersall Negatiue Maior, and of an vniuersall Affirmatiue Minor, directly concluding an vniuersall Negatiue, thus:

Ce- *No stone is a sensible body,*
sa- *Euery man is a sensible body:*
re. Ergo, *No man is a stone.*

The name of this Mood is *Cesare.*

The second Mood, is when a Syllogisme is made of an vniuersall Affirmatiue Maior, and of an vniuersall Affirmatiue Minor; directly concluding an vniuersall Negatiue, as thus:

Ca- *Euery man is a sensible body,*
mes- *But no stone is a sensible body:*
tres. Ergo, *No stone is a man.*

The name of this Mood is *Camestres.*

The third Mood is when a Syllogisme is made of an vniuersall Negatiue Maior, and of a particular Affirmatiue Minor, directly concluding a particular Negatiue, as thus:

Fes- *No stone is a sensible body,*
ti- *But some man is a sensible body:*
no. Ergo, *Some man is not a stone.*

The name of this Mood is *Festino.*

The fourth Mood, is when a Syllogisme is made of an vniuersall

uerſall Affirmatiue Maior, and of a particular Minor, directly concluding a particular Negatiue, as thus :

Ba- *Euery man is a ſenſible body,*
ro- *But ſome ſtone is not a ſenſible body :*
co. Ergo, *Some ſtone is not a man.*
The name of this Mood is *Baroco.*

CHAP. IX.

Of the ſix Moods belonging to the third Figure.

Giue examples of the ſix Moods, belonging to the third Figure.

The firſt is when a Syllogiſme is made of an vniuerſall Affirmatiue Maior, and of an vniuerſall Affirmatiue Minor, directly concluding a particular Affirmatiue, as thus :

Da- *Euery man is a ſubſtance,*
rap- *But euery man is a ſenſible body :*
ti. Ergo, *Some ſenſible body is a ſubſtance.*
The name of this Mood is *Darapti.*

The ſecond Mood, is when a Syllogiſme is made of an vniuerſall Negatiue Maior, and of an vniuerſall Affirmatiue Minor, directly concluding a particular Negatiue, as thus :

Fe- *No man is a ſtone,*
lap- *But euery man is a ſubſtance :*
ton. Ergo, *Some ſubſtance is not a ſtone.*
The name of this Mood is *Felapton.*

The third Mood, is when a Syllogiſme is made of a particular Affirmatiue Maior, and of an vniuerſall Affirmatiue Minor, directly concluding a particular Affirmatiue, as thus :

Di- *Some man is a ſubſtance,*
ſa- *But euery man is a ſenſible body :*
mis. Ergo, *Some ſenſible body is a ſubſtance.*

The name of this Mood is *Disamis*.

The fourth Mood, is when a Syllogiſme is made of an vniuerſall Affirmatiue Maior, and of a particular Affirmatiue Minor, concluding a particular Affirmatiue, as thus:

Da- *Euery man is a ſubſtance,*
ti *But ſome man is a ſenſible body:*
ſi. Ergo, *Some ſenſible body is a ſubſtance.*

The name of this Mood is *Datiſi*.

The fift Mood, is when a Syllogiſme is made of a particular Negatiue Maior, and of an vniuerſall Affirmatiue Minor, directly concluding a particular Negatiue, as thus:

Bo- *Some man is not a ſtone,*
car- *But euery man is a ſenſible body:*
do. Ergo, *Some ſenſible body is not a ſtone.*

The name of this Mood is *Bocardo*.

The ſixt Mood, is when a Syllogiſme is made of an vniuerſall Negatiue Maior, and of a particular Affirmatiue Minor, directly concluding a particular Negatiue, as thus:

Fe- *No man is a ſtone,*
ri- *But ſome man is a ſenſible body:*
ſon. Ergo, *Some ſenſible body is not a ſtone.*

The name of this Mood is *Feriſon*.

Thus you haue all the three Figures, together with their Moodes plainly ſet forth with examples.

CHAP. X.

Of a Syllogiſme expoſitorie.

AND now becauſe a Syllogiſme expoſitory is ſaid to bee a Syllogiſme of the third figure: I thinke it moſt meete to giue you an example thereof euen here: for I haue already defined the ſame before.

Yea, I remember ye ſaid it was expoſitorie, when the proofe or meane terme is an Indiuiduum: *but if ye giue examples, I ſhall the better vnderſtand it.*

Lee

Let this then be your example, to prooue ſome men to bee both Orators and Philoſophers, by a Syllogiſme expoſitorie thus: *Cicero* was an Orator: but *Cicero* was a Philoſopher: *Ergo*, ſome men are both Orators and Philoſophers: againe, to prooue that ſome rich men are not wiſe, thus: *Craſſus* was not wiſe, but *Craſſus* was rich: *Ergo*, ſome rich men are not wiſe. Thus you ſee that this kind of Syllogiſme ſerueth to proue both affirmatiuely and negatiuely, as it were by way of example.

CHAP. XI.

An Obiection concerning the three Figures, and Moodes belonging to the ſame.

TO what purpoſe ſerue ſo many figures and moodes, ſith the firſt figure, and the foure firſt moodes belonging to the ſame are onely perfect, yea; and ſo perfect indeed, as the Mathematicians in ſeeking out the truth of any probleme, will vſe none other, becauſe the firſt figure alone doth ſuffice to conclude all kinds of problemes whatſoeuer they be, whereby it ſhould ſeeme, that the two other figures, with their moodes, be ſuperfluous?

They be not altogether ſuperfluous; for as the firſt figure ſerueth chiefly and onely to conclude an vniuerſall affirmatiue, ſo the ſecond figure ſerueth to conclude an vniuerſall negatiue, and the third figure to conclude both a particular affirmatiue, and alſo a particular negatiue; as you may perceiue very well by the examples before rehearſed; neither bee the fifteene vnperfect moodes ſo vnperfect, but that they may eaſily bee reduced vnto the foure perfect, by one of theſe wayes heere following, (that is to ſay) either by conuerſion, or by tranſpoſing of the premiſſes: or elſe by a Syllogiſme leading to impoſſibilitie, of which three wayes of Reduction we come now to ſpeake: by which things it doth plainly appeare what difference there is betwixt a perfect and vnperfect Syllogiſme; for the perfect Syllogiſme hath no need of theſe helpes to make the Concluſion manifeſt, as hath beene ſaid before.

CHAP. XII.

Of Reduction, and of the kinds thereof, and also of the signification of certaine consonants in the words of Art seruing to Reduction.

What is Reduction?

Reduction here is none other thing, but a declaration, prooving or shewing the goodnesse of an vnperfect Syllogisme, by a Syllogisme of a perfect Mood.

How manifold is such Reduction?

Twofold; for it is either offensiue, or else by impossibility.

What is Reduction offensiue?

Reduction offensiue is, when a Syllogisme is reduced to his perfection, eyther by conuersion or by transposing the premisses, or else by both at once.

What meane yee by transposing of the premisses? for as touching conuersion ye haue spoken thereof before, Lib. 3. cap. 6.

The premisses are said to be transposed, when the Maior is put in the Minors place; or contrariwise the Minor into the Maiors place.

What is Reduction by impossibility?

Reduction by impossibilitie, is, when the goodnesse of the Syllogisme is so prooued, as the aduersary denying the same, must needs be brought to some absurditie, as to confesse two Contradictories to be both true at once, or some proposition to be false, which he hath confessed before to be true, or is manifestly true of it selfe. But first we will speake of Reduction offensiue, and then of Reduction by impossibility; and because that Reduction offensiue is done sometime by conuersion, and sometime by transposition, & sometime by both at once: and againe, that sometime one of the premisses, sometime both, & sometime no more but the conclusion onely is conuerted, and that sometime by simple conuersion, & sometime by conuersion *per accidens*: the Schoolemen for easement of the memory, haue made eight of the Consonants, besides the Vowels in the words of Art before mentioned, to be significatiue, and to declare

declare how euery propoſition ought to bee reduced.

For firſt, theſe foure Conſonants, *b.c.d.f.* (with one of the which euery vnperfect Mood doth begin) doe ſhew that ſuch vnperfect Moodes ought to bee reduced into thoſe perfect Moodes, which doe begin with the like letter, as,

Baralipton, Baroco, Bocardo, into *Barbar*,
Celantes, Cesare, Cameſtres, into *Celarent*,
Dabitis, Darapti, Diſamis, Datiſi, into *Darij*,
Fapeſmo, Friſeſomorum, Felapton, Feriſon, Feſtino into *Darij*

Which be the other foure Conſonants, and what do they ſignifie?

The other foure Conſonants put betwixt the Vowels, bee theſe, *ſ.p m.c.* whereof *ſ.* ſignifieth ſimple conuerſion, (that is to ſay) that the Vowell, which next before this Conſonant is to be ſimply conuerted, *p.* ſignifieth conuerſion *per accidens*, *m.* betokeneth tranſpoſition of the premiſſes, *c.* in the latter end or midſt of the Mood, betokeneth Reduction by impoſſibilitie, as in *Baroco* and *Bocardo*.

Giue examples, and ſhew how ſuch Reduction is to be made.

Firſt, as touching reduction by conuerſion, *Ceſare* is reduced into *Celarent* by ſimple conuerſion of the Maior: as this Syllogiſme is *Ceſare*.

Ce- *No tree is a ſenſible body,*
ſa- *But euery man is a ſenſible body:*
re. Ergo, *No man is a tree.*
} *which is reduced into Celarent, thus:*

Ce- *No ſenſible body is a tree,*
la- *But euery man is a ſenſible body:*
rent. Ergo, *No man is a tree.*

And *Cameſtres* is reduced into *Celarent*, by ſimple conuerting the Concluſion, and alſo by tranſpoſing the premiſſes, as this Syllogiſme in *Cameſtres*.

Ca- *Euery man is a ſenſible body,*
meſ- *But no tree is a ſenſible body:*
tres. Ergo, *No tree is a man.*
} *which is reduced into Celarent, thus:*

Ce-

Ce- *No sensible body is a tree,*
la- *But euery man is a sensible body:*
rent. Ergo, *No man is a tree.*

Festino is reduced into *Ferio*, by simply conuerting the Maior, as in this Syllogisme in *Festino.*

Fes- *No stone is a sensible body,*
ti- *But some man is a sensible body:* } *which is reduced into Ferio thus.*
no. Ergo, *Some man is not a stone.*

Fe- *No sensible body is a stone,*
ri- *But some man is a sensible body:*
o. Ergo, *Some man is not a stone.*

Darapti is reduced from *Darij*, by conuerting the minor *per accidens*, as this Syllogisme in *Darapti.*

Da- *Euery man is a substance,*
rap- *But euery man is a sensible body:* } *which is reduced into Darij thus.*
ti. Ergo, *some sensible body is a substãce.*

Da- *Euery man is a substance,*
ri- *But some sensible body is a man:*
j. Ergo, *Some sensible body is a substance.*

Ferison is reduced into *Ferio*, by simple conuersion of the minor, as this Syllogisme in *Ferison.*

Fe- *No man is a stone,*
ri- *But some man is a sensible body:* } *which is reduced into Ferio thus.*
son. Ergo, *Some sensible body is not a stone.*

Fe- *No man is a stone,*
ri- *But some sensible body is a man:*
son. Ergo, *Some sensible body is not a stone.*

And so forth in all the rest, according as the significatiue Consonants doe direct you.

Of

CHAP. XIII.

Of Reduction by Impossibilitie.

How is Reduction by impossibility made?

By ioyning the Contradictorie of the conclusion to one of the premisses, and to dispose the same according to some one of the perfect Moodes of the first figure, in such sort as you may thereby make your Conclusion contradictory to the premisse which you left out, and was granted by your aduersary, whereby your aduersary is brought into an absurditie, to confesse two contradictories, to be true both at once.

Give examples.

As for example, if your Aduersary would deny this Syllogisme in *Baroco*, euery man is a sensible body: but some tree is not a sensible body: *Ergo*, some tree is not a man: then you may reduce it to the first Moode of the first figure, which is *Barbara*, by making the contradictory of your Conclusion to be the Minor of your Syllogisme in this sort, Euery man is a sensible body: but euery tree is a man: *Ergo*, euery tree is a sensible body: which argument hee cannot denie, because hee hath granted the Minor to be true: for if this Proposition, some tree is not a man, bee false, then this proposition, euery tree is a man, must needs bee true, for two Contradictories cannot bee both true at once, and two true premisses must needes inferre a true Conclusion; and note that according to the diuersitie of the figures, the Contradictory of the Conclusion is diuersly disposed (that is to say) made eyther Maior or Minor accordingly; for in all the Moodes of the second figure it must bee made the Minor, the former Maior being still reserued; and in the third figure it must bee the Maior, the former Minor being still reserued.

To which of the perfect Moodes is euery vnperfect Moode to bee reduced by impossibilitie?

To know this, it shall bee needfull to learne, first, the vse of certaine words compounded of diuers sillables, and inuented by the Schoolemen for this purpose.

Which be those words?

The words bee these contayned in this Verse following, *nesciebatis : odiebam : letare Romanis* : whereof the first *nesciebatis*, contayning fiue sillables, representeth the fiue vnperfect Moods of the first figure : *odiebam* hauing foure sillables, betokeneth the foure vnperfect Moodes of the second figure : *letare Romanis*, contayning sixe sillables, signifieth the sixe vnperfect Moods of the third figure : in all which words the foure Vowels, *a. e. i. o.* doe still retaine their old significations before taught, seruing here chiefly to shew the quantitie and qualitie of euery Conclusion, for euery vnperfect Moode must bee reduced to that perfect Moode of the first figure, which hath such Conclusion as that vowell of the sillable representing that vnperfect Mood doth signifie : as for example in this word *nesciebatis*, here you see, that in the sillable *nes.* representing the first vnperfect Moode called before *Baralipton*, the vowell *e.* signifying an vniuersall negatiue, doth shew that this Moode is to bee reduced into *Celarent*, whose cõclusion is an vniuersall negatiue, so as by the order of the sillables in the word *nesciebatis*, together with the signification of the vowels contained in the said sillables, you may plainly perceiue that *Baralipton*, is to bee reduced into *Celarent : Celantes* into *Darij*, *Dabitis* into *Celarent*, *Fapesmo* into *Barbara*, *Frisesomo* into *Darij*. The like obseruation and consideration is to be had in the other words, representing the rest of the imperfect Moodes of the second and third figure: for *odiebam* appointeth *Cesare* to be reduced into *Ferio*, *Camestres* to *Darij*, *Festino* to *Celarent*, *Baroco* to *Barbara* : againe, *letare Romanis* appointeth *Darapti* to *Celarent*, *Felapton* to *Barbara*, *Disamis* to *Celarent*, *Datisi* to *Ferio*, *Bocardo* to *Barbara*, and *Ferison* to *Darij*, whereof I giue you no examples, because I would haue you to exercise your selfe in examining the former examples of the three figures, and to see how you can reduce each vnperfect Moode, to his perfect Moode by impossibilitie, according to these short Rules here set downe.

The Schoolemen, after they haue taught the vse of the Moodes, and of reduction, doe immediately treate of a Syllogisme, made in oblique cases, and also of the sixe habilities,

and

and three defects of a Syllogiſme : all which I willingly paſſe ouer with ſilence, as things more curious then profitable , for truly I know not whereto the Syllogiſme made in oblique Caſes, doth ſerue more then for varietie ſake.

CHAP. XIIII.

Of Syllogiſmes made in oblique Caſes, and of the ſixe Habilities, and three defects of a Syllogiſme.

Hat meane you by oblique Caſes?

You learned in your Accidents, that euerie Noune hath ſixe Caſes, (that is to ſay) the Nominatiue, the Genitiue, the Datiue, the Accuſatiue, the Vocatiue, and the Ablatiue, whereof the Nominatiue is onely right, and all the reſt are called oblique: as this is a Syllogiſme made in oblique Caſes: euery drawing beaſt belongeth to man, or is the beaſt of man: but an Oxe is a drawing beaſt: *Ergo*, an Oxe belongeth to man, or is the beaſt of man: and as for the ſixe habilities called *ſex poteſtates Syllogiſmi*, they are but meanes to prooue the goodneſſe of one Syllogiſme by another, or to ſhew which is more vniuerſall, or comprehendeth more then another, or to conclude a truth of falſe premiſſes, which God wot is a ſilly kind of concluſion, the beſt parts of which habilities are more eaſily learned by the rules and examples before giuen, then by thoſe that they ſet downe in their Treatiſes touching the ſame. Likewiſe the three defects, are none other but Elenches or Fallaxes, whereof there bee thirteene kinds ſet downe by *Ariſtotle* himſelfe, whereof we ſhal ſpeake hereafter, in their place, ſo as they might ſay that there are thirteene defects as well as three, and therefore leauing to trouble you with theſe things, I mind here to treat of a compound Syllogiſme.

CHAP. XV.

Of a compound Syllogiſme, and of the diuers kinds thereof.

WHat is a compound Syllogiſme, and how many kinds thereof be there?

A compound Syllogiſme is that which is made of compound Propoſitions, whereof there bee three ſorts, ſo they make three kinds of compound Syllogiſmes, (that is to ſay) conditionall, diſiunctiue, and copulatiue.

Of how many parts doth a compound Syllogiſme conſiſt?

Of three, as well as a ſimple Syllogiſme, that is, of the Maior, contayning two ſimple Propoſitions, and of the Minor, repeating the one part of the Maior, and of the Concluſion, concluding the other part of the Maior, as in this example: if this woman hath had a childe, ſhee hath layne with a man: but ſhee hath had a childe: *Ergo*, ſhe hath layne with a man.

How is the truth of a compound Syllogiſme to be found out?

By reducing the ſame into a ſimple Syllogiſme thus; euery woman that hath had a childe, hath layne with a man: but this woman hath had a childe: *Ergo*, ſhe hath layne with a man.

Are there no other kinds of compound Syllogiſmes?

No, if you conſider the order of concluding, there bee but three kinds or wayes, (that is to ſay) conditionall, diſiunctiue and copulatiue; but if you conſider the varietie in vttering ſuch Syllogiſmes, you may make ſeuen ſorts or wayes, whereof three appertaine to the conditionall, two to the diſiunctiue, and two to the copulatiue.

Which is the firſt way?

The firſt way is of the Antecedent, which being granted, the conſequent muſt needes follow, both affirmatiuely, and negatiuely: Affirmatiuely thus: if he be godly, he is bleſſed: hee is godly, therefore bleſſed: negatiuely thus, if he bee not godly, hee ſhall not bee bleſſed, but hee is not godly: *Ergo*, hee is not bleſſed.

Which is the ſecond way?

The

The ſecond way is of the Conſequent, which failing, the Antecedent muſt alſo needs faile, as thus: If hebe wiſe, he is free; but he is not free: *Ergo*, not wiſe.

Which is the third way?

The third way, is when by granting the Antecedent, the Conſequent faileth, as thus: If he be not wiſe, hee is wretched; but he is wiſe: *Ergo*, not wretched.

Which is the fourth way?

The fourth way, is when the former part of the Maior Propoſition diſiunctiue being put, the latter part is cleane taken away, as thus: He is eyther good or euill; but hee is good: *Ergo*, not euill.

Which is the fift way?

The fift way, is when the former part of the Diſiunctiue being taken away, the latter part muſt needes ſtand, as thus: Hee is eyther good or euill; but he is not good: *Ergo*, he is euill; for all Syllogiſmes Diſiunctiue, are made for the moſt part of parts repugnant, whereof there can be no more, but one true part.

Which is the ſixt way?

The ſixt way, is by putting a Negatiue before the Coniunction copulatiue, ſo as it maketh the Antecedent to ſtand, and taketh away the Conſequent, as thus: Hee is not both wiſe and wretched; but he is wiſe: *Ergo*, not wretched.

Which is the ſeuenth way?

The ſeuenth way, is when the Negatiue is placed in like manner before the Coniunction copulatiue, but yet ſo as the Antecedent being taken away, the Conſequent doth ſtand, as thus: Hee is not both wiſe and wretched; but hee is not wiſe: *Ergo*, wretched.

CHAP. XVI.

Of a Consequent, and by what meanes and rules the goodnesse thereof is to be knowne.

BVt sith the goodnesse of an Hypotheticall Syllogisme dependeth vpon the goodnesse of the Consequent: it shall not be amisse to treat heere of a Consequent, and first to define what it is, and to shew how it is diuided.

What is a Consequent?

A Consequent, is a speech consisting of such parts as doe follow one another, and are ioyned together with some rationall, (that is to say) an inferring or imploying Coniunction, as *Ergo*, then, therefore, and such like.

How many parts are requisite in a Consequent?

Three, that is, the Antecedent, the Consequent, and the inferring Signe or Note, for of these three parts euery Consequent consisteth.

How is it diuided?

Into two, that is, Good and Euill: againe, the good is diuided into two, that is formall and Materiall.

When is it said to be Formall?

When the Antecedent being true, the Consequent doth necessarily follow thereof, as when I say: This woman hath had a child, *Ergo*, she hath layne with a man.

When is it said to be Materiall?

When the Consequent doth not of necessitie, but casually follow, the Antecedent being true: as *Socrates* walketh abroad: *Ergo*, it is faire weather.

Whereupon doth the goodnesse of a Consequent chiefely depend?

It dependeth not so much of the truth of the Antecedent, and of the Consequent, as of the necessary connexion, or knitting of them together: and if the same be in forme of a Syllogisme, it requireth also the precepts of Mood and Figure before taught to be obserued.

How else shall a man know whether a Consequent be good or not?

By examining the same with the Maximes or generall Rules of the places: whereof some doe yeeld proofes or causes necessary, some probable, and some only coniecturall.

What rules doe the Schoolemen set downe to know a goood Consequent?

They set downe some more, some lesse, but *Cesarius* only reciteth two, which are these: The first is, if a Consequent doth necessarily follow of his Antecedent, then the contrary of the Antecedent must needes necessarily follow the contratie of the Consequent: As for example, because this is a good Consequent to say, it is a man: *Ergo*, it is a sensible body: it is a good Consequent to say, it is no sensible body: *Ergo*, it is no man: the reason thereof is, because the contrary of the Consequent and the Antecedent cannot bee both true together, but one of them must needs be false. The second rule is, that whatsoeuer followeth vpon a good Consequent, must needes also follow vpon the Antecedent thereof: As for example, if it be a good Consequent to say, it is a man: *Ergo*, it is a sensible body: ye may aswell say, if it be a sensible body: *Ergo*, it is a substance: and sith that a sensible body is a substance, you may therefore as well conclude that a man is a substance. To these rules you may adde also the third, which is, that of true things, nothing can follow but truth: but of false things, sometime that which is false, and sometime that which is true, as hath beene said before: and yet such truth followeth not by vertue of the false premises, but because the conclusion or Consequent is a true Proposition of it selfe: As in this this example. Euery sensible body is a tree, but euery Peare-tree is a sensible body: *Ergo*, euery Peare-tree is a tree.

CHAP.

CHAP. XVII.

Of a Syllogisme Demonstratiue.

HItherto wee haue treated of a Syllogisme, according to the first three of the foure diuisions thereof, before mentioned: for if yee remember well, wee said that according to the first diuision, a Syllogisme is either Categoricall or Hypotheticall, according to the second diuision, eyther common or expository, according to the third diuision, either perfect or vnperfect, and according to the fourth diuision, either Demonstratiue, Dialecticall, or Sophisticall, whereof we come now to speake, and first of a Syllogisme Demonstratiue.

What is a Syllogisme Demonstratiue?

A Syllogisme Demonstratiue is that which is made of necessary, immediate, true, certaine, and infallible Propositions, being first and so knowne, as they neede none other proofe.

What meane you by necessary and immediate Propositions?

Necessary Propositions be those which cannot be otherwise, as those which doe consist of the generall kinde, of the speciall kinde, of the difference, or of the propertie, as hath beene said before: and therefore *Aristotle* maketh a difference betwixt a Demonstratiue and a Dialecticall Proposition: for a Demonstratiue Proposition consisting of matter naturall, is necessarily true, and cannot be otherwise, but a Dialecticall Proposition, consisting of matter contingent, or casuall, is onely probable, and may be otherwise.

What be immediate Propositions?

Immediate Propositions are those which are first, and haue none before them, whereby they can bee prooued: as euery sensible body endued with reason, is apt to learne. *Aristotle* also setteth downe three properties or conditions belonging to the Subiect and Predicate of a Demonstratiue Proposition.

Which be those Properties?

These,

These to be spoken of all, by it selfe, and vniuersally.

What is to be spoken of all?

It is when the Predicate is knowne to bee altogether and alwaies in the Subiect, either as a part of the substance thereof, as when it is a generall kinde, the speciall kinde, the difference, or the propertie, as some inseparable accident alwaies incident to the said subiect, as when I say: Euery man is a sensible body: or euery man is endued with reason: or euery man is apt to speake: or euery Swanne is white: or euery fire is hot.

What is to be spoken by it selfe?

That is, when the Predicate is eyther the definition of the Subiect, as a man is a sensible bodie endued with reason: or else some part of the Definition, as a man is a sensible bodie, or man is endued with reason.

What is to be spoken vniuersally?

It is when the Predicate is in the Subiect, and in euery such Subiect by it selfe; and first, as when I say, a man is a sensible body endued with reason: heere this Predicate sensible body endued with reason, is not onely spoken of man, but of euery man in generall by it selfe: and first: for if yee should say, *Peter* or *Socrates* is a sensible body endued with reason: heere the Predicate is not spoken of any of these, as first, but in the second place, because they are comprehended vnder the word man. For generall kindes are said to be before speciall kindes, and speciall kindes before Indiuiduums, as hath bin said before.

How doth Aristotle *define Demonstration?*

In this sort: Demonstration is a Syllogisme made of such Propositions as are true: first immediate, & manifestly knowne, and be the causes of the conclusion: first and immediate here is all one, signifying such Propositions as need not to bee proued or made more euident by any other former Propositions. Againe, the premises must bee more knowne then the conclusion, for otherwise it should neither be Demonstration, nor yet good Syllogisme. Finally, the Premises must render the very cause of the conclusion: and therefore *Aristotle* in another place saith, that Demonstration is a Syllogisme causing knowledge and science.

What is Science?

It is a firme and assured knowledge of any thing.

What is to know?

We are said to know a thing, when wee know the true causes thereof, and that it cannot be otherwise: for to make a perfect Demonstration, wee must not only shew that there is such a thing as we goe about to proone, but also wee must shew the cause why it is so: for (as *Aristotle* saith) euery discipline and doctrine intellectiue dependeth vpon a former knowledge, which is two-fold, whereof the one is to know that the principles (that is to say) the premises of the Demonstration bee true, and the other is to know the true signification of the Subiect and Predicate of the question: for vnlesse a man know what the name of the Subiect signifieth, whereof the question riseth, and also the proper qualities of the same, how shall hee bee able to iudge, whether the proofe which is brought in to proue the question withall be to the purpose or not? Againe, vnlesse hee know the premises to bee true, the Demonstration shall breed no certaine knowledge in him.

Giue example of a Syllogisme Demonstratiue.

Let this be your example: euery sensible body endued with reason, is apt to learne: but euery man is a sensible body endued with reason: *Ergo*, euery man is apt to learne. Heere you see that in this Syllogisme the premises being true and first, doe render the cause of the conclusion: and thereby doe imply a most true Consequent: for whoso would goe about to demonstrate any of the premises by some other former, or more knowne Propositions, should lose his labour, sith there is none before them more certaine, nor more knowne to proue this conclusion withall then they: for to vnderstand the truth of these premises, it sufficeth onely to know the signification of the termes, and to haue some experience of the thing called Man: and therefore this kind of Demonstration is called of the Schoole-men, *Syllogismus Scientificus*, because it yeeldeth the perfect knowledge and Science of the thing in question.

CHAP.

CHAP. XVIII.

Of the certaintie of mans knowledge.

Whereof dependeth the certaintie of Mans knowledge?

Of three things, that is, of vniuersall experience, of principles, and of naturall knowledge that a man hath in iudging of Consequents: for these bee three infallible rules of certitude or truth in all kindes of Doctrine.

What is vniuersall experience?

Vniuersall experience is the common iudgement of men, in such things as are to be perceiued and knowne by the outward sences: as Fire to bee hot, the Heauens to turne round about, Wine and Pepper to bee hotte in operation, Women to bring forth Children, and not Men: which things all men (vnlesse they bee madde, and out of their wits) must needes confesse to be true.

What be Principles?

Principles bee certaine generall conceptions and naturall knowledges grafted in mans minde of God, to the intent that by the helpe thereof, he might inuent such Arts as are necessary in this life for mans behoofe; for by the naturall knowledge of the mind we vnderstand Number, Order, Proportion, and all other necessary Arts and Sciences.

How doth Aristotle *define Principles?*

In this manner: Principles be true Propositions, hauing credit of themselues, and need no other proofe.

How many Diuisions doe the Schoole-men make Principles?

Diuers.

Rehearse those Diuisions.

The first is, of Principles, some be called Speculatiue, and some Practiue: The speculatiue bee those naturall knowledges or Propositions, whereof Naturall Philosophie or the Mathematicall Sciences be grounded, as these: The whole is more then his part: Those things which are equall to a third, are

equall among themselues: of one simple body, there is but one naturall moouing, and such like. The Principles Practiue, bee those naturall knowledges, whereby mens manners are gouerned: for by this naturall light we know the difference betwixt good and euill: As for example: these be Principles Practiue: God is to be honoured and obeyed: Iustice is to be embraced: ciuill societie is to bee maintained, and the disturbers thereof to bee punished: these and such like Propositions are naturally receiued of all men as infallible verities. Againe, of Principles, some bee called Generall, and some Proper. The Generall, bee those that may be applyed to many Sciences, as these: the whole is more then any of his parts, if equall be taken from equall, equall doe remaine and such like. The proper Principles bee those, that are properly belonging to some one certaine Science, as a Line to bee a length without breath, is a principle of Geometrie: Againe, this proposition, euery thing is, or is not, is a principle of Logick: and to bee short, euery Science hath his proper principles: of which some bee called Dignities or Maximes, and some Positions.

Wherefore are they called Dignities or Maximes?

For that they are worthy to bee credited for their selfe sake, for so soone as we heare them in such speech as we vnderstand, we naturally know them to be true without any further proofe as these. Take equall from equall, and equall will remaine: the whole is more then any of his parts, &c.

What be Positions?

Positions be those principles, which although they need no other proofe, yet they be not so easily vnderstood of all men at the first vttering, as Maximes bee: for in these, besides the knowledge of the termes, it is needfull to haue also some experience, as in these Principles. Euery thing that is compounded of matter and forme is moueable: whatsoeuer is heauie, tendeth naturally downward, and whatsoeuer is light, tendeth vpwards. Againe, of Positions, some are called Definitions, and some Suppositions, and of Suppositions, some are called Petitions, called in Latine *Postulata*, and some Suppositions assumpted.

Define

Define these kinds?

1 Definition sheweth what the thing is.

2 Supposition is that which supposeth a thing to be, or not to be, as the Geometricians doe suppose that there is *Punctum*, (that is to say) a pricke, or a thing indiuisible, hauing neither length, bredth, nor depth.

3 Petition is a Proposition asked and granted to be true: as this is a petition in Geometry, that a man may draw a right Line from one point to another.

4 Supposition assumpted is, when a manifest supposition is assumpted to proue another thing withall, as to proue that Demonstration consisteth of true Propositions, the Disputer will assumpt this assertion, which saith, that of false things there is no certaine knowledge: and trueth is not knowne but of true things.

What is the third thing whereof the certaintie of mans knowledge dependeth?

It is the knowledge that man hath in iudging of Consequents, which is not altogether artificiall, but partly naturall, for God thought it not sufficient for mans behoofe to know simple Propositions, as Principles or common Conceptions gotten by experience, vnlesse hee could also compare them together, and ioyne things like, and agreeable together, and seuer things vnlike, and disagreeing one from another, and by such comparison and composition to finde out things before not knowne: and to the intent wee should not erre or wander out of the right way, God hath shewed vs an order, and prescribed certaine bounds and limits of necessitie to bee obserued in such composition, which bounds are Syllogismes rightly made: for so doe the Consequents plainly appeare: And because that proportions are knowne by nature, it shall not be amisse to giue you an example in numbers: for three knowne numbers being placed in true order of a Syllogisme, a fourth number vnknowne, of necessitie doth follow, as in this question: If one pound of waxe be worth a groat, what is tenne pound of waxe worth? Marry tenne groates, which is prooued by a Syllogisme in this manner: Euery pound of

waxe is worth a groat, but here is ten pound of waxe: *Ergo*, they are worth ten groats: and like as in these kinds of Sillogismes Arithmeticall, the proportion which is to bee iudged by mans naturall knowledge, doth shew the Consequent to bee infallible, euen so the Consequents in other Syllogismes are shewed to be infallible, by such demonstrations as are not farre fetched, or doubtfull, but are manifest, plaine and euident.

CHAP. XIX.

Of the two kinds of Demonstration.

Ow doe the Schoolemen diuide Demonstration?

Into two; that is, perfect and vnperfect: and they call the perfect, *demonstratio propter quid*: and the vnperfect, *demonstratio quia est*.

It is perfect, when it proceedeth from the proper cause to the effect, called of the Schoolemen, *à priore*: for in that demonstration the Antecedent containeth the proper and true cause of the consequent; as when we say, the Sunne is vp: *Ergo*, it is day.

What is to be obserued in a perfect Demonstration?

That the Predicate of the Conclusion, which is also Predicate in the Maior, bee first, properly, alwayes, and that really and accidentally, incident to the subiect of the Maior, and to euery thing contained vnder the same; which subiect must bee some generall kind, and the very meane or proofe of your conclusion: As for example, if you would prooue a Cocke to be a feathered fowle, it were not a sufficient demonstration to say, that euery flying beast is a feathered fowle; for some beastes flye, that haue no feathers; as Backs, that flie in the night season. But if you say, that euery Bird is a feathered fowle, and euery Cocke is a Bird: *Ergo*, euery Cocke is a feathered fowle: you shall make a perfect demonstration, because the Subiect, and Predicate of the Maior, haue such conditions as are before required; for this Maior sheweth the thing to be, and also wherefore it is, which is done so often as the Predicate is the true definition

finition of the Subiect: as when I ſay, Euery man is a ſenſible body endued with reaſon, or elſe ſome chiefe part of the definition, as when I ſay, Euery man is endued with reaſon, as hath beene ſaid before: for euery good demonſtration is either made of a true definition, or taken from the general kind, ſpecial kind, or elſe from the ſpeciall difference, or propertie, yea, and ſometime they may bee taken out of the whole and of the parts, of the proper cauſes and effects, of perpetuall adiacents, otherwiſe called common accidents, of proper acts, of contrarieties, and of diuine authoritie, whereof you haue had examples before in the Treatiſe of places, and ſeates of arguments.

When is it ſaid to be an vnperfect Demonſtration?

When the premiſſes are true, implying a true Conſequent, but yet are not firſt, neither doe they ſhew the originall cauſe of the Concluſion; as in this example: Euery ſenſible body is nourishable; but euery man is a ſenſible body: *Ergo*, euery man is nourishable: here though the premiſſes be true Propoſitions, yet they be not firſt, neither doe they ſhew the originall cauſe of the Concluſion: for the Maior of this Syllogiſme may bee prooued by a former and more knowne Propoſition; for that which is more generall, is more knowne then that which is leſſe generall, as thus: Euery liuing body is nourishable; but euery ſenſible body is a liuing body: *Ergo*, euery ſenſible body is nourishable. Againe, it is ſaid to be vnperfect, when we proceed from the effect to the cauſe; as when we ſay, it is day: *Ergo*, the Sunne is vp. But that demonſtration which proceedeth from the cauſe to the effect, is the more worthier, becauſe wee vſe therein diſcourſe of reaſon and vnderſtanding: and in the other we only iudge by the outward ſences, whereof ſpring two principall kinds of Method, (that is to ſay) compendious or ſhort orders or wayes of teaching in all manner of Sciences, wherof the one is called compoſition, proceeding forward from the firſt to the laſt, and the other is called reſolution, proceeding backward from the laſt to the firſt, as hath beene ſaid before in the Chapter of Methode, *Lib.2.cap.5.*

CHAP.

CHAP. XX.

Of Science, Opinion, Ignorance, Wit, and of the foure Scientiall questions.

WHat other things are wont to bee treated of by the Schoolemen in Demonstration?

Diuers things; as what difference is betwixt Science and Opinion: also they treat of the diuers kinds of Ignorance, of prompt Wit: and of the foure Scienciall questions.

What difference is betwixt Science and Opinion?

Science, as hath been said before, is that which consisteth of necessary, certaine, and infallible Propositions, and of such things as cannot bee otherwise. Opinion is the knowledge of things casuall, which may bee sometime false, and sometime true.

How many kinds of Ignorance doe the Schoolemen make?

Two: that is to say, absolute, which of the Schoolemen is called *Ignorantia negationis*, and ignorance by false conception, which they call *Ignorantia affectionis*. The first is, when we vtterly deny to haue any knowledge of a thing at all: The other is, when we thinke to know that which we know not, being deceiued by some false perswasion, whereunto wee are affected, whereof it is called *Ignorantia affectionis*.

How doth Aristotle *define prompt wit, called of the Latines Solertia?*

Hee definetH it to be a promptnesse or readinesse, in quickly finding out the proofe or cause of any thing that is in question, without any studie.

Which be the foure Scientiall questions?

These: whether the thing be, what it is, how it is, and wherfore it is: whereof the first enquireth of the subiect, whether it be: the second of the Predicate, as what it is: the third, how it is, (that is to say) how the Predicate is spoken of the subiect: and the fourth asketh the cause why it is spoken of the subiect? And thus much of a Syllogisme Demonstratiue: now of a Syllogisme Dialecticall, or probable.

CHAP.

CHAP. XXI.

Of a Syllogisme Dialecticall.

Hat is a Dialecticall Syllogisme?

A Dialecticall Syllogisme is that which is made of probable and credible Propositions.

What things are said to be probable?

Things probable, according to *Aristotle*, are these that seeme true to all men, or to the most part of men, or to all wise men, or to the most part of wise men, or else to the most approued wise men: whereby it appeareth that things probable may be said fiue manner of wayes.

Shew how.

First, those things are probable, which vnto all men aswell learned as vnlearned being in their right wits, doe seeme to be true, as these: Euery mother loueth her childe: we loue them that loue vs: we must doe good to them that doe good to vs. Secondly, those things that seeme true to most men, as these: It is better for a communalty to be ruled by one Prince, then by many: It is not good to serue many masters at once. Thirdly, those things that seeme true to all wise men, as these: what thing soeuer is honest, the same is also profitable: Vertue is better then riches. Fourthly, those that seeme true to the most part of the wise and learned, as thus: the soule of man is immortall: the Sunne is greater then the earth. Fiftly, those things that seeme true to the most approued wise men, as these: The world had a beginning: it is better for a Prince to be loued, then feared of his Subiects. And generally vnder things probable are contained all true Propositions that be casuall, and not implying any necessitie. I say here, true Propositions, to exclude false Propositions, whereof Sophisticall Syllogismes are made, and not those which we call probable or Logicall Syllogismes; and yet such Propositions be not so true in deede, as those that be required in a Syllogisme demonstratiue, but onely doe seeme true, ingendring a certaine opinion in mans minde, doubting notwithstanding the contrary: for

it breedeth not a perfect knowledge as Science doth, whereby the minde is of all doubts throughly resolued. And note here, that the Schoolemen doe make the matter (whereof a Dialecticall Syllogisme doth consist) to be twofold, that is, *Materia remota*, in English, farre off: and *Materia propinqua*, (that is to say) nigh, or neere at hand.

What doth Materia remota containe?

These foure Dialecticall Predicates, (that is) Definition, called of the Schoolemen *Terminus*, property, generall kinde, and Accident: All which Predicates are before defined, and are called Predicates, because they are common words spoken of others. But truely I see no cause why these foure Predicates should be attributed to a Dialecticall Syllogisme, more then to a Sillogisme demonstratiue: for sure I am, that as good demonstrations may be made of these as of any other Predicates.

What is contained vnder Materia propinqua?

These: a Dialecticall Proposition, Probleme, and Position.

What difference is betwixt these three words, Dialecticall Proposition, Probleme, and Position?

A Dialecticall Proposition is a probable question vttered with a simple Interrogatory; as whether the mother loueth her childe? which is no question in deede, but to him that asketh.

A Probleme is a doubtfull question vttered with a double Interrogatory, as whether the least fixed starre in the firmament be greater then the Moone or not? or whether that the Sunne be bigger then the earth or not? Position is a wonderfull opinion maintained by some excellent Clerke, as to say, that all things are but one essence or being, as *Melissus* affirmed, or that all things doe continually flowe and change, as *Heraclitus* held, or that the earth moueth, and not the heauens, as *Copernicus* supposed, onely to finde out thereby the true motions of the Planets, and not for that he thought so in deed.

CHAP.

CHAP. XXII.

Of a sophisticall Syllogisme.

WHat is a Sophisticall or false Syllogisme?

A false Syllogisme is that which is either made of false Propositions, or else of such as seeme probable, and be not in deede, or else of probable premisses not rightly concluding: and of such Syllogismes there be three sortes, the one failing in matter, the other in forme, the third in both.

When is it said to faile in matter?

It faileth in matter, when the Syllogisme hauing true forme, is made of such Propositions as seeme probable, and bee not probable in deede, as thus: no opposites are both true at once, but subcontraries are opposites: *Ergo*, they are not true. Here though this Maior seemeth probable, because many opposites, as contraries, and contradictories, be neuer both true at once, yet it is not probable in deede: for those opposites which be called subcontrarie and subalternate, may bee both true at once as hath beene before.

When is it said to faile in forme?

It faileth in forme, when it is made of probable premisses, not rightly concluding: because they be not orderly disposed according to Moode and Figure, as thus: Some opposites are both true at once; but contradictories are opposites: *Ergo*, Contradictories are both true at once. Here the premisses be probable, but the Syllogisme halteth in forme, because that of meere particulars no good conclusion can follow.

When is it said to faile both in matter and forme?

It faileth both in matter and forme, when the premisses are neither probable, nor yet doe conclude rightly according to the rules of Logicke, as thus: No opposites are both true at once, but subcontraries are opposites: *Ergo*, no subcontraries are both true at once. Here first it faileth in matter, because the Maior, (as hath been said before) is not probable in deed. Againe, it faileth in forme, because that contrary to the rules of a

Syllogiſme, an vniuerſall concluſion is implied, one of the premiſes being particular, which ſhould not be.

Is there no other kindes of falſe Syllogiſmes?

Yes, there is another kinde of falſe Syllogiſme, called of *Ariſtotle, Syllogiſmus falſigraphus*, which proceedeth of the proper principles of ſome diſcipline miſconſtrued, or not rightly vnderſtood, as thus: All lines drawne from one ſelfe-point to another ſelfe-point, be equall: a right line and a crooked line be drawne from one ſelfe-point to another ſelfe-point: *Ergo*, a right line and a crooked line be equall, as you ſee in the figure *a. b.* in the Margent: Here the Maior being a principle in Geometrie, is not rightly vnderſtood; for the right meaning of the principle is, that the lines ſhould be alſo drawn in one ſelfe ſpace, and then they muſt needes be equall, (that is to ſay) all of one length: but as touching falſe Syllogiſmes, wee ſhall treate of them hereafter more at large in the Elenches: in the meane time we minde to ſpeake of the other kindes of arguments before mentioned; and firſt of Induction.

a b

CHAP. XXIII.
Of Induction.

What is Induction?

Induction is a kinde of argument, wherein we proceede from many particulars, to a vniuerſall concluſion, comprehending all the ſaid particulars: and by the particulars here I mean not only ſingularities, called in Latine *Indiuidua*, but alſo ſuch things as be leſſe common then that vniuerſall which is concluded; as when we proceed from many ſpeciall kindes, to ſome generall kinde comprehending the ſame, or from things leſſe common to more common.

What is to be obſerued in this kinde of reaſoning?

That the particulars be all of like nature; for if there be any one contrary or vnlike to the reſt, then the Induction is not good.

How manifold is Induction?

Twofold:

Twofold: Perfect, and Vnperfect: it is called perfect, when all the singularities are rehearsed: and vnperfect, when but some certaine parts are only recited.

Giue example of Induction.

Of an Induction, proceeding from meere singularities vnto vniuersall, let this be your example: Malmesie is hot, Gascoin wine is hot, Romney wine is hot, Sacke is hot, Renish wine is hot, French wine is hot, *& sic de singulis*: *Ergo*, euery wine is hot; which may bee brought into a Syllogisme thus: Euery thing that is wine, be it either of *Greece*, *Spaine*, *Italy*, *Germany*, *France*, or of any other countrey is hot, but euery wine is one of these: *Ergo*, euery wine is hot.

Giue example of an Induction proceeding from the speciall kinds to their generall kindes.

Of an Induction proceeding from the speciall kindes to the generall kinde, let this be your example: Euery Man hath mouing, euery Horse hath mouing, euery Oxe hath mouing, *& sic de singulis*: *Ergo*, euery sensible body hath mouing. In which example you see, that to euery speciall kinde is added an vniuersall signe to make your Induction good, which would not be so, if you should vse a particular signe, in saying, some Man, some Horse, some Oxe, and so forth.

Which of these two kindes of reasoning, eyther an Induction or a Syllogisme, is most familiar and easie to man?

Induction is more familiar to man then a Syllogisme, for the Syllogisme proceedeth from vniuersalities vnto particularities, which vniuersalities be more knowne to nature (that is to say) to the discourse of reason, and lesse knowne to our outward sences. But Induction proceedeth from particularities vnto vniuersalities, which particularities are more knowne vnto vs, (that is to say) to our outward sences, and lesse knowne to nature. Againe, by Induction wee are able to proue the principles of Demonstration, which are not otherwise to bee proued, as this principle: Euery whole is more then his part, may be proued by Induction in this sort: This whole is more then his part, and that whole is more then his part, neyther is there to be found any whole, but that is more then his part:

Ergo, Euery whole is more then his part. Also this principle, Euery sensible body endued with reason, is apt to learne, may be proued thus: This man is apt to learne; and that man is apt to learne, and so of the rest: *Ergo*, Euery sensible body endued with reason, is apt to learne.

CHAP. XXIIII.

Of an Enthimeme.

Hat is an Enthimeme?

An Enthimeme is an vnperfect Syllogisme, made for haste or speede, of two Propositions only, (that is) of one of the Premisses, called in this kinde of argument the Antecedent, and of the conclusion, called heere the Consequent: for the other of the Premisses being supposed to be true and well knowne, is left out of purpose, as a thing superfluous, and not needfull to be recited, and sometime the Maior is left out, as thus: Voluptuousnesse is not perpetuall nor proper, it is not therefore the chiefe felicitie: and sometime the Minor is left out, as heere: Euery good thing maketh his possessor the better, therfore voluptuousnesse is not good.

How shall a man know when the Maior or Minor is left out?

It is easie to know which of the Premisses is left out by this meanes: for if the Subiect of the Antecedent and of the Consequent be all one, then the Maior is left out, but if they bee not all one, but diuers, then the Minor is left out, as you may see in the two last examples, and the part lacking, being reduced together with the rest into a Syllogisme, will quickly shew the truth or falsehood of the Argument.

From whence are such kindes of Arguments gathered?

They are gathered for the most part from signes, which if they be necessarie, then the Enthimeme also is necessarie, as thus: The woman giueth milke: *Ergo*, shee hath had a childe, or is with childe; if the signes be probable, then the Enthimeme is also probable, as thus: This man is a night-gadder: *Ergo*, he is a thiefe.

CHAP.

CHAP. XXV.

Of an Example.

WHat is an Example?

An Example is a kinde of Argument, wherein wee proceede from one particular, to proue another particular, by reason of some likenes that is betwixt them, as thus: God did not punish the Niniuites because they repented: *Ergo*, Hee will not punish vs if we repent. God did not let to plague King *Dauid* for adulterie: *Ergo*, He will not let to plague any other King for committing the same offence.

Wherein differeth this kinde of Argument from the rest?

This kinde of Argument differeth in forme from all the rest before taught, for a Syllogisme proceedeth from the generall kinde to the speciall kinde, or otherwise. An Enthimeme imitating a Syllogisme, reciteth in his Antecedent the cause of the Conclusion. Againe, an Induction out of many particularities gathereth an vniuersalitie, none of which things is to be found in an Example, proceeding onely from one particular to another like particular. Notwithstanding *Aristotle* saith, that it may be reduced partly to an induction, and partly to a Syllogisme: for in taking the first particular, you may by an vnperfect induction imply an vniuersall Proposition. And so from that vniuersall Proposition to proceed by order of Syllogisme, vnto the other particular implyed in the conclusion of the Example, as in this Example: *Iudas* died euill: *Ergo*, *Pilate* also died euill: it may be first reduced into an vnperfect Induction thus: *Iudas* dyed euill, because hee was the author of Christs death, and did not repent: *Ergo*, Euery man that was author of Christs death, and did not repent, died euill. Into a Syllogisme thus: Euery man that was author of Christs death, and did not repent, died euill; but *Pilate* was author of Christs death, and did not repent: *Ergo*, *Pilate* died euill.

Whereto serues this kinde of reasoning by Example?

Exam-

Examples are very good in all morall matters, to perſwade, or diſſwade.

What is to be obſerued in reaſoning by way of Example?

You muſt in any wiſe be ſure that the ſimilitude or likeneſſe of the particulars doe make to the purpoſe which you intend, and that it be the very cauſe why the Predicate of the Antecedent properly belongeth to the Subiect, for otherwiſe the argument is not good; for if you ſhould reaſon thus; *Iudas* died euill: *Ergo, Peter* died euill: becauſe they were both ſinners: for their likenes in this behalfe is not the cauſe that *Iudas* died euill, but the cauſe before alledged.

From whence is this kinde of argument fetched?

From the places of Compariſon, as from the like, from the more, and from the leſſe, of all which the generall rule or Maxime is thus: In things like, is like iudgement or reaſon, as hath beene ſaid before in the Treatiſe of places: Thus farre of the foure principall kinds of reaſoning: now of the reſt, and firſt.

CHAP. XXVI.

Of the Argument called Sorites.

Hat is Sorites?

Sorites is a kinde of Argument proceeding as it were by certaine degrees vnto the Concluſion, which is gathered of many Propoſitions neceſſarily following one another, and are knit together, ſo as the Predicate of the firſt Propoſition is the Subiect of the ſecond, and the Predicate of the ſecond the Subiect of the third, and ſo forth euen to the laſt Propoſition, whoſe Predicate being ioyned to the Subiect of the firſt Propoſition, doth make the Concluſion as thus: The Soule of man doth moue it ſelfe: whatſoeuer moueth it ſelfe, is the beginning of mouing: the beginning of mouing hath no end, whatſoeuer hath no end, is immortall: *Ergo*, the Soule of man is immortall.

When

When is this kinde of Argument ſaid to be of force?

When it is made of Affirmatiue Propoſitions, wherein words of affinitie are neceſſarily ioyned together, as when kindes generall, differences, or properties, are ioyned with thoſe ſpeciall kindes, of whom they are ſpoken, or when proper effects are ioyned with their proper cauſes: for if the Propoſitions be either Negatiue, or doe not neceſſarily hang together, then it is no good Argument, as in Negatiues let this be your example: A Man is not a Lion, a Lion is a ſenſible beaſt: *Ergo*, Man is not a ſenſible beaſt. Now of Propoſitions not hanging neceſſarily together, becauſe that proper effects are not ioyned with their proper cauſes, let this common ieſt be your example:

Whoſo drinketh well, ſleepeth well,
Whoſo ſleepeth well, ſinneth not,
Whoſo ſinneth not, ſhall be bleſſed:
Ergo, *Whoſo drinketh well, ſhall be bleſſed.*

Which is no good Concluſion, for much drinke is not alwayes the cauſe of ſleepe, nor ſleeping the cauſe of not ſinning.

The Rhetoricians vſe another kinde of Argument, called *Gradatio*, which is much like to *Sorites*, ſauing that the ſubiect of the firſt Propoſition is not rehearſed in the Concluſion, for they vſe it rather as an ornament of ſpeech, then as a proofe: as the vertue of *Scipio* wan him Fame, Fame got him Enemies, and his Enemies procured his death.

CHAP. XXVII.

Of diuers other kinds of Arguments, and first, of a Dilemma, *and what kinds it comprehendeth.*

There be also other formes of Arguments, whereof some be Fallaxes, and some are good Conclusions, and they be these, Dilemma, Enumeratio, Simplex Conclusio, Subiectio, Oppositio, Violatio.

What is Dilemma?

Dilemma is an Argument made of two members, repugnant one to another, whereof which soeuer thou grantest, thou art by and by taken, as thus: It is not good to marry a wife, for if shee be faire, shee will be common; if foule, then lothsome: notwithstanding, this is but a slipperie kind of argument, vnlesse both the repugnant parts be such, as neither of them can be turned againe vpon the maker of the Argument, for then by conuersion, the *Dilemma* is soone confuted, as for example, you may conuert both parts of the argument last recited, thus: It is good to marry a wife, for if she be faire, shee shall not be lothsome, if foule, then not common: much like to this is that captious Argument, which *Protagoras* the Lawyer made against his Scholer *Euathlus*, who had couenanted to pay his Master a certayne summe of money at the first Sute or Action that hee should winne by pleading at the Law: whereupon his Master did afterwards commence an Action against him, and in reasoning with him of the matter, made him this *Dilemma:* Either (saith he) iudgement shall be giuen against thee, or with thee: if against thee, then thou must pay me by vertue of the iudgement; if iudgement be giuen with thee, then thou must also pay me by couenant; which the Scholer immediately confuted by conuersion in this sort: Either (saith he) iudgement shall be giuen with me, or against me; if with me, then I shall be quit by Law; if against me, then I ought to pay nothing by couenant.

What

What other intricate kinds of reasoning are said to be comprehended vnder Dilemma?

Diuers, whereof some be called Ceratins or horned Arguments, some Crocodolites, some Assistatons, some Pseudomenons.

Define all these kinds, and giue examples.

1 The horned Argument is, when by some subtile and craftie manner of questioning, we seeke to haue such an answere, as we may take vantage thereof, as the Pharises did, when they questioned with Christ, touching the payment of Tribute to *Cæsar*.

2 The Crocodolite is, when being deceiued by some craftie manner of questioning, we doe admit that which our Aduersarie turneth againe vpon vs, to our owne hindrance, as in the fable of the Crocodile, whereof this name Crocodolite proceedeth: for it is said, That the Crocodile hauing taken away a child from his mother, reasoned with her in this sort; I wil deliuer thee thy child againe, if thou wilt say a troth: whether therfore shal I deliuer him or not? The mother answered, Thou shalt not deliuer him, and therefore of right thou oughtest to deliuer him. No, saith he, I will not deliuer him, to the intent it may seeme that thou hast said troth; and though thou haddest said that I should deliuer him, yet I would not deliuer him indeed, for making thee a lyar.

3 Assistaton, is a kinde of cauelling, not consisting of any sure ground, as if a man did say, that hee doth hold his peace, or lyeth, or knoweth nothing; another by and by might cauill thereof in this sort: *Ergo*, He that holdeth his peace, speaketh, He that lyeth, saith truth, He that knoweth nothing, knoweth something.

4 Pseudomenon, is a false or lying kinde of cauelling, as thus: The heauen couereth all things: *Ergo*, it couereth it selfe. *Epimenides*, being a Candiot himselfe, said, That the Candiotes were lyers; the question is, whether he said true or not; for though hee said true, and that the Candiotes were lyers, yet it is false, because a Candiot said it: Againe, if the Candiotes be no lyers, nor *Epimenides* is a lyer, then he is to be beleeued.

How are the Fallaxes of these captious Arguments to be found out?

The Fallaxes of all these kinds of captious Argume ntare soone found out, if we consider well the Rules before taught, touching the repugnances of Propositions, as whether there be any ambiguitie in the Termes, and whether the selfe-same Termes in the repugnāt parts haue respect to one selfe-thing, time, or place, or not: it is good also to consider the substance, quantitie, and qualitie of the Propositions: for in the last example, this saying, Candiotes be lyers, is a Proposition indefinite, and therefore is not of such force, as to say, all Candiotes be lyers, which is an vniuersall Proposition, for of particular Premisses nothing rightly followeth. In the other examples you shal find that there is some doubtfulnes in the Termes, hauing respect either to diuers things, to diuers times, or diuers places, as to say, He holdeth his peace; when he speaketh: Here is doubtfulnesse in the Termes, hauing respect either to diuers things, that is to say, as well to those things, which he meaneth to keepe in silence, as to those words which hee vttereth by mouth: so in this word, Suite, in the example of *Protagoras*, was doubtfulnesse, for that *Protagoras* meant some other Suite, and not that which he himselfe commenced.

CHAP. XXVIII.

Of Enumeration.

What is Enumeration?

Enumeration is a kind of Argument, wherein many things being reckoned vp and denied, one thing onely of necessitie remayneth to be affirmed, as thus: Sith thou hast this Horse, either thou didst buy him, or he came to thee by inheritance, or hee was giuen thee, or bred at home with thee, or else thou didst take him from thine enemy in time of warre; or if none of these were, then thou must needs steale him: but thou neither boughtest him, nor he fell not vnto thee by inheritance,

nor

nor was giuen thee, nor bred vp at home with thee, nor yet taken by thee from the enemy: it followeth therefore of necessitie that thou hast stolne him.

When is this kind of Argument to be confuted?

When your Aduersarie can proue any necessarie part to be left out.

CHAP. XXIX.

Of a simple Conclusion.

Hat is a simple Conclusion?

A simple Conclusion is no other thing, but a necessary Enthymeme, in the which the Consequent doth necessarily follow the Antecedent, as thus: Shee hath had a childe: *Ergo*, shee hath layne with a man.

CHAP. XXX.

Of Subiection.

Hat is Subiection?

Subiection is a questioning kinde of Argument, in the which we confute each question with a reason immediatly following the same, as thus: How is this fellow become so well moneyed? Had he any great Patrimonie left him? No, for all his Fathers lands were sold. Came there any inheritance to him by discent any otherwise? No, for he was disinherited of al men. Came there any goods vnto him by Executorship, &c? If then hee hath not beene enriched by any of these honest wayes, either he hath a golden Myne at home, or else hee is come to these riches by some vnlawfull meanes. This argument fayleth when any principall part is left out, and therefore differeth not much from Enumeration before recited.

CHAP. XXXI.

Of Oppoſition.

Hat is Oppoſition?

Oppoſition is a kind of Argument, made of Repugnant parts, wherein we reuert from the Oppoſite of the firſt Propoſition, vnto the ſame Propoſition againe, as thus: If I were in the Citie at ſuch time as this man was ſlaine in the Country, then I ſlue him not; this Propoſition is now a ſimple Concluſion, and may be made an Oppoſition in this manner: If I had beene in the Country at ſuch time, as you ſay, this man was ſlaine, then you might well ſuſpect me to haue ſlaine him: but ſith I was not there at that time, there is no cauſe therefore why you ſhould ſuſpect me.

CHAP. XXXII.

Of Violation.

Hat is Violation?

Violation is a kinde of Concluding, more meete to confute then to proue, whereby wee ſhew the reaſon of our aduerſarie, to make for vs, and not for him, as thus: it is not good to marry a wife, becauſe that of marriage many times commeth the loſſe of children to our great ſorrow, yea, rather it is good therefore to marry a wife, to get other children for our comfort. Thus much touching the diuers kinds of reaſoning: now wee will treate of Fallaxes, or falſe Concluſions, and ſhew how to confute them.

Here endeth the fift Booke of Logicke.

THE

THE SIXT BOOKE OF LOGICKE.

CHAP. I.

Of Confutation.

There be ſome that make two kinds of Confutation, the one belonging to Perſon, the other to Matter. Confutation of Perſon is done either by taunting, rayling, rendring checke for checke, or by ſcorning, and that either by words, or elſe by countenance, geſture and action: which kinde of Confutation, becauſe it belongeth rather to ſcoffing then to true order of reaſoning, I will leaue to ſpeake thereof, dealing only with that Cõfutation that belongeth to Matter, which is two-fold, the one generall, the other ſpeciall: it is generall, when wee affirme that the Argument faileth either in forme, in matter, or in both. Againe, the generall Confutation is done three manner of wayes, that is, either by denying the Conſequent, by making diſtinction, or by inſtance (that is to ſay) by bringing in a contrarie Example.

Shew when theſe three wayes are to be vſed.

If the Argument faile in forme, then wee muſt denie the Conſequent.

Giue Examples.

Diſcipline

Discipline is necessarie, but the Ceremonies of *Moses* are Discipline, therefore the Ceremonies of *Moses* are necessary: here you must denie the Consequent, because that of meere particulars nothing followeth: and to be short, when any Argument is made contrary to the rules of Figure and Mood before taught, the Consequent is not good, and therefore to be denyed, as here: Euery couetous man doth violate the Lawes of liberalitie; but euery prodigall man doth violate the Lawes of liberalitie; therefore euery prodigall man is a couetous man: This Syllogisme, being of the second Figure, is made in *Barbara*, which Moode belongeth not to that Figure: But if the Argument faile in matter, that is, when either one of the premisses, or both are false, then it may be confuted aswell by denying the false part, be it Maior or Minor, as by vsing distinction: and to find out the falsenesse of the matter, it is necessary alwayes to haue respect to the Maxims of the places, from whence the proofe is fetched; for they doe shew which Propositions are true, and which are not; as for example in this Argument: No painted speech becommeth Philosophers: but eloquence is painted speech: *Ergo*, Eloquence becommeth no Philosophers: Here the Maior is to be denyed, because it is a false definition: for the true definition of eloquence is to speake wisely, aptly, adornedly, and to the purpose, and not to vse painted words vainely: Againe, whoso worshippeth God the Creator, worshippeth the true God; the Turks worship God the Creator: *Ergo*, the Turks worship the true God: This Argument is to be denyed, because the Minor is false; for no man can truely worship God the Creator, vnlesse he worship also Iesus Christ his Sonne, which the Turks doe not, and therefore they worship a fayned Idoll, and not the true God.

When is distinction to be vsed?

When either the words or matter is doubtfull.

Giue examples of both.

All Verbs actiue doe signifie action: but God vsed this Verbe Actiue, *Indurabo*, in saying, I will harden *Pharaohs* heart: *Ergo*, God did harden *Pharaohs* heart: here distinction

on is to be made; for Verbs actiue haue diuers ſignifications, according to the diuerſities of the Tongues wherein they are vttered: for in the Hebrew Tongue, Verbs actiue doe ſignifie permiſſion or ſufferance, aſwell as action; as theſe words, I will harden *Pharaohs* heart (is as much to ſay) as I will ſuffer *Pharaohs* heart to be hardened; likewiſe, whereas we ſay in the Lords Prayer, Leade vs not into temptation, is as much to ſay, as, Suffer vs not to be led into temptation. Againe, ambiguitie may be in this matter, as thus: No ſinnes are heard of God: but all men are ſinners; therefore no men are heard of God: here diſtinction is to be made betwixt penitent ſinners, and impenitent: for God will heare the penitent ſinner: although he will not heare the impenitent ſinner.

When is Confutation by inſtance vſed?

When the Argument, though it faile neither in forme, nor matter, yet perhaps it is neither ſo ſtrong, nor ſo probable, but that a ſtronger and more probable may be made againſt it.

Giue example.

Whoſo killeth any Embaſſadors in their iourneying, doth violate the Lawes of Armes: but the French-men killed our Embaſſador iourneying to *Spaine: Ergo*, the French-men in ſo doing did violate the Lawes of Armes: Here to the Maior a man may anſwere by inſtance, thus: The *Athenians* killed the Embaſſadors of the *Lacedamonians*, iourneying to the King of *Perſia*, becauſe they went to procure his aide, to deſtroy the Citie of *Athens:* So likewiſe the *Romanes* did intercept the Legates of *Hannibal*, going to the King of the *Macedonians* for the like intent; and yet neither of theſe people did thinke to breake the Lawes of Armes, by doing that which ſhould preſerue their State and Common-weale.

CHAP. II.

Of ſpeciall Confutation.

WHat is ſpeciall Confutation?

Speciall Confutation is, when we confute any falſe argument, by detecting and ſhewing the Fallax thereof, naming the Fallax by his proper name.

What order doth ARISTOTLE *obſerue in treating of ſpeciall Confutation?*

Ariſtotle firſt treateth in generall of all thoſe things that commonly appertayne to the diſputations of learned men, as firſt he treateth of an Elench, which is aſmuch to ſay as reprehenſion, then of Syllogiſmes, and of Diſputation, and alſo of the marks and ends of Sophiſtrie, and whereto they tend.

How defineth he an Elench or Reprehenſion?

Reprehenſion or Elench (ſaith he) is a Syllogiſme, which gathereth a concluſion cõtrary to the aſſertion of the reſpondent, as if a man would defend *Medea* not to loue her childe, becauſe ſhe killed it, another might reaſon againſt him in this manner: euery Mother loueth her child: but *Medea* is a Mother: *Ergo*, *Medea* loueth her child: the Concluſion of this Syllogiſme is contrarie to the firſt Aſſertion: and note here by the way, that there be two ſorts of Elenches, the one true, and the other falſe: it is ſaid to be true, when it rightly gathereth a contrarie concluſion to the reſpondents aſſertion: And falſe, when it faileth in any part requiſite to a true Elench: of which parts we ſhall ſpeake hereafter, when we come to treate of the Fallax, called Ignorance of the Elench, which is one of the fiue ends or marks wherunto Sophiſtrie tendeth, for a true Elench ſeemeth to belong vnto Dialecticall diſputation, rather then to Sophiſticall diſputation. But now leauing to define a Syllogiſme, becauſe it hath beene defined before, and therefore not needfull here againe to be rehearſed, I will proceede to Diſputation.

CHAP

CHAP. III.

Of Disputation: and how manifold it is.

Isputation is a contention about some question taken in hand, either for finding out of truth, or else for exercise sake, and there be foure kinds of disputation, whereof the first is called Doctrinall, because it appertayneth to Science.

The second is called Dialecticall, which belongeth to probable opinion.

The third is called Tentatiue, which serueth to try another mans knowledge, in any kinde of Science.

The fourth is called Sophisticall, which tendeth onely to deceiue.

Giue examples of all these foure kinds?

The Doctrinal Disputation vseth no other but Syllogismes Demonstratiue as this is, Whatsoeuer hath reason, is capable of learning; but *Iohn* hath reason: *Ergo*, *Iohn* is capable of learning. Dialecticall Disputation vseth onely probable Syllogismes, as the former example of *Medea*, Euery Mother loueth her child; but *Medea* is a Mother: *Ergo*, *Medea* loueth her child: against this another probable argument may bee made thus: Whosoeuer killeth her child, loueth not her child: but *Medea* killed her child: *Ergo*, shee loued not her childe. Tentatiue disputation vseth such arguments as are made of the first common principles of any science, in which principles whoso is ignorant, cannot be skilfull in that Science; as if a man would professe Geometrie, and know not the definitions of a point, or pricke of a line, or superficies, or of such common Maxims, as these are; the whole is more then his part: take equall from equall, and equall remaine, &c. should quickly bewray his owne ignorance.

Sophisticall disputation vseth nothing but deceitfull arguments, or Fallaxes, whereof there be thirteene kinds hereafter set downe: but first I will shew you which be the fiue Marks and Ends of Sophistrie.

CHAP. IIII.

Of the fiue Marks and Ends of Sophistrie.

ARISTOTLE saith, That the fraudulent disputation of the Sophister, tendeth alwayes to one of these fiue Ends or Marks; that is, either by force of argument, to bring you into some absurditie, which he calleth Elench; that is to say, a reprehension or reproofe, or else to make you to confesse that which is manifestly false, or to grant some Paradox, which is as much to say as an opinion contrary to all mens opinions: or to allow of incongrue speech contrarie to the rules of Grammar, called in Latine, *Solecismus*, or to admit some vaine repetition, called in Latine, *Nugatio*.

Giue example of all these fiue Marks.

Of the first Marke, let this be your example: If in disputing of Vertue, you haue perhaps granted, that the meditation of Vertue doth make a man sad, the Sophister will force you by argument, to denie againe that which you before granted, thus: All things that be contrarie, haue contrarie effects: but it is proper to Vice to make the minde of man sad: *Ergo*, Vertue maketh his minde glad: This kinde of reasoning is more plainely taught before, when wee talked of Reduction by impossibilitie.

Of the second Marke, let this be your example: Euery Dog hath power to barke; but there is a certayne Starre called the Dog: *Ergo*, that Starre hath power to barke. The Fallax of this argument consisteth onely in the word Dogge, which is equiuoke, as shall be declared more at large hereafter, when wee come to speake of that Elench or Fallax.

Of the Paradox, which is the third Marke, let this be your example: The Sophister will make you to grant, that a rich and happy King is wretched, by force of argument, thus: Whosoeuer is subiect to sin, is wretched: but all rich and happy Kings are subiect to sinne: *Ergo*, all rich and happy Kings

are

are wretched and miserable: in this is also a Fallax, because that happinesse is spoken here in two respects, for there is worldly happinesse, and heauenly happinesse.

Of the fourth marke called incongruitie of speech, I can hardly giue you any fit example in our natiue tongue, because that our English Adiectiues doe not differ in Case, Gender, and Number, and therfore I pray you content your selfe with this Latine example, for it is an easier matter for an Englishman to speake false Latine, then false English: the Sophister will make you to allow of this false Latine, *Mulier est candidus*, by force of argument, thus: *Omnis homo est candidus*, *at mulier est homo*, ergo, *mulier est candidus*; the English whereof is thus: Euery man is white, but woman is man: *Ergo*, a woman is white: here this word white in the Latine is of the Masculine gender, contrarie to the Rules of Grammar, but this may be very well referred to the Fallax, called forme of speech, hereafter declared.

Of the fift marke called Nugation, let this be your example: The Sophister will make you to allow of this vaine repetition: *Plato* is learned, a man learned, by force of argument, thus: *Plato* is learned, but *Plato* is a man learned: *Ergo*, *Plato* is learned; a man learned: here the premisses and the conclusion are all one thing, and therefore contrarie to the Rules of Logicke. But leauing these things as superfluous, and in my iudgement seruing to small purpose, if I may so say without offence, I minde therefore now to returne to my matter first intended.

CHAP. V.

How to confute all manner of Elenches, or Fallaxes, whatsoeuer they be.

Very Fallax consisteth either in words or in things: and of those that consist in wordes, there are in number sixe, and of others consisting in things, there are seuen, so as in all there be thirteene, as I said before.

Which be those sixe that consist in words?

Equiuocation, Amphibologie, or doubtfull speech, Coniunction, Diuision, Accent, and Figure, or forme of speech.

Shew what these Fallaxes be, and giue examples?

1 *Equiuocatio.* Equiuocation is, when the deceit consisteth in the doubtfulnesse of some one word, hauing diuers significations, as for example: Euery Dogge is a sensible body, there is a certayne Starre called a Dogge: *Ergo*, That Starre is a sensible body: here the Conclusion is to be denyed, because this word Dog hath diuers significations: another example, the Prophet saith that there is no euill in the Citie, but God doth it; but there be horrible euils in the Citie: *Ergo*, God is the Author of euill: the Conclusion is to be denyed, because in the Maior this word euill signifieth punishment, and in the Minor it signifieth sinne: another example, Whosoeuer loueth Christ, obseruetb his Word, and is beloued of the Father: but no body that breaketh the Law, obseruetb the Word of Christ; therefore no body is beloued of the Father: here the Maior is doubtfull, because this voice, Word, may be taken either for the word of the Law, or else for the word of the Gospell, which the Apostles did euer keepe, as Christ himselfe saith, and therefore they were beloued of the Father, and so consequently euery true Christian, that doth keepe the pure doctrine of Christ, is beloued of the Father: but the word of the Law saith, that euery one is cursed that abideth not in all.

2 *Amphibologia.* Amphibologie or doubtfull speech, is, when some whole sentence

ſentence is doubtfull, and may be interpreted diuers wayes, as the Oracle of *Apollo*, in ſaying, that *Creſſus* paſſing the Riuer of *Halis*, ſhall ouer-throw a great Empire: by which Oracle was meant, that hee ſhould ouer-throw his owne Empire, and not the Perſian Empire, which by wrong conſtruing that Oracle, he hoped to ſubdue.

Compoſition or Coniunction, is the ioyning together of things that are to be ſeuered. As for example, two and three be euen and odde, but fiue maketh two and three, therefore fiue is both euen and odde: which kinde of argument is to be denyed, becauſe thoſe things are ioyned together, which ought to be ſeuered. 3 *Compoſitio.*

Diuiſion is, when things are ſeuered, which ſhould be ioyned together, as, all the wiſe men of Greece are ſeuen: *Solon* and *Periander* are wiſe men of Greece, therefore *Solon* and *Periander* are ſeuen: here the Conſequent is to be denyed, becauſe *Solon* and *Periander* are ſeuered from the reſt whereunto they ſhould be ioyned. 4 *Diuiſio.*

The Fallax of Accent is, when words are not rightly and ſimply pronounced, as when wee doe adde to, or take from a word, any aſpiration, letter, or ſyllable, and thereby alter the true ſignification thereof, as this Latine word, *Hara*, ſignifying a Swines cote, being pronounced without *H*, doth ſignifie an Altar. In Engliſh let this be your example, Euery Hare is ſwift on foot, but this is a Hayer, (that is to ſay) a cloth to drie Malt, therefore it is ſwift on foot. Of like ſort is this old ieſt of a Maſter, that ſaid to his ſeruant: Go, heate this Capons legge: who immediately did eate it: then his Maſter being angrie, ſaid, I bade thee heat it, with an h: no Sir (ſaid the Seruant) I did eate it with Bread. Likewiſe, this Fallax may chance by not obſeruing the right quantitie of ſyllables, in any word, as *Populus* hauing o, long, is a Popple tree, but hauing o, ſhort, it ſignifieth a people. Or when a word vſed Interrogatiuely, is made to haue an Affirmatiue ſignification, as for example: *Caiphas* ſaid to Chriſt, Art thou a King? *Ergo*, He confeſſed Chriſt to be a King. Or when a word pronounced ironiouſly, is turned to good earneſt, in ſpeaking one thing 5 *Accentus.*

and.

and meaning another, as thus: My Master said, Come hither, you honest man: *Ergo*, He said that I was an honest man; when indeed he called him Knaue.

6 *Forma Orationis.*

The Fallax of forme or manner of speech may be diuers wayes, as first, when words are falsly supposed to be like either in signification, in Case, or in Gender, or to be of one selfe Predicament, because they are like in termination, as *Poeta*, in English a Poet, and *Poema*, in English a Poesie or Poeticall worke: these two words, because they end both in *a*: *Ergo*, they are both of the Masculine Gender. Also coloured and numbred are like in termination: *Ergo*, they are of one selfe Predicament, and yet the first belongeth to the Predicament of Qualitie, and the other to Quantitie. Secondly, when a word is vsed in one selfe argument, sometime according to his proper signification, and sometime as a terme of Arte: as for example, God is euery-where: euery-where is an Aduerbe, therefore God is an Aduerbe. A Mouse eateth cheese, but a Mouse is a syllable: *Ergo*, a syllable eateth cheese. Here Mouse in the Maior hath his proper signification, and in the Minor is vsed as a terme of Arte: and the like is to be said of the word Euery-where in the first example. Thirdly, when a word hath not his proper signification, or is not vsed according to the true phrase of speech wherin it is vttered, as thus: Whatsoeuer thou hast not lost, thou hast stil, but thou hast lost no Hornes: *Ergo*, thou hast Hornes. Here this word, to lose, hath not his proper signification, for wee are said to lose properly that which wee had, and not that which wee neuer had. And finally, this Fallax is called the common refuge and receptacle of all such kinde of Sophistrie. Hitherto of the Fallaxes in words, now of the Fallaxes in things.

CHAP.

CHAP. VI.

Of the Fallaxes in things.

F these Fallaxes there be seuen kindes (that is to say) *Fallacia Accidentis, à dicto secundum quid, ad dictum Simpliciter, Ignoratio Elenchi, Petitio principij, Fallacia Consequentis, Causa pro non causa, Plura interrogata pro vno responsu*: Which may be Englished thus: The Fallax of the Accident, the Fallax of speech respectiue, in stead of speech absolute, ignorance of the Elench, Petition of the principle, a cause that is not the cause indeed, and many questions comprehended in one.

Define what these be, and giue examples.

Fallacia Accidentis, may be diuers wayes: as first, when any thing belonging only to the substance of some thing, is attributed also to some accident of the said substance, and contrariwise as thus: Whatsoeuer thou hast bought, thou hast eaten, but thou hast bought rawe flesh: *Ergo*, thou hast eaten rawe flesh: here the Consequent is to be denyed, because the Maior hath respect to the substance, and the Conclusion to the qualitie. Another example, What I am, thou art not, but I am a man: *Ergo*, thou art none. Here in this the Maior hath respect to the qualitie, and the Conclusion to the substance. Secondly, when Accidents are not rightly ioyned together, as when the qualities of the bodie are joyned with the qualities of the minde: as *Homer* is a Poet, and *Homer* is blinde: *Ergo, Homer* is a blinde Poet: heere the Conclusion is to be denyed, because to be blinde, and to be a Poet, are diuers qualities, whereof the one belongeth to the minde, and the other to the body, and therefore are not rightly joyned together. Thirdly, as (*Melancthon* saith) when an accidentall cause is made a principall cause, as thus: *Elias* was an holy Prophet, but *Elias* was clad with Camels haire: *Ergo*, I being clad with Camels hayre, am a holy Prophet. Here the Conclusion

I. *Fallacia accidentis.*

is to be denied, becauſe to be clad with Camels haire, was not the cauſe of *Elias* holineſſe. But me thinkes that this and ſuch like examples doe belong rather to the Fallax of *Cauſa pro non cauſa*, (whereof we ſhall ſpeake hereafter) then to the Fallax of the Accident.

2 *Dictum ſecundum quid.*

The Fallax *A dicto ſecundum quid ad dictum Simpliciter*, chanceth when wee goe about to make a thing to ſeeme abſolute, that is ſpoken in ſome reſpect, or to bee in all, when it is but in part, as a Moore hath white teeth: *Ergo*, a Moore is white. Againe, it may bee in reſpect, by reaſon of time, place, perſon, compariſon, and ſuch like. Of time, as thus: I ſaw *Iohn* yeſterday, but I ſaw him not to day: *Ergo*, I did ſee him, and not ſee him. Of place thus: It is not good to buy and ſell in the Church: *Ergo*, it is not good to buy and ſell. Of perſon thus: A Magiſtrate may kill a Thiefe: *Ergo*, euery man may kill a Thiefe. Of compariſon, thus: Riches are not good to him that cannot vſe them: *Ergo*, Riches are not good.

3. *Ignoratio Elenchi.*

Hauing now to ſpeake of the Fallax, called the Ignorance of the Elench: I thinke good to call againe to your remembrance the definition of an Elench before briefly ſet downe, which is a Syllogiſme rightly gathering a Concluſion contrary to the aſſertion of the reſpondent, which contrarietie conſiſteth of foure principall points or reſpects, whereof, if any be wanting, then the contrarietie is not perfect.

Which be thoſe foure poynts?

Firſt, that it be to one ſelfe thing. Secondly, in one ſelfe reſpect. Thirdly, in one ſelfe manner. And fourthly, in or at one ſelfe time: for if you be deceiued at any time by ſome falſe Elench, in thinking that it rightly gathereth a Concluſion meere contrary to your aſſertion, when it is not ſo indeed, by reaſon that it faileth in ſome part requiſite and incident to a true Elench: then it may be rightly ſaid that you are deceiued by ignorance of the Elench, which Fallax, as *Ariſtotle* ſayth, comprehendeth almoſt all others, and therefore hee maketh a long and obſcure definition of an Elench, rehearſing all the particularities thereof, nothing apt to be vttered in our Engliſh Tongue.

Yet I pray you to giue examples of the foure chiefe points before mentioned.

Of the first, let this bee your example: foure is double to two, but not to three: *Ergo*, foure is double and not double; this is not to one selfe thing. Of the second thus: This piece of timber is double in length to that piece, but it is not double to the same in breadth: *Ergo*, it is to one selfe thing, both double, and not double to one selfe thing, but not in one selfe respect. Of the third thus: This Prince ruleth mightily, but not mercifully: *Ergo*, he ruleth, and not ruleth; this is not in like manner. Of the fourth thus: I saw *Iohn* yesterday, but not this day: *Ergo*, I saw him, and saw him not; this is not in one selfe time. And all these foure wayes in mine opinion are comprehended in the second point; which is when any thing is spoken not absolutely, but in diuers respects: wherefore, it differeth not much from the Fallax of speech respectiue before declared, sauing that this Fallax is more generall, and comprehendeth more kinds of Fallaxes then that doth.

Petition of the Principle is, when the Antecedent doth not proue the consequent, which chanceth most commonly three manner of wayes: that is, eyther when the proofe is as little knowne, as the thing that is to be proued. Secondly, when the proofe is lesse knowne then the thing to be proued. Thirdly, when the proofe, and the thing to be proued, doe not differ, but is all one speech, signifying one selfe thing, called of the Greekes *Tautologia*. 4 *Petitio principij.*

Giue example of these three wayes.

Of the first thus: The Sunne moueth not, but standeth still in the middest of heauen, giuing light to all the world: *Ergo*, the earth is moueable; or thus: The Heauens are not made of Elementall matter, subiect to corruption: *Ergo*, the Heauens are incorruptible. Heere in both these examples the Antecedent is as doubtfull as the Consequent, and therefore prooueth nothing. Of the second way thus: Euery sensible bodie sometime sleepeth: *Ergo*, Man sometime sleepeth. Heere it is more to be doubted whether all sensible Bodies, all Beastes, Fowles and Fishes, doe sometimes sleepe or not, then whe-

ther man doth sometime sleepe: for it is an easier matter to know the nature and propertie of one speciall kinde, then of all, or many kindes. Of the third way thus: *Iohn* is learned: *Ergo*, *Iohn* is learned. The soule doth liue euer: *Ergo*, it is immortall.

5. *Fallacia Consequentis.*

The Fallax of the Consequent chanceth two manner of wayes, that is, eyther when we thinke the Consequent to be conuertible with the Antecedent, but it is not so in deede, or else when we thinke, that vpon the contrary of the Antecedent, the contrary of the Consequent must needes also follow.

Giue examples of both these wayes.

This is a man: *Ergo*, it is a sensible body: now if I would hereof by conuersion conclude thus: it is a sensible body: *Ergo*, it is a man: this were no good Consequent; for euery sensible body is not a man. Likewise, when it rayneth, the ground is wet: *Ergo*, when the ground is wet, it rayneth; for these speeches are not conuertible. Of the second way thus: It is a man: *Ergo*, It is a sensible body. It is no man: *Ergo*, it is no sensible body. Heere you see that this Proposition, It is no man, is the contrary of the first Antecedent, which saith, It is a man. Of which contrary, the contrary of the Consequent doth not necessarily follow: for though it bee no man, yet it may bee some other sensible bodie. This Fallax comprehendeth all such false Arguments, as doe not obserue the Rules of right and true Consequents before giuen.

6 *Causa pro non causa.*

The Fallax of *non causa pro causa*, is, when that thing is made to be the cause of the Conclusion, which is not the cause in deede: as Wine is naught, because it will make a man drunke. Of which drunkennesse, Wine is not the cause, but the intemperance of the man, and his immoderate vse thereof; for many things that be good of themselues may be abused, yea, euen the libertie of the Gospell, and yet the doctrine of the Gospell is not cause thereof, but the malice of man abusing the same.

7 *Plura interrogata pro vno responsu.*

The seuenth and last Fallax, is when vnaduisedly, and without vsing any distinction, you make an answere to many questions,

questions, as though they were but one; as for example, The Sophister, seeing two men standing together, whereof the one is blinde, and the other hath his sight, will aske you, perhaps, whether they see, or not; whereunto if you answer directly, eyther yea, or no, you are by and by taken: for if you say that they see, then you grant that the blind man also seeth; and if you say, that they doe not see, then you grant, that hee which seeth, is blinde; but if you answere, that the one seeth, and the other not, you shall by such distinction easily auoyd the Sophisters cauillation: for diuers questions huddled vp in one, doe alwayes require diuers answeres. And thus I end,

with the order of confuting all false Elenches, and Fallaxes; the knowledge whereof is very necessary, for the maintenance of the truth, which God loueth, who is the fountaine of all truth, yea, and very truth it selfe; to whom be all honour, glory and prayse, world without end,

Amen.

FINIS.