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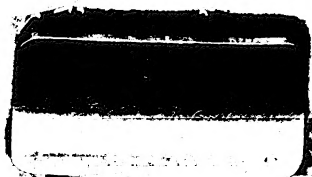
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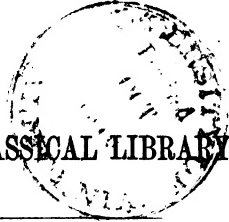
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THE
ORGANON, OR LOGICAL TREATISES,
OF
ARISTOTLE.

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WITH
THE INTRODUCTION OF PORPHYRY.

LITERALLY TRANSLATED, WITH NOTES, SYLLOGISTIC EXAMPLES,
ANALYSIS, AND INTRODUCTION.

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THE TOPICS.¹

BOOK I.

CHAP. I.—*Of the Argument of this Treatise: of Syllogism and its kinds.*

THE purpose of this treatise is to discover a method by which we shall be able to syllogize about every proposed problem from probabilities,

1. The design of this treatise set forth.

¹ It will contribute to the general elucidation of this treatise, if we remark, first, upon its scope and purpose, and secondly, upon the import of its title.

As to the first, then, Aristotle here discusses the probable or dialectic syllogism, in order that he who disputes (*ὁ διαλεγων*) may be able to syllogize concerning any problem upon each part, and to defend each, not from true, but probable assertions only, which are the appropriate province of this art. In a general sense indeed, *διαλεκτική* is not quite synonymous with what we understand by logic, but was rather the faculty of conversational disputation, of which logic was a species, and this is proved by the subject matter of each; that of logic being the uniform and absolute, that of dialectic being the merely probable syllogism. Still, though the term dialectic was greatly modified by previous philosophers, its meaning was limited by Aristotle, who enumerates four kinds of reasoning, conveyed under the colloquial form, viz. *λόγοι διδασκαλικοί, διαλεκτικοί, πειραστικοί, and ἔριστικοί*: upon the distinction between these, and upon the Aristotelian dialectic and its diversity from that of Plato, the reader is referred to Mansel's Introduction, Whately's Logic, and Ritter, vol. ii. It is merely necessary for our present purpose, to state that, with Aristotle, dialectic constituted "the art of disputing by question and answer, of attacking and defending a given thesis from principles of mere probability, such as the opinions of men in general, or of the majority, or of certain eminent authorities, and for this purpose, he collected *τόποι*, or general principles of probability, from which the premises of the disputants were to be drawn." As Mansel observes, "Each asked his opponent to grant certain premises, which ought *primâ facie* to be sufficiently probable to gain the assent of the other: these being granted, he endeavoured to deduce from them his own conclusion, or to involve his antagonist in contradictions resulting from such concession. For the constitution of the probable syllogism itself, the reader can profitably consult Crakanthorpe, or that portion extracted from lib. v. of his work, appended to Dr. Hessey's Schema Rhetorica. Cf. also Rhetoric, b. ii. ch. 25.

Concerning the position the consideration of dialectic occupies here,

and when we ourselves sustain the argument we may assert nothing repugnant. First, then, we must declare what a syl-

we may notice, that of the three parts of logic, the first, which treats of objects of simple apprehension, is contained in the Categories, also in the Introduction by Porphyry; the second part, upon the objects of enunciation, in the treatise on Interpretation; and the third, which considers the objects of syllogism, in the remaining treatises of Aristotle. This third part however is subdivided into four others; the 1st, which discusses syllogism in general, in the books of the Prior Analytics; the 2nd, of demonstrative syllogism, in the Posterior Analytics; the 3rd, of probable syllogism, in the Topics; and the 4th, of sophistical syllogism, in the Sophistical Elenchi: Aristotle draws however a distinction between the *ἔριστικός* and *σοφιστικός*, the former employing fallacy for a display of skill, the latter for pecuniary profit. As dialectic, or that part of logic which is contained in the Topics, has for its subject probable syllogism, so, the whole of logic is sometimes called dialectic; we must however remember that in the Topics it has for its subject probable syllogism, and so far agrees with demonstration in that it teaches the method of reasoning probably, as the other does demonstratively, the difference being that demonstrative logic is conversant, not with every matter, but alone with what is appropriate to itself, viz. demonstration and syllogism. The dialectic of Plato, different in form, is in object identical with the Metaphysics of Aristotle; besides, the latter delivers many arguments about one problem, but the former, one method about many problems. Upon the connexion between dialectic and rhetoric, the last being regarded as an offshoot from the first and politics, vide Rhetoric, b. i. ch. 1 and 2. The comparison of Zeno, of the difference between dialectic and rhetoric, to the hand open and closed, is well known, the fault of the simile being, that had it been stated exactly converse, it would have been nearer the truth.

The term "places," Aristotle uses (Rhet. b. i. ch. 2) for those forms of reasoning, properly logical or rhetorical, which apply to numerous subjects, differing in species, but the term "place" seems assumed in one way by rhetoricians, with Cicero in his topics, and in another way by Alexander and the dialecticians, with Aristotle here: thus Cicero defines a place "a seat of argument," and Quintilian "a seat of arguments in which they are latent, and from which they are to be derived;" whereas the dialecticians held these *τόποι* as universal propositions latent in certain seats, which may be assumed as the principles of a dialectic syllogism. But we must observe with Dr. Hessey, that Aristotle is not so exact as we might have expected in the use of the terms which he employs, and that every general statement or common principle may, on the Stagirite's own authority, be called a *τόπος* or *στοιχείον*. (Cf. Cicero de Inven. Rhet. lib. ii. c. 4; Cic. Topica; Sanderson's Logic, lib. iii.; Lord Bacon's "Colours of Good and Evil;" also Hessey's Introd. and table i.) It will be sufficient if we consider *τόποι* as general principles of probability, standing in the same relation to the dialectic syllogism, as the axioms to the demonstrative. Cf. the definition given Rhet. ii. 26: and as Mansel observes, the origin of the name may be illustrated by calling it the place in which we look for middle terms. Of these loci, there

logism is and what are its differences, in order that the dialectic syllogism may be apprehended, for we investigate this in the proposed treatise.

A syllogism then is a discourse in which, certain things being laid down, something different from the posita happens from necessity through the things laid down.^{1*} Demonstration indeed is when a syllogism consists of things true and primary,† or of such a kind as assume the principle of the knowledge concerning them through certain things primary and true; but the dialectic syllogism is that which is collected from probabilities.

Things true and primary indeed are those which obtain belief, not through others, but through themselves, as there is no necessity to investigate the "why" in scientific principles, but each principle itself ought to be credible by itself. Probabilities however are those which appear to all, or to most men, or to the wise, and to these either to all or to the greater number, or to such as are especially renowned and illustrious. Moreover a contentious syllogism is one which is constructed from apparent, but not real probabilities, and which appears to consist of probabilities, or of apparent probabilities.² For not every thing which appears

2. Definition of syllogism. Distinction between the demonstrative and the dialectic.

* Vide Anal. Prior ii. ch. 1.
† Vide Anal. Post. b. i. ch. 2 and 4.

3. Definition of probabilities (τὰ ἐνδοξα). Rhet. ii. 25; Poet. ch. 9.

4. Of the contentious syllogism. (Ἐριστικὸς συλλ.)

were two kinds, which the schoolmen call Maximæ and Differentiæ Maximarum; the former being propositions expressive of a general principle of probability and extending even to axioms, the latter consisting of one or more words, expressing the point in which one maxim differed from another; with Aristotle however the τόποι are always propositions. (Upon the word maxim, vide Sir W. Hamilton Reid's Works, p. 766; Petr. Hisp. Tract. v.) Since therefore dialectic is the art of syllogizing probably, concerning every matter, which cannot be done without knowing certain "places" and certain "maximæ," the principles of syllogizing probably, dialectic should be *principally* employed in delivering and explaining these places and maximæ, and hence it is called Topics from its principal part, and this treatise is inscribed a treatise on Topics.

¹ This definition is thus translated by Aulus Gellius, xv. 26. Oratio in quâ consensus quibusdam et concessis aliud quid quam quæ concessa sunt, per ea, quæ concessa sunt necessario conficitur. It will be remarked, that the introduction of the word *concessis* strictly limits the definition to the topical syllogism. Cf. Trendelenburg, Elem. sec. 21. Wallis, iii. 22 and 23.

² Upon the eristic syllogism, or, as Whately calls it, the art of wrangling, as enunciated by Zeno, see Whately's Logic, Introd. p. 3; and cf. Diog. Laert. Vit. Phil. ix. 25, and Athenæus ii. 102. Aristotle's defini-

probable is so, since none of those which are called probable has entirely the superficial image (of probability), as happens to be the case about the principles of contentious arguments, since immediately, and for the most part, the nature of the false in them is evident even to those who have small perception. Let then the first of the syllogisms called contentious, be also called a syllogism, but let the other be a contentious syllogism, yet not a syllogism (simply), since it appears indeed to draw an inference, but does not collect one.

5. Of paralogisms which consist of things appropriate to certain sciences.

Besides all the above-named syllogisms, there are paralogisms, which consist of things peculiar to certain sciences, as happens to be the case in geometry, and those (sciences) allied to it. For this mode seems to differ from the syllogisms

enumerated, since he who describes falsely, neither syllogizes from the true and primary, nor from the probable, for he does not fall into definition,* since he neither assumes things which appear to all men, nor those which appear to the greater number, nor to the wise, and to these neither to all, nor to the greater part, nor to the most famous; but he makes a syllogism

* i. e. the definition of the probable does not accord to the things he uses.

† i. e. from propositions.

from assumptions,† appropriate indeed to science, yet not from the true, as either by describing semicircles not as they ought to be, or by drawing certain lines not as they ought to be drawn, he produces a paralogism.

6. The method proposed does not contemplate accuracy of detail.

Let then the species of syllogisms, to comprehend them summarily, be those which I have stated, and in a word, to sum up all that have been spoken of, and those which shall be mentioned

hereafter, let our definition be so far given, because we do not propose to deliver an accurate description of any of these, but wish merely to run through them briefly, thinking it quite sufficient according to the proposed method, in some way or other to be able to know each of them.

CHAP. II.—*That this Treatise is useful for three purposes.*

1. That this treatise is usefully employed

It will be consequent upon what we have stated to describe to what an extent and for what subjects tion of this kind of fallacy will include logical deductions from false premises, as well as illogical deductions from any premises.

this treatise is useful. It is so for three; exercise, conversation, philosophical science. That it is useful for exercise, appears evident from these, that possessing method, we shall be able more easily to argue upon every proposed subject. But for conversation (it is useful), because having enumerated the opinions of the many, we shall converse with them, not from foreign, but from appropriate dogmas, confuting whatever they appear to us to have erroneously stated. Again, (it is useful) for philosophical science, because being able to dispute on both sides, we shall more easily perceive in each the true and the false; also, (it is applicable) to the first principles of each science, since we cannot say any thing about these from the appropriate principles of a proposed science, as they are the first principles of all, but we must necessarily discuss these* through probabilities in the singulars. This however is peculiar, or especially appropriate to dialectic, for being investigative, it possesses the way to the principles of all methods.¹

for exercise, conversation, and philosophical science.

* i. e. the principles of the sciences.

2. Dialectic opens the way to the principles of all methods.

CHAP. III.—*In what consists Dialectical Skill.*

WE shall possess this method perfectly when we are similarly disposed, as in rhetoric, medicine, and such like powers; and this is to effect what we choose† from possibilities, since neither will the rhetorician persuade from every mode, nor the physician heal, but if a man omits no possibility² we say that he sufficiently possesses science.

1. He is skilled in dialectic, who can effect a selected purpose by the application of every possibility.

† Vide Ethics, b. iii. ch. 2.

CHAP. IV.—*Of Problem and Proposition.*

FIRST then let us examine of what this method consists. If therefore we assume for how many, what

1. Of the particulars of this method: the

¹ Aristotle employs "method," either as an instrument for acquiring or communicating knowledge. (Vide de An. i. 1, et cf. Philop. Schol. p. 235, a. 10, or for knowledge reduced to a system, and thus as equivalent to *ἐπιστήμη*, as here; (Phys. Ausc. i. 1; Eth. Nic. i. 1;) or for a systematic treatise on any branch of knowledge synonymous with *πραγματεία*; (Polit. iv. 2; vi. 2; Eth. Nic. i. 2;) it is not treated of however, by Aristotle, in any of his logical writings: vide Mansel, p. 107.

² Calculated to persuade or heal. Cf. Waitz, vol. ii. p. 443.

concomitants of arguments and of syllogisms equal, and identical in number. Cf. Wallis's Log.

syllogisms are conversant; for arguments are constructed of propositions, but the things with which syllogisms are conversant are problems.¹ Now every proposition

2. Every proposition and problem shows either genus, property, accident, or definition.—Each of these per se not a problem nor a prop.

and every problem shows either genus, property, or accident; for difference, being generic, we must place together with genus. Since however of property, one kind signifies the very nature of a thing, but the other does not signify it, let property be divided into the two above-named parts, and let what signifies the very nature of a thing

be called definition, but let the other, according to the common appellation attributed about these, be called property. Now it is clear from what we have said, that according to the present division it happens that all are four, either property, or definition, or genus, or accident. Let however no one suppose that we say that each of these asserted by itself is a proposition or a problem, but that problems and propositions

3. That problem and prop. differ in mode.

are produced from these. Still a problem and a proposition differ in mode, since when it is thus said, is a pedestrian biped animal the definition

of man?² and is animal the genus of man? there is a proposition, but if (it should be said), whether is a pedestrian biped animal the definition of man or not? there is a problem. So also in other things. Wherefore with propriety problems and propositions are equal in number, for from every proposition you will make a problem by changing the mode.

¹ The sense of *προβλημα* in Anal. Prior i. 4, and i. 26, does not differ much from that in this place and at Top. i. 11. Alexander Schol. p. 150, b. 40, thus observes upon the word: *Τὸ γὰρ αὐτὸ γίνεαι προβλημα καὶ λήμμα καὶ ὁμολόγημα καὶ συμπεράσμα καὶ ἀξιῶμα· πάντα γὰρ προτάσεις τῇ σχέσει τὴν διαφορὰν ἔχοντα· προτιθέμενον γὰρ εἰς δεῖξιν ὡς μὴ γινώριμον πρόβλημα καλεῖται, λαμβανόμενον δὲ εἰς ἄλλον δεῖξιν λήμμα καὶ ὁμολόγημα· ἀξιῶμα δὲ ὅταν ἀληθὲς ᾖ καὶ ἐξ ἑαυτοῦ γινώριμον, δεδειγμένον δὲ συμπεράσμα.*

² Aristotle in this definition regards *πίζον* as a differentia: cf. on this ch. Metap. vi. 12; Porphyry's Isagoge; Crakanthorpe's Log. lib. ii. cap. 5.

CHAP. V.—Of Definition, Genus, Property, and Accident.

WE must describe what definition, property, genus, and accident are. Now definition is a sentence signifying what a thing is: and either a sentence is employed instead of a noun,* or a sentence instead of a sentence,† since it is possible to define some things which are signified by a sentence. As many however as in some way or other make the explanation by a noun,‡ evidently do not explain the definition of the thing, since every definition is a certain sentence. Still we must refer a thing of this kind to definition, as that the becoming is beautiful; in like manner also whether sense and science are the same or different, since about these definitions, whether they are the same or different, there is a very great discussion.¹ In short, however, all things may be called definitive which are under the same method with definitions, but that all which have been spoken of are of this kind is evident from these (considerations). For when we are able to argue that a thing is the same and that it is different, we shall by the same manner be well supplied with arguments about definitions, since when we have shown that it is not the same we shall have upset the definition. Still what is now said is not converted, since it is not enough to construct a definition to show that it is the same, § but for the subversion of definition it is sufficient to show that it is not the same thing.

1. What (ἄπορ) definition is, and of certain (ὀρεκά). Cf. Top. vi. 4 and 14, and i. 8; also Metap. vi. 11, De Anim. i. 1.
 * As, "man" is a rational mortal animal.
 † As, "not to be moved with fortuitous circumstances, is to bear adversity with fortitude and prosperity with moderation."
 ‡ i. e. to express an unknown by a known word.

§ Thus a garment and a vestment are the same, but neither of them a definition.

¹ Cf. An. Post. ii. 10; De Int. 5; Alex. Schol. p. 743, a. 31; and Philop. Schol. p. 244, b. 31. Though synonyms are denied to be real definitions by Aristotle, and admitted only as ὀρεκά, yet as nominal definitions, they are allowed by Alexander on Metap. vi. 4, p. 422, ed. Bonitz: but the genuineness of this portion of the commentary is questionable. Vide Mansel's Appendix, p. 13; Hill's, Wallis's, and Whately's Logic upon Definitions. From the portions of his works quoted in the margin, it will be seen that Aristotle entirely rejects physical and accidental (so called) definition: Aldrich's error as to the former, is well enunciated by Albert de Præd. Tract. i. ch. 6, and by Occam, pt. i. ch. 26. The only proper definition is metaphysical, by genus and differentiæ, so that it follows that summa genera which have no differentiæ, and individuals which are distinguished only by accidents, are not definable, but that the only definable notion is a species. Cf. Met. iv. 3.

2. Of property
(ιδιον). Cf.
Top. lib. v.,
and Porphyry's
Isagoge.

Property, indeed, is that which does not show what a thing is, but is present to it alone, and reciprocates with the thing. As it is the property of a man to be capable of grammar, for if he is a man he is capable of grammar, and if he is capable of grammar he is a man; since no one calls property that which may possibly be present with something else, as sleep to a man, not even if it should happen at a certain time to be present with him alone. If then any thing of this kind should be called property, it will not be called property simply, but at a certain time or with reference to something, since to be on the right hand is sometimes a property, but biped happens to be called property with reference to something, as to man with reference to horse and dog; but that nothing which may possibly be present with something else is reciprocally predicated is clear, since it is not necessary if any thing sleeps that it should be a man.¹

3. Of genus.
(Top. lib. iv.
Porphyry's
Isagoge, 2.)
Whately,
Wallis, Aldrich,
and Mansel.

Genus, however, is that which is predicated of many things differing in species, in (answer to) what a thing is; but let those things be said to be predicated in (answer to) what a thing is, which are fitted to answer the person inquiring what the proposed thing is, as it is adapted to man, when it is asked what the proposed thing is, to say that he is animal. Moreover it is generic,² whether one thing is in the same genus with another or in a different genus, since such a thing falls under the same method with genus, as having discussed that animal is the genus of man, and in like manner of ox, we shall reason that they are in the same genus; if, however, we should show that it is the genus of one of them, but not of the other, we shall reason that these are not in the same genus.*

* Cf. Crakant.
Log. lib. ii. 5.

¹ Porphyry with Arist. does not distinguish property from accident, as flowing necessarily from the essence, but as co-extensive, and simply convertible with its subject: the *ιδιον* of the former corresponds to the property, "quod convenit omni soli et semper." (Aldrich's Logic; Porph. Isag. xiv.) On the principles of Arist. and Porph. a generic property can only be regarded as an *ιδιον*, with respect to the highest species of which it is predicable. (Cf. Avicenna and Albert de Prædicab. Tract. ix. c. 1.) Porphyry makes difference, property, and accident, alike to be predicated *ἐν τῷ ὁποίῳν τι ἐστίν*.

² i. e. it ought to be discussed by the same method as genus: Taylor. He translates the word "general."

Accident, again, is that which is not any of these, neither definition, nor property, nor genus; yet it is present with a thing, and is that which may possibly be present with some one and the same thing and may not be present,¹ as, to sit may be and may not be present with some one and the same thing, and in like manner whiteness, for there is nothing to prevent the same thing being at one time white and at another not white. Now of these definitions of accident, the second is the better; since when the first is stated, it is necessary in order to understand it, to know previously what definition genus and property are, but the second is self-sufficient for the knowledge per se of what the thing asserted is.† To accident also let comparisons of things with each other belong, in whatever way they are derived from accident, as, whether the honourable or the advantageous be preferable, and whether a life of virtue or of enjoyment is the sweeter, and if there happens to be any other assertion similar to these, for in all things of this kind, the question arises as to which the predicate rather happens to belong.² Still from these it is manifest that there is nothing to prevent accident sometimes, and with reference to something, becoming property, as to sit being accident, when some one alone sits, will then be a property, but one not ‡ sitting alone, it will be a property with reference to those who do not sit, so that nothing prevents accident from becoming property in a certain relation and at a certain time; simply, however, it will not be property.

Port Royal
Log. pt. i. 6.
4. Of accident.
(Cf. lib. ii. and
iii. Top.)

† i. e. what
accident is.

‡ So Bekker
and Waitz.

¹ Of accidents, some belong to a class, others to an individual: of the former, those are inseparable, which, though not connected with the essence by any law of causation, are, as matter of fact, found in all the members of the class, and can be the predicates. Of an universal proposition, the separable accidents are, on the contrary, found only in some members of the class, and not in others, and therefore can only be predicates of particular propositions, e. g. "some horses are black:" of the accidents of the individual, the inseparable can be predicated of their subject at all times, e. g. "Virgil is a Mantuan." Mansel.

² He discusses these in his 3rd book, whence the Greek interpreters have entitled it *περί τῶν συγκριτικῶν τοπῶν*.

CHAP. VI.—*Of Arguments against Genus, etc., as applicable to the Subversion of Definition.*

1. Whatever is advanced against genus, property, and accident is subversive of definition, but an universal method is not for this reason to be looked for.

* Which is subverted if shown not present with a thing alone.

† So as to subvert it.

NEVERTHELESS we must not forget that every thing which is referred to property, genus, and accident will also be adapted to definitions, for by showing that a thing is not present with that alone which is under definition, as in the case of property,* or that what is given in the definition is not genus, or that some one of those things stated in the definition is not present, which may also be said in accident,† we shall have subverted the definition; so that, on account of the reason given before, all those things which have been enumerated will after a certain manner be definitive.

Nevertheless we must not on this account look for one method universal in all things, as neither is it easy to discover this, and if it were discovered it would be altogether obscure and useless to the proposed treatise. But a peculiar method being delivered as to each of the defined genera † singly, the discussion of the proposition will be easy from those things which are appropriate to each. Wherefore, as we have before said, § we must make a rough division, but of the rest we must join those which are especially appropriate to each, || denominating them both definitive and generic. What, however, have been set forth have almost been adapted to each.¹

† Of defin., prop., genus, and accident.

2. Necessity of division.
§ Ch. 1.

|| Which are discussed by the same method, as definition, etc.

CHAP. VII.—*In how many ways "Same" (τὸ ταὐτόν) is predicated.²*

1. One thing is the same with another in

WE must first of all distinguish about "the same," in how many ways it is predicated; but "the

¹ In the preceding chapter, where Aristotle reduced the question of "same" to definitional inquiry, and to the problem of genus referred the question whether a thing belonged to the same genus or to different genera, and lastly, reduced the comparison of things to accident.

² Vide Whately on this word, under "Ambiguous Terms" (Logic): also Wallis Log. i. 22.

same," to speak in general terms, may appear to be divided triply, since we are accustomed to denominate a thing the same, in number, or in species, or in genus; in number indeed when the names are many but the thing one, as a garment and a vestment, but in species when the things being many are without specific difference, as man with man, and horse with horse, for such things are said to be the same in species as are under the same species: in like manner also, those are the same in genus which are under the same genus, as horse with man. Nevertheless, it may seem indeed that water from the same fountain, being called the same, has a certain difference besides the modes enumerated, yet such a thing must be placed at least in the same arrangement with those, which are in some way or other said to be under one species, for all such things appear to be of a kindred nature and similar to each other, since all water is said to be the same in species with all water, because of the possession of a certain similarity; but water from the same fountain differs in nothing else except that the similarity is greater; ¹ wherefore we do not separate it from those which some way or other are said to be according to one species.* Confessedly, however, that which is one in number, seems especially to be called the same, by all men; still we usually attribute this in many ways, most properly indeed and chiefly, when "same" is attributed in name or definition, as garment to a vestment, and animal pedestrian biped, to man; secondly, when (it is attributed) in property, as what is susceptible of science to man, and what naturally is carried upwards, to fire; thirdly, when from accident, as that which sits or is musical, to Socrates. For all these would signify one thing in number, and that what we have now said is true, a person may especially learn, from those who change appellations; for frequently when we desire to call some one who is sitting, by name, we change (the appellation), when he to whom we give the order, does not happen to understand, as if he would rather understand from accidents, and we desire him to call to us, the person who is *sitting* or *discours-*

number, species, or genus: a case resolved. Cf. Metap. lib. iv. (v.), Leipsic, ch. 9; also lib. ix. (x.).

* Cf. Waitz, vol. ii. p. 446. 2. Those especially called same which do not differ in number: how this is attributed.

¹ This is, between waters flowing from the same, than from different fountains.

* Waitz includes the last sentence in the next chapter.

ing, evidently considering it the same thing to signify by name and by accident. Let therefore "same" be triply divided, as we have said.*

CHAP. VIII.—*That it may be proved by Induction and Syllogism that all questions appertain to Definition, Genus, Property, or Accident.*¹

1. Proof by induction that disputations are composed of the foregoing, def., prop., genus, etc.

2. By syllogism. (Cf. Met. vi. 4, 12, 16 and 6; v. 5, and Alex. in Metap. p. 44, li. 30, ed. Bonitz.)

THAT disputations are composed from the things mentioned before, and through these, and pertain to² these, we have the first evidence through induction, since if any one considers each of the propositions and problems, it will appear to have originated either from definition, or from property, or from genus, or from accident. Another evidence however is by syllogism, for it is necessary that every thing which is predicated of a certain thing, should either reciprocate with that thing or not.

And if indeed it reciprocates it will be definition or property, since if it signifies what a thing is, it is definition, but if it does not signify it, it is property, for this was property, viz. that which reciprocates indeed, but does not signify what a thing is. If however it does not reciprocate with the thing, it either is one of those which are predicated in the definition of the subject, or it is not, and if it is one of those predicated in the definition it would be genus or difference, since definition consists of genus and differences, but if it is not of those predicated in definition, it would be evidently accident, for that was said to be accident which is neither definition, nor genus, nor property, yet is present with a thing.

¹ Sundry attempts have been made, not very successfully, to reconcile Aristotle's account here with that of Porphyry. Every proposition, according to Aristotle, expresses one of four relations of the predicate to its subject, for every predicate must either be convertible with its subject or not; if convertible, it either expresses the whole essence (*τὸ τὶ ᾧν εἶναι*) of the subject or not; in the former case it is called "definition," in the latter "property." If not convertible, it either expresses part of the essence or not; in the former case it is genus, in the latter accident. Vide Mansel's Appendix A.

² The particle "to" refers to problems; "from" and "through" to propositions.

CHAP. IX.—*Upon the Genera of the Categories.*

WE must next define the genera of the Categories, in which the above-named four (differences*) are inherent. Now these are ten in number; what a thing is, quantity, quality, relation, where, when, position, possession, action, passion,† for accident, and genus, and property, and definition will always be in one of these categories, since all propositions through these signify either what a thing is, or quality, or quantity, or some other category.¹ Moreover, it is evident from these that he who signifies what a thing is, at one time signifies substance, at another quality, and at another some other category. For when man being proposed, he says that the thing proposed is man or animal, he says what it is, and signifies substance; but when white colour being proposed, he says that the thing proposed is white or colour, he says what it is, and signifies quality. So also, if when the magnitude of one cubit is proposed, he says that what is proposed is a cubit in size, he will say what it is, and will signify quantity, and so of the rest, for each of these, both if it be itself predicated of itself,‡ and if genus (be predicated) of it, signifies what a thing is. When however (it is spoken) of another thing,§ it does not signify what it is, but quantity or quality, or some other category, so that the things about which|| and from which¶ arguments (subsist), are these and so many; but how we shall take them, and by what we shall be well provided with them, we must declare hereafter.

1. A discussion, by which it is shown, that the predicables are always in one of the categories.
* Waitz and Bekker omit differences.
† Cf. *Metap.* lib. iv.

‡ When definition is attributed to the thing defined.

§ When the attribute is in one category, but the subject in another, as "man is white."

|| i. e. problems.

¶ i. e. propositions.

¹ Waitz censures this argument of Aristotle, because the latter being about to prove that all prop. expressive of definition, genus, property, and accident can be reduced to the ten categories, does not point out how questions of definition, etc. are so reduced, but considers it sufficient to show that we must use one of the ten categories in every prop. Vide Waitz in loc.

CHAP. X.—*Of the Dialectic Proposition.*

1. Definition
of a dialectic
proposition.

IN the first place then, let us define what is a dialectic proposition, and what a dialectic problem, for we must not suppose every proposition nor every problem as dialectic, since no one in his senses would propose that which is assented to by no one, nor would he advance as a question what was palpable to all, or to most men, for the latter does not admit of a doubt, but the former no one would admit. Indeed a dialectic proposition is an interrogation, probable either to all, or to the most, or to the wise; and to these, either to all or most, or to the most celebrated, it is not paradoxical, as any one may admit what is assented to by the wise, if it be not contrary to the opinions of the multitude.* Dialectic propositions however are both those which resemble the probable and which are contrary to those which appear probable, being proposed through contradiction, and whatever opinions are according to the discovered arts.† For if it be probable that there is the same science of contraries, it would also appear probable that the sense of contraries is the same, and if the grammatical art be one in number, that there is one art also of playing on the pipe, but if there are many grammatical arts, there will also be many piping arts, for all these things seem to be similar and akin. So also those things which are contrary to probabilities, being proposed according to contradiction, will appear probable, for if it is probable that we ought to benefit friends, it is also probable that we ought not to injure them. Nevertheless, that we ought to injure friends is contrary,¹ but that we ought not to injure them is contradictory; so also if we ought to benefit friends, we ought not to benefit enemies; but this also is according to the contradiction of contraries, since the contrary is that we ought to benefit enemies,² and in like man-

* Cf. Rhet. ii. 25; Poet. ch. 9 and 15.

† i. e. which accord to the precepts of some known art.

2. What are probable.

¹ i. e. to the assertion that we ought to benefit friends.

² Which is contrary to the assertion that we ought to benefit friends. Cf. Ethics, b. viii.; also Rhet. b. i. c. 12; Eud. Moral. lib. vii.; Magna Moral. lib. i. 31. Note the apparent discrepancy of statement between

ner in the case of other things. Still the probable will appear in comparison to be the contrary about the contrary, as, if we ought to benefit friends, we ought also to injure enemies. To benefit friends however may appear contrary to injuring enemies, yet whether it is truly so or not, will be shown in what we say about contraries. Notwithstanding, it is apparent that whatever opinions also are according to the arts, are dialectic propositions; since any one would admit those things, which are assented to by persons conversant with such subjects, as in matters of medicine, that the physician (is to be assented to), the geometrician in geometrical concerns, and similarly of others.

CHAP. XI.—*Of the Dialectic Problem, and of Thesis.*

THE dialectic problem is a theorem* tending either to choice and avoidance,† or to truth and knowledge,‡ either per se§ or as co-operative with something else of this kind,|| about which the multitude either hold an opinion in neither way, or in a way contrary to the wise, or the wise to the multitude, or each of these to themselves.¹ Now some problems it is useful to know, for the purpose of choice or avoidance, as whether pleasure is eligible¶ or not, but others for knowledge only, as whether the world is everlasting or not,² some again by themselves, for neither of these purposes, yet do they co-operate to something of this kind, since there are many things which we do not desire to know for themselves, but for the sake of others, in order that through these we may know

1. Definition of the dialectic problem.

* The word theorem here is synonymous with ζήτημα, and means a prop. whose truth is to be inquired into. Alex. Sch. 259, a. 38.

† As an ethical problem.

‡ As a physical or metaphysical.

§ As a topical problem.

|| As ethical or physical.

¶ Taylor and Buhle read αγαθόν. Waitz

this chapter and chapter 4, upon the difference between proposition and problem. Alexander (Schol. 258, b. iv. seq.) and Waitz.

¹ The multitude from the multitude, and the wise from the wise. Waitz observes upon the subsequent passage, that Aristotle does not here enumerate new kinds of problems, but certain peculiarities of some of them, whence we may ascertain their method of treatment. The dialectic of Plato disregarded the opinion of the multitude.

² Cf. the *Timæus* of Plato, in which he apparently says, that the world, though corruptible, will not be corrupted: also Aristotle's *Treatise on the Heavens*, book ii.

and Bekker,
αἰπετόν.

something else. Moreover, those are problems also, of which there are contrary syllogisms (for they admit a doubt, whether they are so and so, because of there being credible arguments in both respects). And those about which we have no argument from their being vast, conceiving it difficult to assign their cause,* e. g. whether the world is everlasting or not, for any one may investigate such things as these.

2. Def. of thesis.
† ἵπποκράτους.
Cf. de An. iii. 3, 7. Trendelenb. de An. p. 469. Mansel's Log. p. 5, note.

Let then problems and propositions be distinguished as we have said : a thesis, on the other hand, is a paradoxical judgment† of some one celebrated in philosophy, as that contradiction is impossible, as Antisthenes said, or that all things are moved, according to Heraclitus, or that being is one, as Melissus asserted,¹ for to notice any casual person setting forth contrarieties to (common) opinions is silly. Or (a thesis is an opinion) of things concerning which we have a reason contrary to opinions, as that not every thing which is, is either generated or perpetual, as the sophists declare, since (they say) that a musician is a grammarian, though he is neither generated² nor eternal,‡ for this, even if it be not admitted by any one, may appear to be from possessing a reason.

2. Another.

‡ Because once he was not.

3. Distinction between thesis and problem.

A thesis then is also a problem, yet not every problem is a thesis, since some problems are of such a kind, as that we form an opinion about them in neither way ; but that a thesis is also a problem

¹ Generation with Plato, and motion with Aristotle, signify mutation. Cf. Physics, i. ; Metap. i. 9 and 11, upon the opinions of Melissus and Parmenides ; Physics, lib. vi., upon Heraclitus ; and Metap. vii., upon Antisthenes. The reader will find the opinions of these fully discussed in Ritter, and summarily in my Schools of Ancient Philosophy.

² If a musician were generated a grammarian, he would either be the subject of grammar or the boundary from which : since every thing is said to be generated from a subject and matter, as a statue from brass ; or from a contrary boundary, as black from white. But a musician is neither the matter subject to a grammarian, for that is man ; nor a contrary boundary, for the same person is at the same time a musician and a grammarian. This sophism is solved by saying, that the musician is not generated per se but from accident : and the grammarian is generated so far as the being a musician happens to a man who becomes a grammarian. Taylor.

is evident, as it is necessary from what we have said, either that the multitude should be at variance with the wise about the thesis, or one or other of these with themselves, since a thesis is a certain paradoxical judgment. Now almost all dialectical problems are called theses, let it, however, make no difference how they are called, as we have not thus divided them from a desire to fabricate names, but that we may not be ignorant what are their real differences.*

* i. e. of a problem and a thesis.

Still we need not consider every problem nor every thesis, but that which any one may be in doubt about, who is in want of argument and not of punishment or sense, for those who doubt whether we ought to worship the gods and to love our parents or not, require punishment, but those (who doubt) whether snow is white or not, (need) sense. Nor (need we discuss those things) of which the demonstration is at hand, nor those of which it is very remote, for the one do not admit of doubt, but the other, of greater (doubt) than accords to (dialectic) exercise.†

4. Neither to be universally considered.

† κατά γυμναστικῆν.

CHAP. XII.—Of Syllogism and Induction.

THESE things then being determined, we must distinguish how many species of dialectic arguments there are. Now one is induction, but the other syllogism, and what indeed syllogism is, has been declared before,¹ but induction is a progression from singulars to universals,² as if the pilot skilled in his art is the best, so also is the charioteer, and generally the skilful is the most excellent about each thing. Nevertheless, induction is more calculated to persuade, is clearer, and according to sense more known, and common to many things; but syllogism is more cogent, and efficacious against opponents in disputation.

1. Of the species of dialectic arguments: syllogism and induction; the latter ἡ ἀπὸ τῶν καθ' ἕκαστον ἐπὶ τῷ καθόλου ἐφοδος.

¹ Vide ch. I.

² Anal. Prior ii. 23; cf. Rhet. b. i. ch. 2, and ii. 23; Eth. b. vi. ch. 3; also Whately's Logic.

CHAP. XIII.—*Of the Means adapted to the Provision of Syllogisms and Inductions.*

1. The instruments (τὰ ὄργανα) through which we abound in syllogisms, are four.

* And inductions. Taylor.

LET then the genera about which, and from which, arguments subsist be defined, as we have stated before, but the instruments by which we shall be well provided with syllogisms* are four; one to assume propositions, the second to be able to distinguish in how many ways each thing is predicated, the third to discover differences, and the fourth

the consideration of the similar. In a certain way indeed there are three propositions of these,¹ since it is possible to make a proposition as to each of them, as that the beautiful, or the sweet, or the profitable is eligible, and that sense differs from science, in that he who loses the latter may regain it; but this is impossible with the other, and that the wholesome has the same relation to health as what produces good constitutional habit, to a good habit of constitution.

† Taylor and Buhle (λεγομένων).

‡ Or similitudes.

Now the first proposition is derived from that † which is predicated in many ways, but the second from differences, and the third from similars. ‡

CHAP. XIV.—*Upon the Selection of Propositions.*

1. How propositions must be selected.

PROPOSITIONS then must be selected in as many ways as there has been definition about proposition, either choosing the opinions of all, or those of most, or those of the wise, and of these either of all, or of most, or of the most celebrated, or opinions contrary to the apparent, and whatever are according to arts. Yet it is necessary to propose according to contradiction those which are contrary to the apparently probable, as we observed before; but it is useful to produce them by selecting, not only those which are probable, but those also which are like these, as that there is the same sense of contraries, (for there is the same science,) and that we see by admitting, not by emitting, somewhat, as it is thus also with the other senses, since we

¹ There are three things from these; i. e. distinction of what is predicated in many ways, the discovery of difference, and the examination of similarity.

both hear from admission and not from emission of something, and also taste, and similarly with the rest.* Again, whatever are seen in all or in most things, we must take as principle and apparent theses, since persons lay down these who do not see, at the same time, in what thing it does not happen so. We must also select from written arguments, but descriptions must be made supposing separately about each genus; as about good or about animal, and about every good, beginning from what it is; we must also note besides, the several opinions, as that Empedocles said¹ there are four elements of bodies, for any one would admit † what had been asserted by some celebrated man, †

* Vide de Animâ, b. ii. and iii.

† i. e. as a position or thesis.

But to speak comprehensively, there are three parts of propositions and of problems; for some propositions are ethical, others physical, but others logical. The ethical then are such, as whether it is right to obey parents rather than the laws, if the two are discordant; the logical, as whether there is the same science of contraries or not; and the physical, whether the world is perpetual or not; the like also occurs in problems. Still it is not easy to explain by definition, what the quality of each of the above-named is, but we must endeavour to know each of them from habit, ‡ which arises from induction, addressing our attention, according to the before-mentioned examples.²

2. Division of prop. into ethical, physical, and logical.

‡ *συνθεσις*.

With regard then to philosophy, we must discuss these according to truth; but as to opinion, dialectically; still we must assume all the propositions as universal as possible, and make many § one, || as that there is the same science of opposites,

3. All propositions to be assumed as universal as possible.

§ Singulars.

|| Universal.

¹ Vide b. iv. ch. 11, of the treatise on the Heavens, and the valuable commentary of Simplicius, upon the opinions of Empedocles and Democritus; also Metap. i. 4; De Animâ; and Plato's Timæus.

² Cicero (Quæst. Acad. i. 5; cf. de Fin. i. 7) has attributed a division of Philosophy into Logic, Physics, and Ethics to Plato, and from this passage Aristotle also has been considered as adopting the same classification. The conjecture is utterly groundless, for Aristotle is here treating dialectic disputation only, and propositions regarded with reference to that purpose. It is also opposed to the interpretation of the oldest commentator, (Alex. Scholia, p. 261, a. 3; cf. Waitz, Org. vol. ii. p. 450,) and is inconsistent with Aristotle's division of theoretical philosophy into Physics, Mathematics, and Theology. Cf. Met. v. 1, 5, and 10.

afterwards that there is of contraries, and also of relatives. In the same manner we must divide these again, as long as it is possible to divide them, as that (there is the same science) of good and of evil, and of white and black, of the cold and the hot, and likewise of other things.

CHAP. XV.—*Of the Knowledge of Diverse Modes of Predication.*

1. The disputant should be acquainted with the various significations of a word, and the reason of them. Cf. Rhet. ii. 24, and b. i. c. 6; Ethics, b. i.

CONCERNING proposition then, what has been stated will suffice, but as to how many ways (a thing may be predicated), we must discuss not only such things as are predicated in a different manner, but also we must endeavour to give their reasons; as not only that justice and fortitude are called good in one way, but what conduces to a good habit of body and to health in another way, but also that some things (are called so) from being certain qualities, but others from being effective of something, and not from themselves being certain qualities, and indeed in a similar manner in other things.

2. Ambiguity ascertainable from the diversity of contraries.

Whether however a thing is predicated multifariously, or in one way in species, we must investigate through these. First, we must consider in the contrary, if it is multifariously predicated, whether it differs in species or in name, for some things immediately differ even in names, as the grave is contrary in voice to the sharp, but in magnitude the obtuse. Therefore it is clear that the contrary to the sharp is predicated multifariously, but if this be so, the sharp also is, for according to each of these,* the contrary will be different, since the same sharp will not be contrary to the obtuse and to the grave, but the sharp will be contrary to each. Again, to the heavy in voice, the sharp is contrary, but in weight, the light,¹ so that the heavy is predicated mul-

* The grave and the obtuse.

¹ It is almost needless to remark that βαρὺς in Greek, and gravis in Latin, signify both the grave in sound, and gravity or weight. Upon the subject of ambiguity, see Whately's Logic. In English, of course from its great resemblance to the Greek in many particulars, ambiguous terms abound, and both predicate and subject are often, especially in Shakspeare, made to run through all the changes of "equivoque;" in fact, as was once observed, "a pun was the Cleopatra for which Shakspeare, like Antony, lost the world, and was content to lose it." As an instance in

tifariously since the contrary also is. Likewise to the beautiful in an animal, the ugly, but in a family, the depraved (is contrary), so that the beautiful is equivocal.

In some, indeed, there is no dissonance in the names, but the difference in them is at once palpable in species, as in white and black, for voice is said to be clear and obscure* in the same manner as colour. In these, then, there is no dissonance in names, but their difference is at once evident in colour and voice are not similarly called clear, † and this is also evident from sense, for of things which are the same in species, the sense is the same; but we do not judge the lightness which is in voice, and that which is in colour, by the same sense, but one by sight, and the other, by hearing. So also the sharp and the obtuse in fluids and magnitudes, the one indeed by touch, the other by taste, since neither are these dissonant in names, neither in themselves nor in the contraries, for what is obtuse is contrary to each.

Again, we must consider if there is any thing contrary to the one, but nothing simply to the other; as, to the pleasure from drinking, the pain from thirst is contrary; but to that which arises from contemplating, that the diameter of a square is incommensurable with its side, there is nothing (contrary), wherefore pleasure is predicated multifariously. To hate, also, is contrary to the love which is mental, but nothing to that which subsists according to bodily energy, wherefore it is evident that to love, is equivocal. Besides, we must consider the media, if there is a certain medium of some, but not of others, or whether there is of both, yet not the same, as of white and black, in colour, the dark brown; but in voice, there is no medium, unless it be the hoarse, as

3. Cases where there is no dissonance, but specific difference.

* Lit. white and black.

species, for

† Lit. white.

4. Contrary to either, to be considered.

5. Also the media.

point, involving the very word given by Aristotle, take 2 Hen. IV. act i. scene 2:

"CH. JUS. You follow the prince up and down, like his ill *angel*.

"FALS. Not so, my lord; your ill *angel* is light; but I hope, he that looks upon me, will take me without weighing; and yet in some respects, I cannot go, I cannot tell."—The whole scene is so full of puns, that at last they grow infectious, (like other bad habits,) and the Chief Justice himself perpetrates an iniquity at the end, in telling Falstaff, "You are too impatient to bear *crosses*;" for which monstrosity he should have been set in the pillory.

some say that a hoarse voice is the medium ; so that white is equivocal, and black in like manner ; yet more, whether there are many media of some things, but one of others, as in the case of white and black ; for in colours, there are many media, but in voice, one, viz. the hoarse.

6. Also if in the contradictory, there is various predication. Again, in that which is contradictorily opposed, we must consider if it is predicated multifariously, for if this is multifariously predicated, the opposite to this also will be enunciated multifariously ; thus, not to see, is predicated in many ways ; in one, not to have sight ; in another, not to energize with the sight. Now if this is multifariously, to see, must necessarily be multifariously predicated ; for to each (signification of the verb) not to see, there will be something opposed, thus to the not possessing sight, the possession of it, and to the not energizing with the sight, the energizing with it.

7. Cases of privation and habit. Further, we must remark this, in the case of those things, which are predicated according to privation and habit ; for if the one, is multifariously predicated, the other is, also ; thus, if to perceive, is predicated multifariously, both according to the soul and according to the body, to be deprived of sense, will be multifariously predicated, i. e. both according to the soul and the body. Nevertheless, that the particulars now mentioned, are opposed according to privation and habit, is evident, since animals are naturally adapted to possess each of the senses, viz. both according to the soul and according to the body.

8. Also whether there is any ambiguity in case, etc. We must look also to the cases, for if "justly" is predicated multifariously, "the just" also, will be multifariously predicated ; for the just subsists according to each of those which are justly, thus if justly is predicated, both of judging according to one's own opinions, and also in a proper manner, the just is similarly. Likewise, if the healthy is multifariously, the healthily also, will be spoken multifariously, as if that is called "healthy," which produces, preserves, and signifies health, the "healthily" also, will be predicated either productively, or preservingly, or significantly. And in like manner in other things, when (the noun) itself is multifariously predicated, the case also derived from it, will be spoken in many ways, and if the case (the noun) itself besides.

We must regard too, the genera of the categories, as to name, whether they are the same in all things, since if they are not the same, it is evident that what is predicated, is equivocal; thus good in food is what produces pleasure, in medicine, what produces health, in the soul, to be of a certain quality, as temperate, or brave, or just, similarly also in the case of man. Sometimes indeed it is "*the when*," as the good in opportunity, for that is called good, which is in season: frequently also quantity, for instance, the moderate, for the moderate also is called good, so that good is equivocal. Likewise clearness* in respect of body, is colour, but in voice, that which may easily be heard, and in like manner the acute, for the same, is not predicated in all things, after the same manner, for a rapid voice is called acute, as musicians say, who are conversant with numbers; but an angle is acute, which is less than a right angle, and a sword is acute, which has a sharp point.

We must also notice the genera, of those things which are under the same name, whether they are different and not subaltern, thus *ἄνοος* is both an animal and a vessel, since the definition of them according to the name, is different, for the one will be said to be a certain kind of animal, but the other a certain kind of vessel.¹ If however the genera are subaltern, the definitions need not be different, as of a crow, both animal and bird are the genus, when therefore we say, that a crow is a bird, we also say, that it is a certain kind of animal, so that both genera are predicated of it; likewise also when we say that a crow is a winged biped animal, we say that it is a bird, and thus then both the genera † are predicated of the crow, and also the definition of them. ‡ This nevertheless does not occur in genera which are not subaltern, since neither when we speak of a vessel, do (we speak of) an animal, nor when (we speak of) an animal, (do we mean) a vessel.

Not only indeed must we observe whether the genera of the thing proposed, be different and not subaltern, but also in regard to the contrary, since

9. Whether the word belongs to the same category.

* Lit. τὸ λευκόν.

10. Genera of those under the same name to be considered.

† Animal and bird.

‡ For when bird is predicated of the crow, animal is also.

11. If the contrary is variously predicated, the pro-

¹ Of this kind are such words as "pig" (of iron and an animal); "crow," a bar and a bird; "bull," a beast, and an Irishman's—or a Pope's—"blunder."

position also
will be.

12. Definitions
of the compo-
sites to be ex-
amined.

* As of the
white.

now spoken of, for the one, will be body having such a colour, but the other, will be an audible voice; body, then, and voice being taken away, what remains is not the same in each, at least it would be necessary if white, were synonymous, that what is predicated in each (definition), should be (the same).†

† Waitz and
Bekker omit
ταύτων.

13. Also the
definition of it-
self in each
thing.

Frequently also in the definitions themselves, the equivocal, which is consequent, escapes us, wherefore, we must look to the definitions. Thus, if any one were to say, that what is significant and productive of health, is that which is symmetrically disposed with respect to health, we must not leave off, but consider what he calls symmetrically, in each, as if the one, were to be of such a kind, as to produce health, but the other, such as to signify, what is the quality of the habit.

14. Whether
comparison
subsist, as to
the more, or
similar.

Moreover, (we are to examine) whether they may not be compared according to the more, or similarly, as a light voice, and a light garment, and a sharp flavour, and a sharp voice, for these are neither called light nor sharp similarly, nor one, more than the other. So that the light, and the sharp, are equivocal, for every synonym is capable of comparison, since it will either be predicated similarly, or one more than the other.

15. Whether
those under the
same name are
the differences
of different
genera.

Since however of things heterogeneous and not subaltern, the differences are also different in species, as of animal and science, (for the differences of these are diverse,) consider whether those things, which are under the same name, are the differences of different, and not of subaltern genera, as the acute (is the difference) of voice and magnitude, for voice, differs from voice, in acuteness, likewise also one mass, from another, so that the acute is equivocal, for these are the differences of diverse, and not of subaltern, genera.

Again, (observe) whether of things under the same name, there be divers differences, as of the chroma¹ which belongs to bodies, and of that which is in melodies, for of that which belongs to bodies, the differences are, that which diffuses, and that which condenses, the vision, but these are not the same differences of that which is in melodies, so that chroma is an equivocal word, for there are the same differences of the same things.

16. Whether of those under the same name there are divers differences.

Once more, since species is not the difference of any thing,² notice of those which are under the same name, whether one is species, but the other, difference, as bodily clearness is a species of colour, but vocal (clearness) is a difference, since voice differs from voice, in being clear.

17. Whether one is species, but the other difference.

CHAP. XVI.—*Upon the Discovery of Differences.*

CONCERNING therefore what is multifariously predicated, we must consider it through these and such as these;* but the differences we must investigate in the genera themselves with respect to each other, as what difference there is between justice and fortitude, prudence and temperance, (for all these are from the same genus, virtue,†) and of those which do not differ very much, one from the other, as in what, sense, differs from, science, since in things which are very different, the differences are altogether palpable.

1. The differences of genera themselves to be observed.

* Taylor and Buhle include this sentence in the last chapter.

† Omitted by Waitz and Bekker.

CHAP. XVII.—*Upon the Consideration of the Similar.*³

WE must consider similitude in the case of things of different genera, (thus) as one thing is to another, so is another to another, for instance, as science to the object of science, so is sense to the

1. How similitude is to be observed in things of different genera, and

¹ Χρωμα in Greek is equivocal, signifying colour, in body, and a kind of melody; so also color in Latin, which is both colour accidental to body and rhetorical colour.

² Buhle and Taylor introduce parenthetically here, which Bekker and Waitz omit, "for man and ox are not difference, but each of them is a species."

³ This was the fourth inquiry he proposed at chap. 13.

in the same genus. object of sense, and as one thing in a certain other thing, so is another thing in another, e. g. as sight in the eye, so is intellect in the soul, and as tranquillity in the sea, so is serenity in the air. But most of all, it is necessary to be practised, in things vastly diverse, for we may easily perceive similitudes in the rest. Besides, we must also consider those things which are in the same genus, whether something identical is present with all, as for instance, with man, and horse, and dog; since so far as something identical is present with them, so far are they similar.

CHAP. XVIII.—*On the Utility of these Inquiries in Disputation.*

1. The various uses of examining in how many ways predication occurs.
1st, Perspicuity.
2nd, Syllogistic construction.

To have considered in how many ways a thing may be predicated, is useful for perspicuity, (as any one can better know what he admits,¹ when it is clearly explained in how many ways it may be predicated,) and for the construction of syllogisms against the thing itself, and not (merely) against the name. For when it is dubious in how many ways it is predicated, he who answers, and he who questions, may possibly not direct their attention, to the same thing, but when it is explained in how many ways it is predicated and with what object a person admits it, the questioner would appear ridiculous if he did not frame his argument against this.

3rd, To escape paralogism, and to employ it.

But it is also useful that we may not be deceived (ourselves) by paralogism, and may deceive another by it, since when we know in how many ways predication occurs, we can never be deceived by paralogism,² but we shall know if the questioner does not argue against the same thing, and we ourselves, when questioning, shall be able to deceive by paralogism, except the respondent happens to know, in how many ways predication occurs. Nevertheless, this is not possible in all cases, but when of things multifariously predicated, some are true, but others false;³ this mode however is not appropriate to dialectic, wherefore a thing of

¹ Or the thesis he defends.

² Vide Whately and Hill's Logic.

³ As that the dog barks, for "dog" signifying many things, it would be true of the quadruped, but not of the dog-fish or the dog-star.

this kind, must be altogether avoided by dialecticians, viz. arguing against a name, unless any one should be otherwise incapable of discussing the proposition.

2. Argument against a name to be avoided.

Notwithstanding, it is useful to discover differences, in order to (construct) syllogisms of the same, and of the different, and also to the knowledge of what each thing is. That it is useful for syllogisms about the same, and the different, is clear; for when we have discovered the difference of the things proposed, of whatever kind it may be, we shall have shown that they are not the same, (and it is useful) for the knowledge of what a thing is, because we are accustomed to separate the proper definition of the essence of each thing, by the peculiar differences of each.

4. This discovery useful to form syllogisms of the same and the different.

On the other hand, speculation upon the similar, is useful for inductive reasons,* † and for hypothetical syllogisms, and for the statement of definitions. For inductive reasons then, because by the induction of similar particulars, we deem it proper to infer the universal, since it is not easy to form induction, when we are ignorant of similars. (It is useful also) for hypothetical syllogisms, because it is probable that as a thing subsists in one of those which are similar, so also it does in the rest, so that in order that we may discuss any of them sufficiently, we should previously acknowledge, that as a thing is in these, so also is its condition in the subject proposed; but when we have demonstrated that, we shall also have proved the proposition by hypothesis, for we have framed a demonstration, upon the supposition that as a thing is in these, so it is also, in the case of what is proposed. Again, for the statement of definitions (it is useful), since being able to comprehend what in each thing is identical, we shall not be in doubt as to what genus the thing proposed ought to be referred, in definition; for of those which are common, what is especially predicated in (the question) what a thing is, will be the genus; in like manner in those which are vastly different from each other, the contemplation of the similar is useful for definitions, as that tranquillity in the sea, is the same thing as serenity in the air, (for each of them is quiet,) and that a point in a line (is

* Cf. Rhet. iii. 10; Eth. vi. 3.

5. Speculation upon the similar useful for inductive and hypothetical syllogisms. Method of proceeding. † i. e. to frame inductions.

identical) with unity in number, for each is a principle.

3. We define appropriately by assigning a common genus.

4. The instruments for the construction of syllogism are four, viz. the assumption of propositions; the distinction of the equivocal; the discovery of difference; and the consideration of the similar.

Wherefore by assigning the common genus in all things, we shall appear not to define in a manner foreign (from the subject), and indeed almost those who define, are accustomed thus to explain, for they say that unity is the principle of number, and that a point is the principle of a line; it is evident then that they refer the genus of both to what is common.

The instruments therefore by which syllogisms are constructed, are these; but the places, for which what we have said, is useful, are those (which follow),⁴

BOOK II.

CHAP. I.—*Of the Division of Problems: of the Conversion of the Accidental: and of Problematical Errors.*

1. Problems either universal or particular: things common to both.

OF problems, some are universal but others particular, the universal then, as that all pleasure is good, and that no pleasure is good, but the particular, as that a certain pleasure is good, and a certain pleasure is not good. To both genera,

however, of problems, those things are common which universally construct and subvert, for having shown that a thing is present with every, we shall also have proved that it is present with a certain individual, and in like manner, if we have shown that it is present with no individual, we shall also have proved it not present with every. We must first

2. Of the universally subversive.

speak, then, of those which are universally subversive, both because such are common to universal and particular (problems), and because men

rather introduce theses in the affirmative than in the negative, but the disputants subvert them. Nevertheless, it is most difficult to convert an appropriate appellation (derived) from accident,* for (to be inherent) partly, and not universally, is possible to accidents only, since it is necessary to convert from definition, property, and genus, as if it is

3. The problem pertaining to accident different, and its peculiar difficulty.
* Cf. Waitz, vol. ii. p. 455.

present with a certain thing to be an animal, pedestrian, biped, it will be true for the person who has converted it, to say, that it is an animal, pedestrian, biped. Likewise from genus, for if it is incident to a thing to be an animal, it is an animal; and it is the same with property, for if it is present with any to be capable of grammar, it will be capable of grammar, since nothing of these can be partly present or not present, but simply present or not present. Yet there is nothing to prevent accidents from being partly present, for instance, whiteness or justice,¹ so that it is not enough to show that whiteness or justice is inherent, in order to show that a man is white or just, since it is doubtful, because he may be partially white or just, so that conversion is unnecessary in accidents.

Again, we must determine the errors occurrent in problems, that they are two, either from false assertion, or a departure from the established mode of speaking. For both false assertors err, from saying that what is not present, is present with a certain thing, and those who call things by foreign names, as a plane tree a man, transgress the established nomenclature.

4. Two errors
occurrent in
problems.

CHAP. II.—Of the "Places," belonging to Problems of Accident.

ONE place then is, to consider whether he (the respondent) has given as an accident, that which is inherent, according to some other mode; which error, indeed, especially obtains about genera, as if some one should say, that it was accidental to whiteness to be a colour, since it is not accidental to whiteness to be a colour, but colour is its genus. Therefore, it is possible that he who lays down a thesis, may define according to denomination (the genus as an accident), e. g. that it is accidental to justice to be a virtue; frequently, however, without definition, it is evident that he has given the genus as an accident, as if any one should have said, that whiteness is coloured, or that walking is moved, for the predication of species is paronymously* asserted from no genus, but all genera are predicated of

1st Topic; to prove that has been assigned as accident, which is present in some other mode.

* Cf. Whately, Log. book iii. sec. 8. Wallis's Log.

¹ As an Ethiopian has white teeth, but is not absolutely white, or as Phalaris acted justly, when he cast Perillus into the brazen bull, yet was not absolutely just.

species synonymously, since species receive the name and definition, of genera. Whoever, therefore, says that whiteness is coloured, has neither explained it as genus, since he has spoken paronymously, nor as property, nor as definition, since definition and property are present with nothing else, while many other things are coloured, as wood, stone, man, horse; wherefore he evidently gives it as accident.

Another (topic) is, to regard those with which, either all or none, a thing is said to be present, and to consider according to species and not in infinites, (individuals,) for the investigation (will be) more in the way and in fewer things.¹ Still we must

consider and begin from first things, and then (proceed) as far as individuals, for instance, if a man said that there is the same science of opposites, we must consider if there is the same science of relatives, of contraries, and of those which are enunciated according to privation and habit, and according to contradiction, and if it should not yet be evident in these, we must divide them again as far as individuals, as whether (there is the same science) of the just and the unjust, or of the double and the half, or of blindness and sight, or of entity and nonentity. For if it should be proved that there is not the same in respect of a certain thing, we shall have subverted the problem, likewise also if it should be present with

* i. e. if the problem be E, it is confuted if I be proved.

none.* Now this place converts to confirmation and refutation, for if, when they have introduced division, it should appear (present) with all, or with many, things, it must be required to admit it

universally, or to object some (instance) wherein it is not so, and if (the opponent) does neither of these, he will appear absurd from not conceding it.

3rd Top. To define both, accident (the predicate and its subject).
† Because the problem is not defined, but the attribute and subject separately.

Another (topic) is, to make definitions, both of accident and of that to which it is accidental, either of both severally, or of one of them,† then to consider whether any thing has been assumed as true, which is not true, in the definitions; thus if the (problem) is, that we can injure God, (we must consider) what it is, to injure, for if it be, to hurt voluntarily, it is evident that God cannot

¹ Because species are fewer than individuals, and, in short, things superior, are fewer than things inferior.

possibly be injured, since it is impossible that God can be hurt. Again, if the worthy man is envious, who is the envious, and what is envy, (must be considered,) for if envy be pain at the apparent success of some worthy person, it is evident that a worthy man is not envious, for if so, he would be depraved, and if the man prone to indignation be envious, (we must explain) who each of these is, for thus it will be evident whether what is said is true or false, e. g. if he is envious who is grieved at the success of the good, but he is prone to indignation who is grieved at the success of the bad, it is clear that the envious will not be the indignant man. We must also assume definitions, instead of the names in definitions, and not desist until we arrive at what is known; since often the question is not yet clear, when, indeed, the whole definition has been given, but it becomes evident, if the definition is given, instead of some name placed in the definition.

Moreover, the problem must be changed into a proposition and then objected to, for the objection* will be an argument against the thesis: this place, indeed, is almost the same as seeing, with what, either all or none, a thing is said to be present, but it differs in the mode.¹

Further, we must define what kind of things we ought, and what we ought not, to denominate as the multitude do, for this is useful both for confirmation and subversion, as that things are to be called by the same names as the multitude use, but that we are no longer to attend to the multitude, as to the quality of things, whether they be such or such. For instance, that is to be called salubrious, which is productive of health, as the multitude say, but whether the thing proposed be productive of health or not, is no longer to be decided by what the multitude, but by what the physician declares.

4th Top. To change the problem into a proposition.

ἐπιτομία.
(Cf. Hessey's Schem. Rhet. Table 5 and Supplement; also Julius Pacius on An. Prior ii. 28, sec. 1 and 2, and An. Post. i. 12, sec. 11.)

5th Top. To examine what vulgar denomination we ought to admit, and what to reject.

¹ It is almost the same, because the objection is taken from the species of the attribute or subject, as was explained in Anal. Prior ii. ch. 26; but it differs in the mode, because in the other a division is made into species first, which species are afterwards severally considered, to discover a false problem in any; but in this mode, there is no division, but an objection to the universal thesis is sought.

CHAP. III.—*Of the Topics belonging to Multifarious Predication.*

1st Topic. If an ambiguity of expression escape our opponent, we must employ the sense most adapted to our own position.
* Where there is a latent equivocation.

MOREOVER, if a thing be multifariously predicated, but is laid down as inherent, or as non-inherent, we must prove one of the things multifariously predicated, if we cannot prove both. This must be used, however, in those things which are latent,* for if what is multifariously predicated is not latent, the opponent may object, that what he is in doubt about, is not the subject

of dispute, but something else. This topic, indeed, converts both for confirmation and subversion, for when we desire to confirm we shall show that one is inherent, if we cannot both; but when we subvert, we shall show that one is not inherent, if we cannot both. Nevertheless, there is no need for the subverter to dispute from compact, neither if a thing be said to be present with every individual, nor if it be said to be so with none, since if we show that it is not present with any individual whatever, we shall have subverted its being with every individual, likewise also if we should prove it present with one, we shall have subverted its presence with nothing. Still, in confirming, we must previously acknowledge, that if it is present with any whatever, it is present with every thing, if the axiom be probable, since it is not enough to discourse about one thing, in order to prove that it is present with every thing, as if the soul of man is immortal, that† every soul is immortal, wherefore, it must be previously taken for granted, that if any soul whatever is immortal, every soul also is immortal. This, however, is not always to be done, but when we cannot supply one common reason in all, as a geometrician (proves by one common reason, that a triangle has angles equal to two right).

2nd Top. If it does not escape him, we must distinguish the various senses of predication. (Cf. Top. vi. 2.)

Yet if a thing is not latent, being predicated in many ways, we must subvert and confirm, having distinguished in how many ways it is predicated; thus, if the becoming is the advantageous or the beautiful, we must try to confirm or subvert, both about the proposed (problem), e. g. that it is beautiful and

advantageous, or that it is neither beautiful nor advantageous. Still if we cannot prove both, we must prove one, of them, showing that the one is, but the other not; but the reasoning is the same, though there should be more members in the division.*

* i. e. than two.

Again, (we must consider) those things which are not equivocally predicated in many ways, but in some other way, thus science is one of many, either as belonging to the end, or to that which pertains to the end, as medicine (is the science) of producing health, and of prescribing diet, or as belonging to both ends, as of contraries there is said to be the same science, (since the one) is no more an end than the other, or as belonging to that which is per se, and to that which is accidental, as (we know) per se that a triangle has angles equal to two right, but according to accident, that it is equilateral, for because it happens to an equilateral triangle to be a triangle, according to this we know that it has angles equal to two right. If then it is by no means possible that there should be the same science of many things, it is clearly altogether impossible, or if in a certain respect it is possible, it is clear that it is possible. Nevertheless, we must distinguish in how many ways it is useful; for instance, if we desire to confirm we must introduce such things as are possible, and we must divide them into those only which are useful to confirmation; but if we would subvert, (we must introduce) such things as are impossible, and omit the rest. This too must be done in these, when it is latent in how many ways they are predicated, that this also belongs to that, or does not belong, must be confirmed from the same places; as that this science is of this thing, either as belonging to the end, or to those things which pertain to the end, or as to those which are accidental, or on the other hand, that a thing is not according to any of the above-mentioned modes. The same reasoning also subsists about desire and such other things as are said to belong to many, for desire belongs to this thing either as to the end, as to health, or as to those things which pertain to the end, as to the taking medicine, or as to that which is from accident, as in wine, he who loves sweetness (desires wine), not because it is wine, but because it is sweet, since he desires sweetness per se, but

3rd Top. Where there is not equivocation; yet in all cases, the different relative and actual senses, have to be considered.

wine accidentally, since if it should be sour, he no longer desires it, therefore he desires it from accident. This place however is useful in relatives, for almost all such things as these, belong to relatives.

CHAP. IV.—*Topics relative to Name, Genus, Species, Definition, Time.*

1st Top. An intelligible name to be adopted instead of an obscure one. AGAIN, a change must be made into a name more known, as, for instance, the clear instead of the accurate in notion, and the love of employment instead of being engaged in various occupations, for the assertion being more known, the thesis is more easily opposed. This place also is common to both confirmation and subversion.

2nd, To prove the presence of contraries, genus must be regarded. In order however to show that contraries are present with the same thing, it is necessary to attend to the genus; thus if we desire to prove that there is rectitude and error about sense, since sensibly to perceive, is to judge, but it is possible to judge rightly and not rightly, about sense also, there will be rectitude and error. Now, then, from the genus the demonstration is concerning the species, since to judge is the genus of sensible perception, for he who sensibly perceives, in some way judges.

1. Demonstration of species from genus.

2. Vice versâ. Again, from species to genus, for whatever things are present with species are also with genus, as if science is bad and good, disposition also is bad and good, for disposition is the genus of science. The former place therefore is false indeed for confirmation, but the latter is true, since it is not necessary that whatever things are present with genus, should also be present with species, since animal is winged and quadruped, but man is not, yet whatever things are present with species, are necessarily also with genus, for if man is good, animal also is good. Still for subversion, the former is true, but the latter false, as whatever are not present with genus, neither are with species, but it is unnecessary that whatever are not with species, should not be present with genus.

3rd, Of what genus is predi-

Notwithstanding, since it is requisite that of what things genus is predicated, some species also

should be predicated, and whatever things possess genus, or are paronymously denominated from genus, have necessarily a certain species, or are paronymously demonstrated from some species, as if science is predicated of some certain thing, grammar also, or music, or some other science, will be predicated (of it); and if any one has science, or is paronymously denominated from science, he will also possess grammar, or music, or some other science, or will be paronymously called from some one of them, as, for instance, a grammarian or musician;—if then any thing should be laid down which is in any way denominated from genus, as that the soul is moved, we must consider whether it is possible for the soul to be moved according to any species of motion, as to be increased, or corrupted, or generated, or such other species of motion.*¹ For if by none (may it be moved), it is evident that it is not moved: this place also pertains in common to both subversion and confirmation, for if it is moved according to any species, it is evident that it is moved, and if according to no species, it is evidently not moved.

cated, some species will be, and if no species is, no genus can be.

* Cf. Cat. 14.

He however who is not well provided with arguments about the thesis, must consider from the definitions, either real or apparent, of the proposed thing, and if he cannot from one, (definition,

4th, Definitions of the subject matter to be examined.

¹ Chase thus enumerates the different kinds of motion given at Cat. 14.

From not being to being.—Generation.

From being to not being.—Destruction.

From being to being more.—Increase.

From being to being less.—Decrease.

From being here to being there.—Change of place.

From being in this way to being in that way.—Alteration.

Upon the faculties of the soul and upon motion, see Ethics, b. i. 13, and vi. 1; De Anim. i. 3; ii. 1; iii. 6 and 10; Met. lib. x. xi.; Mag. Mor. lib. i., et Phys. lib. iii. 5—8; also the valuable commentary of Simplicius. We have already observed that *generation* with Plato, and *motion* with Aristotle, mean *mutation*; the former gave the name of motion to the life of the soul, in consequence of its being evolved, and from its descent from an impartible nature, the essence of the soul also being self-movable: Aristotle, on the other hand, usually gives the name *motion* to partible nature only, but merely denies the motion of the psychical essence, yet does not seem to admit that the soul is in any way moved by itself. Vide Plat. Timæus, Ritter, and Cousin.

he must obtain an argument) from many, for it will be easy to argue when they have defined,¹ since opposition* to definitions is easier.

* ἐπιχειρησις.

5th, Also the consequences of its subsistence.

We must also consider in the proposed (problem) to what thing it belongs, or what will necessarily be if the proposition subsists. The person who wishes to confirm, must consider to what the proposition will belong, (for if that be shown to exist, the proposition will also have been proved,) but he who wishes to subvert, (must consider) what will be the consequence if the proposition subsists, for if we can show that the consequent to the proposition does not subsist, we shall have subverted the proposition.

6th, Time to be regarded.

Besides, we must attend to time if it is any where discrepant, as if a person said that what is nourished, is of necessity increased, for animals are always nourished, yet do not always increase. Likewise, if he said that to know scientifically, is to remember, for the one belongs to past time, but the other to the present and the future,†² for we are said to know scientifically things present and future, as that there will be an eclipse, but it is impossible to remember any thing except the past.

† So Waitz, Buhle, and Bekker.

CHAP. V.—Upon drawing on the Adversary to our own strong points: Subversion of the Proposition by that of the Consequent.

1st Topic. Of drawing off our opponent

It is also a sophistical place,³ to bring (the adversary) to that, against which we are well provided

¹ Πῶν γὰρ ὀρίσασθαι ἐπιχειρεῖν, ἔσται. "It will be easy for those who argue to define." Taylor. Facilius enim erit definientibus (thesin) aggredi. Buhle. Compare Waitz's note upon the supplementary passage of the preceding clause, vol. ii. 111, b. 14. The ἐπιχειρησις was originally synonymous with dialectic syllogism; the rhetoricians enumerated various kinds, tripartita, quadripartita, etc., to which last it was finally limited. Vide ad Heren. ii. 2, 19; Cic. de Inv. i. 37, seq.; Quint. Hist. 5; Trendelen. Elem. 33; Crakanthorpe's Log. b. v.; Sanderson's Log. iii.; also Dr. Hessey, Met. p. 6: as he remarks, the ἐπιχειρησις admits of a συλλογ. ἀντιφάσεως, which is called ἀπόρημα.

² Hoc enim præteriti temporis est: illud vero et præsentis et futuri. Buhle. Taylor's reading here is altogether erroneous. Cf. Poet. ch. 16; De Anim. Proem. p. 167; b. iii. 5.

³ Sophists sometimes transfer the disputation from the original pro-

with arguments, and this will sometimes indeed be necessary, at others, appear to be so, but sometimes neither apparent, nor necessary. Now it is necessary, when the respondent, denying some one of those things which are useful to the thesis, the arguments are directed against this,¹ which happens to be a thing of that kind, against which it is possible to abound with arguments. In like manner, when some one by making an abduction* to a certain thing, through what is laid down, endeavours to subvert (that thing), for this being subverted, the proposition is also subverted. On the other hand, it appears to be necessary when it seems indeed useful and appropriate to the thesis, yet is not so to that against which the arguments are adduced, whether he who sustains the argument denies, or whether by a probable abduction through the thesis against it, he endeavours to subvert it. The remainder is when that against which the arguments are advanced, is neither necessary nor appears to be so,[†] but it happens that the respondent is sophistically confuted in another respect.[‡]² We must however be cautious about the last of the above-mentioned modes, for it seems to be altogether remote and foreign from dialectic, wherefore the respondent must not be displeased, but should admit whatever are not useful to the thesis, signifying what do not appear to him to be true, though he admits them; for it happens generally that those who interrogate are more perplexed, when every thing of this kind is admitted, if they do not conclude.

Further, every one who states any thing, in some way states many things, since many are conse-

position to something else; if such transition be made without any reason of justice, it is entirely sophistical, because it is neither necessary, nor seems to be so; otherwise it is dialectic.

¹ For instance, to demonstrate that the soul is immortal, I assume this principle, that it is moved from itself; this the adversary denies, and therefore to this the discussion is transferred. Taylor.

² When the argument is "traversed" to something entirely foreign from the question, so that not the adversary's position, but something else is refuted, (*ἀλλως παρεξίληκται*), which though easier to us to subvert, does not concur in the least with the subject matter. Waitz. Taylor appears to have mistaken this passage.

to another point, upon which we are well prepared, if he denies any thing which we wish him to grant, in order to effect his refutation. Three classes of this topic.

* Vide Prior Anal. ii. ch. 25.

2.

3.

† Because not pertaining, nor appearing to pertain, to the thesis.

‡ Vide Soph. Elen.

original proposition is. quent of necessity, upon each ; for instance, he who states that man is, states also that animal is, and that animated, and that biped, and that what is capable of intellect and science (are), so that any one of these consequents being subverted, the original proposition also, is subverted. Still we must be careful lest we make a transition to what is more difficult,¹ for sometimes it is easier to subvert the consequent, and at others the proposition itself.

CHAP. VI.—*Of Topics connected with Affirmative and Negative Argument relatively, etc.*

1st Top. If one of two things concerning a matter be predicated, the same argument comprehends both.
* Confirmation and subversion.

IN those things, with which it is necessary one thing alone, should be present, as with man, disease or health, if we are well furnished with arguments against one, that it is present or not, we shall also be well provided against the other.

This, however, converts with regard to both,* for when we have proved one of them present, we shall have proved that the other is not present, but if we have proved that it is not present, we shall have proved the other present ; wherefore the place is evidently useful for both.

2nd Top. The name to be transferred to the etymology.

† εὐψυχον.

‡ τὸν εὐ τὴν ψυχὴν ἔχοντα.
§ εὐελπιν.
|| εὐδαίμονα,
happy.

Again, we must argue by transferring the name to the meaning, as being more appropriate to assume, than as the name is placed, for instance, (to take) well-animated,† not brave, as it is now placed, but (as signifying) one who has his soul well,‡ as also hopeful of good,§ one who hopes good things, and in like manner, good-fated,|| one whose demon is good, just as Xenocrates says,

that he is happy who has a worthy soul, for that this is each man's demon.²

¹ Which is more difficult to prove. Cavere autem oportet in hujusmodi difficilioris assumptionem facere. Boethius.

² As this topic is from the etymology of names, I have preferred the literal translation of εὐδαιμων, to the usual one of "happy." When a sentence explanatory of the etymology of a name, is more adapted to the proof of the thing proposed than the name itself, we ought to change the name into the sentence, and argue from it. Upon the sentiments of Xenocrates, see De Anim. i. 2, 8, i. 4, 16 ; Diog. Cic. Att. x., ep. 1 ; Tus. v. c. 23 ; Val. Max. ii. 10 ; also Ritter : he was distinguished by the name of Plato's donkey ; perhaps in those (?) days, because he was

Since, however, some things are from necessity, others subsist generally, but others casually, if what is from necessity is laid down as general, or what is general as from necessity, either itself,* or the contrary to what subsists generally,† it always affords a place for argument. For if what is of necessity be laid down as for the most part, it is evident that a person states it to be present, not with every individual, when it is, so that he commits an error; also, if he says, that what is for the most part is from necessity, since he states that to be present with every individual which is not; similarly, if he says that the contrary to the general is from necessity, for the contrary to the general is always asserted of the fewer, for instance, if men are generally bad, good men are few, so that he makes a still greater error if he says that men are of necessity good. Likewise, if he should say that what happens casually, is from necessity, or for the most part, for the casual, is neither necessary, nor general; if, however, a person has not defined, whether he says a thing is general, or of necessity, but the thing should subsist as for the most part, it is possible to dispute, as if he had said, it was of necessity, e. g. if he had said, that those without heritage were bad, without defining them (who they are), it might be argued as if he had said (they were so), from necessity.

Moreover, we must consider whether he has placed a thing accidental, as if different, to itself, from the name being different, as Prodicus divided pleasures into joy, delight, and hilarity, for all these are names of the same thing, pleasure; if then any one should say that joy happens to hilarity, he would say that the same thing happens to itself.

“honest.” Upon the character of the happy man, see *Ethics*, book x.; *Mag. Mor.* i. 4; *Eudem. Mor. lib.* i. ii. and vii. The opinion here conveyed, has a thousand imitators, in fact, if the demon be taken as conscience, the principle forms the constitutive element of nearly every religious scheme, and is the fruitful topic of imagination to the poet, and of argument to the philosopher. Bishop Butler, for instance, on the one hand, and Juvenal on the other. Montaigne confirms his opinion as to the demon of Socrates, by his own personal experience, viz. that it was only a certain impulse of the will, independent of the judgment, (*vide Essays*, p. 18, ed. Hazlitt,) also 238, 239, upon the opinions and character of Xenocrates.

3rd Top. Discrimination between the necessary and general.

* Quod plerumque. Buhle.

† i. e. that which happens rarely.

4th Top. Whether notions which are only nominally different be stated as accidents to each other. Cf. *Rhet. b. ii. 24.*

CHAP. VII.—*On Places connected with Contraries.*

1st Top. Of many propositions contrary to the same, that is to be taken which especially suits our position. Contraries join in six ways.

* Cf. Ethics, book viii.; Moral. Eud. iv. and vii.; Mag. Mor. lib. i. and ii.

spect, as to act well by friends and well by enemies, or ill by friends and ill by enemies.

1. The two first do not produce contrariety.
† Vide Ethics, books viii. and ix.
‡ Ethics, b. ii. ch. 1.

2. All the remaining four do produce contrariety.

SINCE contraries are united to each other in six ways, but produce contrariety when united in four, we must assume contraries in such a method as may be useful, both to the subverter and constructor. Now that they are involved six ways is clear, for either each will be connected with each of the contraries, and this in a twofold respect, as to act well by friends and ill by enemies, or, on the contrary, to act ill by friends and well by enemies: * or when both are about one thing, and this in two ways, as to act well by friends and ill by friends, or well by enemies and ill by enemies: or one thing about both, and this in a twofold respect,

The first two conjunctions named, do not, indeed, produce contrariety, since to act well by friends is not contrary to acting ill by enemies, as both are eligible † and proceed from the same character. ‡¹ Nor is the injuring friends contrary to the benefiting enemies, for both these are to be avoided and proceed from the same character, but what is to be avoided does not seem contrary to what is to be avoided, unless the one is spoken according to excess, but the other according to defect, for excess appears to be of the number of things to be avoided, and similarly also defect. All the remaining four, however, produce contrariety, for to benefit friends is contrary to injuring friends, for they are both from contrary character, and the one is to be chosen and the other avoided. In like manner, also, as to other things, for according to each connexion, the one is eligible, but the other to be avoided, and the one belongs to a worthy, but the other to a depraved character, so that it is clear from what we have said, that many things happen to be contrary to the same thing; for to

¹ τῶν αὐτῶν ἡθῶν, ad eosdem mores pertinent. Buhle. The ἦθος is the result of accumulated habits, i. e. character. Cicero calls it "consuetudo." Acad. i. 5.

benefit enemies, and to injure friends, are contrary to benefiting friends, and similarly to each of the others, there will appear two contraries, to those who consider them after the same manner, nevertheless, whichever contrary is useful to the thesis should be assumed.

Moreover, if any thing is contrary to accident, we must see whether it is present with what the accident is said * to be present with; for if this † is present, that ‡ cannot be, since contraries cannot possibly be at the same time with the same thing.

Also whether such a thing has been predicated of any, which existing, contraries must necessarily be inherent; thus if any one said that ideas are in us, for it will happen that they will both be moved and be at rest;¹ § also be both sensible and intelligible. For ideas, to those who admit their existence, appear to rest, and to be || intelligible; but if they are in us, they cannot be immovable, for since we are moved, it is necessary that all things in us should be moved together with us, it is also clear that they are sensible if they are in us, for through the sense of sight we know the form ¶ which is in every thing.²

Again, if accident is laid down to which there is a certain contrary, we must consider whether it is also susceptible of the contrary which contains the accident, for the same thing is capable of contraries; thus if any one said that hatred followed anger, hatred would be in the irascible* (part of the soul), for anger is there. We must

¹ ἡρεμείν. As Simplicius observes, not every στάσις is ἡρεμία, but that only which is after motion: upon the different kinds of this latter, see the Physics and de Animâ. That Plato does not suppose the soul is moved according to physical motion, is evident from the 10th book of his Laws.

² Morphè is that which pertains to the colour, figure, and magnitude of superficies. Vide the Physics. The ideas of Plato were stated to be immovable and intelligible, considered as to their existence in a divine intellect, not according to their participation of the human soul. He also considers "ideas" as immaterial and incorporeal forms, and therefore totally different from "morphè."

2nd Top. If any thing contrary to accident be predicated of the same as the accident is.

* In the thesis.

† The contrary.

‡ The accident.

§ 3rd Top. Also

whether any thing has been predicated, from the existence of which, contraries follow.

§ Cf. De An. i.

2, 7, and iii. 4,

4; also i. 3; iii.

2, 1, and 3, 6;

Eth. i. 6; Me-

taph. xii.; Phy-

sica, passim.

|| Buhle and

Taylor insert

"immovable."

Cf. Phys. b. iii.

5—8.

¶ μορφή.

4th Top. Whe-

ther an acci-

dent, to which

there is a con-

trary, takes the

contrary also

to it.

* θυμοειδής.

Vide Ethics i.

13, and book iv.

5; also De
Animâ iii. 9.
* Omitted by
Waitz, but read
by Bekker,
Buhle, and
Taylor.
† ἐπιθυμητικόν.
See Ethics i. 13.

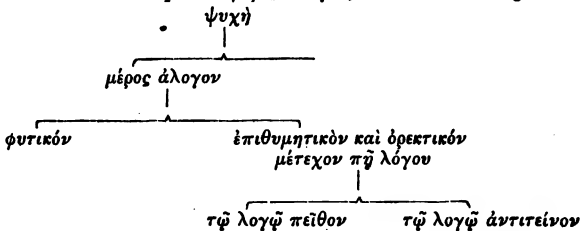
consider then whether the contrary also is in the irascible part, friendship,* for if not, but friendship is appetitive,¹† hatred would not follow anger. Likewise, also, if he said that the appetitive part of the soul was ignorant, for it will be capable of science, if indeed it is of ignorance, which does not seem to be the case, that the appetitive part should be capable of science. Whoever therefore subverts, should, as we have said, use this place, but it is not useful to one who confirms that accident is inherent, though it is useful to show that it is possible to be inherent. For when we have shown that it is not susceptible of the contrary, we shall have shown that accident is neither, nor can be, inherent; but if we have shown that the contrary is inherent, or that it is susceptible of the contrary, we shall not yet have shown that accident also is inherent, but it will only be so far proved that it may be inherent.

CHAP. VIII.—Of Topics, from the sequence of Opposition.

1st Top. We must employ the four kinds of opposition, so as to see whether if A be the consequent of B, non-A also follows non-B.

As oppositions are four, we must consider (whether we can derive an argument) from contradictions, the consequence being inverse both for subversion and confirmation, and we must assume from induction, as if a man is animal, what is not animal is not man, likewise in other things; for here the consequence is inverse, since animal is consequent to man, but what is not animal is not consequent to what is not man, but inversely what is not man is conse-

¹ Aristotle, in his division of the soul, shows in the Ethics, (i. 13,) that if the appetitive is rational, another division is requisite. The appetitive part is a branch of the portion μέρος ἀλογον, and is thus distinguished.



quent to what is not animal. In all cases then such must be admitted, as if the beautiful is pleasant, the unpleasant is not beautiful, and if this is not, neither will that be; likewise also if the unpleasant is not beautiful, the beautiful is pleasant, wherefore it is clear that the consequence according to contradiction being inverted, converts to both.

In contraries indeed, both the subverter and the constructors must consider, whether the contrary follows the contrary directly, or inversely, but must also assume such things, as far as it is useful, from induction. The consequence then is direct, for instance, to bravery and timidity, for to the one, virtue, but to the other, vice, is consequent, and the eligible follows the one, but what is to be avoided, the other, therefore the consequence of these also is direct, since the eligible is contrary to what is to be avoided, and similarly in other things. But the consequence is inverse, as health indeed follows a good habit of body, but disease does not, a bad habit, but a bad habit of body is consequent to disease, wherefore it is clear that the consequence in these, is inverse. Nevertheless, the inverse rarely occurs in contraries, but in most of them the consequence is direct; if then the contrary follows the contrary, neither directly nor inversely, it is manifest that neither in what is asserted, is the one, consequent to, the other; but if in contraries, in the assertions* also, it is requisite, that the one should be consequent to the other.

2nd Top. Also whether the contrary follows the contrary directly or inversely.

* τῶν ῥηθέντων.
Problem. Taylor.

As in contraries, so also must we consider in privations and habits, except that in privations the inverse does not occur, but the consequence must of necessity always be direct, just as sense follows sight, and privation of sense, blindness, for sense is opposed to the privation of sense, as habit and privation, since one of these is habit, but the other is privation.

3rd Top. Privations, their peculiarity.

Relatives also, we must use in a similar way to habit and privation, for their consequence is direct, as if the triple is multiple, the sub-triple also is sub-multiple, for the triple is referred to the sub-triple, and the multiple to the sub-multiple. Again, if science is opinion, the object of science will also be the object of opinion, and if vision is sense, the

4th Top. Relatives to be employed in a similar way. An objection stated and explained.

visible also, is sensible. It is objected (perhaps), that it is not necessary there should be a consequence in relatives, as we have said, for the sensible is an object of science, but sense is not science, yet the objection does not appear to be true, for many deny that there is science of sensibles. Besides, what has been said is no less useful for (proving) the contrary, as that the sensible is not an object of science, since neither is sense, science.

* *συστοιχα*,
"conjugata."

Buhle. "Co-
ordinations."

Taylor. Man-
sel's Log. p. 15,
note. Cf. Met.
ch. 2.

1st Top. What
is proved of one
of the deriva-
tives of the
same word, is
proved at the
same time of
all.

† Vide Biese i.
p. 210; Waitz,
vol. i. 328.

CHAP. IX.—*Topics of Co-ordinates,* Generation and Corruption.*

AGAIN, we must both in subversion and construction, attend to elementary co-ordinates, and to cases,† and such things are called co-ordinates, as just things, and a just man, with justice, and courageous deeds, and a courageous man, with courage. Likewise, also, things efficient, and conservative, are co-elementary with that, of which they are efficient, or conservative, as the salubrious, with health, and the productive of a good habit, with a good habit, of body. In the same manner with other things, whence it is usual to call such, co-ordinates, but cases, are such as justly, and courageously, and healthily, and whatever are spoken after this manner. Those also which are according to cases, seem to be co-ordinate, as justly with justice, and courageously with courage; but all those are called co-ordinate, which are in the same affinity, as justice, a just man, a just thing, justly. It is clear then, that when any one of these which are in the same affinity, is proved good or laudable, all the rest also have been shown so, as, if justice is one of things laudable, the just man, and the just thing, and the justly, are also of the number of things laudable, but justly, and laudably, will be enunciated according to the same case, from the laudable, as justly from justice.

2nd Top. We
must observe
whether the
contrary is pre-
dicated of the
contrary.

Not only however is the contrary to be considered in what has been said, but also in the contrary, as that the good is not necessarily pleasant, for neither is the evil (necessarily) painful, or if this is, that also is,¹ or so if justice is science, in-

¹ If evil is necessarily painful, good is also necessarily pleasant.

justice is ignorance, and if justly, is scientifically, and skilfully, the unjustly, is ignorantly, and unskilfully, and if these are not, neither are those,¹ as in the case just now stated,* for what is unjustly, would rather appear skilfully, than unskilfully, (done). Now this place has been mentioned before,† in the consequences of contraries, for we do not now lay down any thing else, as a principle, than that the contrary follows the contrary.

* If good is pleasant, etc.

† Vide ch. 8.

Moreover, both by the subverter and the constructor, (arguments are to be derived) in generations and corruptions, efficient and destructives. For those things of which the generations are good, are themselves also good,² and if they are good, the generations are too;³ but if the generations are of the number of things evil, the things themselves also are of evil.⁴ In corruptions, indeed, it is the contrary, for if corruptions are among the number of things good, the things themselves (corrupted) are evil,⁵ but if the corruptions are amongst things evil, the things themselves are good.⁶ The same reasoning indeed prevails in the case of efficient and destructives, for those things, of which the efficient are good, are themselves also good, but those, whose destructives are good, are themselves amongst things evil.⁷

3rd Top. We must collect from the generation and corruption of a thing, whether itself be good or bad.

CHAP. X.—*As to Similars, the more and less.*

AGAIN, (it should be observed,) whether the same thing happens with similars, as if science is one

1st Top. Whether similars are enunciated

¹ If what is done unjustly, is not done ignorantly, etc., what is done justly, is not done scientifically, etc.

² Thus, learning being good, which generates knowledge, therefore knowledge itself is good.

³ As, if life is good, to be born, (which is the generation of life,) is good.

⁴ If to be born here, is evil to the soul, considered as passing into a fallen condition of being, the life also of the soul here, is evil.

⁵ Thus, learning is the corruption of ignorance, and is good; ignorance therefore is an evil.

⁶ Thus, vice, the destruction of the soul's health, is evil, wherefore virtue, the life of the soul and the corruption of vice, is good.

⁷ Thus, the virtues are good, which are the causes of the vices (bad) being destroyed. Cf. Eud. Mor. ii. 1 and 5; i. 2, 3.

of similars, and what is predicated of the one, be also truly said, of the many.

of many, whether opinion also is, and if to possess sight is to see, whether to possess hearing also is to hear, and likewise of the rest, both in the case of the real and of the apparent. This place indeed is useful for both, for if it is so with any similar, it will be also with other similars, but if not with some, neither with the others. Still we must consider both, whether the same occurs in one thing and in many, for sometimes there is a discrepancy; thus, if to know scientifically is to energize with the intellect, to know many things scientifically is intellectually to energize about many things, but this is not true, for we may know much scientifically without energizing the intellect, if then this is not (true), neither is that (which was asserted) in one thing, viz. that to know scientifically is to energize the intellect.*

* Cf. Eth. i. 1 and 2, and 10; also vi. 3; De An. ii. 1 and 2; Met. lib. ii., and viii., and x.; Eud. Mor. v. 1—3.

2nd Top. Arguments to be taken from the more, of which there are four places.

† Et minus. Buhle, Taylor.

for both, for if the addition of the accident is consequent upon

‡ i. e. that accident is present with the proposed subject.

2.

§ i. e. accident. || Two subjects.

the addition of the subject, as was stated, it is evident that it happens,† but if it is not consequent it does not happen, but this must be assumed by induction. Another place is, when one thing § is predicated of two, || if it is not present with what it is more probable to be present, neither (will it be) with what (it is) less (probable),¹ and if it is present with what it is less probable to be present, (it is) also with what (it is) more (probable).² Again, when two things are predicated of one, if what appears more present is not present, neither will the less, or if that which appears to be less present is present, that which is more (will be). Once more, when two things are predicated of two, if what appears more present with the one is not present, neither will the remainder be

¹ Thus, if a general cannot take the city, neither can a common soldier.

² As a common soldier can take the city, therefore, "a fortiori," a general can.

with the remainder; or if what appears less present with the other is present, the remainder also (will be) with the remainder.¹

Again, (there is an argument) from what is similarly present, or appears to be present, triply, just as was said in that, which was more (present), in the three last-mentioned places. For whether one thing is similarly present with two, or appears to be so, if it is not with the one, neither is it with the other, but if it is with the one it will be also with the remainder; or two things similarly present with the one, if the one is not present, neither will the other be, but if the one, (then) also the other. In the same way if two things are similarly present with two, for if one is not present with the other, neither will the remaining one (be) with the remainder, but if the one is present with the other, the remainder (will be) also with the remainder.

3rd Top. Argument, "a similitudine" (*ἀναλογίᾳ*) or "verisimilitudine," three-fold.

CHAP. XI.—*Of Arguments from Addition (ἐκ τῆς προσέσεως) and the Simple (τὸ ἀπλῶς).*

It is possible then to argue in so many ways from the more, the less, and the similar; * also indeed from addition, if one thing being added to another makes that good or white, which before was not white or good, what is added will be (such) a whiteness or good, as in fact it causes the whole to be. Further, if a certain thing being added to what is inherent, makes it more such than it was, itself also will be of a similar kind;² and the same with other things. Still this (place) is not useful in all cases, but in those, in which there happens to be an excess of the more. This place too, does not convert for the purpose of subversion, for if what is added does not produce good, it is not yet manifest whether itself be not good,

* This sentence is annexed, by Buhle and Taylor, to the preceding chapter. 1st Top. If an addition is made affecting the quality, what is added, will partake of the same quality.

¹ Thus, health makes a man happier, than poverty makes him miserable; but health does not make him happy, therefore poverty does not make him miserable.

² As, if virtue is more desirable with independence than without it, independence is also a desirable thing. Taylor.

* Taylor and Buhle add "nor sweet to bitter."

2nd Top. Whatever is predicated comparatively, will also be so, simply.

Yet neither does this place convert for the purpose of subversion, since many things which are not said to be more, subvert simply, for man is not called more and less, yet not on this account is he not man.

3rd Top. What can be said with a certain qualification, is true also, simply.

In the same manner we must pay attention to that which subsists according to something, and at some time, and in some place; for if it is possible as to something, it is also simply possible, and in like manner the when or the where, for what is simply impossible, is neither possible as to any thing, nor any where, nor at any time. It is objected (perhaps) that worthy men are naturally (so), as to a certain thing, for instance, liberal or temperate, but simply they are not naturally worthy. Likewise it is possible at some time that something corruptible may not be corrupted, but simply it is impossible that it should not be corrupted: in the same way also it is beneficial to use a certain kind of diet some where, for instance, in unhealthy places, but simply it is not beneficial. Moreover, in a certain place, it is possible for one only to be, but simply it is not possible that one only should be; in the same way also at a certain place, it was good to sacrifice a father, e. g. among the Tribali, † but simply it is not good. Now does not this indeed signify not a certain place, but to certain people? for it makes no difference where they may be, since every where it will be a noble action with them, (as) Tribali. Again, at some time it is beneficial to take medicine, as when a man is ill, but simply it is not (beneficial), may we not say that neither does this signify a certain time, but refers to one disposed in a certain way, ‡ for it does not signify at all *when* (it is done), if only he be thus disposed. But that is simply, which, when nothing is added, you may declare to be good or the contrary, e. g. you would

† Cf. Pliny and Herod. iv. 49.

‡ i. e. who is ill.

not say that to sacrifice a father is good, but that it is good amongst certain persons, it is not therefore simply good. On the contrary, you will say that to reverence the gods is good without any addition, for it is simply good; hence that which without any addition appears to be good, or base, or any thing else of the kind, will be said (to be so) simply.

BOOK III.

CHAP. I.—*Of Topics relative to the More Eligible and Better.**

* Cf. Rhetoric i. 6 and 7. Ethics i. 7.

FROM these things, we must consider which of two or more, is the more eligible or better, and this is first to be determined, that we do not make those the subjects of consideration, which are very remote and greatly differ from each other, (since no one doubts whether happiness or wealth is preferable,) but those which are near, and about which we entertain a doubt, to whether of them, "more" should be added, because we see no superiority of one to the other. Now in these it is clear, that one or more excellencies being shown, the reasoning faculty will grant, that this is more eligible whichever of them happens to excel.

1st Topic. Consideration of the eligible; things vastly diverse not to be taken into account. The eligible is either—

First, then, that which is longer in duration or is more certain, is more eligible, than that which is less such;¹ and that which a wise or good man would rather choose,² or upright law, or the studious about each would prefer, so far as they are such; or the scientific in each genus; or whatever the great number, or all; (as in medicine or in carpentering, what the greater number of physicians, or all, would choose;) or such things, in short, as most or all things (choose), for instance, good, for all desire what is good. Yet we must bring what shall be said,* to that which is useful,† but simply the better and more eligible, is that

1st, The more durable, and which commends itself to the wise or good; or,

* In the thesis.
† i. e. the argu-

¹ Thus, virtue than wealth, for the former remains after death.

² Varro enumerates 288 sects about the question of the summum bonum. (St. Augustine de Civit. Dei, xix. 2.)

ment must be assumed from the part most useful.

which is according to the better science, but to a certain one, that which is according to his proper science.

2nd. Species and genus are preferable to accident.

Next, whatever is in genus (is more eligible) than that which is not in genus, for instance, justice than a just man, for the one is in genus, that is, in good, but the other, not, and the one is what is good, but the other not, since nothing is said to be what genus is, which does not happen to be in genus, thus a white man, is not what colour is, and similarly of the rest.

3rd. Or what is chosen for itself.

That, also, which is eligible for itself, is preferable, to what is eligible for the sake of something else, as to be well, is preferable to being exercised, for the one is eligible for itself, but the other for something else. Also what is per se, than what is accidental, as that friends, rather than that enemies, should be just, for the one is eligible per se, but the latter accidentally, since we wish our enemies to be just, from accident, that they may not injure us. This, however, is the same with what is prior to it, but it differs in the mode,¹ as we desire our friends, to be just, for their own sake, even if nothing should happen to us, and they should be in India, but our enemies, for something else, viz. that they may do us no injury.

4. What is "per se" the cause of good, is better than what is accidentally so. (Cf. Hooker, v. 65, p. 306.)

The cause also, per se, of good, is preferable to the accidental cause, as virtue than fortune, for the one, is the cause of good, per se, but the other accidentally; also, if there is any thing else of the kind. It will be the same, too, in the contrary (to the eligible), for what is per se, the cause of evil, is more to be avoided, than the accidental cause, for instance, vice and fortune, for the one is evil per se, but fortune from accident.

5. That which is simply good.

The simple good, again, is more eligible than that which is (so) to a certain person, as to be well than to be cut, for the one is simply good, but the other to some one who requires to be cut.

6. What is naturally good.

Also what is naturally (good, is preferable) to what is not naturally (so), as justice than a just man, since the one is by nature, but the other is acquired.

¹ Because above, the eligible was considered for its own sake, and for the sake of something else; but here, per se, and from accident.

That also is preferable, which is present with the better and more honourable, as (that which is present) with God, than with man,¹ and with the soul, than with the body. The property, also, of the better is better than that of the worse, e. g. that of God than that of man, for according to what are common in both, they do not differ from each other, but the one excels* the other in properties. Whatever, also, is in the better, or the prior, or the more honourable, is better, as health than strength and beauty, for the one is in the moist, and the dry, and the hot, and the cold, in short, (in those things) whereof primarily the animal consists, but the other in things posterior, for strength is in nerves and bones, but beauty seems to be a certain symmetry of the members.² The end, also, appears to be preferable to those things tending to the end, and of two things, that which is nearer to the end, and in short, what contributes to the end of life, is preferable to what (tends) to something else, as that which contributes to felicity, than what tends to prudence. Moreover, the possible than the impossible, and when there are two efficient, that of which the end is better. The efficient, however, and the end, (we must consider) from analogy when one end more surpasses another, than that,† its own efficient cause, thus, if felicity more excels health than health the salubrious, what is productive of felicity will be better than health, for as far as felicity surpasses health, so far what is productive of felicity surpasses the salubrious. Nevertheless, health less surpasses the salubrious, so that what is productive of felicity more surpasses the salubrious than does health the salubrious. Evidently, then, what is productive of felicity is preferable to health, since it more surpasses the same thing.‡

7. What is present with the more honourable.

8. Also the ἴδιον of the better.

* So Waitz and Bekker, *ὑπερέχει*.
9. Also what is in the better or prior.

9. Also the end, than what leads to it.

10. And what more approximates to it.

11. The possible, than the impossible.

12. The efficient of the better end, these to be viewed by analogy.

† The effect. Taylor.

‡ The salubrious.

¹ So Portia, in the Merchant of Venice, commends mercy :

“It is an attribute to God himself,
And earthly power doth then show likest God’s,
When mercy seasons justice.” Act iv. sc. 1.

² Symmetry then subsists in a composite, when the naturally more excellent, prevails over the naturally less excellent; or, in other words, when form, surpasses matter.

13. The more beautiful and honourable per se. (Cf. Rhet. i. 11. Ethics, b. viii. Mids. Night's Dream, act iii. sc. 2.)

Once more, the more beautiful per se, and the more honourable and praiseworthy, as friendship than wealth, and justice¹ than strength, for the one are per se amongst things honourable and praiseworthy, but the other not per se, but on some other account, since no one honours wealth for itself, but for something else, but friendship for itself, even if nothing else should result to us from it.

* Cf. Rhet. i. 7; Eth. i. 1, etc.

CHAP. II.—*Upon the Similar and Super-excellent.**

1. We must judge of the excellence of things by their consequents, positively and negatively—this investigation two-fold.

MOREOVER, when two things are very like each other, and we cannot perceive any superiority of the one to the other, we must investigate from the consequents, for whichever the greater good follows, is the preferable. Still, if the consequents be evil, that which the less evil follows is preferable, for both being eligible, there is nothing to prevent something troublesome resulting. The investigation indeed from the consequent is two-fold, since it follows both prior and posterior, as to the learner ignorance is prior, but knowledge posterior; for the most part however the latter consequent is better, so that we must take whichever consequent may be useful.

2. More goods preferable to fewer; an objection.

Again, many goods (are to be preferred) to fewer, either simply, or when some are inherent in others, viz. the fewer in the more: it is objected if anywhere one thing is for the sake of another, for both are not at all preferable to the one; thus, to be made well and health are not preferable to health, as we choose to be made well on account of health, still there is nothing to prevent things which are not good, conjoined with such as are good, from being more eligible, as felicity and something else, which is not good, than justice and fortitude, and the same things with pleasure, rather than without pleasure, and the same things with painlessness than with pain.

3. A thing at its acme of potentiality, more eligible.

Besides, each thing at the time of its greatest power is more eligible, as to be without pain in old age² rather than in youth, for it is capable of

¹ In the Ethics, b. viii. ch. 1, he makes friendship, supersede justice.

² Compare Juvenal, Sat. x. 188, et seq.; 2 Samuel xix. 35.

effecting more in old age. So also prudence in old age is preferable, because no one chooses the young as leaders from not deeming them prudent. Courage indeed is contrary, for courageous energy is more necessary in youth; so also temperance, for the young are more burdened by desires than elderly men.

Whatever also is useful at every time or at most times, is more useful, thus justice and temperance than courage, for the former are always, but the latter is sometimes useful. Again, that which all men possessing we require nothing else, (is more eligible) than that which (all) possessing we should require something else beside, as in the case of justice and courage, for if all men were just, courage would not at all be useful, but though all men were courageous, justice would be useful.

Further, (we can derive arguments) from corruptions and rejections, generations, assumptions, and contraries, for those, the corruptions of which are more to be avoided, are themselves more eligible. Likewise with rejections and contraries, for whether the rejection or the contrary is more to be avoided, it is itself more eligible. Still in generations and assumptions the contrary occurs, and those are more eligible whose assumptions and generations are so.

Another place is, that the nearer to the good is better and preferable, also the more similar to the good, as justice than a just man. Likewise what is more similar to the better than itself, as some say that Ajax was better than Ulysses, because he was more similar to Achilles. The objection to this is that it is not true, since nothing prevents Ajax from being more similar to Achilles, not so far as Achilles was the best; the other (Ulysses) being indeed good, yet not similar. We must also see whether the similar exists in things more ridiculous, as an ape is like a man, when a horse is not so, since the ape is not more beautiful, but more similar to man. Again, in two things, if one more resembles the better, but the other the worse, that will be the better which more resembles the better. Yet this also has an

4. Whatever is useful at all, or at most, times.

5. What is sufficient of itself, when all possess it.

6. Of corruptions, etc., and their contraries.

7. The nearer and more similar to the good, etc.: an objection stated.

8. Ascertain whether the similar exists in the more ridiculous.

9. Compare relative excellence of the object resembled: objection.

objection, since there is nothing to prevent the one being in a small degree similar to the better, but the other being very similar to the worse. As if Ajax was a little like Achilles,

but Ulysses excessively like Nestor. Also if what resembles the better is like so far as pertains to the worse, but what resembles the worse so far as belongs to the better, as a horse with respect to an ass, and an ape to a man.

10. If the resemblance to the better, be in something inferior.

11. The more illustrious.

12. The more difficult.

13. The less common.

14. The less connected with evil.

15. The best in the simply better.

* See the saying of Cyrus. *Cynopæd.* viii. 2.

16. What our friends can share.

17. What we would rather do for friends.

18. What we would rather do for friends.

19. What we would rather do for friends.

20. What we would rather do for friends.

21. What we would rather do for friends.

22. What we would rather do for friends.

23. What we would rather do for friends.

24. What we would rather do for friends.

25. What we would rather do for friends.

26. What we would rather do for friends.

27. What we would rather do for friends.

28. What we would rather do for friends.

Another, the more illustrious, (is preferable) to that which is less so,¹ likewise the more difficult, for the possession of those things is dearer to us which cannot easily be obtained. Again, the more peculiar than the more common.² Also that which has less connexion with evils, for that is preferable which no molestation follows, rather than that which it does follow.

Again, if this is simply better than that, that which is the best in this, is better than that which is the best in the other, as, if man is better than horse, the best man also is better than the best horse,* and if the best is better than the best, this also is simply better than that, thus, if the best man is better than the best horse, man also simply is better than horse.

Further, those things of which our friends can share are preferable³ to what they cannot partake of: also those which we would rather do for a friend, are preferable to what we would do for any one, as, to act justly and to do good are preferable to seeming (to do so), for we rather desire to benefit our friends than to seem (to benefit them), but contrarily with regard to casual persons.

¹ Thus, glory is more eligible than wealth.

² Thus Cicero, in his oration for Marcellus, shows that the glory which Cæsar obtained by pardoning Marcellus, is to be preferred to military glory, because the latter is common to many, but the former peculiar to Cæsar. Comp. Massinger's Duke of Milan, act iii. scene 1.

³ In perfect friendship, says Montaigne, the giver is obliged to the receiver. Cf. Terence Heauton. i. 97 :

“Nec mihi fas esse ullâ me voluptate hic frui
Nisi ubi ille huc salvos redierit meus particeps.”

Also those which are from abundance are better than such as are necessary, and sometimes indeed are more eligible, for to live well, is better than to live merely,¹ but to live well is from the abundant, and to live itself, is necessary. Sometimes however things which are better are not also more eligible, for if they are better, it is not necessary that they should be more eligible, for instance, to philosophize is better than to get money, yet it is not more eligible to one in want of necessaries. Still it is from abundance, when necessaries being (supplied), a person procures certain other things good; yet perhaps the necessary is almost preferable, but that from abundance is better.

18. Things from abundance: an exception stated.

Again, that which cannot be supplied by another is better than what another may supply, as justice fares with regard to courage, also if this thing is eligible without that, but not that without this, as power is not eligible without prudence, but prudence is eligible without power. Also if we deny one of two, that the other may seem to be present with us, that is the more eligible which we desire to seem present, as we disclaim labour in order to appear talented.

19. What cannot be supplied by another.

20. What we chiefly desire to be present to us.

Again, that, the absence of which we reprove persons less for bearing with difficulty, is more eligible, and that, the absence of which when it is not borne with difficulty, we rather reprove, is also more eligible.

21. The absence of which we less reprove persons for lamenting, et contra.

CHAP. III.—*Of the more Eligible, continued.*

MOREOVER of things under the same species, that which possesses its own proper virtue (is preferable) to what does not, but when both possess it,

1. That is preferable, which alone, or in a greater degree,

¹ Summum crede nefas animam præferre pudori

Et propter vitam, vivendi perdere causas. Juvenal viii. 83.

And Horace, "Vivere, si recte nescis, decede peritis. Epist. ii. 2, 213.

Antisthenes said, "That a man should either make provision of sense to understand, or of a halter to hang himself:" assuming right understanding, and obedience to it, to be the chief end of life. Plutarch.

possesses its appropriate virtue.

2. Whose presence produces good, or the greater good.

that which has it in a greater degree. Further, if one thing causes that to be good with which it is present, but another does not, the efficient is preferable, as what heats is hotter than what does not, yet if both cause it, that which causes it the more, or that which renders the better and more principal thing good, as if one thing causes the soul, but another the body.

3. Judgment of the preferable to be formed from cases, etc.

justice is preferable to courage, justly also is preferable to courageously, and similarly in other things.

4. The greater good of the same.

* Aut si alterum sit majori majus. Buhle.

5. The one of two most to be preferred in reference to a third.

6. Where excess is preferable.

7. What a man prefers to obtain by himself.

e. g. friends than money.

8. We must judge from addition: a caution stated.

† Waitz alone reads ἄλλω instead of ἄλλω.

‡ These words omitted by Taylor.

Again, from cases, uses, actions, and works; and these from those,¹ for they follow each other; for example, if justly is preferable to courageously, justice also is preferable to courage, and if

Besides, if of the same thing one is the greater good, but the other the less, the greater is preferable, or* if it is the good of the greater, it is the greater (good).² But also if two things are preferable to a certain thing, the more eligible is to be preferred to the less eligible. Again, that of which the excess is more eligible than the excess (of another thing), is itself more eligible, as friendship than wealth, for the excess of friendship is preferable to the excess of wealth. Also that which a man would rather procure through himself, than which (he procures) through another,

Again, also from addition, if any thing being added to the same, renders the whole more eligible: we must be careful, however, lest we propose such things, in which what is common is employed in one of the things added, or is in some other† way co-operative with it, but the rest is not used nor is co-operative;‡ for example, a saw and a sickle (being joined) by constructive art, the saw when conjoined is more eligible, but

¹ Cases, uses, actions, works, are to be judged from those of which they are the cases, etc.

² Health, the good of the body, is therefore inferior to science, the good of the mind.

simply is not so. Again, if any thing being added to the less renders the whole greater. Likewise also from detraction, for when any thing being taken away from the same, the remainder is less, that (which was taken away) will be greater, since what is removed renders the remainder less.

Also, if one is eligible for itself, but the other on account of estimation, as health than beauty. Now, the definition of what is eligible on the score of estimation, is that if no one were conscious, we should not endeavour to obtain it.¹ And if one thing is eligible for its own sake, and on account of estimation, but the other on account of one of them only. And that which is more honourable for its own sake is better and more eligible, but that would be more honourable *per se*, which, nothing else being about to result, we rather prefer for its own sake.

Moreover, we must distinguish in how many ways the eligible is predicated, and for the sake of what things, as for that of the profitable, or the beautiful, or the pleasant, for whatever is useful to all or to the greater number, would be more eligible than that which is not similarly (so useful). When, however, the same are present to both, we must consider with which they are more present, whether it be the more pleasant, or the more beautiful, or the more profitable. Again, what is for the sake of the better, is more eligible, as what is for the sake of virtue than what is for the sake of pleasure. It is the same also in things to be avoided, for that is more to be avoided which is more an impediment to the eligible, as disease than deformity, since disease is a greater impediment both to pleasure and probity.

Once more, from similarly demonstrating,* that the thing proposed is to be avoided and chosen, for a thing of such a kind as that one may similarly choose and avoid it, is less eligible than another thing which is eligible only.

9. Also from detraction.

10. Also if one is eligible *per se*, but the other on account of estimation; definition of the latter.

11. If one be for both, but the other for one only.

12. What is more honourable for its own sake.

13. Notice in how many ways the eligible is predicated, "et quorum gratiâ."

* i. e. another place is derivable.

14. What is desired is more eligible than what is indifferent.

¹ For the test of real religious character in this respect, see Matt. vi.

CHAP. IV.—*Of the Use of these Places for Demonstrating what is Eligible or to be Avoided* (τὸ αἰρετὸν ἢ φευκτόν).

WE must make then, as we have said, comparisons of things with each other.* The same places, however, are also useful for showing whatever is to be chosen or avoided, for it is only requisite to take away the excellence by which one thing surpasses another. For if the more honourable is more eligible, the honourable also is eligible, and if what is more useful is more eligible, the useful also is eligible, it is the same also in other things which have such a comparison. Still in some, by making a comparison of one with the other, we pronounce directly, that either, or that one of them, is eligible, as when we say, that one thing is naturally, but another not naturally, good, for what is naturally good is evidently eligible.

CHAP. V.—*Of Topics pre-eminently Universal from the more and greater.*

PLACES pre-eminently universal are to be assumed of the more and greater, for when they are thus assumed they will be useful for more (problems); still we may render some of those we have mentioned, more universal by changing the appellation in a slight degree; thus, what is such by nature, is more such than what is not such by nature. Also, if the one causes, but the other does not cause, the thing which possesses that to be such, (or that) in which it is inherent; what is sometimes the cause, is more a thing of this kind than what is not the cause, but if both are causes, that which is rather the cause is a thing of this kind.

Further, if of the same thing, one is more, but another less such, and if the one of a thing of this kind is more such, but the other is not of such a thing such, it is evident that the first is more a thing of this kind. Moreover, from addition (we may derive) a topic, if something being added to

1. The same places, however, are also useful for showing whatever is to be chosen or to be avoided.

* Taylor and Buhle affix this sentence to the last ch.

1st Top. Topics pre-eminently universal of the more, and greater, to be assumed; reason.

2nd. Causes to be distinguished.

3rd. That which is more such.

such a thing

4th. From addition.

the same, renders the whole more such, or if what is added to the less such, makes the whole more such. Likewise from detraction, for that which being taken away, the remainder is less such, is itself more such. Also things which are more unmixed with contraries are more such, as that is whiter which is more unmixed with black. Besides, what has been said before, there is that which is more recipient of the proper definition of the thing proposed, as, if the definition of whiteness be colour separating the sight; that is more white which is more colour separating the sight.

5th. From detraction.

6th. Things more unmixed with contraries.

7th. What is more receptive of the definition.

CHAP. VI.—*That the above Places are useful for Particular Problems.*

IF the problem should be laid down partially and not universally, all the above-mentioned universal places confirmatory or subversive are useful. For when we subvert or confirm universally, we also demonstrate particularly, since if a thing is present with every, it is also present with a certain one, and if with none, neither is it with any one. Notwithstanding, those places are above all opportune and common, which are assumed from opposites, coordinates, and cases, for it is similarly probable to assume, if every pleasure is good, that all pain likewise is an evil, and if a certain pleasure is good, that a certain pain also is an evil. Yet more, if a certain sense is not a power, a certain privation of sense also is not impotence, and if a certain thing being the subject of opinion is also that of science, a certain opinion also is science. Again, if any thing unjust is good, something just also is evil, and if any thing done justly is an evil, something done unjustly is good.* Also, if something pleasant is to be avoided, a certain pleasure is to be avoided; on this account too, if any thing pleasant is profitable, a certain pleasure is profitable. In things corruptive also, and in generations and corruptions in like manner, for if any thing which is corruptive of pleasure or science is good, a certain pleasure or science would be of the number of things evil; similarly also if a certain corruption

1. He shows how the above places in this, and in the preceding, book, apply to particular problems. Places from opposites, etc., especially suitable.

* Buhle and Taylor reverse this sentence.

of science be among the number of good things, or a generation be among evil things, a certain science will be amongst things evil, for instance, if to forget the base acts a person has committed, is among things good, or to remember them, is amongst things evil, to know the base acts which any one has perpetrated, will be amongst evils. It is the same also with the others, for in all there is similar probability.

2. Topic from the more, and less, and similarly.

* i. e. in the problem.

Moreover, (there is a place) from the more, and the less, and the similarly. For if any one thing of those from another genus is more such, but no one of those is such, neither will what was mentioned* be such, e. g. if a certain science is more a good than pleasure, but no science is good, neither will pleasure be. And in the same way from the similarly and the less, for both to subvert and to confirm, will be possible, except (that we may do) both from the similarly, but from the less, only confirm, and not subvert. For if a certain power is similarly good, and science, but a certain power is good, a certain science also is, but if no power, neither is science; still, if a certain power is less a good than science, but a certain power is good, science also is. On the other hand, if no power is good, it is not necessary also that no science should be good, wherefore we can evidently only confirm, from the less.

3. That we may subvert not only from another, but from the same genus.

† The same thing is done.
4. Case of hypothesis.

Notwithstanding, we may not only subvert from another genus, but also from the same, by assuming what is especially such; as if it is admitted that a certain science is good, but it should be shown that prudence is not good, neither will any other be, since what especially seems (good) is not (so). Once more, from hypothesis,† when in the same way it is assumed, that if a thing is present or not, with one, it is also or not, with all, as if the soul of man is immortal, that other (souls) also are, but if this is not, that neither are the others. If indeed then a thing is assumed present with a certain one, it must be proved not present with a certain one, since it will follow through the hypothesis that it is present with nothing, but if it is laid down not present with any, we must show that it is present with some one, for thus it will follow that it is present with all. Indeed it is evident that he who makes this hypo-

thesis, makes the problem universal, which was laid down as particular, for he requires that to be acknowledged universal, which was allowed to be particular, since if it is present with one, he assumes it similarly present with all.

The problem then being indefinite, it is possible to subvert it in one way, as if a person said that pleasure is good or not good, and added nothing else in the definition. For if he said that a certain pleasure is good, we must show universally that no pleasure is, if the proposition is to be subverted. In like manner, also, if he said that a certain pleasure is not good, we must show universally that all is, for otherwise subversion is impossible; since if we have shown that a certain pleasure is not good, or that it is good, the proposition is not yet subverted. It is evident then, that subversion is possible in one way, but confirmation in two, for both whether we show universally that all pleasure is good, or that a certain pleasure is good, the proposition will have been proved. Likewise if it should be required to be argued that a certain pleasure is not good, if we have proved that no pleasure is good, or that a certain one is not good, we shall have argued in both ways, both universally and particularly, that a certain pleasure is not good. The thesis indeed being defined, it will be possible to subvert in two ways, as if it should be laid down that good is present with a certain pleasure, but with a certain (pleasure) is not present, since whether all pleasure, or no pleasure, be proved good, the proposition will be subverted. Still, if it has been admitted that one pleasure only is good, subversion is possible in three ways, for by showing that all, or that none, or that more (pleasures) than one, are good, we shall have subverted the proposition. Nevertheless, the thesis having been defined to a greater extent, as that prudence alone of the virtues is a science, subversion is possible in four ways, for it having been shown that every virtue is science, or that none, or that some other (is a science), as justice, or that prudence itself is not a science, the proposition will have been subverted.

5. The indefinite can be subverted in one way only.

6. Confirmation possible in two ways.

7. When the thesis is definite, we may subvert in two ways.

2. Or in three.

3. Or in four.

8. Singulars to be attended to, as to things in-

It is also useful to attend to singulars, in which something was said to be inherent or not, as in

herent—also
genera.

universal problems. Again, we must look to genera dividing according to species, as far as to individuals, as we observed before, for whether a thing appears present with every, or with none, (the opponent) must

* That is, "if
inherent."

9. Also acci-
dent.

† If we wish to
prove.

enumerated
not one of

‡ Metaph. lib.
x.; Physic, lib.
i. 5, 6.

§ De Anim. i.
4, et seq.; Me-
taph. xii.

be required by him, who has adduced many things, to acknowledge * universally, or to bring an objection, in what thing it is not so. Besides, in what things it is possible to define accident, whether in species or in number, it must be considered, if no one of these is present, as † that time is not moved, and that neither is it motion, having enumerated how many species of motion there are, since if not one of these is present with time, it is evidently not moved, neither is it motion. ‡¹ Likewise also, (if we wish to show) that the soul is not number, (we must prove) by division, every number is either odd or even, as, if the soul is neither odd nor even, it is clearly not number. §²

For accident then we must argue through such (places) as these, and in such a manner.

¹ It would exceed our limits to give a satisfactory digest, of the commentary of Simplicius, upon the question of the affinity of time to motion; therefore we can only refer the reader to that author himself, and to the no less careful exposition by Taylor, of the Aristotelian philosophy. The places in the Metaph. and Phys. bearing on the point, are alluded to: meanwhile I may remark, that in the opinion of Aristotle, time is not motion, unless so far as motion has number; an indication of which is, that we judge of the more and the less, by number, but of a greater and less motion, by time. Since, again, number is two-fold, (for we call both the numbered, and that which is numerable, number, and also that by which we number,) time is that which is numbered, and not that by which we number.

² Vide Ritter, Cousin, Plato's Timæus, et Leg. The observation of Lucretius (i. 113) may be taken as a fair compendium of the innumerable dogmas, incident to the general ignorance of the nature of the soul, by philosophers:

"Ignoratur enim, quæ sit natura animai
Nata sit: an, contra, nascentibus insinuetur,
Et simul intereat nobiscum morte dirempta;
An tenebras Orci visat, vastasque lacunas,
An pecudes alias divinitus insinuet se.

The observation in the previous note, applies equally to the Pythagorean and Platonist theory of the soul; and the commentaries referred to, will be found to comprehend every thing valuable upon the point.

BOOK IV.

CHAP. I.—*Of Topics relative to Genus.*

OUR attention must now be directed to what appertains to genus, and property, and these are the elements of such as belong to definitions, but about them there is seldom a consideration by disputants. If then it should be laid down that there is a genus of any certain thing, we must first have respect to all things allied to what is spoken,¹ whether it is not predicated of something, as is the case with accident, as if good is assumed as the genus of pleasure, (we must see) whether a certain pleasure is not good; for if this happens, it is clear that good is not the genus of pleasure, since genus is predicated of all things under the same species.* Next, whether it is not predicated in answer to the question, what a thing is; but as accident, as whiteness, of snow, or what is moved by itself, of the soul; for neither is snow, the same thing as whiteness, wherefore whiteness, is not the genus of snow, nor is the soul, the same as what is moved, but it is accidental to it, to be moved, as also it frequently happens to an animal, to walk and to be walking. Moreover, the being moved, is not a certain thing, but appears to signify something active, or passive; likewise also whiteness, for it does not discover what snow is, but what kind of thing it is; hence neither of these, is predicated in reply to the question what a thing is.

Notwithstanding, we must especially have regard to the definition of accident, if it concurs with the stated genus, as also in what has just now been mentioned, for the same thing may possibly move, and not move itself, likewise also may be white, and not white, so that neither of these is genus, but accident, since we denominate that accident, which possibly may, and may not be present, with a certain thing.

1st Top. Genus deceptively assumed, if it applies not to every thing, in the same species with that, of which it is predicated.

* So Waitz and Bekker. "Of all the species contained under it" (εἰδῶν), Taylor and Buhle.

2nd. The definition of accident to be regarded.

¹ h. e. ου ἀποδέδοται τὸ γένος. Waitz.

3rd. Also whether the genus and the species are in the same category.

Further, whether the genus and the species, be not in the same division, but the one, essence, and the other, quality, or the one, relative, but the other, quality, for instance, snow is essence, also a swan, yet whiteness is not essence, but quality, so that whiteness is neither the genus of snow, nor of a swan. Again, science is of the number of relatives, but good, and beautiful, are each a quality, hence neither the good, nor the beautiful, is the genus of science, since the genera of relatives, must necessarily themselves also, be relatives, as in the instance of the double, for the multiple being the genus of the double, is itself of the number of relatives. To speak universally, genus must be under the same division with species, for if the species be essence, the genus also is, and if the species be a quality, the genus also is some quality, as if whiteness is a certain quality, so also is colour, and likewise in other cases.

4th. Whether the definition of species is predicated of genus.

Further, (we must examine) whether it is necessary or contingent that genus partake of that which was laid down in genus, and the definition of partaking, is to receive the definition of what is participated. Now it is evident that species partake of genera, but not genera of species, since the species accepts the definition of genus, but not genus that of the species. Wherefore we must observe, whether the proposed genus partakes, or can partake, of species, as if some one should declare that there is a certain genus of "being," or of "the one," for the genus will happen to partake of the species, since "being" and "the one" are predicated of all entities, so that their definition is (predicated) also.

5th. If the genus is not predicated of what the species is.

Besides, whether the assigned species is truly predicated of a certain thing, but not the genus, as if "being" or the object of science is laid down as the genus of what is the object of opinion, for the object of opinion will be predicated of non-entity, since many non-entities are the objects of opinion. Still that being, or the object of science, is not predicated of non-entity, is evident, wherefore neither "being" nor the object of science, is the genus of the object of opinion, as of what species is predicated, genus must also of necessity be predicated.

Again, whether what is placed in the genus can possibly partake of no species, since it is impossible that what partakes of no species, should partake of genus, unless it should be one of those species according to the first division, for these alone partake of genus. If, then, motion be assumed as the genus of pleasure, we must see whether pleasure be not production,* nor alteration, nor any one of the other assigned motions,¹ for it is palpable, that it partakes of no species, wherefore neither of the genus, since it is necessary that the participant of the genus, should also be participant of some species, so that pleasure can neither be a species of motion, nor an individual, (neither among those which are under a species of motion). For individuals partake, also, of genus and species, as a certain man, participates both of man, and of animal.

6th. If what is contained in the genus is subject to no species.

* Taylor and Buhle read "corruption." Cf. Rhetoric i. 6 and 11; and Eth. x. ch. 1. et seq.

Besides, whether what is placed in genus, is of wider extension than the genus, as the subject of opinion, than entity, since both entity, and non-entity, are objects of opinion, wherefore, the object of opinion, will not be a species of entity, as the genus is always more widely extended than the species. Again, whether the species and the genus are predicated of an equal number of things, as if amongst those which are consequent to all, one should be placed as species, but the other as genus, as "being," and "the one;" for "being," and "the one," (are consequent) to every thing, so that neither is the genus of the other, since they are predicated of an equal number. Likewise also, if the first and the principal, be placed, one upon the other, since the principal is what is first, and what is first is principal, so that either both stated are the same, or neither is the genus of the other. Still the element relative to all such is,

7th. If what is placed in genus is of wider extension than, or equal to, the genus itself. (Vide Crakan. Log. ii. 5.)

¹ One of the arguments of Aristotle against pleasure being motion, was that all motions are imperfect, consequently all generation, which is a species of motion, is imperfect, but "good" is perfect: if, therefore, pleasure is a *κίνησις*, it is not a good. Cf. Ethics x. 3; De Anim. Proem. p. 179, books i. ii. iii.; Physics, "de motu," passim. Metap. vi. 7; Magn. Mor. ii. 7, et Eudem. vi. 14; Plato's Philebus.

* Vide Whately, Aldrich, Wallis, Mansel, etc.

that the genus is of wider extension than the species and the difference, for difference, also, is predicated of fewer things than genus.*

8th. If what are in the same species are not in the genus.

Also, examine whether what has been mentioned be not, or appear not to be, the genus of some one of those things which do not differ in species, the supporter of the argument, however, (will see)

whether it is (the genus) of one of these, for there is the same genus of all things not different in species. If, then, it be shown to be the (genus) of one, it is evidently that of all, and if not of one, evidently not of any, as if some one admitting that there are indivisible lines, should say that their genus is indivisible, for what has been stated is not the genus of lines, admitting division, as they are not specifically different, for all straight lines do not specifically differ from each other.

CHAP. II.—*Of Topics relative to Genus, Species, and Difference.*¹

1st Top.
Whether there is another genus of the same thing.

CONSIDER, also, whether there is any other genus of the assigned species, which neither comprehends the assigned genus, nor is under it, as if some one should assert science to be the genus of

justice, since virtue also is genus, and neither of these genera comprehends the other, so that science would not be the genus of justice, for apparently, when one species is under two genera, one is comprehended under the other. This, nevertheless, is doubtful in some cases, for to some, prudence seems both virtue and science, and neither of the genera to be comprehended under the other, yet it is not admitted by all, that prudence is science; if, then, any one admitted the statement to be true, yet it will appear necessary that genera of the same thing, should be either subaltern, or both under the same genus,² just as it happens in virtue and science, for both are under the same genus, since each of them is habit and disposition. We must see, therefore, whether neither of them is present with the assigned genus, for if they are

¹ Cf. Isag. ii. 8, 21; Abelard. De Gen. et Op., ed. Cousin.

² Vide Waitz in loc.

neither subaltern genera, nor both under the same genus, what is assigned will not be a genus.

We must observe too the genus of the assigned genus, and so always the superior genus, whether all things are predicated of the species, and whether they are so in reply to what a thing is, for all superior genera must be predicated of species, in respect to what a thing is; if then there is any where a discrepancy, what is assigned, is evidently not the genus. Again, whether the genus partakes of the species, either itself, or any of the superior genera, as the superior (genus) partakes of none of the inferior. The subverter must use what we have said, but for the supporter it will be sufficient (if the proposed genus is admitted present with the species, but it is doubtful whether it is present with genus) to show that some one of the superior genera is predicated of species, in reference to what a thing is. For if one thing is predicated in reference to what a thing is, all, both above and below this, if they are predicated of species, will be so predicated in reference to what a thing is, so that the assigned genus also is predicated in reference to the same. But that if one is predicated in reference to what a thing is, all the rest will be so, if they are predicated, must be assumed from induction: nevertheless, if it is doubted whether the assigned genus is simply inherent, it is not enough to show that any of the superior genera is predicated of species, in respect to what a thing is, e. g. if some one gave lation, as the genus of walking,* it is not sufficient to show that walking is motion, in order to prove that it is lation, since there are other motions also, but we must prove besides, that walking partakes of none of those in the same division, except lation. For it is necessary that the participant of genus, should also participate of some one species, according to the first division; if then walking, neither partakes of increase, nor of diminution, nor of the other motions, it clearly partakes of lation, so that lation would be the genus of walking.

Again, in those where the assigned species is predicated as genus, observe whether the assigned genus also is predicated of the same things of which species is, in reference to what a thing is,

2nd, Examine the genus to which the assigned genus belongs.

* Cf. Phys. 8.

3rd, Whether the assigned genus is predicated of the same, as the species is pre-

dedicated of, as genus. likewise whether all those things which are above the genus. For if there is any discrepancy, what is assigned is evidently not genus, as if it were genus, all things above this, and the very thing itself, would be predicated in reference to what a thing is, of which things species also is predicated, in respect of the same. Now this is useful

* i. e. the assumed genus and species in the problem.
 † e. g. man.
 ‡ i. e. animal and living.
 § i. e. living, as the genus of animal.
 || i. e. a species of animal.
 ¶ i. e. animal under living.
 * i. e. that living is the genus of animal.

to the subverter, if the genus is not predicated in respect to what a thing is, of which thing, species also is predicated,¹ but to the confirmer it is useful, if it is predicated in the question, what a thing is. For both the genus and the species,* will happen to be predicated of the same, in respect to what a thing is,² so that the same thing † is under two genera, ‡ wherefore the genera are necessarily subaltern. If then what we wish to constitute genus § is shown not to be under species, || species will be evidently under it, ¶ so that it will have been proved that this is genus.*

4th, Whether the definitions of the genera are predicated of the species and its subjects.

Examine moreover, the definitions of the genera, whether they suit the assigned species, and the participants of the species, since it is necessary that the definitions of the genera, should be predicated of the species, and of what partakes of the species, so that if there is any where a discrepancy, it is manifest that genus is not, what has been assigned.

5th, Whether difference has been assigned as a genus;

Again, whether a person has given the difference, as a genus, must be (looked to); for instance, whether the immortal, as a genus of God, for immortal, is the difference of animal, since of animals, some are mortal, but some immortal, so that there is evidently an error, for the difference, is not the genus, of any thing. But that this is true is evident, for no difference signifies what

¹ Thus, if science is not predicated of fortitude, in answer to the question, "what a thing is," it is not the genus of virtue, because fortitude is a species of virtue.

² If we wanted to show that "living" is the genus of animal, it would be thus: since both "living" and "animal" are predicated of "man," as to what he is, therefore both living and animal are subaltern genera: hence as "living" is not a species of animal, (for the former is of wider compass, and extends to plants,) man, must necessarily be a species of "living."

a thing is, but rather of what quality it is, as pedestrian, and biped.

Also whether difference is placed in genus, as that the odd is that which is number, since the odd is a difference, not a species, of number. Neither does difference seem to partake of genus, for every thing which partakes of the genus, is either species or individual; but difference is neither species nor individual, wherefore clearly difference, does not partake of genus, so that neither would the odd, be species, but difference, since it does not partake of genus.

6th, or as a species.

Moreover, whether genus is placed in the species, for instance, that conjunction is continuity, or that mixture is temperament,*¹ or as Plato defines, that local motion is lation,† since it is not necessary that conjunction should be continuity, but on the contrary that continuity should be conjunction, since not every thing which touches is continuous, but every thing which is continuous touches. The like also occurs with the rest, for neither is all mixture, temperament, (as the mixture of dry things, is not temperament,) neither is all local change, lation, since walking, does not seem to be lation. For (the latter) is asserted generally of those, which involuntarily change their place, as happens to inanimate natures. Nevertheless, it is evident, that species is more widely predicated than genus, in the cases advanced, when the contrary ought to occur.

7th, Whether genus is placed in species:

* *ἀραιός*. Vide Theophr. and Metaph.

† Vide Physic. book viii. Plato, Timæus, De Repub. Lation is motion in a right line.

Again, whether difference is placed in species, as that the immortal, is that which is God. For species will happen to be predicated, either equally or of more, since difference is always predicated equally with, or to a greater extent than, species. Moreover, whether the genus is placed in the difference, as that colour, is what concretes, or that number, is the odd. Likewise, if the genus has been spoken of, as if it were difference; for it is possible that

8th, or difference is so placed.

9th, Whether genus is made subject to difference;

10th, or genus predicated as difference.

¹ This word "*κράσις*" is used of the temper, resulting from the mixture of humours in the individual, and its signification is retained in the medical term "idiosyncrasy:" sometimes it is applied in signification like *κατάστασις*, for a settled order of the elements. Cf. Alex. Aphr., *ἐκ συμμέτρου κράσεως ἡ ὑγίεια*.

some one may adduce, even a thesis of this kind, as that mixture is the difference of temperament, or local change, the difference of lation.¹ All such particulars however, we must consider through the same, (for places intercommunicate,) since both the genus must necessarily be predicated more extensively than the difference, and must not partake of difference, but when it (genus) is thus assigned, neither of what have been mentioned can possibly occur; for it will be spoken of fewer things, and genus will partake of difference.

11th, Whether no difference of genera is predicated of species.

12th, If species is naturally prior to the genus;

13th, or the genus and difference are not necessarily joined to the species.

Besides, if no difference of genera is predicated of the assigned species, neither will the genus be predicated, thus neither the odd, nor the even, is predicated of the soul; wherefore neither is number. Moreover, if species is prior naturally, and co-subverts the genus, (it will not be genus,) for the contrary appears to be true. Once more, if it is possible (for species), to leave the proposed genus or difference, as to be moved, the soul, or the true and false, opinion, neither of these named would be genus or difference, for genus and difference are apparently consequent so long as there is species.²

CHAP. III.—Of the proper Constitution of Genus and Species.

1st Top. Genus erroneously assigned if its subject partakes either of some contrary to genus, or of what cannot be joined to it.

MOREOVER, we should observe whether what is laid down in the genus, partakes or can partake, of something contrary to genus, since the same thing, will, at the same time, partake of contraries, as it (species) never leaves genus, but partakes, or is capable of partaking, of what is contrary. Besides, whether species communicates with any

¹ Aristotle does not confute, but explains Plato's definition of local motion. In the 5th book of the Physics he says, "The motion according to place, with respect to the *peculiar*, and the *common*, is anonymous: but let it be called in common "Lation," though those things alone are properly said to be borne along, which, when they change their place, cannot of themselves stop, and which do not move themselves according to place." Plato therefore, calling local motion "lation," considers it in its common, not peculiar, appellation.

² According to Porphyry difference, property, and accident, are all predicated *ἐν τῷ ὁμοίῳ τὶ ἕτερον*, and the first named (difference) with him, is always predicated of things different in species. Upon these chapters, note Porphyry's "Isagoge." Vide also Aquinas Opusc.

thing which cannot altogether be present with those which are under genus, thus, if the soul partakes of life, but no number can possibly live, the soul would not be a species of number.

Notice also, whether the species is equivocal with the genus, employing for (the investigation of) the equivocal, the elements before mentioned, for genus and species, are synonymous.

2nd. If the species and genus are not employed in the same sense.

Since however there are many species of every genus, we must observe whether there may not be another species of the proposed genus, for if there is not, it is evident, in short, that the thing spoken of will not be genus.

3rd. If there be only one species of the genus.

Likewise observe, whether a person has proposed as genus, that which is spoken of metaphorically, as that temperance is symphony, for every genus is properly predicated of species, but symphony is not properly predicated of temperance, but metaphorically, for all symphony is in sounds.

4th. If genus has not been taken in its right sense. (Vide Aldrich, cap. 1, de Metaphorâ. Cf. Top. vi. 2.)

Again, whether a thing be contrary to species; and this consideration is multifarious; first, indeed, whether in the same genus there is also a contrary when there is not a contrary to genus,¹ for contraries must necessarily be in the same genus, if nothing is contrary to genus. If however there is any thing contrary to genus, we must observe whether the contrary is in the contrary (genus),² since it is necessary that the contrary should be in the contrary, if any thing is contrary to genus; each of these however appears through induction. Moreover, if in short the contrary to species, is in no genus, but is itself a genus, as the good, for if this is not in genus, neither will the contrary to this be in genus, but will be itself genus, as happens in the case of good and evil, since neither of these is in genus, but is each of them a genus. Further, whether both genus and species are contrary to a certain thing, and whether there is any thing between some,

5th. If any contrary exist to species: this consideration multiform.

¹ As, if nothing is contrary to animal, but black is contrary to white: since black is not a species of animal, neither can white be.

² Ignorance is contrary to science, and virtue to vice; but virtue is not a species of science, neither therefore is vice.

but not between others. For if there is something between genera, there is also between species, and if between species, likewise between genera, as in virtue and vice, and justice and injustice, for there is something between each of these. To this it may be objected, that there is nothing between health

and disease, but that there is something between evil and good,* or whether there is something between both the species and genera, yet not similarly, but between the one negatively, and between the other as a subject, for it is probable that something similarly intervenes between both, as between virtue and vice, justice and injustice, for there are intermediates between both, according to negation. Further, when there is not a contrary to genus, we must observe not only whether the contrary is in the same genus, but also whether the medium is, for the media are in the same genus as the extremes, as, for instance, in white and black, for colour is both the genus of these, and of all intermediate colours. An objection may lie, that defect and excess, are in the same genus, (as both are in what is evil,) but the moderate, which is a medium between these, is not in what is evil, but in what is good. Notice too, whether the genus is contrary to a certain thing, but the species to nothing, as if the genus is contrary to a certain thing, the species is also, as virtue and vice, justice and injustice. Likewise, to one who considers other things, such a thing would appear evident. There is an objection in health and disease, for health simply, is contrary to disease, yet a certain disease, being a species of disease, is not contrary to any thing, e. g. a fever and ophthalmia, and every other (disease).

The subverter then, must pay attention in so many respects, for if what have been mentioned are not inherent,¹ the thing assigned is evidently not a genus, but the confirmer (must regard them) triply: first, whether the contrary to species is in the before-named genus, when there is not a contrary to the genus, for if the contrary is in this, it is evident that the proposition is also:² next, whether the medium is in the above-named genus, as in what the media are the ex-

6th. That the genus is rightly constituted, if there be a contrary to species, is proved in three ways.

¹ Unless all the conditions explained are found in the proposed genus.

² As, if disease is a quality, and there is nothing repugnant to quality, it follows that health is a quality.

tremes also are :¹ lastly, if there be any thing contrary to genus we must notice whether the contrary also is in the contrary, since if it be, the proposed (species) is evidently in the proposed genus.²

Again, in cases and co-ordinates, both the subverter and confirmer (must notice) whether they are similarly consequent, since at the same time they are present, or are not present, with one thing, and with all, as if justice is a certain science, what is justly, is also scientifically, (done), and a just is a scientific man, but if something of these is not, neither is any of the rest.

7th. From derivations; how the same topics may be obtained, useful for confirmation and refutation.

CHAP. IV.—*Of Topics belonging to Similitude, Relatives, etc.*

SUCH things also (must be noticed), which are similarly affected with respect to each other, thus the pleasant subsists with reference to pleasure, similarly to the useful with reference to good, for each is effective of the other. If then pleasure is what is good, the pleasant will be what is useful, for it would be clearly effective of good, since pleasure is good. The like also occurs in generations and corruptions, as, if to build is to energize, to have built is to have energized, and if to learn is to remember, to have learned is to have remembered, and if to be dissolved is to be corrupted, to have been dissolved is to have been corrupted, and dissolution is a certain corruption. So also in those which have the power to generate and to corrupt, and in powers and uses, and in short, according to any kind of likeness, as we have observed in generation and corruption, consideration must be paid both by the subverter and the confirmer. For if what is corruptive dissolves, to be corrupted is to be dissolved, and if what is generative is effective, to be generated is to be made, and generation is making, and the same in powers and uses, since if power is disposition, to be able also is to be disposed; and if the use of a thing is energy, to use is to energize, and to have used is to have energized.

1st. Arguments to be obtained from similars.

¹ Thus, if green and red, are species of colour, black and white, also are.

² As, if injustice is a species of vice, justice is of virtue.

2nd. How the argument about genus is to be conducted, if what is opposed to species be privation.

If however privation be that which is opposed to species, we may confute in two ways: first, if the opposed be in the assigned genus, for either privation simply, is in no genus, which is the same, or it is not in the (same) extreme genus, as if sight is in sense, as the extreme genus, blindness will not be sense. Secondly, if privation is opposed both to genus and to species, but the thing opposed is not in the opposite, neither will the thing assigned be in the assigned; ¹ by him therefore who subverts, this must be used as we have said, but by the constructor only in one way, for if the opposite be in the opposite, the proposition also would be in the proposition, thus, if blindness be a certain privation of sense, sight also is sense.

3rd. Negatives to be considered inversely.
* Vide b. ii. ch. 8.

Again, we must consider negatives inversely, as was observed in the case of accident,* thus, if the pleasant be what is good, what is not good is not pleasant, for if it were not so, something not good would be pleasant. Now it is impossible, if good is the genus of the pleasant, that any thing not good should be pleasant, for of what genus is not predicated, neither will any species be. He also who confirms, must consider it in like manner, since if what is not good is not pleasant, the pleasant is good, so that the good is the genus of the pleasant.

4th. Of expression by relation, if species be relative, genus also is.

If however species be relative, we must see whether genus also is relative, for if species be a relative, genus is also, as in the double and the multiple, for each of these is a relative. If then genus be a relative, it is not requisite that species also should be, for science is of the number of relatives, but grammar is not. Or does what was before asserted appear neither to be true? for virtue is that which is beautiful and which is good, and virtue is a relative, but the good and the beautiful are not relatives, but qualities.

5th. If species be not referred to the same thing, both per se, and according to genus.

Moreover, (notice) whether species is not referred to the same thing, both per se, and according to genus, as if the double is said to be the double of the half, it is necessary also that the multiple should be said (to be the multiple) of

¹ Thus, if ignorance is not privation of sense, science is not sense.

the half, for if not the multiple will not be the genus of the double.

Besides, whether it is not referred to the same thing, both according to genus and according to all the genera of the genus, for if the double and the multiple are with reference to the half, to exceed will also be predicated of the half, and in short, according to all the superior genera there will be a reference to the half. It is objected, that a reference to the same thing is not necessary per se, and according to genus, for science is said to be of that which is the object of science, but habit and disposition are not predicated with reference to the object of science, but to the soul.

Again, whether genus and species are predicated in the same manner as to case, as whether pertaining to a certain thing, or predicated of something, or in some other way, for as species, so also is genus (predicated), as in the double, and the superior (genera), for both the double and the multiple are predicated of a certain thing. Likewise in the case of science, for both science itself and its genera, as disposition and habit, are (predicated) of a certain thing. It is objected, that sometimes this is not the case, for "*the different*,"* and "*the contrary*," (are predicated) with reference to a certain thing, but "*another*"† being the genus of these, is not predicated with reference to, but from, something, for (a thing) is so predicated "*another*," (which is different) from, something else.

Moreover, whether what are similarly called relatives, according to cases, do not similarly reciprocate, as with the double and the multiple, for each of these is said to be of something, both itself, and reciprocally, for both the half and the least part, (are said to be so) of something. Likewise with science and opinion, for these are said to be of a certain thing and similarly reciprocate, and both the object of science and of opinion are predicated with reference to something. If, then, the reciprocation is not similar in the respect of something, one is evidently not the genus of the other.

Again, if genus and species are not predicated with reference to an equal number of things, for

6th. Or according to all the genera of the genus. Objection.

7th. Whether genus and species are predicated in the same case.

* τὸ διάφορον.

† τὸ ἕτερον.

8th. Whether those similarly called relatives as to cases, do not alike reciprocate.

9th. In as many ways as

species is referred to another thing, in so many also, ought genus to be, and vice versa.

each, seems predicated similarly, and of the same number, as in "a gift," and "giving," for a "gift," is said to be "*of*" some one, or "*to*" some one, and "giving" also, "*of*" a certain one, and "*to*" a certain one; still "giving" is the genus of "gift," for "a gift," is "a giving" not to be returned. With some, predication with reference to an equal number, does not occur; for the double is the double of something, but the excessive, and the greater, (are predicated) *of*, and with reference *to*, a certain thing, for every thing excessive, and that which is greater, exceeds in something, and is the excess of a certain thing. Wherefore, what are mentioned, are not the genera of the double, since they are not predicated with reference to an equal number in species, or it is not universally true that species and genus are predicated with reference to an equal number of things.¹

10th. Whether the opposite is the genus of the opposite.

Examine, likewise, whether the opposite is the genus of the opposite, as if the multiple is the genus of the double, the sub-multiple is so, of the half, for the opposite must necessarily be the genus of the opposite. If, then, any one asserts science to be sense, it will be requisite that the object of science should be sensible, which, however, is not the case, for not every object of science is sensible, as some things intelligible are objects of science. Wherefore, the sensible is not the genus of the object of science, but if it be not, neither is sense, the genus of science.

11th. If genus and species are stated as related to something, they ought to have the same ratio to those in which they are inherent.

Nevertheless, since of those which are enunciated with reference to any thing, some are necessarily in, or about, those, to which they happen to be referred, as disposition, habit, and symmetry, (for these can possibly be in nothing else, than in those things to which they are referred;) but others are not necessarily in those, to which they are sometimes referred, yet may be in them, (as if the soul is an object of science, since nothing prevents the soul having science of itself,* yet it is not necessary, since this very science may possibly be in something

* Vide de Animâ.

¹ Vide Mansel's, Whately's, and Hill's Logics. Cf. also Porphyry's Isagoge; Crakanthorpe's Logic, ii. 5; Port Royal Logic, pt. i. 6. The distinction between genus and species, as wholes, is sometimes expressed by the terms "of extension," and "of comprehension."

else;) others, again, cannot simply be inherent in those to which they happen to be referred, (as the contrary can neither be in the contrary, nor science in its object, unless the object of science should be the soul or man;) we must observe, whether any one places a thing of this kind in a genus, which is not of this kind, as if he declared that memory is the permanency of science. For all permanency is in, and about, that which is permanent, so that the permanency of science is in science; memory therefore is in science, since it is the permanency of science, yet this is impossible, for all memory is in the soul.^{1*} The place here spoken of, is common also to accident, for it does not signify whether we say that permanency is the genus of memory, or call it accidental to it; since if in any way whatever, memory is the permanency of science, the same reasoning will suit it.

* De Animâ,
Proem. clxvii.
111, 2; Ethics.

CHAP. V.—*Topics relative to Genus continued.*

AGAIN, if a person has referred habit to energy, or the energy to the habit,² as that sense is a motion through the body, for sense is a habit, but motion an energy. Likewise, if he has stated memory to be a habit retentive of opinion, since no memory is a habit, but rather an energy.

1st. The error of those, in stating the genus, who refer energy to habit, and vice versa.

They also err, who arrange habit under consequent power, as that mildness is a command of anger, and that courage and justice are the control of fear and lucre, for the impassive man is said to be courageous and mild, but he is self-controlled, who, when he suffers, is not carried away.³ † Perhaps, therefore, such

2nd. Or a power.

† Cf. Mag. Mor.

¹ A parallel instance of this sentiment occurs in Dryden's *Don Sebastian*.

“Something like

That voice, methinks, I should have somewhere heard,
But floods of woes have hurried it far off
Beyond my ken of soul.”

Plato calls memory a great and powerful goddess. (*Vide Crit.*) Upon the pleasures resulting from it, see *Rhet.* i. 11; and a discovery on it, *Poet.* ch. 16.

² *Vide Ethics* ii. ch. 2, 3, and 5, and b. iii. 5. In one place quoted, he makes energy and habit reciprocal.

³ In *Ethics* vii. 6, he makes incontinence of anger, less disgraceful

i. and ii.;
Eudem. 111;
Ethics v. 8,
and vii. 6, 7, 8.

a power as this is consequent to each, so that if he suffers, he should not be transported by, but command (passion). Yet this is not the essence of a courageous or a mild man, but not to be affected at all, by such things.

3rd. Or assume as genus, what is in some way consequent to species.

Sometimes, indeed, they admit as genus, that which is in any way consequent, as that pain is the genus of anger, and opinion of faith, for both these we have named follow in a certain way the assigned species, yet neither of them is a genus, for the angry man is pained,¹ pain having been produced in him before, since the anger is not the cause of the pain, but the pain of the anger, so that anger simply is not pain. On this account, neither is faith opinion, since it is possible to have an opinion of, without believing in, a thing; and this is impossible, if faith is a species of opinion, for it is impossible that a thing should remain the same any longer, if it has been altogether changed from species, as neither can the same animal by possibility be sometimes man, but sometimes not. Still, if any one say, that he who opines, of necessity also believes, opinion and faith will be predicated of an equality, so that neither thus can it be genus, since it is necessary that genus possess a greater extent of predication.

4th. Genus and species ought to be inherent in the same.

Observe, moreover, whether both are naturally adapted to be in any the same thing, for in what the species is, the genus also is, as in what there is whiteness, there is also colour, and in what grammar is present, science also is. If then, any one should say that shame is fear, or that anger is pain, species and genus will not happen to be in the same thing, since shame is in the reasoning, but fear in the irascible part of the soul;² pain also, indeed, is in the appetitive part, (for pleasure also is in this,) but anger in the irascible part, so that what have been assigned are not genera,

than incontinence of desire; compare Bishop Butler's sermon on repentment, also Rhet. ii. 2.

¹ Thus in Ethics b. iii. ch. 8, *οἱ ἀνθρώποι δὴ ὀργιζόμενοι μὲν ἀλγοῦσι.*

² So Shakspeare, "In time we hate, that which we often fear." Antony and Cleop. See also the humorous description of "fear" in Hudibras; not less true, because it is comical. Again,

"Quem metuunt, oderunt;
Quem oderunt, perisse expetunt." Ennius ap. Cic. de Off.

since they are not naturally adapted to be in the same (subject) with the species. In like manner also, if friendship be in the appetitive, it could not be a certain will, for all will, is in the reasoning part. This place, indeed, is useful for accident, also; for accident, and that to which it is accidental, are in the same thing, so that unless they should appear in the same thing, they are evidently not accidents.

Further, (notice) whether species partakes of what is said to be genus partially, since genus does not appear to be partially participated, as man is not partially an animal, nor grammar partially a science, likewise also, in other things.

5th. Species ought to partake of genus, "simpliciter non quodam modo."

Observe, therefore, whether genus is partially partaken of in certain things, as if animal has been said to be that which is sensible or visible, for animal is partially sensible and visible; as to the body, sensible and visible, but not as to the soul; so that the visible and the sensible would not be the genus of animal.

Sometimes, indeed, they insensibly transfer the whole to a part, for instance, that animal is animated body; yet the part is by no means predicated of the whole, so that body would not be the genus of animal, since it is a part.

6th. Error in taking a part of species for genus.

Also, see if any thing to be blamed or avoided is referred to power or to the possible, as that a sophist (is one able to acquire wealth from apparent wisdom), or that a calumniator (is one able to calumniate and make enemies of his friends), or that a thief is one able secretly to steal the property of others. For no one of the above-named is said to be such in consequence of being able to act in this way, for both God and a good man are able to perform base actions, yet they are not such in character, since all debased characters are called so, on account of their deliberate choice.¹ Besides, all power is of the number of eligible things,

7th. Or in referring a failing to a faculty.

¹ "Προαιρέσει," says Aristotle, (Ethics iii. 2,) "appears to be most intimately connected with virtue, and, even more than actions, to be a test of character;" hence this remark manifests the divine character as unperturbed by evil, for the Divinity has the power to work evil, but is without the will, to do so. Compare also the characteristic of the real Christian, as regards the will or preference of good. Rom. vii. 22, usq. ad fin.

for the powers of the bad are eligible,¹ wherefore we say, that both God and the good man possess them, for they are able to perform base actions. So that power would not be the genus of any thing blameable, otherwise it would happen that something blameable was eligible, since there will be a certain power blameable.

8th. Or involving in a faculty what is good per se; or subjecting to one genus, what is in more.

Also, (notice) whether any thing which is of itself honourable or eligible, is referred to power, or to the possible, or to the effective, for every power and everything possible or efficient is eligible, on account of something else, or whether any one of those things which are in two or in more genera, have been referred to one, since some things cannot be reduced to one genus, as an impostor and a calumniator; as neither is he who deliberately chooses, but is incapable of effecting, nor he who is capable, but does not previously choose, a calumniator or an impostor, but he who has both these; so that we must not place the above-named in one genus, but in both genera.

9th. Error in assigning genus as difference, and vice versa.

Yet further, vice versa, sometimes they assign genus as the difference, and the difference as genus; e. g. that astonishment is the excess of admiration, and that faith is the vehemence of opinion. For neither excess nor vehemence is genus, but difference; since astonishment seems to be excessive admiration, and faith vehement opinion; so that admiration and opinion are genus, but excess and vehemence are difference. Moreover, if any one should assign excess and vehemence as genera, inanimate things would be susceptible of faith and astonishment, for the vehemence and excess of each thing is present with that of which it is the vehemence and excess; if then astonishment is the excess of admiration, astonishment will be present with admiration, so that admiration will be astonished. In a similar manner also, faith will be present to opinion, if it is the vehemence of opinion, so that opinion will believe. Again, it will occur to him who thus assigns (genus), to call vehemence vehement, and excess excessive, for there is a vehement faith, if then faith is vehemence, vehemence would be

¹ This is doubtless one great element of our interest in the character of the devil, drawn by Milton. We all think it "good to have a giant's strength," though "tyrannous to use it like a giant."

vehement, likewise also there is an exceeding astonishment, if then astonishment is excess, excess would be exceeding. Nevertheless, neither of these seems right, as neither is science the object of science, nor motion that which is moved.

Sometimes, indeed, an error arises from placing passion in that which suffers, as a genus, which happens to as many as declare immortality to be perpetual life; for immortality appears to be a certain passion or symptom of life,¹ and that what we have stated is true, may become evident, if any one admits that a person from being mortal has become immortal, for no one would say that he takes another life, but that a certain symptom or passion accedes to this life, wherefore life is not the genus of immortality.

10th. Also in making the thing affected, the genus of the affection.

Again, (an error occurs) if that of which there is passion, they declare to be the genus of the passion, as that wind is air in motion, for wind is rather the motion of air,* since the same air remains both when it is moved and when it is stationary, so that, in short, wind is not air, for else there would be wind when the air is not moved, since the same air remains stationary which was wind. The like will also happen in other such things, if then it is necessary in this to grant that wind is air in motion, yet such a thing is not to be admitted in all cases, (i. e.) of which the proposed genus is not truly predicated, but in those only wherein it is truly predicated. For in some it does not appear truly predicated, as in clay and snow, for they describe snow to be congealed water; but clay, earth, mingled with moisture; yet neither is snow, water; nor clay, earth; so that neither of the assigned can be genus, for genus must of necessity always be

11th. Or of which there is passion, the genus of the passion.

* Cf. Lucret. i. 3. etc.

¹ Lucretius thought that the union of the mortal with the immortal was unimaginable.

• “Quippe etenim mortale eterno pingere et una
Consentire putare, et fungi mutua posse
Desipere est. Quid enim diversius esse putandum est,
Aut magis inter se disjunctum, discrepansque
Quam mortale quod est, immortalis atque perenni
Junctum, in concilio sævas tolerare procellas?”

Cicero says that Pherecides Lyrius first introduced the opinion of the soul's immortality. Cicero Tusc. Quæst. i. 16.

truly predicated of species. In a similar manner neither is wine putrified water, as Empedocles calls it

“——— the water putrified in wood.”¹

for simply it (wine) is not water.

CHAP. VI.—*Of Topics relative to Genus, continued.*

1st. Examine whether the proposed genus possesses subject species.

FURTHER, (we must notice) whether, in short, what is proposed is the genus of nothing, for (if so) it will evidently not be that of the thing enunciated; but this must be considered from those which are participant of the assigned genus, not at all differing in species, as, for instance, white things, for such do not at all differ in species from each other; yet of every genus the species are different, so that whiteness will not be the genus of any thing.

2nd. Whether the consequent of all, has been taken as genus or difference.

* Metaph. lib. ix. (x.) xi. (xii.) Leipsic; De Anim. lib. i. and ii. 1.

Again, whether that which is consequent to all, has been declared genus or difference, for many things are consequent to all, as “being,” and “the one,” are of the number of things consequent to all.* If then a person has assigned being as genus, it will evidently be the genus of all things, since it is predicated of them, for genus is predicated of nothing else than of species, so that “the one” will be a species of “being.”² Of all then of which genus is predicated, it happens that species is also predicated, since “being,” and “the one,” are simply predicated of all, when it is necessary that species should be predicated to a less extent.† If however he has stated that what is consequent to all, is difference, it is manifest that difference will be predicated to an equal or greater extent than genus, for if genus is of the number of things consequent to all, it will be predicated to an equal extent, but if genus does not follow all, difference will be predicated to a greater extent than it.

¹ The whole verse of Empedocles is given by Plutarch, “de causis naturæ,” cap. 11.

Οἶνος ἀπὸ φλοιοῦ πέλεται σαπὲν ἐν ξύλῳ ὕδωρ.

² The one is either superior to being, or co-ordinate with, or posterior to it, and it is this last only which can be said to be a species of being. See Taylor's notes to his translation of the Parmenides of Plato.

Yet more, (we must observe) whether the assigned genus is stated to be in the subject species,¹ as whiteness in snow, so that it will evidently not be genus, for genus is predicated alone of the subject species.²

Notice, moreover, whether genus and species are not synonymous, as genus is synonymously predicated of all the species.

Besides, (it is erroneous) when there being a contrary both to species and to genus, the better of the contraries is referred to the worse genus, for the remainder will happen to be in the remainder, since contraries are in contrary genera, so that the better* will be in the worse,^{†3} and the worse in the better, yet the genus of the better, seems also to be better. Also, if when the same species subsists similarly, with regard to both, it is referred to the worse, and not to the better genus, e. g. that the soul is motion or what is moved. For the same (soul) appears equally to possess the power of resting and moving, so that if permanency be better, it ought to be referred to this genus.

Again, the subverter (may argue) from the more and less, if genus accepts the more, but species does not, neither itself, nor what is enunciated according to it. For instance, if virtue accepts the more, justice also, and the just man (do so), for one is said to be more just than another, if then the assigned genus accepts the more, but the species does not, neither itself, nor what is enunciated according to it, the thing assigned cannot be genus.

Again, if what seems to be the more or similarly, is not genus, it is evident that neither is the

3rd. Whether the assigned genus is stated to be in the subject species.

4th. Whether genus and species are not synonymous, etc.

5th. Error in assigning the better of two contraries to the worse genus.

* Species.
† Genus.

6th. Argument useful to the subverter from the more and less.

7th. If the more or similar be

¹ Therefore is an accident and not genus.

² *Genus*, so far as it is genus, is predicated of species; for as Porphyry observes, genus and species are relatives. Still the same thing, so far as genus, may be predicated of species, and so far as an accident, may be predicated of subjects; thus colour, so far as a genus, is predicated of white and black, but so far as an accident, may be predicated of body.

³ Thus justice and injustice are contraries, and good counsel and bad counsel: when therefore Thrasymachus, in Plato's Republic, says that injustice is good counsel, he is forced to confess justice to be bad counsel, so that he reduces the better species to the worse genus, and the worse species to the better genus.

not genus, neither is that which is assigned.

thing assigned. This place however is useful, especially in such things wherein those appear many, which are predicated of species, in refer-

ence to the question what a thing is, and when there has not been definition, neither can we say what is their genus; as of anger, both pain, and the opinion of contempt, seem to be predicated, in reference to what a thing is, since the angry man is pained, and thinks that he is contemned. Indeed there is the same consideration in species, to any one comparing it with something else, as if the more, or what appears similarly to be in the assigned genus, is not in the genus, the assigned species, it is evident, cannot be in the genus.

8th. This place not useful to the supporter, if the assigned genus and species accept the more. Comparison of genera, etc., useful.

The subverter then must employ this as we have said, but to the supporter this place is not useful, if the assigned genus and species accept the more, for there is nothing to prevent, when both accept it, one from becoming the genus of the other; for both the beautiful and the white accept the more, and neither is the genus of the

other. Yet the comparison of the genera and of the species with each other is useful, as if this, and that, are similarly genus, if one of them is genus, the other also is. Likewise,

if the less, the more also is, as if power more than virtue is the genus of continence,* but virtue is a genus, so likewise power. The same

* Vide Ethics iv. 9, and vii. 7.

things will be adapted to be said also of species, for if this, and that, are similarly species of the proposed (genus), if one be species, the other also is, and if the less seeming is species, the more is likewise.

9th. To establish genus we must show that it comprehends species, with whose nature it concurs.

Moreover, in order to confirm, we must examine whether the genus in those things in which it is assigned, is predicated in reference to what a thing is, when the assigned species is not one, but there are many and different (species), for it will be evidently genus.¹ But if the assigned species be one, see whether the genus is predicated also of other species in reference to what a thing is; since, again, it will occur that the same thing is predicated of those which are many and different. †

† Taylor and Buhle add here, the latter in brackets, "and will be acknowledged to be a genus."

¹ As animal is the genus of man and horse, because these differ in species, and animal is essentially predicated of both.

Nevertheless, since difference also appears to some to be predicated of species, in reference to what a thing is,* we must separate genus from difference, by employing the above-mentioned elements: † first, indeed, because genus is of wider predication than difference; next, because genus is more suitable than difference to enunciate, in answer to the question what a thing is; for he who says that man is an animal, develops in a greater degree what man is, than he who terms him pedestrian—and because the difference always signifies the quality of the genus, but the genus not that of the difference; for whoever terms man pedestrian, describes what kind of animal he is; ‡ but he who calls him animal, does not describe of what quality is the pedestrian.

10th. How genus is to be distinguished from difference.

* Cf. Porphyry's Isag.

† As in chap. 2.

‡ Quale quid dicit animal. Buhle.

Thus then, we must separate the difference from the genus; since however what is musical, so far as it is musical, appears to be scientific, and music to be a certain science, and if what walks is moved by walking, walking to be a certain motion, we must consider in what genus we desire to construct any thing after the manner stated, e. g. if (we wish to show) that science is faith, (we must notice) whether he who is scientifically cognizant, so far as he is so, believes; for it will be evident that science is a certain faith, and the same method (must be used) in other such cases.

11th. We must collect the genus from the noun and its derivatives.

Once more, since it is difficult to separate what is always consequent to a certain thing, and does not reciprocate, (so as to show) that it is not genus, if this is consequent to every individual of that, but that not to every individual of this—as quiet to tranquillity, and divisibility to number, but not the contrary, (as not every thing divisible is number, neither (all) quiet, tranquillity,)—(the disputant) must employ this place, as if genus were that which is always consequent, when the other does not reciprocate; but if another proposes (this argument), it must not be admitted in all cases. The objection to it is, that non-entity is consequent to every thing generated,¹ (for what is being generated, is not,) and

12th. Examine whether one is a consequent to the other, whilst the two do not reciprocate.

¹ That is, which is becoming to be, or passing into existence.

does not reciprocate, (for not every non-entity is generated,) yet, nevertheless, non-entity is not the genus of what is being generated, for simply non-entity has no species. About genus then, we must carry on the discussion, as we have stated.

BOOK V.

CHAP. I.—*Upon Property.*¹

WHETHER what is asserted be property or not property, must be examined through these (places).

Property is assigned either per se and always, or with relation to something else and sometimes, as the property of man per se is an animal naturally mild, but in relation to something else, as of the soul to the body, that the one commands, but the other obeys; *always*, as of God to be an immortal animal, but *sometimes*, as of a certain person to walk in the Gymnasium.

1. Property assigned, either per se and always, or with reference to something, and sometimes.

2. The last may be impugned in two, or four ways.

Nevertheless, the property assigned with reference to something else produces either two or four problems. For if it is affirmed of one thing, but the same denied of another, two problems only arise, as of man with regard to horse, the property is that he is a biped. For that man is not a biped may be argued by some one, also that a horse is a biped, and in both ways the property may be removed. But if each is affirmed of each, and denied of each, there will be four problems, as the property of man with reference to horse is that the former is biped, but the latter quadruped, for that man is not a biped and that he is naturally a quadruped may be argued, and that a horse is a biped and not a quadruped is capable of argument, in whatever way therefore it is shown, the proposition is subverted.

3. Distinction between property per se, and with refer-

That indeed is property per se, which is attributed to all, and separates from every thing, as of man to be a mortal animal capable of science.

¹ Cf. Whately's Logic, book ii. ch. 5, sec. 3; Mansel's Aldrich; Porphyry's Introd.; Wallis' Log.

Property on the other hand with relation to another, is that which does not separate from every thing, but from a certain definite thing, as of virtue in regard to science, the property is that the one is naturally adapted to be in many, but the other in the reasoning faculty alone, and in those who possess the reasoning faculty. Again, the property "always" is that which is true at all times and never fails, as of animal to be composed of soul and body, but the property "sometimes" is that which is true at a certain time, yet does not always follow from necessity, as of a certain man to walk in the Forum.

ence to something.

4. Also between that "always" and "sometimes."

We may however assign property with reference to something else, when we assert that difference is either in all and always, or for the most part, and in most, for instance, in all and always, as the property of man with respect to horse is the being biped, for both always and every man is a biped, but no horse is ever a biped. For the most part and in most, as the property of the rational in regard to the appetitive and irascible part, is that the one commands, but the other obeys, since neither does the rational always govern, but sometimes is also governed, nor are the appetitive and irascible always governed, but sometimes also govern when a man's soul is depraved.

5. What is assigned with reference to another, is either always, or for the most part, property.

Of properties however those are especially logical, which are per se, and always, with reference to something else. For the property with reference to something else produces many problems, as also we observed before, since either two or four problems arise from necessity, wherefore many arguments originate in reference to these.

6. Disputation generally conversant with that property which is per se, and always, and which is referred to another.

Still we may argue about what is per se and always, in reference to many things, or observe it with regard to many times, what is per se indeed, with reference to many things, for it is necessary that property should be present with a subject in regard to each thing that exists, so that if it is not separated as to all, it would not be well assigned as property. But we may observe that which is always, with regard to many times, and both whether it is not present, or was not present, or will not be present, it will not be property. But the property at

a certain time, we observe as to the present time, wherefore there are not many arguments belonging to it, but that is a logical problem, in reference to which numerous and good arguments may be framed.

7. The last to be considered from the topics of accident. What therefore is stated to be property with reference to something else, must be considered from the places concerning accident, viz. whether it happens to one, but not to another, but those which are at all times, and per se, we must examine by the following places.

CHAP. II.—*Of the correct Exposition of the Property.*

1. What constitutes a good exposition of property, is its being more evident than its subject. FIRST, (it must be considered) whether property be not well or be well explained; of the ill or well,¹ one point indeed is, if the property is laid down, not through things which are more known, or which are more known; subverting it, if not through things more known, but confirming it if through things more known. Now of the (being laid down), not through things more known, one (place) is, if the property which a person assigns, is altogether more unknown, than that of which he states it to be the property, for the property will not be well laid down. For we introduce property for the sake of knowledge, wherefore it should be assigned through things more known, for thus it will be more possible sufficiently to apprehend it. For instance, since he who lays it down as the property of fire to be most similar to the soul, employs the soul, which is more unknown than fire, (for we know more what fire, than what the soul, is,) it would not be well laid down as the property of fire to be most similar to the soul. Another (way) is, if it is not more known that this is present with that, since it is necessary not only that (the property) should be more known than the thing, but also that it should be more known to be present with this thing, since he who is ignorant, whether it is present with this thing, will not know whether it is present with this alone, so that whatever of these happens to be the case, the property becomes obscure. For instance, since he who lays down the property of fire, to

¹ That is, of the question whether it be rightly or wrongly explained.

be that, in which first, soul is naturally adapted to be,¹ uses what is more unknown than fire, if soul is inherent in this, and if it is inherent in this first, hence that in which first, soul is naturally adapted to be, would not be well placed as the property of fire. We confirm property indeed, if it is placed through things more known, and if through things more known according to each mode, for according to this, property will be well placed, since of the topics capable of confirming any thing well, some will show that it is placed according to this only, but others simply that it is well placed.* * So Buhle. For instance, since he who says that the property of animal is to possess sense, assigns the property through things more known, and in a manner more known, according to each mode, after this it would be well assigned, as the property of animal to possess sense.

In the next place, we subvert it, (property,) if some one of the names which are assigned in the property is multifariously predicated, or if altogether the sentence also signifies many things, for the property will not be laid down. For instance, since to perceive signifies many things,†² one to possess sense, but another to use sense, a natural aptitude to sensation would not be well laid down as the property of animal. On this account we must neither employ a name of multifarious signification nor a sentence, as signifying property, because what is multifariously predicated, renders the statement obscure; he who is about to argue being in doubt which of the things multifariously predicated he (the other) means, for property is assigned for the sake of learning. Besides, there must of necessity be a certain elenchus against those who thus explain property, when in (a signification in) which what is proposed is false, some one frames a syllogism

2. Assignment of property is subverted if there be some name or sentence of various signification.

† Cf. De Anim. iii. 3, 1.

¹ Vide De Anim. i. 2, sec. 3; ii. 11. The opinion here alluded to, was that of Parmenides (vide Macrob. in Somn. Scip. i. 14). Posidonius, Cleanthes, and Galen also considered that it was heat, or of a hot complexion (vide Laertius in vitâ Posi. Galen; Nemesius de Naturâ Hominis, c. 2, etc.).

"Igneus est illis vigor et cœlestis origo." Æneid. vi. 730.

² Upon the different significations of *αἰσθάνεσθαι* and its distinctions from *νοεῖν* and *φρονεῖν*, see Tændelenburg on the place quoted from the De Animâ. The word "perceive" in old English was often used synonymously with receive.

of what is multifariously predicated. On the other hand, we confirm it, if neither any one of the names, nor the whole sentence signify many things; for in this respect the property will be well laid down, thus since neither body denotes many things, nor that which is most easily moved to an upward place, nor the whole composed of these, according to this, a body which is most easily moved to an upward place would be well assigned as the property of fire.

3. Also if there is a multifarious predication of the subject.

In the next place, we subvert it if that is multifariously predicated, of which they assign the property, yet it is not defined, of which of them the property is laid down, for the property (thus), will not be well assigned. On account of what reason is not obscure from what has been before said, for the same things must necessarily result, for instance, since to know this thing scientifically, signifies many things, (viz. that this possesses science and that it uses science, and that there is a science of it, and that we use the science of it,) the property of scientifically knowing this thing, would not be well assigned when it is not defined, of which of them, the property is laid down. We confirm it, however, if that of which the property is placed, be not multifariously predicated, but is one and simple, for as to this, the property will be well laid down, for instance, since man is predicated as one thing, it would be well laid down as to this, that the property of man (consisted in his being) an animal naturally mild.

4. Also if there be frequent repetition.

Again, we subvert it, if the same thing has frequently been mentioned in the property, for oftentimes it escapes notice when men do this, as well in properties as in definitions. Now the property of this kind will not be well laid down, for the frequent repetition disturbs the hearer, so that obscurity necessarily arises, and besides this men seem loquacious. Still it will happen that the same thing is frequently repeated in two modes, the one, when we often denominate the same, as if any one assigned the property of fire to be a body the most subtle of all bodies, (for he repeats the word body,) and in the second place, if a man assumes definitions instead of names, as if he should give as the property of earth, that it was an essence which, most of all bodies, naturally tends to a downward place, and should afterwards assume, instead of (the word) bodies, such

essences, for body and such an essence are one and the same thing, so that he will repeat the word essence, and neither of the properties would be well placed. We confirm it, indeed, if no one and the same name be frequently used, for as to this the property will be well assigned, e. g. since he who says, the property of man is an animal capable of science, does not frequently employ the same name, in this respect the property of man would be well assigned.

Next, property is subverted, if such a name is assigned in the property as is present with all, for that will be useless which is not separated from some, but what is asserted in properties, we ought to separate, as also in definitions, wherefore, the property will not be well stated. Thus, since he who assigns as the property of science, opinion immutable by reason, being one, uses a certain such thing in property, viz. one which is present with all, the property of science would not be well stated; on the other hand we confirm it, if no common term has been used, but one separating from a certain thing, for in this respect the property would be well stated, thus, since he who says the property of animal is to have a soul, uses no common (term), in this respect it would be well laid down, as the property of animal, that it possesses a soul. Moreover it is subverted, if a person assign many properties of the same thing, not distinguishing that he assigns many, for the property will not be well placed. For as in definitions it is not requisite that any thing more should be added, than the sentence denoting the essence, so neither in properties should any thing be added, besides the sentence which constitutes what is asserted to be the property, since a thing of this kind is useless. Thus, since he who states that the property of fire is to be a body of the greatest subtlety and lightness, assigns many properties, (for it is true) to assert each of fire alone, it would not be well laid down as the property of fire to be a body, most subtle and most light. On the other hand, he confirms property who has not assigned many properties, but one of the same thing, for as to this, the property will be well stated, thus, since he who says that the property of moisture is a body which can be brought to every shape, assigns

5. Also if that be in the property, which is common to all.

6. If many properties are assigned of the same thing, without distinction.

one property and not many, in this respect property of moisture would be well stated.

CHAP. III.—*Topics connected with Property continued.*

1. Observe whether the thing itself is contained in its assigned property.

IN the next place, the subverter (ought to consider) if he (the proposer) has used that, the property of which he assigns, or some of its (subjects), for the property will not be well laid down.

For the property is assigned, for the sake of learning; the same thing therefore is similarly unknown with itself, but what is the subject of a certain thing is posterior to it, and therefore is not more known. Hence, through these, greater instruction in any thing does not happen, e. g. since he who states the property of animal, to be a substance, a species of which is man, uses some one of the subjects of this (animal), the property would not be well stated. But the confirmer (must observe) if he uses neither it, nor any of its subjects, for in this respect, property will be well stated; thus, since he who lays down the property of animal, to be composed of soul and body neither uses it, nor any of its subjects, the property of animal, with regard to this, would be well assigned.

2. Also whether the opposite to the thing itself, or what is less clear than the latter, be taken as the property.

IN the same manner, also, consideration must be paid as to the other things which do not, or which do render, a thing more known, subverting, indeed, if what is opposite is used, or in short, what is simultaneous in nature, or any thing posterior, for the property will not be well stated.

What is opposite is indeed simultaneous in nature, but what is simultaneous in nature and what is posterior, do not render a thing more known. For instance, since he who states the property of good, to be that which is especially opposed to evil, uses the opposite of good, the property of good would not be well assigned. On the other hand, we confirm it if nothing opposite is used, nor, in short, what is simultaneous in nature, nor what is posterior, for as to this, the property will be well assigned; e. g. since he who lays down the property of knowledge, to be a notion in the highest degree credible, uses neither an opposite, nor what is simultaneous

in nature, nor what is posterior, so far as regards this, the property of knowledge would be well stated.

We next subvert peculiarity, indeed, if what does not always follow, has been assigned as the property, but that which sometimes happens not to be property, for the property will not be well explained: since neither will the name even be necessarily verified, in respect of that in which we apprehend its being inherent, nor of what it is apprehended not to be inherent, will the name necessarily not be asserted of this.* Further, besides these, neither when the property is assigned, will it be clear whether it is inherent, if it is a thing of that kind as to fail, therefore the property will not be clear; e. g. since he who places the property of animal sometimes to be moved and to stand still, has assigned a property which is sometimes not a property, the latter would not be well laid down. On the other hand, it is confirmed, if that is assigned which is necessarily always a property, for in this respect the property would be well stated, since he who asserts the property of virtue to be that which makes its possessor a worthy man, assigns that which always follows as a property, so far as regards this, the property of virtue would be well assigned.

In the next place, it is subverted if some one assigning that which is now a property, does not declare that he assigns what is now a property, since the property will not be well stated. For, first, every thing which is contrary to custom requires explanation, and for the most part, all men are accustomed to assign as property that which is always consequent; secondly, he is uncertain who does not explain whether he desired to state that which is now property, wherefore a pretext of reproof must not be given. For instance, since he who states the property of a certain man, is to sit with a certain man, lays down that which is now a property; he would not place the property well, if he did not speak with explanation. Nevertheless, he confirms it if, assigning what is property at present, he explains that he adduces the present property, for in this respect the property will be well stated; thus, since he who asserts the property of a certain man to be

3. Also whether that is assigned, which is not always joined to the thing.

* "Hence the peculiarity will not be well posited"—inserted by Taylor and Buhle.

4. Also whether the assigner of a present property, does not distinguish time.

his walking now, asserts this with a distinction, the property would be well alleged.

5. Whether what is only evident by sense, is assigned.

Next, it is subverted if such a property is assigned, which is in no other way evident to be inherent than by sense, since the property will not be well placed ; for every thing sensible, when it is external to sense becomes obscure, since it is not apparent whether it is still inherent, because of its only being known by sense. This, indeed, would be true in those things which do not always follow from necessity.¹ For example, since he who asserts the property of the sun to be the most splendid star moved above the earth, uses such (an expression) in the property, to be moved above the earth, which is known by sense, the property of the sun would not be well assigned, for it would be doubtful when the sun sets, whether it is moved above the earth, because of sense then failing us. Property, however, is confirmed if such a kind has been given, as is not evident to sense, or which, being sensible, is manifestly inherent of necessity, for in this respect the property will be well stated. Thus, since he who lays down, as the property of superficies, to be that which is first coloured, uses, indeed, something sensible, viz. to be coloured, but of such a kind as is evidently always inherent, in this respect the property of superficies would be well assigned.

6. Whether definition is assigned as property.

Next, it is subverted if definition is assigned as property, for the property will not be well stated, since it ought not to manifest the very nature of a thing ; e. g. since he who says the property of man is to be an animal pedestrian biped, assigns as the property of man that which signifies his very nature, the property of man would not be well assigned. But we confirm it if a property which reciprocates is assigned, yet which does not manifest the very nature of a thing, since in this respect the property would be well assigned ; e. g. since he who states the property of man to be an animal naturally mild, assigns a property which reciprocates indeed, yet does not manifest the very nature of man, in this respect the property of man would be well assigned.

¹ See the note of Waitz on this passage.

Moreover, it is subverted, if he who assigns the property, does not assert what a thing is, since it is necessary with properties, as with definitions, to assign the first genus, next, to add what remains, and to separate.* Hence, the property which is not placed after this manner would not be well assigned; thus, since he who asserts that the property of animal is to have a soul, does not state what an animal is, the property of animal would not be well laid down. Again, we confirm it, if any one, asserting what that is of which he assigns the property, annexes what remains, for in this respect the property will be well assigned; thus, since he who asserts the property of man to be an animal susceptible of science, by asserting what man is, assigns his property, in this respect, the property of man would be well assigned.†

7. Whether it does not necessarily consist with the very nature of a thing.

* i. e. the thing proposed from other things.

† Taylor and Buhle annex the commencing sentence of the next chapter.

CHAP. IV.—*Topics relative to the Question, whether the assigned be Property or not.*¹

WHETHER, however, what is assigned as property, be so well, or ill, must be examined from such (places), but whether what is stated be altogether property or not property, must be inspected from these. For those which simply confirm that the property is well stated, will be the same places as those which produce property at all, therefore they will be explained with them.

First then in confirmation, we must regard each particular, of which the property has been assigned, as whether it is present with no individual, or is not verified in this respect, or whether it is not the property of each of them, as regards that of which the property has been assigned, for the property will not be that which was laid down as the property. For instance, since it is not truly asserted of a geometrician that he cannot be deceived by argument, (for a geometrician is deceived when there is made a false description,) it would

1. The assigned is not property, if it does not concur with each individual.

¹ After explaining how it may be known, whether property be well expressed, he now discusses the topics, of deciding whether that assigned be property at all, or not, for, as he says, the one kind of topics is contained in the other.

not be the property of a scientific man, not to be deceived by argument. It is confirmed, on the other hand, if it is verified of every thing, and is true as regards this, for that will be property which was stated not to be property; e. g. since an animal capable of science is verified of every man, and so far as he is man, an animal capable of science would be the property of man. This place indeed is for subversion, if a sentence is not verified of what the name is verified, and if of what the sentence is verified the name is not verified, but it belongs to confirmation, if of what the name, the sentence also is verified, and if of what a sentence is predicated, a name also is.

2. Also if the name is not verified of what the sentence is, and vice versa.

In the next place, we subvert it, if, of what the sentence is, the name also is not verified, and if, of what the name is spoken, the sentence is not, since what is stated to be property, will not be property.

For example, since animal partaking of science is verified of God, but man is not predicated, animal partaking of science would not be the property of man. But we confirm it, if, of what the sentence is, the name also is predicated, and if, of what the name, the sentence also is predicated, since that will be property which was stated not to be so; thus, since animal is verified of that of which the possession of a soul is, and the possession of a soul of that of which animal is, the possession of a soul would be the property of animal.

3. If the subject is assigned as the property.

Again, it is subverted, if the subject is assigned as the property of what is stated in the subject, since that will not be property which is stated to be so; e. g. since he who asserts the property of body, consisting of the most subtle parts, is fire, assigns the subject¹ as the property of that which is predicated,² fire would not be the property of a body of the most subtle parts. Wherefore the subject will not be the property of that which is in the subject, because the same thing will be the property of many things specifically different, since many things differing in species are present with the same, being predicated of it alone, the property of all which, will be the subject, if a person thus places the property. Again, property is confirmed if that which is in the subject is assigned as the property of the sub-

¹ i. e. fire.

² i. e. of a body consisting of most subtle parts.

ject, for that will be property which was stated not to be so, if it is predicated of those alone of which it is said to be the property; thus, since he who says that the property of earth, is body specifically the heaviest, assigns the property of the subject which is predicated of that thing alone, and as a property, the property of earth would be rightly stated.

We next subvert it, if the property is assigned according to participation, for that will not be property which was stated to be so, since what is present according to participation, belongs to the very nature of a thing, but this sort would be a certain difference predicated of some one species: thus, since he who says the property of man is a pedestrian biped, assigns the property according to participation, pedestrian biped would not be the property of man. We confirm, on the contrary, if the property is not assigned according to participation, nor manifests the very nature when the thing reciprocates, for that will be property which is stated not to be property; thus, since he who places the property of animal, as naturally to possess sensation, neither assigns property according to participation, nor manifests the very nature, the thing itself reciprocating with it, naturally to possess sensation, would be the property of animal.

Again, we subvert it, if the property cannot be at the same time inherent, but either subsequent or prior to, that of which it is the name, for what is stated to be property, will not be so, either never, or not always: thus, since it is possible for walking through the forum, to be present with some one, both prior and subsequent to its being man, walking through the forum would not be the property of man, either never, or not always. We confirm it however, if it is always present from necessity at the same time, being neither definition nor difference, since that will be property which was stated not to be so; thus, since animal capable of science, and man, always exist necessarily at one and the same time, being neither difference nor definition, animal susceptible of science, would be the property of man.

Moreover, we subvert it, if the same thing is not the property of the same things, so far as they are the same, since that will not be property which is

4. If that is assigned as a property, which the thing partakes of, as a difference.

5. Or if that which is by nature prior, or posterior, to the thing itself.

6. Or if the same thing be not the property of the

same things, so far as they are the same.

stated to be so; thus, since it is not the property of what is the object of pursuit, to appear good to certain persons, the latter would not be the property of the eligible; for what is the object of pursuit, and the eligible, are the same thing. But it is confirmed, if the same is the property of the same, so far as it is the same, since that will be property which is stated not to be so: thus, since of man, so far as he is man, the possession of a tripartite soul is said to be the property; * the possession of this, would also be the property of mortal, so far as mortal. Now this place is likewise useful for accident, since it is necessary that the same things should be or not be present, with the same things, so far as they are the same.

* De Anim. iii. 9, 2.

7. If of things the same in species, the property is not always specifically the same.

Again, we subvert, if of things the same in species, the property is not always the same in species, since neither will what is stated be the property of the thing proposed; thus, since man and horse are the same in species, but it is not always the property of a horse to stand from himself, neither will it be the property of man to be moved from himself, since to be moved and to stand from self are the same in species, and happen to each of these, so far as he is animal. On the other hand, we confirm it, if of what are the same in species the property is always the same, for that will be property which is stated not to be so; thus, since it is the property of man to be a pedestrian biped, it would also be the property of bird to be a winged biped, since each of these is specifically the same, so far as some † are as species under the same genus, being under animal, but others ‡ are as differences of the genus, animal. Now this place indeed is false, when one of those mentioned is present with one species alone, but the other with many, as a pedestrian quadruped.¹

† i. e. man and bird.

‡ i. e. pedestrian and winged.

8. If what is the property of Since however "same" and "different" are multifariously predicated, it is difficult, when they

¹ For although horse and man are in the same species (animal), yet their properties are not contained in the same species; for τὸ πεζὸν δίπουν expresses the property of man, but τὸ πεζὸν τετράπουν (in the same species) does not express the property of a horse; since there are many other quadrupeds besides a horse.

are sophistically assumed, to assign the property of some one thing alone; for what is present with something to which any thing happens, will also be present with the accident assumed together with that, to which it is accidental; thus, what is present with man, will also be with white man, if man is white, and what is with white man, will also be with man. Some one however may find fault with many of these properties, if he makes one subject subsistent per se, but another with accident, as if he stated man to be one thing, but white man another, moreover, making the habit another, and that which is enunciated according to the habit. For what is present with habit will also be present with what is denominated according to habit, and what is present with that denominated according to habit, will also be present with habit. Thus, since he who possesses science is said to be scientifically disposed, the property of science would not be the being immutable in opinion by reason, for the man of science will be unpersuadable by reason. In confirmation however it must be stated, that that to which a thing happens, and the accident taken together with that to which it is accidental, are not different simply, but they are said to be so from their essence being different, since it is not the same thing for man to be man, and for a white man to be a white man.¹ Besides, we must inspect cases, stating that neither will he be scientific, who is (a thing) unpersuadable by reason, but he who is unpersuadable by reason, nor is science that which cannot be induced to change its opinion by reason, but the being unchangeable by reason,* for he who in every way objects, must in every way be opposed.²

the subject alone, be not so of it, when joined to accident, and vice versâ.

* In the feminine gender. Taylor.

CHAP. V.—*The same Subject continued.*

PROPERTY is, in the next place, subverted, if he who wishes to assign what is naturally inherent,

1. Observe whether for that which is

¹ If a person wish to prove the property identical of "a man" and of "a white man," he must state that one is not different from the other simply, but only in a certain respect, so that their property may really be the same.

² The force of this observation is better conveyed in Latin, as by Buhle, "Dicendum est neque *scientem* esse ratione *immutabile*, sed ratione *immutabilem*: neque *scientiam* esse ratione *immutabile*, sed ratione *immutabilem*."

always the property, something be assumed which is joined to the very nature of a thing.

places it after that manner in his discourse, as to signify what is always inherent, since he will seem to have subverted that, which was stated to be the property. Thus, since he who says that the property of man is to be a biped, wishes to assign what is naturally inherent indeed, but signifies in the enunciation what is always inherent, biped would not be the property of man, since not every man has two feet. On the other hand, he confirms it, if he desires to assign the property which is naturally inherent, and signifies it after this manner in his speech, for as to this, property will not be subverted. Thus, since he who assigns the property of man, to be an animal susceptible of science, both desires and also signifies in speech, the property which is naturally inherent, it would not, as regards this, be subverted, as that an animal susceptible of science is not the property of man.

2. Whether that whose property is assigned, be predicated of some other first, or another of itself as first.

Besides, with regard to such things as are enunciated, as to some other first, or as that which is itself first, (i. e. per se,) it is difficult to assign the property of such as these; for if you assign the property of what is through something else, it will also be verified in respect of what is first, but

if you assign the property of the first, it will also be predicated of that which subsists according to something else. Thus, if some one asserts the property of superficies to be coloured, to be coloured will also be verified of body, but if of body, it will also be predicated of superficies; so that of what a sentence is verified, a name is not also verified.¹

3. Whether the manner and subject of the property be accurately defined.

Nevertheless, it happens with some properties, that an error for the most part happens from the want of definition, as to how and of what things the property is assigned. For all men endeavour to assign property, either as what is naturally inherent, as biped of man, or as what is (merely) inherent, as of

a certain man to have four fingers, or as in species, as of fire that which is most subtle, or simply, as of animal to live, or through another, as of soul to be wise, or as the first, as of the reasoning faculty to possess prudence, or as in having, as of the scientific to be unconvincible by argument, (for to be unconvincible in argument will be nothing else than to have

¹ See Waitz.

something,*) or from being had, as of science, the being unchanged by reason, or from being participated, as sensation, by animal, (since something else also has sensation as man, but he perceives because he is a participant of animal,) or in consequence of participating, as of a certain animal to live. He errs, therefore, who does not add the word *naturally*, because what is naturally inherent, it is possible may not be inherent in that, to which it is natural to be inherent, as in a man to have two feet. He, however, who does not distinguish that he assigns what is inherent (errs), because a thing will not be such (sometimes) as it is now,† as for man to have four fingers, but he errs who does not show that he assigns it, as what is first, or as through something else, because the name will not be verified of that, of which the definition is, as to be coloured, whether it is assigned as the property of superficies or of body. He, again, who does not previously declare that he assigns property, either from having, or from being had, (errs,) because it will not be property, for it will be inherent, if he assign the property from being had, in that which has, but if from having, in that which is had, as the being unconvincible by reason being laid down as the property of science, or of the scientific man. He, again, who does not, besides, signify (that he assigns property), from a thing partaking or being partaken of, (errs,) because the property will be present with certain other things also; if, indeed, he assign it from being partaken of, it will be present with those partaking it, but if from its partaking, with those which are partaken of, as if to live should be placed as the property of some certain animal, or of animal. (Again he errs), who does not distinguish (that the property is assigned) in species, because it will be present with one thing alone, of those which are under this, of which he assigns the property, for what exists according to excess is present with one thing alone; as of fire, that which is most light. Sometimes, indeed, he who adds the expression "*in species*" errs, for it will be necessary that there should be one species of the things stated, when the words "*in species*" are added, but this does not occur in some things, as neither in fire, for there is not one species of fire, since a burning coal, flame, and light, each of them being fire, are specifically different. For this reason, there is no necessity,

* viz. a firm
and constant
opinion.

† So Bekker,
Taylor, and
Buhle.

when the words "*in species*" are added, that there should be another species of what is stated, because what is assigned as property will be more present with some, but less with others, as of fire that which is most subtle, for light is more subtle than a burning coal, and than flame. Nevertheless, this ought not to happen, when the name is not more predicated of that, of which the sentence is more verified,¹ for otherwise it will not be (true), that of what the sentence is more, the name is also more (predicated.) Moreover, besides these, the same thing will happen to be the property of what is simply, and of what is especially; in what is simply, as the most subtle happens in the case of fire, for this very thing will be property of light also, since light is most subtle. If, therefore, another person should thus assign property, we must argue, but he must not yield to this objection, but straightway, when the property is assigned, define the manner in which he assigns it.

4. If the thing itself be assigned as its own property. (Cf. Hill's Logic; Mansel's Appendix.)

In the next place, property is subverted if a thing is assigned as the property of itself, for what is stated to be, will not be property, since every thing which is the same with a thing, manifests essence, but that which manifests essence is not property, but definition; thus, since he who says that the becoming, is a property of good, assigns that which is the property of itself, (for the good and the becoming are the same,) the becoming, would not be the property of the good. On the other hand, we confirm it, if the same is not assigned as the property of itself, but that which reciprocates is laid down, for what is stated not to be, will be property; e. g. since he who asserts the property of animal is animated substance, does not lay down the same thing as the property of itself, but assigns what reciprocates, animated substance would be the property of animal.

5. Whether in those things which consist of similar parts, the property of a part, or of the whole, be laid down.

Next, we must consider this in the case of those which consist of similar parts, the subverter indeed whether the property of the whole is not verified of the part, or whether the property of the part is not predicated of the whole, since what is stated to be, will not be property. In some things indeed this occurs, as a man may assign pro-

¹ ὁ λόγος, that which expresses the property of the thing: τὸ ὄνομα, the thing whose property is expressed.

perty in things of similar parts, sometimes looking to the whole, and sometimes directing his attention to what is enunciated according to a part, yet neither will be rightly assigned. For instance, in the whole of thing; since he who states the property of the sea is an abundance of salt water, introduces the property of a certain thing, consisting of similar parts, but assigns such as is not verified of a part, (for a certain sea does not abound with salt water,) the property of the sea would not be an abundance of salt water. Again, in the case of a part, e. g. since he who states the property of air to be the respirable, asserts the property of a certain thing of similar parts, but assigns such a thing as is verified of a certain air, but is not spoken of all air, (for all is not respirable,) the respirable would not be the property of air. Now he who confirms, (must see) whether of each of the things consisting of similar parts, that is verified, which is the property of them according to the whole, since what is stated not to be, will be property: thus, since it is verified of all earth to tend naturally downward, and this is the property of certain earth according to earth, to tend naturally downward would be the property of earth.

CHAP. VI.—*Of Property from Opposites.*

WE must next consider from opposites; first, from contraries, the subverter indeed whether the contrary is not the property of the contrary, since a contrary will not be the property of a contrary; thus, since injustice is contrary to justice, but the worst to the best, and the best is not the property of justice, neither would the worst be the property of injustice. On the other hand, the confirmer (must examine), whether the contrary is the property of the contrary, for a contrary will be the property of a contrary; thus, since evil is contrary to good, and what is to be avoided to what is eligible, but the property of good is the eligible, the property of evil would be that which is to be avoided.

Next, from relatives; the subverter indeed if one relative is not the property of another relative, for this relative will not be the property of that relative; thus, since the double is spoken relatively to

1. Observe whether of opposites, the properties be opposite—of contraries, contrary.

2. Of relatives, relative.

the half, and the exceeding to the exceeded, but the exceeding is not the property of the double, the exceeded would not be the property of the half. It is confirmed however, if one relative is the property of another, for this relative will be the property of that; thus, since the double is spoken relatively to the half, one indeed with relation to two, but two to one, and the property of the double is as two to one, the property of the half will be as one to two.

3. Of habit and privation. Thirdly, it is subverted, if what is predicated according to habit is not the property of the habit, since neither will what is predicated according to privation be the property of privation; also if what is predicated as to privation is not the property of privation, neither will what is predicated as to habit be the property of habit; thus, since privation of sense is not said to be the property of deafness,¹ neither would sensation be the property of hearing. Again, it is confirmed, if what is predicated according to habit is the property of habit, for what is predicated as to privation will be also the property of privation; and if what is predicated as to privation is the property of privation, what is predicated as to habit will be the property of habit. Thus, since it is the property of sight to see, according as we possess sight, not to see, would be the property of blindness, according as we do not possess sight when we are naturally adapted to have it.

4. Of affirmatives and negatives. Moreover, from affirmatives and negatives, and first, from the predicates themselves; but this place is useful for the subverter only. Thus, if affirmation, or what is predicated as to affirmation, is the property of a thing, neither negation nor what is predicated as to negation will be the property of it; but if negation, or what is predicated according to negation, is its property, neither affirmation nor what is predicated as to affirmation will be its property; thus, since animated is the property of animal, what is not animated will not be the property of animal.

¹ Because non convenit soli. Vide Aldrich's Logic. Taylor and Buhle insert, (the latter in the Greek text itself,) "for this also is common to other things, *καὶ γὰρ τῶν ἄλλων κοινόν.*" On the theory of the necessary connexion of certain properties with their subject, see Avicenna and Albert de Predicab.; and confer Porphyry and Boethius.

Secondly, from things predicated or not predicated, and of which they are predicated or not predicated, subverting it indeed if affirmation is not the property of affirmation; for neither will negation be the property of negation, and if negation is not the property of negation, neither will affirmation be the property of affirmation. Thus, since animal is not the property of man, neither would what is not animal be the property of what is not man, and if what is not animal appears to be not the property of what is not man, neither will animal be the property of man. We confirm it, on the contrary, if affirmation is the property of affirmation, for negation will also be the property of negation, and if negation is the property of negation, affirmation also will be the property of affirmation; thus, since not to live is the property of what is not animal, to live would be the property of animal; and if to live appears the property of animal, not to live will appear the property of what is not animal.

2. Or whether things non-repugnant, be assigned as properties of repugnant subjects.

Thirdly, from subjects themselves, subverting indeed if the assigned property is the property of affirmation, since the same will not also be the property of negation; but if what is assigned be the property of negation, it will not be the property of affirmation; thus, since the animated is the property of animal, the animated would not be the property of what is not animal. On the other hand confirming it, if the assigned be not the property of affirmation, for it would be that of negation. This place however is false, for affirmation is not the property of negation, nor negation of affirmation, for affirmation is not wholly present with negation, but negation is with affirmation, yet is not present as a property.¹

3. Whether the same property be assumed of things repugnant.

Next, from things oppositely divided, subverting indeed, if none of the oppositely divided is the property of no one of the remaining oppositely divided, since neither will what is stated, be the property of that of which it is stated as the property; thus, since sensible animal is the property of no other animal, intelligible animal would not be the property of God. Again, confirming it, if any one of the remainder oppositely divided, is the property of each of these

5. Whether of things of the same division, properties are assigned, so as not to keep the same order of division.

¹ Cf. Waitz in loc.

* Taylor and Buhle read differently here from Waitz and Bekker.

which are oppositely divided ;* for the remainder will be the property of that of which it is stated not to be the property ; thus, since it is the property of prudence to be naturally per se, the virtue of the reasoning part, and of each of the other virtues thus assumed, the property of prudence would be, to be naturally per se, the virtue of the appetitive part of the soul.

CHAP. VII.—*Of Property as to Cases.*

1. Whether property is rightly assigned, is known from cases.

IN the next place, from cases, subverting property indeed if case is not the property of case, for neither will one case be the property of the other ; thus, since what is beautifully is not the property of what is justly, the beautiful would not be the property of the just. On the other hand, confirming if case is the property of case, for the one case will be the property of the other ; thus, since pedestrian biped is the property of man (in the nominative case), it would also be the property of man to be called pedestrian biped (in the dative case).† Not only however must we observe cases in respect of what has been stated, but also in opposites, as was observed in the former places, subverting indeed if the case of the opposite is not the property of the case of the opposite, for neither will the case of one opposite be the property of the case of another opposite ; thus, since what is well (done) is not the property of what is justly (done), neither would be ill (done), the property of that which is done unjustly. Again, we confirm it, if the case of the opposite be the property of the case of the opposite, for the case of this opposite will be the property of the case of that opposite ; thus, since best is the property of good, worst would be the property of evil.

2. From those of similar subsistence.

Next, from those which subsist similarly, subverting, indeed, if what subsists similarly is not the property of what has similar subsistence, for neither will what subsists similarly be the property of that which has similar subsistence. Thus, since the builder of a house subsists similarly with regard to building a house, as the physician with regard to producing health, but it is not the property of the physician to produce health, neither would it be the property of the house-builder to produce a house.

It is confirmed, however, if what subsists similarly is the property of what has similar subsistence, for the similarly subsisting will also be the property of what has similar subsistence; thus, since the physician subsists similarly with regard to being effective of health, as the trainer of the gymnasium to the being effective of a good habit of body, but the being effective of a good habit of body is the property of the trainer, to be effective of health would be the property of the physician.

Next, from those which subsist after the same manner, subverting, indeed, if what subsists after the same manner is not the property of what subsists after the same manner, for neither will what subsists after the same manner be the property of what subsists after the same manner, but if of that which subsists after the same manner, that which subsists after the same manner, is the property, it will not be the property of that thing of which it is stated to be the property. Thus, since prudence subsists after the same manner with regard to the honourable and the base, from their being a science of each of them,* but to be the science of the honourable is not the property of prudence, it would not be the property of prudence to be the science of the base, but if it is the property of prudence to be the science of the honourable, it would not be the property of it to be the science of the base, since it is impossible that the same thing should be the property of many. For him who confirms, indeed, this place is of no use, for what subsists after the same manner is one thing compared with many.¹

3. From those of the same subsistence.

* Cf. Ethics, b. vi. ch. 5.

¹ A variety of opinions has been incident to the above passage. The two most worthy of notice are those of Julius Pacius and Waitz. The latter observes, "Ponamus notiones a et b eandem rationem habere ad notionem A : quare si a non exprimit proprietatem notionis A, neque b ejus proprietatem exprimere consequitur. Sin autem A proprium est notionis a, non erit proprium notionis b, quum unum duorum proprium esse nequeat." Pacius, contra, illustrates the passage thus: "Si A non exprimit proprietatem notionis a, neque proprietatem notionis b exprimet : sin autem A est proprium notionis a, non simul erit proprium notionis b, quoniam non datur una duarum rerum proprietates." The difficulty has arisen in the apparent contradiction of the statement to the example in the text, and if Pacius' view be adopted, the whole example must be considered as interpolated: Waitz' interpretation, on the other hand, seems to allow of the example emanating from Aristotle.

4. From existence, production, and destruction.

Next, we subvert it, if what is said to exist is not the property of what is said to exist, since neither will to be corrupted be the property of that which is said to be corrupted, nor to be generated of what is said to be generated. For instance, since it is not the property of man to be animal, neither will to be generated animal, be the property of to be generated man, nor will the corruption of animal, be the property of the corruption of man. After the same manner, we must assume (the argument) from being generated to existence and being corrupted, and from being corrupted to existence and being generated,¹ as was just now said from existence, to the being generated and corrupted. Again, we confirm it, if of what is arranged according to existence, the property is that which is arranged according to the same, for what is said to be according to the being generated, will also be the property of what is said to be according to the being generated, and of what is said to be corrupted that which is assigned according to this. Thus, since to be mortal is the property of man, to be generated mortal would also be the property of the being generated man, and the corruption of mortal of the corruption of man. In the same way, indeed, we must take the argument, both from the being generated and the being corrupted with regard both to existence and to the same from the same, as was observed to him who subverts.

5. From ideas. Next, we must pay attention to the idea of the thing proposed, subverting, indeed, if it be not present with the idea, or if not as to this, according to which that is stated, of which the property is a sign,² for what is stated to be, will not be the property. Thus, since rest is not present with man himself,* so far as he is man, but so far as he is idea,³ rest would not be the property of man. We confirm it, indeed, if it is present with the idea, and is present so far as it is predicated of this very thing, of which it is stated not to be the pro-

* αὐτοανθρώπου,
i. e. the idea
of man.

¹ Taylor and Buhle insert *αὐτὰ ἐξ αὐτῶν*: the former remarks, "For the same terms ought always to be preserved."

² "Or not so far as the idea is said to be of that, of which the peculiarity is assigned." Taylor.

³ These words, *ἀλλ' ἢ ἰδέα*, disturb the sense, but the whole passage has been carelessly constructed. Vide Waitz, vol. ii. p. 494.

perty, for what is stated not to be, will be property. Thus, since it is present with animal—itself* to be composed of soul and body, and this is present with it, so far as it is animal, to be composed of soul and body would be the property of animal.

* i. e. the idea of animal.

CHAP. VIII.—*Of Property from the More and Less.*

NEXT, from the more and less, first indeed subverting, if the more is not the property of the more, for neither will the less be the property of the less, nor the least of the least, nor the most of the most, nor the simply of the simply. Thus, since to be more coloured, is not the property of what is more body, neither will to be less coloured, be the property of what is less body, nor in short will to be coloured, be the property of body. We confirm it however, if the more is the property of the more, since the less also will be the property of the less, and the least of the least, and the most of the most, and the simply of the simply; for instance, since to perceive more, is the property of what is more vital, to perceive less, would be the property of the less vital, and the most of the most, the least of the least, and the simply of the simply.

1. Whether property is rightly assigned, is known from things admitting degree.

From the simply too, the subverter must consider whether the simply is not the property of the simply, for neither will the more be the property of the more, nor the less of the less, nor the most of the most, nor the least of the least; thus, since it is not the property of man to be worthy, neither would to be more worthy, be the property of what is more man. The confirmer however (must consider), whether what is simply is the property of what is simply, for the more will be the property of the more, the less also of the less, the least of the least, and the most of the most; thus, since it is the property of fire naturally to tend upwards, it would also be the property of what is more fire naturally to tend more upwards, and in the same manner we must direct attention from other things also, to all these.

1. Topic of subversion. The simply of the simply.

Secondly, it is subverted, if the more is not the property of the more, since neither will the less be the property of the less; thus, since it is more

2. The more of the more.

the property of animal to perceive, than of man to know, but it is not the property of animal to perceive, it would not be the property of man to know. We confirm it indeed, if the less is the property of the less, for the more will also be the property of the more; thus, since it is less the property of man to be naturally mild than of animal to live, but it is the property of man to be naturally mild, it would be the property of animal to live.

3. The rather property. Thirdly, we subvert it, if it is not the property of which it is more the property, since neither will it be the property of that of which it is less the property, but if it is the property of that, it will not be the property of this. Thus, since to be coloured is more the property of superficies than of body, but it is not the property of superficies, neither would to be coloured be the property of body; if however it is the property of superficies, it would not be the property of body. This place indeed is not useful to the confirmer, since it is impossible that the same thing should be the property of many.

4. If the more be not property. Fourthly, it is subverted if what is more the property (of the thing), is not its property, since neither will what is less its property be the property, e. g. since the sensible is more the property of animal than the partible, but the sensible is not the property of animal, the partible would not be the property of animal. But it is confirmed if what is less its property is the property of it, since what is more its property will be the property; thus, since it is less the property of animal to perceive than to live, but to perceive is the property of animal, to live would be the property of animal.

2. We also ascertain whether property is rightly assigned, from things of similar subsistence. 1st Topic of subversion. Next, from things which exist similarly, first indeed subverting, if what is similarly the property, is not the property of that of which it is similarly the property, since neither will what is similarly property be the property of this of which it is similarly the property. Thus, since it is similarly the property of the appetitive part of the soul to desire, and of the reasoning part to reason; * but to desire is not the property of the appetitive part, neither would to reason be the property of the reasoning part. On the other hand, we con-

* Vide Ethica 1. 13, and iii. 12.

firm it, if what is similarly property is the property of this of which it is similarly the property; for what is similarly property will be the property of this thing of which it is similarly the property. For instance, since what is primarily prudent is similarly the property of the reasoning part, and what is primarily temperate of the appetitive part, but what is primarily prudent is the property of the reasoning, the primarily temperate would be the property of the appetitive part.

Secondly, we subvert it, if what is similarly the property (of a thing) is not its property, since ^{2nd.} neither will what is similarly property be the property of it. Thus, since it is similarly the property of man to see and to hear, but to see is not the property of man,¹ neither would the property of man be to hear. Again, we confirm it, if what is similarly the property (of a thing) is its property, for what is similarly its property will be the property; thus, since it is similarly the property of the soul that a part of it should be appetitive primarily and argumentative, but it is the property of the soul that a part of it is primarily appetitive, it would be the property of the soul that a part of it is primarily argumentative.

Thirdly, it is subverted, if it is not the pro- ^{3rd.} perty of what it is similarly the property, since neither will it be the property of what it is similarly the property, but if it is the property of that, it will not be the property of the other. Thus, since to burn is similarly the property of flame and of a burning coal, but it is not the property of flame to burn, neither would it be the property of a burning coal to burn,² but if it is the property of flame, it would not be the property of a burning coal: this place however is of no use to him who confirms.

Nevertheless, (the place) from things similarly affected, differs from that from things similarly in- ^{4th. A distinction drawn.} herent, because the one is assumed according to analogy, and is not considered in respect of something being

¹ Because "non convenit soli, nec semper." Vide Aldrich. I have already observed that the fourth kind only of property mentioned by Aldrich, is regarded by Aristotle and Porphyry as *ιδιον*: the first and third kinds, enunciated by Aldrich, are each a separable, the second kind an inseparable, accident.

² Because the same thing, cannot be the property of many things. Taylor.

inherent, but the other is compared from something being inherent.

CHAP. IX.—*Topics upon Property as to Capacity, etc.*

1. Property subverted if assigned in capacity to what is not.

NEXT, property is subverted indeed, if he who assigns it in capacity, assigns also that property in capacity, to that which is not; capacity being by no possibility present with a non-entity, for what is laid down to be, will not be, property. Thus, since he who says the property of air is that which may be breathed, assigns property in capacity, (for a property of this kind is that which is capable of being breathed,) but also assigns the property to that which is not; for although an animal should not exist, which is naturally capable of breathing the air, yet the air may exist, though if animal is not, it is not possible to breathe; hence a thing of such a kind as that it may be breathed, will not then be the property of air, when there will not be such an animal as can breathe, wherefore what may be breathed would not be the property of air.

2. Confirmed, vice versâ.

Again, we confirm it, if he who assigns it in capacity either assigns the property to that which is, or to that which is not, when capacity may be present with what is not, since what is stated not to be property, will be property. Thus, since he who assigns as the property of being, the ability to suffer or to act, assigning property in capacity, has assigned property to being, (for when being is, it will also be able to suffer, or to do, something,) hence ability to suffer or to act, would be the property of being.

3. Subverted if laid down in hyperbole.

Next, it is subverted, if it is placed in hyperbole, since what is laid down to be, will not be property. For it happens to those who thus assign property, that the name is not verified in respect of what the sentence¹ is verified, since the thing being corrupted, the sentence will nevertheless remain, for it will especially be present with something existing; thus, if some one should assign the property of fire to be the lightest body, for when fire is corrupted, there will be a certain body, which will be the lightest,* so that the lightest body would not be the property of fire. It is confirmed however, if

* As air.

¹ i. e. the property.

the property is not placed in hyperbole, for as to this, the property will be well stated, e. g. since he who states the property of man, to be an animal naturally mild, does not assign property in hyperbole, so far as regards this, the property would be well stated.

BOOK VI.

CHAP. I.—*On Places connected with Definition.*

THERE are five parts of the discussion of definition, for (the latter is reprehended), because it is not altogether true to assert that the sentence* (is predicated) of what the name † is; (since it is necessary that the definition of man, should be verified of every man;) or because when there is a genus, it does not place the thing defined in the genus, or not in its appropriate genus; (for it is necessary that the person defining, placing the thing defined in genus, should add the differences, since of things in the definition, genus especially seems to signify the substance of the thing defined;) or because the sentence is not proper; (since it is necessary that definition should be proper, as was before observed; ‡) or if, though it has effected all the things stated, it does not define, nor state, what the nature is, of the thing defined. The remainder is, besides what we have mentioned, if it is defined indeed, but not defined well.

Whether, then, the sentence also is not verified of what the name is, must be observed from places belonging to accident,¹ since there also the whole consideration is, whether it is true or not true, for when we show by discussion that accident is inherent, we say that it is true, but when that it is not inherent, (we call it) untrue. Whether, again, the assigned definition is not

1. Five parts of definitional discussion.

* i. e. the definition.

† i. e. the thing defined.

‡ Vide b. i. c. 6.

2. Three of these enunciated, lib. ii. 4, 5.

¹ Because from these we shall be able to ascertain whether what the definition enunciates, can be predicated wholly of the thing defined; the first rule of definition being, that it should be adequate to the thing defined, which is also intimated above. Upon this book, cf. Aldrich, Whately, Hill, and Mansel, (Logics,) also Appendix note B of the last. See also Rassow, (Arist. de Notion. Def. Doct.,) Crakanthorpe, and Wallis.

placed in its proper genus, or is not proper, must be observed from places spoken about genus and property.

3. The remaining inquiry is, about proper definition, or its subsistence at all. It remains, then, to declare how we must institute an inquiry, whether a thing is not defined, or whether it is not rightly defined; first, indeed, then we must see whether it is not rightly defined, since it is easier to do any thing (merely), than to do it well. Now it is clear that an error is more frequent about this, because it is more difficult, so that reasoning about this is easier than about that.

4. Two parts about right definition. Of the (question of defining) not rightly, there are two parts, one whether obscurity is employed in the interpretation, (since it is necessary that the person defining should make use of the clearest possible interpretation, as definition is assigned, for the sake of knowledge,) and the other, whether he has stated the definition more extensively than is requisite, as every thing added in the definition is superfluous. Again, each of the above-named is divided into many parts.

CHAP. II.—*Of Places relative to defining rightly.*

1. Definition faulty from obscurity, if an equivocal statement be employed, or the thing defined be equivocal. ONE place, then, belonging to the obscure is, if what is stated is equivocal with any thing, as that generation is a leading to substance, and that health is the harmony of hot and cold, for (the words) leading and harmony are equivocal, therefore it is doubtful which of the things signified, by what is multifariously predicated, a person wishes to assert. In like manner also, if when the thing defined is multifariously predicated, a person expresses himself without distinction, as it will be dubious of what he has given the definition, and it is possible to cavil, as if the definition were not adapted to every thing of which he has given the definition.¹ Now, such a thing it is especially possible to do, when there is latent equivocation, and also it is possible, when a person has distinguished in how many ways what is assigned in the definition is predicated, to form a syllogism: for if it is not sufficiently stated in any mode, it is clear that it has not been defined according to that mode.

¹ Cf. Waitz.

Another (place is), if it is spoken metaphorically, for instance, that science is that which cannot fall, or that the earth is a nurse,¹ or that temperance is symphony, as every thing enunciated metaphorically is obscure. It is also possible for him who uses a metaphor to cavil that he has spoken * rightly, for the given definition will not suit, e. g. in the case of temperance, since all symphony is in sounds. Besides, if symphony be the genus of temperance, the same thing will be in two genera not containing each other, since neither does symphony contain virtue, nor virtue symphony.

2. Obscurity incident to metaphor. Vide Aldrich, ch. i. 8.

* So Waitz and Bekker, but Buhle and Taylor insert *ov.*

Moreover, (the definition is obscure,) if established names are not used, as Plato calls the eye, that which is shaded by the eyebrows, or a spider, a feeder on putrescence, or the marrow, bone-begetter, since whatever is unusual, is obscure.²

3. Also to unusual terms.

Some things, however, are asserted neither equivocally, nor metaphorically, nor properly, for instance, law (defined as) a measure, or an image of things naturally just. Such things, indeed, are worse than metaphor, for metaphor in some way makes known what is signified on account of similitude,³ as all who use metaphors do so according to a certain similitude, but this kind of thing does not make known, as neither is there any similitude, according to which law is a measure or an image, nor is it accustomed to be predicated properly. Wherefore, if a person says that law is properly a measure or an image, he speaks falsely, for an image is that, the generation of which is by imitation, but this does not exist in law: but if it is improperly, it is clear that he speaks obscurely, and worse than any thing spoken metaphorically.

4. Also if an expression be used, not in its proper sense.

¹ Vide Iliad Z. Eustathius observes, the earth is so called from being the common mother of all. The earth itself is sometimes nursed, i. e. cultivated. Vide Joseph. de Ant. Jud.

² This is the third rule in Aldrich, "ut justo vocem propriarum numero absolvatur." Words in common use, called here *κείμενα ὀνόματα*, established names, are styled in the Rhetoric, (iii. 2,) *κέρια ὀνόματα*, i. e. sanctioned by popular use, "quem penes arbitrium est, et jus et norma loquendi." Cf. Poet. 21, also this chap., with Top. iv. 3, and with the 4th chap. of this book.

³ Plato intended in the above definitions, to signify the things defined through similitude, and therefore employed metaphors.

5. If the contrary is not intelligible from it, or the definition needs explanation.

ancient pictures, cannot be known, what each is, without a superscription.²

CHAP. III.—Of Superfluity in Definition.

1. Observation upon excess to be made, if any thing be introduced which is predicated of all things, or of those which are in the same genus as the thing to be defined.

IF then definition be obscure, we must examine from such places as these, but if it has been stated excessively,³ we must first see whether any thing is employed which is present with all things, or simply with beings, or with those which are under the same genus with the thing defined; since it must inevitably happen that this will be asserted in excess. For it is requisite to separate genus from

other things, but difference from something of those in the same genus, wherefore what is present with all things is simply separated from nothing, but what is present with all under the same genus is not separated from those in the same genus, so that an addition of this kind is vain.

2. Whether any part of the definition being abstracted, the remainder defines the thing.

Or (we must observe), whether what is added be proper, but this being taken away the remaining definition is proper, and demonstrates substance, e. g. in the definition of man, receptive of science is superfluously added, since this being

taken away, the remaining definition is appropriate, and manifests the substance. In a word, every thing is superfluous, which when taken away the remainder causes the thing defined to be manifest, such indeed is the definition of the soul, if it be number moving itself, for that which itself moves itself is soul, as Plato has defined it.* Or is what has been mentioned property indeed, yet does not manifest essence⁴ when number is taken

¹ As from the definition of whiteness, that of blackness is evident; for if the one expands, the other contracts, the vision.

² Taylor and Buhle annex the opening sentence of the next chap.

³ Because to prolixity is incident confusion. Vide Aldrich i. 8.

⁴ Is what moves itself a property of soul, yet not manifesting the essence of the soul?

away? In what way then the thing is, is hard to explain,¹ but we must use (this place) in all such things as may be expedient. For instance, that the definition of phlegm is, the first unconcocted moisture from food, for there is one first, not many, so that the addition of unconcocted is superfluous, since when this is taken away, what remains will be the proper definition, since it is impossible that this and something else, should be the first (moisture) arising from food. Or shall we say that phlegm is not simply the first thing from food, but the first of things unconcocted, so that unconcocted must be added, for if it is stated in that way the definition will not be true, since it is not the first of all things.

Moreover, (we must examine) whether some one of the things in the definition, is not present with all those under the same species, since such is defined worse than they do, who use that which is present with all substances. For in that way the remainder would be the proper definition, and the whole would be proper; since, in short, if any thing true is added to property, the whole (definition) becomes proper. If however something of those in the definition is not present with all those under the same species, it is impossible that the whole definition should be proper, since it will not be reciprocally predicated of the thing, e. g. an animal pedestrian biped of four cubits, for such a definition is not reciprocally predicated of the thing, from four cubits not being present with all those, which are under the same species.

Again, whether the same thing is frequently stated, as he who says, that desire is the appetite of the pleasant, for all desire is of the pleasant; wherefore what is the same with desire will also be of the pleasant, the definition then of desire is the appetite of the pleasant,^{2*} for there is no difference between saying desire or the appetite of the pleasant, so that each of these will belong to the pleasant. Or is it that this

3. Whether there is any thing in the definition, which cannot be predicated of all subjects, of the same species.

4. If the same thing be stated frequently.

of the pleasant.

* Waitz and Bekker repeat *ἡδέος* here.

¹ Whether the defin. of soul be number moving itself, or that which moves itself. Cf. *De Anima* i. 2, and i. 4, and i. 5, Trendel. edit.; *Plat. de Leg.*, etc.

² Comp. *Ethics*, b. iii. ch. 10, 11, 12. Taylor translates *ἐπιθυμία*, desire; but desire is the genus, of which, concupiscence is the species. Concupiscence is used in a bad sense only; Vide Church of England, Article 9; also *Plat. apud Stoicos*; *Cic. "libido puniendi."*

is not at all absurd? for man also is a biped, so that what is the same with man will also be biped, but an animal pedestrian biped is the same as man, so that animal pedestrian biped is biped. Nevertheless, no absurdity happens on this account, for biped is not predicated of pedestrian animal, (for thus indeed biped would be twice predicated of the same thing,) but biped is predicated about animal pedestrian biped, wherefore biped is predicated once only. In the same manner, in the case of desire, for to be of the pleasant is not pre-

dicated of appetite, but of the whole (sentence*), so that here also the predication is once. Still, that the same name should be twice pronounced does not belong to absurdity, but frequently to predicate the same about a certain thing, as when Xenocrates says that

prudence is definitive and contemplative of beings,¹ † for the definitive is something contemplative, so that he twice says the same thing, again adding contemplative. They also do the same, who say that refrigeration is a privation of natural heat, for all privation is of what exists naturally, so that to add naturally, is superfluous, but it would have been sufficient to say privation of heat, since privation itself makes it known that it is spoken of what is naturally.

Again, whether what is universally asserted adds also something particular, as if (we defined) equity the diminution of things profitable and just, for the just is something profitable, wherefore it is contained in the profitable, so that just is superfluous, and speaking of the universal, the partial is added. Also, if (some one should define) medicine to be the science of things healthful for animal and man, or law to be the image of things naturally beautiful and just,² for the just is

¹ Prudence is considered by Aristotle as moral wisdom, and he defines it "a true habit joined with reason, practical on the subject of human goods." Vide Ethics, b. vi.; Magn. Mor. i. ch. 34; Eudem. v. 5; Rhet. i. 9. Ἡ μὲν φρόνησις περὶ τὰ κοινὰ ὁρᾷ τὴν εὐδαιμονίαν. Philo, p. 35; Allegor. ed. Par.

² There is perhaps no more beautiful description of law given than that by Hooker; which at the same time evinces the difference between *description* and *definition*, concurring with the one, yet violating the several rules throughout, of the other. As it stands, few English sentences can approach it. "Of Law, there can be no less acknowledged

something beautiful, so that he would say the same thing frequently.¹

CHAP. IV.—*As to whether the Definition contains what a thing is.*

WHETHER therefore (a thing be defined) well or ill, must be examined through these and similar (places), but whether (a person) has asserted and defined what a thing is or not, from the following.

First, if he has not made the definition through things prior and more known. For since definition is assigned for the sake of knowing what is said, but we know not from things casual, but from what are prior and more known, as in demonstrations, (for thus all doctrine and discipline subsists,) it is clear that he who does not define through such things as these, does not define (rightly). But if not, there will be many definitions of the same thing, since it is evident that whoever defines through things prior and more known, defines in a better manner, so that both definitions would be of the same thing; this however does not seem so, as to each being, to be what it is, is one thing, so that if there should be many definitions of the same thing, there will be the same essence of the thing defined, as is manifested by each of the definitions. These (essences) however are not the same, since the definitions are different, wherefore he has evidently not defined, who does not define through things prior and more known.

To assume then that a definition is not framed through things more known, is possible in two ways, either if (it is) simply from things more unknown, or from those which are more unknown to us, for in both ways it is possible.² Simply then the prior

than that her seat is the bosom of God, her voice the harmony of the world: all things in heaven and earth do her homage, the very least as feeling her care, and the greatest as not exempted from her power: both angels, and men, and creatures of what condition soever, though each in different sort and manner, yet all, with uniform consent, admiring her as the mother of their peace and joy." Hooker, Ecclesiast. Pol. b. i. ch. 16.

¹ Taylor and Buhle annex the commencing sentence of the next chapter.

² When Aldrich states that the definition should be "per se clarior et

1. Consideration of the truth, or falsity, of definition.

1. False, if the definition be not through things prior to, and more known than, the thing defined. (Vide Aldrich, Rule 2.)

2. Some things simply more known; others more so, to us.

is more known than the posterior, as a point than a line, and a line than a superficies, and a superficies than a solid, as also unity than number, for it is prior to, and the principle of, all number; likewise a letter than a syllable. Nevertheless, to us, the reverse sometimes happens, since a solid falls under sense rather than a superficies, but a superficies more than a line, and a line more than a point, for the multitude know these things in a greater degree, since some things it is possible for any casual intellect to discern, but others belong to an intellect accurate and transcendent.

Simply then, it is better to aim at the knowledge of things posterior through such as are prior, for a thing of this kind is more scientific; still by those who are incapable of knowing through things of this kind, it is perhaps necessary to frame the definition through things known to them. Now of such definitions, are those of a point, and of a line, and of a superficies, for all manifest things prior, through such as are posterior, for they say that one is the boundary of a line, the other of a superficies, and the other of a solid. Still we must not be unmindful that those who define thus, cannot denote what the nature is of the thing defined, unless the same thing should happen both to be more known to us, and simply to be more known, since he who well defines must necessarily do so, through the genus and the differences, but these are of the number of things more known simply than, and prior to, species. For genus and difference co-subvert species,¹ so that these are prior to species. They are also more known, for if species is known, it is necessary that genus also and difference should be known, (as he who knows man, knows both animal and pedestrian,) but when genus or difference is known, it is not necessary that species also should be known, wherefore species is more unknown. Besides, to those who really call things of this kind, definitions, which

notior definito," he means that the former should be composed of parts, greater in extension, though less in comprehension, than the definition: as are the genus and differentia, compared with the species. These universal notions are γνωριμώτερα φύσει, though individuals and lower species are γνωριμώτερα ἡμιν. Vide Mansel's Logic; also Hill's Logic, p. 84, and Whately, b. ii. 5, 6, and b. iii. sec. 10. Cf. An. Post. i. 2.

¹ That is, genus and difference being subverted, species is subverted at the same time.

consist of what are known to every one, it will happen to say that there are many definitions of the same thing, since some things are more known to some persons, and not the same to all, so that there would be a different definition to be given to each person, if it were necessary that definition should be framed from things more known to each severally. Further, to the same persons at a certain time, certain things are more known, at first indeed sensibles, but the reverse when they become more accurate, so that neither would the same definition have to be given to the same person, by those who say that a definition must be given through things more known to each. Clearly, then, we must not define through such things, but through those that are simply more known, since thus only would one and the same definition be always produced. Perhaps indeed what is simply known is not that which is known to all, but that (which is known) to those who have their intellect well disposed, just as what is simply wholesome is that which is so, to those whose bodies are in a good state. Hence it is necessary accurately to explain each of these, and to use them in discussion as may be expedient, but most confessedly is it possible to subvert definition, if it be neither framed from things simply more known, nor from those (which are so) to us.

One mode then (of proving) that it is not through things more known, is when the prior is manifested through the posterior, as we observed before; another, if the definition of what is at rest and definite, is a sign to us through the indefinite and through what is in motion, since the permanent and definite are prior to the indefinite, and to what is in motion.

4. What is constant, ought not therefore to be defined, by the inconstant.

The modes indeed (of showing a definition to be) not from things prior, are three, first, if the opposite is defined through the opposite, as good through evil, for opposites are naturally simultaneous. Still to some there seems to be the same science of both, so that the one is not more known than the other; nevertheless, we must bear in mind that some things perhaps it is impossible to define otherwise, as the double without the half, and whatever things are enunciated relatively¹ per se, for in all these there is the same essence from their having relation in a certain re-

5. Nor the contrary, by the contrary.

¹ See the note of Waitz on this passage.

spect, so that it is impossible to know the one without the other, wherefore in the definition of the one, the other must of necessity be comprehended. All such things, then, it is necessary to know, and to employ them as may appear useful.

6. Nor the thing itself, to be included in its own definition.

Another (place) is, if in the definition the thing defined is used, but this is latent when a person does not employ the very name of the thing defined, as if he should define the sun to be a star apparent by day, for using day, he uses sun. In order to detect such, we must take the definition instead of the name, as the day is the motion of the sun above the earth; for it is clear that he who speaks of the motion of the sun above the earth, mentions the sun, so that he who uses day, uses sun.

7. Nor ought the definition to be by a co-ordinate.

Again, if what is in an opposite division is defined by what is in an opposite one, as the odd to be what is greater than the even, by unity: for things oppositely divided from the same genus are naturally simultaneous, but the odd and even, are divided oppositely, since both are differences of number.

8. Nor by the subjects of the thing defined.

Similarly also if the superior is defined through the inferior, as that the even number is what may be divided into two parts, or that good is the habit of virtue; for the expression, "into two parts," is assumed from two, which is an even number; virtue also is a certain good, so that these are under those. Besides, it is necessary that whoever uses the inferior should use also (the thing defined) itself; for both he who uses virtue uses good, since virtue is a certain good, and likewise also he who uses "in two parts" uses the even, because a division into two parts, signifies to be divided into two, but two is an even number.

CHAP. V.—*Topics connected with Definition, as to Genus.*

UNIVERSALLY then, one place is, that a definition is not framed through things prior and more known, but the particulars of it are such as have been mentioned.

1. We must observe whether genus, of the thing to be defined, is omitted.

The second place is, if when a thing is in genus it is not placed in genus, but in all such, an error occurs in the definition of which, what a thing is, is not previously declared;¹ for instance, the de-

¹ That is, where the definition does not commence with that, which expresses the nature, of the thing to be defined.

definition of body as having three dimensions, or if any one should define man to be that which is cognizant of number. For it has not been stated what that is which has three dimensions, or what it is which is cognizant of number; but genus would signify what a thing is, and is the first thing supposed, of those predicated in the definition.

Besides, if when the thing defined belongs to many things, it is not adapted to all, as if some one should define grammar to be the science of writing what is dictated; for (the words) and of reading also, are wanting, since he has no more defined grammar, who defines it to be the art of writing, than he who states it to be the art of reading, so that neither defines, but he who states both of these, since there cannot be many definitions of the same thing. In some instances then, the case is really as we have stated, but in others it is not, as in those which do not essentially belong to both; thus, medicine (is the science) of producing disease and health, for of the one it is said (to be the science) essentially, but of the other accidentally, as to produce disease is simply foreign from medicine. Wherefore he does not more define, who refers to both,* than he does who refers to one,† of these, but perhaps even in a worse manner, since any other person‡ is able to produce disease.

Besides, (he errs,) who does not refer to the better, but to the worse, when there are many things, to which that defined, belongs, since every science and faculty seems to belong to what is best.

Again, whether what is asserted is not placed in its proper genus, must be observed from the elements belonging to genera, as we stated before.

Moreover, if stepping over, he speaks of genera,¹ as he who (defines) justice to be a habit productive of equality, or distributive of the equal, for when he thus defines, he passes over virtue.

Omitting then the genus of justice, he does not state what its nature is, for the essence of every thing is connected with

¹ Who, omitting the proximate genus, proposes some remote and superior genus.

2. Whether any thing be left out, of those to which the definiendum belongs.

* To producing both health and disease.

† The production of health alone.

‡ Than a physician.

3. Whether the thing be referred, not to the better, but to the worse.

4. Whether the genus be not rightly constituted.

5. Whether the proximum genus be not assumed.

the genus. This however is the same thing with not placing it in the nearest genus, for he who places it in the nearest, has mentioned all the superior, since all the superior genera are predicated of the inferior. Hence, it must either be placed in the nearest genus, or he must add all the differences, through which the nearest genus is defined, to the superior genus; for thus he will have omitted nothing, but instead of a name, will have mentioned the inferior genus, in the definition. Whoever, on the other hand, speaks of the superior genus alone, does not mention also the inferior genus, for the one who calls a thing a plant, does not state it to be a tree.

CHAP. VI.—*Of Difference, as to Genus, Species, etc.*

1. Ratio of dif- AGAIN, we must in like manner consider with
ference to be regard to differences, whether those of genus are
considered. introduced, for unless a person defines by the pro-
per differences of a thing, or altogether asserts what can be
the differences of nothing, as animal or substance, he evidently
does not define, since the things stated are not the differences
of any thing. Observe also, whether any thing is divided
oppositely to the difference stated, for if there is not, what is
stated will evidently not be the difference of genus, since
every genus is divided by differences oppositely divided, as
animal by the pedestrian and winged, by the aquatic and
biped.*¹ Or if indeed there is an oppositely di-
vided difference, which however is not verified of
the genus, since evidently neither would be the
difference of genus, as all oppositely divided dif-
ferences are verified of their proper genus. Likewise, if it is
indeed verified, but (the difference) when added to genus does
not produce species, since it is evident that this would not be
the specific difference of genus, as every specific difference
united with genus produces species; but if this be not the

¹ Dichotomy, or a division of every genus into two species by opposed differentia, is only here practicable when the contraries admit no medium between them: examples of it are found in the Arbor Porphyriana; see also Eth. Nic. vii. 6. Plato's favourite method of dichotomy was by contradiction, and he was followed in it by Ramus and his successors. Vide Hamilton's Reid, p. 689; Trend. Elem. 58; Erläuterungen, p. 106. The dichotomous method of analysis has been employed by Dr. Lindley for discovery of the genus of a plant.

difference, neither will that which was mentioned, since it is divided oppositely to this.

Moreover (he errs), if he divides genus by negation, as those who define a line to be length without breadth, since this signifies nothing else than that it has no breadth;¹ the genus then will happen to partake of the species, for every length is either with, or without breadth, since of every thing either affirmation or negation is verified, so that the genus of a line which is length, will either be without breadth, or will have breadth. But length without breadth is the definition of the species; likewise, length with breadth, for without breadth and with breadth are differences; but the definition of species is from the difference and the genus; so that genus would receive the definition of species; in like manner also, the definition of difference, since one of the above-named differences is necessarily predicated of genus. The place mentioned however is useful against those who assert that there are ideas, for if there is length itself, how will it be predicated of the genus that it has breadth or has it not,² for it is necessary that one of these should be verified of every length, if it is to be verified of the genus. This however does not occur, since there are lengths without breadth, and those which have breadth, so that this place is useful against those only, who say that genus is one in number, and this they do who admit ideas, for they say that length itself and animal itself are genera.*

2. Also whether genus, be divided by negation.

* Vide Metaph. lib. ii., Leipsic ed.

Perhaps, indeed, in some cases it is necessary for a person when defining, to use negation, as in privations, for that thing is blind which has not sight, when it is naturally adapted to have it. Still it makes no difference whether we divide genus by negation, or by such an affirmation, as to which it is necessary that negation should be oppositely divided; for instance, if length were defined to be that which has breadth, for to what has breadth that which

2. Exceptional case.

¹ Several of the mathematical definitions fail, when tested by logical accuracy.

² Length, as in idea, is without dimension, consequently has no length, but is the cause of all length. Hence, neither the possession nor the privation of breadth can be predicated of it: the latter however is alone predicated properly of the geometrical line, and the former of what is material and sensible. Cf. Boethius de Divisione; Metap. vi. 4.

has not breadth, is oppositely divided, but nothing else, so that the genus is again divided by negation.

3. Whether species be assigned as difference.

Again (observe), whether species is assigned as difference, as they do who define contumely to be insolence with derision, for derision is a certain insolence, so that derision is not difference, but species.

4. Or genus be so assigned.

Moreover, whether genus is assigned as difference, as that virtue is a good or worthy habit, for good is the genus of virtue; or is good not a genus, but a difference, since it is true that the same thing cannot possibly be in two genera which do not comprehend each other? For neither does good contain habit, nor habit good, since not every habit is good, nor every thing good, a habit; hence they would not both be genera. If, then, habit be the genus of virtue, it is evident that good is not the genus, but rather the difference; besides, habit signifies what the virtue is, but good does not signify what, but what kind of thing it is; indeed difference, seems to signify quality.

5. Whether the difference signify this particular thing.

Observe, also, whether the assigned difference does not signify quality, but this particular thing; since every difference appears to signify a certain quality.

6. Or has the notion of accident.

Consider, also, whether difference is accidentally present with the thing defined, for no difference is of the number of things accidentally present, as neither is genus, since it is not possible that difference should be present with a certain thing, and not be present.

7. Or if difference or species be predicated of genus.

Moreover, if difference or species be predicated of genus, or something which is the subject of species, there will not be a definition, for nothing of what we have mentioned can possibly be predicated of

genus, since genus is the most extensively spoken of all.

8. Or genus of the difference.

Again, if the genus is predicated of the difference, for genus seems to be predicated not of difference, but of those of which difference (is predicated); thus, animal of man, and ox, and other pedestrian animals, and not of difference itself, which is spoken of species. For if animal were predicated of each of the differences, many animals would be predicated of the species, for differences are predicated of species. Again, all differences will either be

species or individuals if they are animals. since each animal is either species or individual.¹

Likewise, we must observe, whether species or some one of those under species, is predicated of difference, for this is impossible, since difference is more widely predicated than species; further, difference will happen to be species, if a certain species is predicated of it, for if man is predicated (of difference), man is evidently a difference. Again, (see) whether difference be not prior to species, since difference must necessarily be posterior to genus, but prior to species.

9. Or species of difference.

Observe, too, whether the assigned difference is of another genus, neither contained by, nor containing it, as the same difference does not appear to be of two genera not comprehending each other.

10. Whether the same difference belong to another genus.

Otherwise, the same species would happen to be in two genera not comprehending each other, since each difference introduces its own appropriate genus, as pedestrian and biped co-introduce animal; wherefore, if each of the genera be predicated of what the difference is, it is evident that the species is in two genera not comprehending each other. Or is it not impossible that there should be the same difference of two genera not comprehending each other, but it must be added, neither are both under the same? For pedestrian animal, and winged animal, are genera not comprehending each other, and biped is a difference of both these, wherefore, it must be added, that neither are both under the same, for both of these are under animal. It is evident, also, that difference need not always introduce its appropriate genus, since there may be possibly the same (difference) of two genera not comprehending each other, but it is necessary that it should co-introduce one alone, and those which are above it, as biped, winged, pedestrian, co-introduce animal.

Observe, also, whether to be in a certain thing is assigned as the difference of substance, for substance does not seem to differ from substance in being some where, wherefore also, those are to be blamed, who divide animal by pedestrian and aquatic, as if pedestrian and aquatic signified being some where. Or are they

11. Whether situation be assigned as the difference of substance.

¹ This argument is brought to show that genus is not predicated of difference. See Waitz, also Mansel's Appendix B.

not rightly blamed in these things? for the aquatic does not signify the being in something or some where, but a certain quality, since it would be similarly aquatic, if it should even be in a dry place; likewise, also, the terrestrial, even in a moist place, will be terrestrial and not aquatic; at the same time, if ever difference signifies the being in a certain thing, it is evident that (he who defines) will err.

12. Or affection
be assigned as
difference.

Again, (notice) whether passion is assigned as difference; for every passion, when increased, alters the essence, but difference is not a thing of this kind, but difference appears rather to preserve that of which it is the difference, and it is simply impossible for any thing to be* without its proper difference, since pedestrian not existing, there will not be man. In a word, nothing of those, according to which the thing possessing it, is changed in quality, is the difference of it, for all such, when increased, alter the essence, so that if any one assigns a certain difference of this kind, he errs, as, in short, we are not changed in quality, according to differences.

13. Whether
the difference
of relatives, be
not relative.

He also (mistakes), who assigns the difference of a certain relative, not with reference to something else; for of relatives, the difference is also a relative, as in the case of science, for it is said to be contemplative, practical, and effective; but each of these signifies relation, since it is contemplative of something, and effective, and practical of something.

14. Whether
the relation be
apt.

Examine, also, whether he who defines, assigns that to which each relative is naturally adapted, for some things can only be employed for that to which each relative is naturally adapted, but for nothing else, some, on the other hand, for something else also; thus, the sight is (employed) for seeing only, but some one may draw up a weight, even with a strigil; notwithstanding, whoever should define a strigil an instrument for drawing¹ would err, for it is not naturally adapted to this; the definition however of what a thing is naturally adapted to, is that for which a prudent man, so far as he is prudent, would use it, also the science which properly belongs to each.

¹ Στλεγγίς. In Aristoph. Thesmop. (556) it is used of an instrument by which wine is drawn off from a cask: it is a curry-comb, properly, but has various significations.

Further, (examine) whether or not, the (definition) is assigned of what is first, when it happens to belong to many things, e. g. that prudence is the virtue of man, or of the soul, and not of the reasoning part, for prudence is the virtue of the reasoning part primarily, since according to this, both the soul and man are said to be prudent.

15. Whether the definition be of what is proximate.

Again, he errs, unless that is receptive of which the thing defined is stated to be the passion, or disposition, or something else; for every disposition and every passion is naturally generated in that of which it is the disposition or passion, as science in the soul, being a disposition of the soul. Sometimes indeed men mistake in these things, as they do who say that sleep is the impotency of sense, and that doubt is the equality of contrary arguments, and that pain is a separation accompanied with violence, of connascent parts; for neither is sleep present with sense, which it ought to be if it is the impotency of sense, likewise neither is doubt present with contrary arguments, nor pain with connascent parts, for things inanimate would suffer pain, since pain would be present with them. Such also is the definition of health if it is the harmony of hot and cold, for it is necessary that things hot and cold should be in health, since the harmony of each, is in those of which it is the harmony, so that health would be in them; besides, by those who thus define, it happens that the thing made is reduced to the maker, or contrariwise, for neither is the separation of connascent parts, pain, but is productive of pain, nor is the impotency of sense, sleep, but one is effective of the other, for either we sleep in consequence of becoming powerless, or we become powerless in consequence of sleep. Likewise, also, the equality of contrary arguments would appear productive of doubt, for when in reasoning on both sides of a question, every thing appears to us to have equal weight on either side, then we doubt which we shall adopt.

16. Whether the affection be truly in that, of which it is defined the affection.

Moreover, we must consider according to all times, whether there is any discrepancy, e. g. if one defined the immortal, to be what is *now* an incorruptible animal, for the animal *now* incorruptible will be *now* immortal. Or does this not happen in this case, for to be *now* incorruptible is ambiguous, for it either

17. Whether the ratio of time, concurs with the thing defined.

signifies that it is not now corrupted, or that it cannot now be corrupted, or that it is now a thing of that kind which can never be corrupted. When therefore we say that the animal

* Taylor and Buhle insert "not."

is now incorruptible, we say this,* that it is now such an animal, as never to be corrupted, and this would be the same with immortal, so that it does

not happen that it is now immortal. Nevertheless, if it should happen that what is assigned according to the definition is now, or was before, inherent, but what is according to the

† i.e. the thing defined.

name † is not inherent, it will not be the same: wherefore this place must be used as we have

stated.

CHAP. VII.—*Whether another Definition may be more explicit, etc.*

1. Observe if any thing else better expresses the nature of the thing to be defined, than the proposed definition.

It must also be considered whether the thing defined is enunciated by some others, rather than by that definition which was assigned, as if justice (should be defined) a power distributive of the equal. For he is rather a just man who deliberately chooses to distribute the equal, than he who is able,¹ so that justice would not be a power

distributive of the equal, since he would be especially just, who is most able to distribute the equal.

2. Whether the definition admits degrees, whilst the thing defined does not, and vice versa.

Moreover, whether the thing receives increase, but what is assigned according to the definition does not receive it, or on the contrary, what is assigned according to the definition receives, but the thing, not. For it is necessary that both should receive it or neither, if indeed what is assigned according to the definition is the same with the thing.

3. Or both, not simultaneously.

Again, whether both indeed receive increase,² yet both do not simultaneously receive accession, as if love is the desire of congress; for he who loves

in a greater degree is not more desirous of congress, so that

¹ Vide Ethics, b. v. ch. 8. Thus Michelet describes an injury *καὶ προαιρέσεως*, *dolus directus*; deliberate choice, constituting justice or injustice. Cf. also Eth. iii. 3, and Rhet. i. 9; Magn. Mor. i. 33, and ii. 1; Eudem. 4.

² Both the thing defined and the definition.

both do not simultaneously receive increase, which they should if they were the same.

Again, (examine) whether when two things are proposed, of what the thing (defined) is more predicated, that which is according to definition is less predicated, as if fire is the most subtle body; for flame is more fire than light, yet flame is less the most subtle body than light; it would be necessary however that both¹ should in a greater degree be present with the same thing, if they were the same. Again, (notice) whether the one is similarly present with both things proposed, but the other not similarly with both, but in a greater degree with one of them.

Besides, whether a person accommodates the definition to two things, according to each, as if the beautiful (should be defined) what is pleasant through sight or through hearing, and being, that which is able to suffer or to act; for the same thing at one and the same time will be beautiful and not beautiful; likewise also will be being and not being. For what is pleasant through hearing will be the same with the beautiful, so that what is not pleasant through hearing will be the same with what is not beautiful, since opposites to the same are the same; but what is not beautiful is opposed to what is beautiful, and what is not pleasant through hearing to what is pleasant through hearing. It is clear then, that what is not pleasant through hearing is the same with what is not beautiful; if then any thing is pleasant through the sight, but not through the hearing, it will both be beautiful and not beautiful,² and similarly we may show that the same thing is both being and non-being.

Again, when framing definitions of genera and differences, and of all other things assigned in definitions instead of names, consider whether there is any discrepancy.

¹ Fire, and the most subtle body.

² It will be beautiful, because it delights the sight; but not beautiful, because it does not delight the hearing.

4. Whether of what the definition is more predicated, the predication according to definition, be less.

5. Or the one similarly present with both, but not the other.

6. Whether the definition be adapted, to several things according to each.

7. Whether there is any discrepancy in framing definitions, of genera and differences.

CHAP. VIII.—*Of Definition as to Relation.*

1. Observe if the defined be referred to something, whether that to which it is referred, has not been mentioned.

* Cf. Rhet. i. 10.

IF indeed what is defined should either be per se, or generically, a relative, consider whether that to which it is referred, either per se, or generically, has not been mentioned in the definition, as if some one had defined science to be immutable opinion, or the will, appetite unattended with pain.* For the essence of every relative consists in a relation to something else, since the being of every thing which subsists with reference to another thing, is the same with that of being in a certain respect referred to something; wherefore it is necessary to say that science, is the opinion of the object of science, and the will, the appetency of good. Likewise, also, if a person defined grammar to be the science of letters, since it will be necessary in the definition to assign that to which the thing defined, or to which the genus, is referred. Also (consider), whether the definition of a certain thing referred to something, is not assigned with reference to the end; now the end in each thing is that which is best, or on account of which other things subsist,† wherefore, either what is best, or what is last, must be stated; e. g. that desire is not of the pleasant, but of pleasure, for we even choose the pleasant for the sake of this.

† Cf. Ethics, b. i. ch. 1 and 7.

2. Whether a thing be referred to generation, or energy.

‡ Cf. Eth. i. ch. 1.

3. Whether respect be had to quantity, quality, or place, etc.

Examine, moreover, whether that to which a thing is referred, be generation or energy, since nothing of this kind is an end; for to have energized, or to have been generated, are rather the end, than to generate or to energize, or is it not that such a thing as this is true in all, for almost all men rather desire to be delighted than to cease being delighted, so that they rather make the end to energize than to have energized?‡¹

In some cases again, (we must notice) whether there is not a definition of the quantity or quality, or the where, or according to the other differences; for instance, what the quality or quan-

¹ An energy having its end in itself, is perfect and complete, and looking to nothing ulterior, is eligible for its own sake, hence being happy is an energy.

tity is of the honour, which the ambitious man desires; for all desire honour, so that it is not sufficient to say that he is ambitious who desires honour, but we must add the above-mentioned differences. Likewise, also, the quantity of riches which the avaricious man desires (must be mentioned), or what quality of pleasure the incontinent man seeks after, for he is not said to be incontinent who is vanquished by any pleasure whatever, but he who is so, by a certain one. Or again, as men define night, the shadow of the earth, or an earthquake, the motion of the earth,* or a cloud, the condensation of the air, or wind, the motion of the air, for the quantity, quality, the where, and by what, must be added. In like manner, as to other such things, since he who omits any difference whatever, does not state what is the very nature of the thing; indeed we must always argue against what is wanting, for neither will an earthquake be the motion of earth in any manner, nor in any quantity, as neither will wind be the motion of air in any manner, nor in any quantity.

* Vide Mansel's Logic, Append. B.

Moreover, in (defining) appetites, (there will be an error), if what appears is not added, and in as many other things as this is adapted to; for instance, that the will is the appetency of good, but desire the appetency of the pleasant, yet not of what appears good or pleasant. For oftentimes it escapes those who aspire after a thing that it is good or pleasant, so that it is not necessary that it should be good or pleasant, but only that it should appear to be so, wherefore it is necessary that the explanation should be made in this manner. If, on the other hand, what has been mentioned should be assigned, whoever asserts that there are ideas, must be led to ideas, since idea is not of any thing apparent,¹ but form seems to be referred to form, thus desire itself is of the pleasant itself, and the will itself of the good itself.† Now it will not be of the apparent good, nor of the apparent pleasant, since that a thing should be self-apparent good or pleasant is absurd.

4. Whether in the definition of appetites, a notion of things of like species, be added.

† Vide Eth. i., vi. 5.

¹ "Si quis autem quod modo diximus vitium non admisit, sed adjecerit definitioni τὸ φαινόμενον, alia ratione redargui poterit, si ideas esse contendat; nam idearum naturæ ita repugnat τὸ φαινόμενον, ut cum ea conciliari nullo modo possit." Waitz. Cf. Poetic, 17; Ethics, book i. ch. 6; De Animâ, i. 2; iii. 4.

CHAP. IX.—*Of Definition as to Contraries, etc.*

1. Observe whether the definition of the contrary, or of the cognates of the thing defined, can be attained from the definition given.

MOREOVER, if there be the definition of a habit, take notice of what possesses it, but if the definition be of what possesses, consider the habit, and in like manner with regard to other things of this kind; e. g. if the pleasant is what is beneficial, he also who is pleased is benefited. **In a word**, it happens after a certain manner in such definitions, that the definer defines more things than one,¹ since he who defines science, after a certain way defines ignorance also, likewise the scientific and the unscientific, also to know and to be ignorant, for the first being evident, the rest also in some way become evident. We must examine then, in all such cases, lest any thing should be discordant, employing the elements which are from contraries, and conjugates.

2. Whether if when the genus is referred to any thing, the species is referred to the species, of the same.

Examine too, in relatives, whether to what genus is referred, to that a certain species is referred, for instance, if apprehension to the object of apprehension, a certain apprehension also (is referred) to a certain object of apprehension, and if the multiple is to the sub-multiple, whether a certain multiple is to a certain sub-multiple, since if there is not such reference, there has been evidently an error.

3. Whether the definition of an opposite be opposed.

Again, observe whether there is an opposite definition of the opposite, as whether the definition of the half is opposite to that of the double, since if the double be that which surpasses in the equal,

the half will be what is surpassed in the equal. Likewise, also, in the case of contraries, for the definition of the contrary will be contrary according to one certain connexion of contraries,² thus, if that is beneficial which is productive of good, what is productive of evil or is corruptive of good is injurious, since one of these must necessarily be contrary to that mentioned at first. If then neither be contrary to that mentioned at first, it is clear that neither of the definitions afterwards given,

¹ Vide Hill's Logic, Notes on Definition.

² Since two contrary notions can be arranged in four ways, thus: A efficient of good : B destructive of good : C efficient of evil : D destructive of evil ; and of these also, the second and third, are contrary to the first, and the first and fourth, to the third. (Vide Scheme of Opposition.)

can be the definition of the contrary, so that neither has the definition given at first been rightly given. Nevertheless, since some contraries are said to be so, from the privation of another, as inequality seems the privation of equality, (for things are called unequal which are not equal,) it is clear that what is stated to be contrary as to privation, is necessarily defined through the other, but that it is no longer (necessary) that what remains (should be defined) through what is predicated as to privation, for each would happen to become known through each. We must pay attention, therefore, to such an error as this in contraries, as if some one should define equality to be the contrary to inequality, since it is defined through what is predicated according to privation.¹ Further, it is necessary that he who thus defines should use the thing defined, which indeed will be evident if the definition be assumed instead of the name, for there is no difference between saying inequality or the privation of equality, wherefore, equality will be the contrary to the privation of equality, so that the thing itself (defined) will be employed. Still, if neither contrary should be predicated according to privation, but the definition similarly assigned, as that good is what is contrary to evil, it is evident that evil will be what is contrary to good, since of things thus contrary, the definition must be similarly assigned. Wherefore, again, the thing defined happens to be employed, as good is inherent in the definition of evil, so that if good is what is contrary to evil, but there is no difference between evil and the contrary to good, good will be that which is contrary to the contrary of good, so that the person has evidently used the thing itself.

Further, (remark) whether he who assigns what is predicated according to privation, has not assigned that of which it is the privation; for instance of habit, or of contrary, or of whatever it is the privation; or whether he has not added that

4. Whether habit be defined by privation, or a contrary by a contrary.

5. Whether of what is privatively predicated, the subject of privation is not assigned.

¹ For since inequality would be the privation of equality, if equality, (η $\xi\zeta\iota$) be rightly defined "per privationem," (that is, through inequality,) equality should be so defined as to be contrary to inequality, i. e. equality would be the contrary to the privation of equality, so that the same thing would appear to be defined through the same; contrary to rule. This, therefore, Arist. adduces as another reason, why that which signifies a certain $\xi\zeta\iota$, cannot properly be defined "per privationem."

in which it is naturally adapted to be generated, either simply, or in which first, it is adapted to be generated. Thus if stating ignorance to be privation, a person has not said that it is a privation of science, or has not added in what it is naturally adapted to be produced, or having added it, has not assigned in what first, as that it is not in the reasoning faculty, but in man or soul, for if he has not done some one of these, he commits an error. So also if he should not have said that blindness is privation of sight in the eye, for it is requisite that he who well assigns what (privation) is, should also assign of what it is the privation, and again, what that is, which is deprived.

6. Whether that is defined by privation, which is not privatively predicated.

Observe, also, whether a person has defined by privation, that which is not predicated according to privation, which fault they will appear to commit in the definition of ignorance, who do not speak of ignorance according to negation.¹ For that which has not science does not seem to be ignorant, but rather that which is deceived, hence we neither say, that inanimate things nor children are ignorant, so that ignorance is not predicated according to the privation of science.

CHAP. X.—*As to the similarity of cases in the Definition and in the Noun.*

1. Observe whether the cases of the definition, concur with the several ones, of the thing defined.

AGAIN, (examine) whether similar cases of the definition agree with similar cases of the noun, for instance, if the beneficial is what produces health, whether *beneficially* be *productively*, and that *was beneficial*, which *was productive* of health.

2. Whether the definition, accords to the idea.

Besides observe, whether the definition stated accords to the idea, since in some things this does not happen, as when Plato in his definition of animals, adds "mortals," for idea will not be mortal; for instance, man-self, wherefore the definition will not suit the idea.² In short, it is necessary that the definition

¹ As Waitz observes, we must supply here *ἀλλὰ κατὰ διάθεσιν*: one kind of *ἀγνοία*, being according to negation, the other *κατὰ διάθεσιν*, the former is to be defined by negation, the latter not by negation. The sense of the passage therefore is, that they err, who when they define ignorance per privationem, do not distinguish the kind of ignorance appropriate to such definition. Cf. Ethics, b. iii. 1.

² Locke says, that simple ideas alone are incapable of definition, by

of those things to which the effective or the passive is added, should be discrepant with the idea, since ideas appear to those who say that there are ideas, to be impassive and immoveable, and against these such arguments are useful.

Yet further, in things predicated equivocally, (observe) whether a person has assigned one common definition of them all. For those are synonymous, of which there is one definition according to the name, wherefore the assigned definition is of no one of those (contained) under the name, since, indeed, the equivocal similarly suits every thing. The definition given by Dionysius, of life, has this fault, if it be the motion innate and consequent of a nourished genus, for this is not more inherent in animals, than in plants, but life does not seem predicated as to one species, but one kind of life to be inherent in animals, and another in plants. Therefore it is possible on purpose to assign a definition thus, as if all life were synonymous and predicated of one species, yet nothing prevents a man while he sees the equivocation, and wishes to assign the definition of the other, from being ignorant, that he does not assign a proper definition, but one common to both: notwithstanding, he will no less err if he has framed it in either way. Since, indeed, some equivocations escape us, the interrogator ought to use them as synonyms, (as the definition of the one will not be adapted to the other, so that it will appear in a way not to have been defined, as the synonymous ought to suit every thing,) on the other hand, the respondent must distinguish by division.¹ Still since some respondents say, that the synonymous is equivocal, when the assigned definition does not suit every thing, but that the equivocal is synonymous if it suit both; * it must be previously acknowledged, or previously inferred of these, that they are equivocal or synonymous, whichever they may be, since they

3. Whether of things ambiguous, one common definition is assigned of all. (Vide Waitz, vol. ii. p. 504.)

* The things signified.

which he means all ideas derived immediately, have sensation or reflection: in the formation of them, the mind is wholly passive, whereas in the formation from them of complex ideas, it is active. Vide Essay, b. iii. 4, 7; also Descartes, Princip. i. 10.

¹ Synonymous definition is inadmissible as a real definition, since it neither assigns the cause of a phenomenon, nor develops the contents of a notion. Mansel.

more readily concur who do not foresee the result. Nevertheless, if they cannot agree, but some one should say that the synonymous is equivocal, because the assigned definition does not suit this, observe whether the definition of this, accords also to the rest, as it is evident it will be synonymous with the rest.* If not, however, there will be many definitions of the remainder, since two definitions according to the name, accord to them, viz. both the prior and the posterior assigned. Again, if a person having defined any of those multifariously predicated, the definition also not suiting all, should not indeed say that it is equivocal, but should deny that the name suits all, because the definition does not, against such a one we may say that it is necessary to use that appellation which has been delivered and received, and not to disturb such things; nevertheless, some must not be enunciated in a way similar to the multitude.

* Vide Waitz, vol. ii. p. 504.

CHAP. XI.—*Of Composite and Singular Definition.*

IF the definition of some connected thing should be given, consider, taking away the definition of one of the things connected, whether the remaining (definition) be that of what remains, for if not, neither it is evident will the whole be of the whole. Thus, if some one defined a finite straight line to be the boundary of a superficies having boundaries, of which the middle covers the extremities, if the definition of a finite line is the boundary of a superficies having boundaries, it is necessary that the remainder should be that of a straight line, † of which the middle covers the extremities. Yet an infinite has neither middle nor extremities, but is nevertheless straight, so that the remainder is not the definition of the remainder.

1. Observe whether of composites defined the individual members, be rightly defined, the definition being divided.

† i. e. the definition of a straight line.

Moreover (observe), if when what is defined is a composite, the definition is assigned consisting of as many members as the thing defined; now a definition is said to be of an equal number of members, when there are as many nouns and verbs in the definition as there are composites. For it is

2. Whether of a composite, the definition consists, of as many members as the thing defined.

necessary in such cases, that there should be a change of the names, either of all, or of some of them, since there are no more names stated now than before; still it is requisite that he who defines should give a sentence instead of names, of all, if possible, but if not, of most things. For thus also in simple things, he who changes the name will have defined, as, for instance, (if he should say) vestment instead of garment.*¹

* So Waltz and Bekker.

Besides there is a greater error, if a person has made a change for names more unknown, for instance, a white mortal instead of a white man, for neither is there a definition, and what is stated thus, is less clear.

3. Whether more obscure terms are employed.

Examine also in the change of names, whether he does not signify still the same thing, as when a person states that contemplative science is contemplative opinion, for opinion is not the same with science, at least indeed it must be, if the whole is to be the same, for contemplative is common in both definitions, but what remains is different.

4. Whether for one word, another has been substituted, not equivalent in signification.

Further, when a person changes one of the names, observe whether a change is made, not of the difference, but of the genus, as in the instance just now stated, since contemplative is more unknown than science, as the one is genus, and the other difference, and genus is most known of all, so that he ought to have made the change not of the genus, but of the difference, since this is the more unknown. Or is this reproof ridiculous, as there is nothing to prevent difference from being signified by a name most known, but genus not? but if this is the case, it is clear that we must make a change, as to the name of genus, and not of difference. Nevertheless, if (a person) does not assume a name for a name, but a sentence instead of a name, it is clear that he must give the definition of difference rather

5. Whether in changing a word, a change is made of the genus.

¹ τὰ ἀπλᾶ, elements, (ἀπλᾶ σώματα, Met. vii. 1, 2,) properly are not definable, having not, like compound substances, received a definite form, here however Aristotle means only simple notions, enunciated in such terms as shall be most intelligible to the hearer: hence, variety of names may be employed. Synonymous definition is one means of explaining nominal signification, only however relatively, and from the accidental circumstance of one word, being more familiar than another, to the hearer. Taylor and Buhle insert οὐκ here, "he will not have defined."

* Bekker, Taylor, and Buhle end here.

than of genus, since definition is given in order to make a thing known, for difference is less known than genus.*

CHAP. XII.—*The same subject continued.*¹

1. Observe whether the assigned definitions of difference, concur with some other notion also.

IF however the definition of difference is assigned, examine whether the assigned difference is common to any thing else, as when it is said that an odd number is a number which has a middle, it must be defined in addition, how it has a middle. For number is common in both definitions, but instead of odd, a sentence is assumed; yet both a line and a body have a middle, though they are not odd numbers, so that this would not be the definition of the odd. Still, if that which has a middle be multifariously predicated, we must explain besides, how it possesses a middle, so that there will be either a reproof or a syllogism, that (the thing) has not been defined.†

† This paragraph is contained in the 11th ch. by Waits, who commences the 12th here.

2. Whether what is to be defined be existent; but what is expressed by the assigned definition, be non-existent.

Again (observe), if that of which the definition is the sign, belongs to the number of beings, but what is under the definition does not; e. g. if white is defined colour mixed with fire, for it is impossible that the incorporeal should be mixed with body, so that it could not be colour mixed with fire, yet it is white.

3. Whether in the definition of a relative, that to which the notion to be defined refers, is of too wide extension.

Moreover, those who in (the definition of) relatives do not distinguish to what reference is made, but speak, comprehending many things, either wholly or in part enunciate falsely, as if some one should say that medicine is the science of being. For if medicine is the science of nothing which exists, it is evident that (the definition) is wholly false, but if it is of one, but not of another, it is partly false; for it is necessary (to be the science) of every thing, if it is said to be the science of being per se, and not accidentally, as is the case with other relatives, since every object of science is referred to science. Likewise, also in other things, since all

¹ Mansel's able Appendix is a good digest of the whole of this subject.

relatives reciprocate. Besides, if he who explains a thing not per se, but accidentally, rightly explains it, each relative would not be referred to one, but to many things, as there is nothing to prevent the same thing, being both white, and good, so that he who explains by reference to one of these, would rightly explain, if he who explains from accident, does so rightly. Moreover, it is impossible that such a definition as this, should be peculiar to the thing assigned, for not only medicine, but many other sciences are referred to what exists, so that each will be the science of being; wherefore it is clear that such is the definition of no science, for it is necessary that definition should be peculiar, and not common.

Sometimes indeed, they define not the thing (only), but a thing in a good condition, or perfect; such is the definition of a rhetorician, and of a thief, since a rhetorician is one who is able to perceive what is persuasive in each thing, and to omit nothing; but a thief is one who takes on the sly, for it is evident that each being such, will be good, the one a good rhetorician, but the other a good thief, for not he who pilfers secretly is a thief, but he who wishes to pilfer secretly.

Again, (he errs,) who assigns what is of itself eligible, as practical or efficient, or in any way eligible on account of something else; as if he said that justice, is the preserver of the laws, or that wisdom, is effective of felicity, for what is effective, or preservative, is of the number of things eligible on account of something else. Or does nothing prevent what is eligible for itself, being eligible for something else also? nevertheless, he errs, who thus defines what is eligible per se, since in every thing, the best especially subsists in the essence,¹ but it is better to be eligible per se, than on account of something else, so that definition ought of necessity rather to signify this.

4. Whether the definition be assigned "non rei ipsius," sed "rei perfectae."

5. Whether what is eligible "per se," is defined, as if eligible "propter aliud."

CHAP. XIII.—*Of Distinctive Notions in Definition.*

CONSIDER besides, whether he who assigns the definition of a certain thing, defines that it is

1. How he may be confuted who defines

¹ "Of the thing:" i. e. whatever is most excellent in each thing, that best expresses its nature. Cf. ch. 5; also Ethics, b. i.; Rhet. b. i. ch. 6, et seq.

one notion, so
as to make two
("hoc et illud").

these things, or that which consists of these, or this together with that ; for if (it should be) those things, it would happen to be present with both, and with neither, as if he defined justice to be temperance and fortitude ; for if when there are two, each has one of these, both will be just, and neither ; since both indeed will possess justice, but each of them, not possess it. If however what has been said, be not very absurd from a thing of this kind happening in others also, (since nothing prevents two persons having a mina, though neither of them has,) yet that contraries should be present with the same, would appear to be altogether absurd. Nevertheless, this would occur if one of them has temperance and timidity, but the other, fortitude and intemperance, for both will have justice and injustice ; for if justice be temperance and fortitude, injustice will be timidity and intemperance. Briefly, whatever arguments may be brought to prove that the parts and the whole are not the same, are all useful for what has now been stated, since he who thus defines, seems to say that the parts are the same as the whole.¹ Still the arguments are especially appropriate in whatever the composition of the parts is evident, as in a house and other such things ; for it is evident that when the parts exist, there is nothing to prevent the whole from not existing, so that the parts are not the same with the whole.

2. Or so as to
make one notion,
but composed of
many parts ("hoc ex
illis").

If, on the other hand, he should say that the thing defined is not these, but something consisting of these, we must first examine whether one certain thing, is not naturally adapted to be produced from these, for some things are so subsistent in relation to each other, as that nothing is produced from them, for instance, a line and number. Besides, whether the thing defined is naturally adapted to be in some one first, but those of which a person says that it (the thing defined) consists, are not in some one first, but each in the other, since it is clear that the thing would not consist of these, as in what the parts are inherent, it is necessary that the whole

¹ He means that the whole, ought not to be defined as identical with the parts, (vide Aldrich,) for, in fact, the whole may be defined triply : 1st, By saying it is the parts, viz. *this thing and this* ; 2ndly, By saying it consists of parts ; 3rdly, By saying that the whole is *this* thing with *that*. Taylor.

also should be inherent, so that the whole would not be in one first, but in many.¹ Still if the parts and the whole are in one first, consider whether they are not in the same, but the whole in one, and the parts in another. Again, whether the parts are destroyed together with the whole, since it is necessary that it should happen vice versâ, the parts being destroyed that the whole should perish, but the whole being destroyed it is not necessary that the parts also should be destroyed. Or whether the whole be good or evil, but the parts neither, or vice versâ the parts indeed good or evil, but the whole neither, for neither is it possible that any good or evil should be produced from neither, nor that neither should be produced from evil or good. Or whether the one be more good than the other is evil, but what consists of these be not more good than evil; for instance, if impudence (should be said to consist) of fortitude and false opinion. For fortitude is more a good, than false opinion is an evil, wherefore it is necessary that what results from these, should be consequent to the more, and should either be simply good, or more good than evil. Or indeed is this unnecessary, unless each be good or evil, per se, for many effective things are not per se, good, but when mingled; or on the contrary each of them is good, but when mingled is evil, or neither (good nor evil). What has been now stated is especially apparent in the case of things wholesome and hurtful, since some drugs are of such a nature as that each is good, but if both be given mixed together, (the compound is) bad.

Again, (consider whether a thing be stated to consist) from the better and the worse, of which the whole is not worse than the better, but is better than the worse; or is neither this necessary, unless those of which the thing consists, be of themselves good? for there is nothing to prevent the whole not being good, as in the instances just now adduced.

Besides, whether the whole be synonymous with the other part, which it ought not to be, as neither

2. Composition
from the better
and worse.

3. The whole
synonymous

¹ For if the parts of which the definition is composed are A and B, of which A (one) may be in B, (another) first, (*ἐκότερον ἐν ἐκατέρῳ*), but this in some other first notion, as C, (h. e. *εἰ τὸ Α ἐν τῷ Β πρῶτῳ καὶ τὸ Β ἐν πρῶτῳ τῷ Γ*), the notion defined D, ought to be in the notion B, and in C, as first, which is absurd, for the ratio of the defined notion ought always to be the same as that of the definition itself.

with the other part. is it in syllables, for a syllable is synonymous with no one of the elements of which it consists.

4. Explanation of the mode of composition. Moreover, (observe) whether a person has explained the mode of composition. For it is not sufficient to a knowledge of a thing, to say that it consists of these, because not merely to consist of these, but to consist of them in this manner, is the essence of composites; as in the case of a house, for the composition of these in any way whatever, is not a house.

3. Or so as to state the notion to be defined, is equal to one joined to the other, ("hoc cum illo.") If again, this thing is assigned together with that, we must first state that this is with that, or is the same with these, or because this is from those; for he who says, honey with water, either says honey and water, or what consists of honey and water, so that whichever of these he allows to be the same as this with that, the same things it will be suitable to say, as were before urged against each of these.

2. Obs. of negation. Further, distinguishing in how many ways one thing is said to be with another, consider whether this be in no way with that; e. g. if it is said that one is with another, either as in one same recipient, as justice and fortitude in the soul; or in the same place or time, but what is asserted as to these, should be by no means true, the assigned definition would, it is evident, not be the definition of any thing, as this is by no means with that. If, however, when the things are distinguished, it is true that each is in the same time, examine whether it is possible that each may not be referred to the same thing; as if (some one) should define fortitude to be daring joined with right conception, for it is possible for a man to have the daring to defraud, yet a right conception about things wholesome; still he is not yet a brave man, who has this, together with that, in the same time. Again, if both are referred to the same thing, as to things medical, since nothing prevents a man's having boldness and right conception about medical concerns, yet nevertheless he is not a brave man who possesses this with that; for neither ought each of them to be referred to different things, nor to any thing casually the same, but to the end of fortitude, as to warlike dangers, or if there be any thing more the end, than this.*

3. Of identity of relation.

4. Illustration.

* Vide Waitz, vol. ii. 506.

Some indeed, of those thus explained, by no means fall under the above-mentioned division, as if anger is pain, joined with a notion of being despised: for this would show that pain arises from a notion of this kind, but that any thing should exist on account of this, is not the same as for this to be with that, according to any of the modes stated.

5. Exceptions.

CHAP. XIV.—*On the Definition of the whole as a Composite, etc.*

MOREOVER, if (a person) has stated the whole to be a composition of these, as that animal is a compound of soul and body, first observe, whether he has not stated the quality of the composition; as if defining flesh or bone, he should say that it is a compound of fire, earth, and air. For it is not enough to say it is a compound, but it must also be defined of what quality it (the compound) is, since flesh is not produced from the composition of these in any way whatever, but flesh, from things composed in this way, and bone, from those in that. It seems likely, indeed, that neither of those mentioned is altogether the same with composition, as to all composition, dissolution is contrary, but nothing to any of those stated; besides, if it is similarly probable, that every or no compound, is composition, but each animal being a compound is not composition, neither will any other compound be composition.

1. Observe whether in stating a composite, the definer has added the quality, of the compound.

Again, if in like manner contraries are naturally adapted to be in something, and it has been defined through one of them (alone), there has evidently not been a definition. Otherwise, indeed, there will happen to be many definitions of the same thing, for what more does he state who has defined through this, than he who has done so through the other, since both are in a similar manner naturally adapted to be in it? such, indeed, is the definition of the soul, if it is an essence capable of science, for it is equally capable of ignorance.

2. If he has defined by one contrary, that which is capable of both.

Notwithstanding, if a person has it not in his power to argue against the whole definition from the whole not being known, he must attack some part, if it should be known, and apparently not be well assigned,

3. Definition partially impugnable.

since the part being subverted, the whole definition also, is subverted. (It is also requisite) correcting and reforming such definitions as are obscure, in order to render something evident, and to obtain an argument, to consider in this way: since it is necessary for the respondent, either to admit what is taken up¹ by the interrogator, or himself to unfold what that is which is signified by the definition. Yet more, as men are accustomed in assemblies to introduce a law, and if what

4. Or to be amended.

is introduced be better, they abrogate the former law, so we must act in definitions, and another definition must be introduced, since if (this) appear better, and more to develop the thing defined, it is evident that the definition laid down (previously) will be subverted, since there are not many definitions of the same thing.

5. Advantage of oneself arranging a definition.

Nevertheless, it is not the least element² as to all definitions, to define with oneself sagaciously the thing proposed, or to take up a definition which has been well framed; since it is necessary, running as it were to an example, to survey what is deficient in the definition, and what is superfluously added, so as to be better provided with arguments.

Let, then, so much suffice for those points which pertain to definitions.

BOOK VII.

CHAP. I.—*Of the Question whether a Thing be the same or different.*

1. Identity proved by cases, conjugates, opposites, efficientes, and corruptives.

WHETHER a thing be the same or different, according to the most proper of the before-mentioned modes about the same thing, (and that was said to be most properly the same, which is one in number,) we must consider from cases, co-ordinates and opposites. For if justice be the same with fortitude, a just man is also the same with a brave man, and

¹ τὸ ἐκλαμβάνομενον, quod ab interrogante assumitur. Buhle,—so Taylor. It is properly that which the opponent wishes to substitute in the place of what is obscure.

² That is not the least efficacious aid.

justly with courageously. So also with opposites, for if these be the same, the opposites to these also are the same, according to any of the modes of opposition stated, since it makes no difference whether we take an opposite to this or that, as they are the same. Again, from efficient and corruptive, also from generations, corruptions, and in short, from things which subsist similarly with reference to either, for whatever are simply the same, the generations and corruptions also of these are the same, and besides, the efficient and corruptive.

Examine also, whether of those things of which one is especially said to be a certain thing, another also is especially predicated according to the same; as Xenocrates shows that a happy and a worthy life are the same,¹ because a worthy and a happy, are the most eligible of all lives, for the most eligible, and the greatest, are one thing. Likewise, in other things of the same kind; yet it is necessary that each of those which are said to be the greatest, or the most eligible, should be one in number, otherwise it will not be demonstrated that it is the same, since it is not necessary, if the Peloponnesians and the Lacedæmonians are the bravest of the Greeks,² that the Peloponnesians should be the same with the Lacedæmonians, as a Peloponnesian and a Lacedæmonian are not one in number. Still it is requisite that one should be contained under the other, as Lacedæmonians under Peloponnesians, otherwise it will happen that they are better than each other, if the one be not comprehended under the other, for it is necessary that the Peloponnesians should be better than the Lacedæmonians, if the one be not contained under the other, for they are better than all the rest (of the Greeks). So also it is necessary that the Lacedæmonians should be better than the Peloponnesians, for these also are better than all the rest, so that they are better than each other. It is clear then, that what is said to be best, and greatest, ought to be one in number, if we would show that it is the same, for which reason

2. Observe whether where in the thing is prevalent, the other also is. Cf. Eth. i. ch. 8, et seq.; also Eudem. b. i. and ii.

¹ The various opinions entertained of the nature of happiness, Aristotle enumerates in his Eudem., Ethics, and gives in the Rhetoric, book i. ch. 5, four different definitions of it, of which the last is the popular one. Cf. Hooker v. 76, page 413, and sections 77 and 78 of that too little read book, Knox's Christian Philosophy.

² Τοὺς γὰρ Λακεδαιμονίους οὕτε λιμῶ οὐτ' ἀναγκῆ οὐδεμὴ ἤξιουν τὰ ὅπλα παραδοῦναι, κ. τ. λ. Thucyd. iv. 39.

also Xenocrates does not demonstrate, for a happy, and a worthy life, are not one in number, so that it is not necessary they should be the same, because both are most eligible, but that one should be under the other.

3. Whether each is equivalent to the same third thing. Again consider, whether one (of the things proposed) is the same (as a third thing), also whether another (is the same with it), for if both are not the same with it, it is clear that (they are not the same) with each other.

4. If the accidents are the same. Moreover, observe from the accidents of these, and from those things to which these are accidents, since whatever are accidents to the one, must of necessity be also accidental to the other, and to what one of them happens, the other must also happen; now if any discrepancy subsists amongst these, they are evidently not the same.

5. If both be in the same category, the same genus, and have the same differences. Notice also, whether both are not in one genus of category, but the one denotes quality, the other quantity or relation; again, whether the genus of each is not the same, but the one is good, and the other evil, or the one virtue, and the other science: or whether the genus is indeed the same, yet there are not the same differences predicated of each, but of the one, that it is contemplative science, of the other, that it is practical, and so of other things.

6. If both be simultaneously increased and diminished. Further, from the more, if one indeed receives the more, but the other not, or if both indeed receive it, yet not at the same time; thus, he who loves more, does not more desire intercourse, so that love, and the desire of intercourse, are not the same.

7. If both are equal, having undergone the same accession or diminution. Besides, from addition, if each being added to the same, does not make the whole the same, or if the same being taken away from each, the remainder is different; as if some one said, that the double of the half, and the multiple of the half, were the same. For the half being taken away from each, the remainder ought to signify the same, yet it does not, for the double, and the multiple, do not denote the same.

8. Whether the consequences of both, upon a given hypothe- Observe however, not only whether any impossibility now happens on account of the thesis, but also whether it is possible to be from the hy-

pothesis ; as (happens) to those who say, that a vacuum, and a plenum of air, are the same, since it is clear that if the air should depart, there will not be a less, but a greater vacuum, yet there will no longer be a plenum of air. Hence, a certain thing being supposed, whether false or true, (it makes no difference,) one of them is subverted, but the other not, hence they are not the same.

In a word, from those things which are in any way predicated of each, and of which these are predicated, we must consider if there be any discrepancy ; for whatever are predicated of the one, ought likewise to be predicated of the other, and of which the one, is predicated, it is necessary that the other also, should be.

Besides, since the same thing is predicated multifariously, examine whether after some other mode they are the same, since it either is not necessary, or not possible that those which are the same in species or genus, should be the same in number, but we will investigate whether they are the same in this way, or not in this way.¹

Again, whether the one can possibly be without the other, for they would not be the same.

9. Whether the same things may be predicated of each.

10. Whether they are the same generically, or specifically, not numerically.

11. Whether one can subsist without the other.

CHAP. II.—*Distinction between Confirmative and Subversive Places of Definition.*

THE places then pertaining to the same thing, are said to be so many,² but it is clear from what has been stated, that all places belonging to the same thing, which are subversive, are useful also to definition, as was observed before ; for if both the name, and the definition, do not denote the same, it is evident that the proposed sentence will not be a definition. On the other hand, none of the confirmative places is useful to definition, since it is not sufficient to show that what is under

1. The topics of the last chapter useful for subversion, not for confirmation of, definition.

¹ See Waitz, vol. ii. p. 507. By "the same," here is understood, "as was posited in the thesis." Taylor.

² This sentence is annexed to the preceding chapter by Taylor ; by "pertaining to the same," is intended, "pertaining to the question, whether a thing is the same."

definition, and name, is the same thing, in order to confirm definition; but definition must necessarily possess all those other things which have been mentioned.

CHAP. III.—*Of Topics suitable to confirming Definition.*

1. Method of confirming definition. To subvert definition then, we must make our attempt always in this manner, and through these things; but if we desire to confirm, it is first necessary to know, that no one, or few, of those who discuss, syllogistically infer definition, but all assume such sort of thing, as a principle; for instance, both those who are conversant with geometry and numbers, and other such instructions: next, that it is the business of another treatise accurately to assign both what definition is, and how it is necessary to define, but now only so much must be observed, as is sufficient for our present purpose, viz. that it is possible there may be a syllogism of definition, and of the very nature of a thing. For if definition be a sentence denoting the very nature of a thing, and it is necessary that things predicated in the definition should alone be predicated in (reply to) what a thing is, but genera and differences are predicated in reply to this question, it is evident that if any one assumes those things only to be predicated in reference to what a thing is, that the sentence which contains these, will evidently be a definition, since there cannot be possibly another definition, as nothing else is predicated of the thing, in reference to what it is.

* Vide Post. Anal. b. ii. ch. 13, 14.
2. How genus and difference, are to be elicited from contraries; so that the definition itself, may be constructed from the definition of the contrary.
† Sentence.
‡ Thing.
§ The definition.

Evidently then, there may be a syllogism of definition, but from what we ought to construct it, has been more accurately determined in other places; * these same places, however, are useful for the proposed method. For in contraries, and other opposites, we must observe whole sentences, observing them also, according to parts; as if the opposite † (be the definition) of the opposite, ‡ it is necessary that what is stated, should be § of the thing proposed. Since however, there are many connexions of contraries, we must select from them, that definition which especially appears

contrary;¹ whole sentences then, must be considered in the manner stated, but according to parts, thus.² In the first place, (it must be shown) that the assigned genus is rightly assigned, for if the contrary be in the contrary genus, but the thing proposed is not in the same, it will clearly be in the contrary (genus), since contraries must of necessity either be in the same, or in contrary genera. We also think that contrary differences are predicated of contraries, as of white and black, for the one is dissipative, the other is collective of vision. Wherefore, if contraries are predicated of a contrary, the assigned (differences) would be predicated of the thing proposed, so that since both genus and differences are rightly assigned, it is evident that what is assigned, will be a definition. Or it is not necessary that contrary differences should be predicated of contraries, unless they should be contraries in the same genus, yet of those of which the genera are contrary, there is nothing to prevent the same difference being predicated of both; e. g. of justice and injustice,³ for the one is a virtue, but the other a vice of the soul, so that the word "of the soul," being a difference, is predicated of both, since there is of the body also, a virtue and a vice. Nevertheless, this at least is true, that the differences of contraries are either contrary or the same; if then a contrary be predicated of a contrary, but not of this, it is evident that the difference adduced, will be predicated of this. In short, since definition consists of genus and differences, if the definition of the contrary be manifest, the definition also of the thing proposed, will be manifest. For as what is contrary, is either in the same, or in a contrary genus, and likewise either contrary or the same differences, are predicated of contraries, it is evident, that the same genus will be predicated of the thing proposed, which was also of the contrary; but the differences are contrary, either all or some, yet the remainder are the same,⁴ or on the contrary, the differences are the same, but

¹ From the connexions of contraries, (vide b. ii. ch. 7,) that must be selected, which if employed for the establishment of the definitions, the latter will be most readily admitted.

² Vide Waitz.

³ Contrary species not under the same genus, need not have contrary differences, for two species of contrary genera may both have the same difference, as in the instance of justice and injustice.

⁴ If contrary species under the same genus are defined, certain differ-

the genera are contrary, or both genera and differences are contrary, for both cannot possibly be the same, or else there will be the same definition of contraries.

3. How to employ cases, and derivatives, for the construction of definition. Besides, (we must argue) from cases, and conjugates, since genera must of necessity follow genera, and definitions be consequent to definitions: thus, if oblivion be the loss of science, to become oblivious, will be to lose science, and to have forgotten, to have lost science; any one then of the before-mentioned particulars being admitted, the rest must necessarily be admitted. Likewise, also, if destruction be a dissolution of substance, to be destroyed will be for substance to be dissolved, and destructively will be dissolvingly, and if what is destructive is dissolvent of substance, destruction is a dissolution of substance; similarly also, of other things, wherefore any one being assumed, all the rest will be conceded.

4. And those things also, which have mutual similar subsistence. Also, (we must argue) from things which subsist similarly as to each other; for if the salubrious is productive of health, the productive of a good habit will be effective of a good habit, and the beneficial will be productive of good. For each of the above named, subsists similarly with regard to its proper end, so that if the definition of one of them, is to be effective of the end, this will also be the definition of each of the rest.

5. How the comparison of other definitions, conduces to the formation of definition. Moreover, from the more and the similar, in as many ways as it is possible to confirm, comparing two with two, thus; if this is more the definition of that, than something else of another thing, but the less is a definition, the more also (will be a definition); also if this is similarly the definition of that, and another thing of something else, if the one is a definition of the other, the remainder will also be of the remainder. When however, one definition is compared with two things, or two definitions with one, the consideration from the more is of no use, as neither can there possibly be one definition of two things, nor two of the same.

ences may be contrary, but others alike: since if contrary differences are joined with the summum genus, there arise thence, inferior contrary genera, which may possess the same differences. Cf. Waitz.

CHAP. IV.—*That the Places already mentioned, are the most appropriate of all.*

THOSE which have already been stated, and also the others from cases and conjugates, are the most appropriate places; wherefore we ought especially to retain these, and to have them at hand, since they are most useful to the greatest number (of problems). Of the rest also, those which are especially common, for these are the most efficacious of the remaining ones; as, for instance, to regard singulars, and to consider in species, whether the definition is suitable, as species is synonymous. Such however is useful against those who lay down that there are ideas, as was before observed; * moreover, whether a name is introduced metaphorically, or whether the same thing is predicated of itself as different, and if there be any other place common and efficacious, we must employ it.

1. What places are especially useful.

* Top. vi. 10.

CHAP. V.—*Of Confirmation and Subversion of Definition.*

THAT it is more difficult to confirm, than to subvert definition, is evident from what will next be said, since it is not easy for him (who interrogates) to perceive and take from those who are interrogated, propositions of this kind; as that of the things in the assigned definition, one is genus, but another difference, and that genus and differences are predicated (in reply) to what a thing is. Still without these there cannot possibly be a syllogism of definition, as if certain other things also are predicated of a thing, in respect of what it is, it is dubious whether what is stated, or something else, is its definition, since definition is a sentence signifying what is the very nature of a thing.¹ Now it is evident from what follows, for it

1. Reason why definition is more easily subverted, than constructed.

¹ If besides genus and difference, other things are necessarily joined with the nature of the thing to be defined, the proposed definition which consists of the genus and differences, will appear deficient, and therefore questionable. For in order to render the definition conclusive, it is requisite (vide ch. 3) that the genus and differences alone, be admitted to express the true nature of the thing to be defined.

is more easy to conclude one, than many things. To the subverter indeed, it is sufficient to dispute against one (part of the definition), (for having subverted any one part, we shall have subverted the definition,) but it is necessary for the confirmer, to prove that all those things are inherent, which are in the definition. Moreover, the confirmer must adduce an universal syllogism, since it is requisite that of every thing of which a name is predicated, the definition should be predicated, and besides this, vice versâ, if the assigned definition is to be proper. On the other hand, it is not requisite for the subverter to demonstrate the universal, since it suffices to show that the definition is not verified of any one of the things under the name, if also it should be necessary to subvert universally, neither thus, is reciprocation necessary in subversion, for it is enough that the subverter show universally, that the definition is not predicated of some one of those things, of which the name is predicated. On the contrary, it is not necessary to show that the name is predicated, of what the definition is not

* Buhle and Taylor insert οὐδὲ.

predicated.* Further, if also it is present with every thing under the name, yet not with it alone, the definition will be subverted.

2. The same to be said of property.

In like manner, it is with regard to property and genus, since in both, it is easier to subvert, than to confirm. About property then, it is evident from what we have stated, as for the most part property is assigned in conjunction,† so that it is possible to subvert by taking away one (word); but he

† Of words.

who confirms, must of necessity conclude every thing by syllogism. Now almost every thing else, which may be said of definition, will also be suitable to say of property, since the confirmer ought to show that it is inherent in every thing under the name, but it suffices for the subverter to show it non-inherent in one thing; if also it is inherent in every thing,

but not in it alone, thus too, it becomes subverted, as was observed about definition. Concerning genus indeed, (it is evident,) because it is necessarily confirmed only in one way, if a person shows it present with every individual; nevertheless, it is subverted in two ways, for both if it has been shown not present with any, and not with a certain one, what was assumed in the beginning is subverted. Moreover, it is not enough, for the confirmer

3. Also of genus.

to show that it is inherent, but also it must be shown that it is inherent, as genus; but to the subverter it is enough to show it non-inherent, either in a certain or in every individual: still it seems, as in other things, to destroy, is easier than to produce, so in these, subversion, is easier than confirmation.

In the case of accident, we can more easily subvert, than construct the universal, for the confirmer must show that it is present with every, but the subverter need only show it non-inherent in one. On the contrary, it is easier to confirm, than to subvert the particular, as it suffices for the confirmer to show it present with a certain one, but the subverter must show that it is present with none.

It appears also clear why it is the easiest thing of all, to subvert definition, for many things being asserted in it, very many are given;¹ but from the greater number, a syllogism is more quickly made, since it is likely that error should arise in many, more than in few, things. Moreover, it is possible to argue against definition through other things* also, since whether the sentence be not appropriate, or whether what is assigned be not genus, or something of those in the definition be non-inherent, the definition will be subverted; but against other things, neither can we assume those arguments which are derived from definitions, nor all others,† since those only which belong to accident, are common to all the particulars mentioned.‡ For it is necessary that each of the things stated§ should be inherent, if however genus is not inherent as property, the genus will not yet be subverted; likewise, also property need not be inherent as genus, nor accident as genus or property, but merely inherent. Wherefore it is impossible to argue from some things to others, except in definition; hence, it is evident that to subvert definition is the easiest thing of all, but to confirm it the hardest, since we must syllogistically infer all those particulars, (viz. that all the

4. Accident, if universal, more easily subverted; if particular, more easily confirmed.

5. Definition of all things most easily destroyed, most hardly confirmed.

* As from the topics belonging to genus, property, accident.

† As the above named.

‡ i. e. to the attributes or problems.

§ Accident, genus, etc.

¹ "By which it may be subverted," Taylor: for since definition, consists of more parts, than genus, etc., and more requisites are to be observed in its proper disposition (vide lib. vi.), it is more readily impugned than the others.

above-named are inherent, and that what is assigned is genus, and that the sentence is appropriate,) and besides these, that the sentence denotes the very nature of a thing, and it is necessary to do this well.

6. Of all the remainder, property is the easiest of subversion. Among other things, property is especially a thing of this sort, for it is easier to subvert it, from its consisting, for the most part, of many things, and it is most difficult of confirmation, because we must combine many things, and besides, show that it is inherent in this alone, and reciprocates with a thing.

7. Accident, of all, most difficult of subversion, and most easily confirmed. Of all however, the easiest is to confirm accident, for in others, not only inherency, but inherency *thus*, must be shown; but as to accident it suffices to show its inherency only. On the other hand, accident is the hardest to subvert, because the fewest things are given in it, for it is not signified in accident, over and above other things, how it is inherent, so that subversion is possible in two ways; as to the rest, either by showing non-inherency, or non-inherency in this way; but in accident, it is impossible to subvert, except by showing that it is not inherent.

The places then, through which we shall be well provided with arguments against the several problems, have almost sufficiently been enumerated.

BOOK VIII.

CHAP. I.—*Of the Order of Argument.*

1. Points to be attended to by the questionist; what is common to the dialectician and to the philosopher, and what is not. Cf. *Rhet.* iii. 13, et seq.

WE must next speak about order, and in what manner it is necessary to interrogate. In the first place then, he who is about to interrogate, should discover a place whence he may argue; secondly, he should interrogate and arrange the several particulars to himself; thirdly and lastly, he should advance them against another person.

Now as to the discovery of the place, its consideration pertains alike to the philosopher and to the dialectician; but how to arrange these, and to interrogate, is the peculiar province of the dialectician, since the whole of this refers to another per-

son ; but to the philosopher, and to him who investigates by himself, it is no concern, if the particulars through which the syllogism is constructed, be true and known, whether the respondent admits them or not, because of their nearness to the original question, and from their foreseeing the result ; they even perhaps would endeavour that axioms should be especially known and approximate, as from these, scientific syllogisms subsist.

The places then, whence we must derive (arguments), have been enunciated before, but we must speak of order, and interrogation, distinguishing the propositions which are to be assumed, besides such as are necessary.¹ Now those are called necessary, through which a syllogism arises, but those assumed besides these, are four ; for (they are so), either for the sake of induction that the universal may be granted ; or for amplifying what is said ; or for concealment of the conclusion ; or for greater perspicuity of expression. Besides these however, we must assume no proposition, but endeavour through these to increase,* and to interrogate : those which are for concealment (are to be assumed) for the sake of contention, yet since the whole of this treatise is with reference to another person, it is necessary to use these also.²

The necessary (propositions) then through which a syllogism arises, must not be advanced immediately, but we must retire to what is highest ;³ for instance, not requiring it to be granted, that there is the same science of contraries, if it is desired to assume this, but of opposites, for when this is laid down, it will be syllogistically inferred that there is the same of contraries also, since contraries are opposites. If, again, (a person) does

2. Certain propositions distinguished, which, non-necessary, are assumed by reasoners. Vide b. ii.—vii.

* What is said.

3. Those which are necessary are to be concealed, and argued remotely.

¹ The places referred to before, were those whence we were to derive arguments, to prove certain desired points of necessity ; (*αἱ ἀναγκαῖαι προτάσεις*) ; there remain to be explained such as, though not necessary for proof, yet are requisite for the proper carrying out, of disputation. This, and the succeeding chapters, should be compared with Whately, books iii. and iv.

² i. e. In which the conclusion is concealed.

³ i. e. instead of the necessary proposition, we must assume an universal proposition, containing the necessary one.

not admit this,¹ we must assume it through induction, proposing contraries particularly, for we must assume the necessary propositions either through syllogism, or through induction, or some by induction, but others by syllogism; such however as are very perspicuous, we shall propose (straightway), for the result is always more obscure in receding and induction; and

* These were called necessary before.
† i. e. through syllogism or induction.

at the same time, it is easy for him to propose those which are useful,* who cannot assume them in that way.† Such as have been enumerated besides these, we must assume for the sake of these, but use each in this way; inducing from

singulars to the universal, and from things known to those unknown; those however are more known, which are according to sense, either simply, or to the multitude. He however who conceals, must prove by pro-syllogisms those things through which there will be a syllogism of the original (proposition), and these as many as possible, which will happen if a person not only collects syllogistically, necessary propositions,

4. Conclusions to be named last.
‡ Of the pro-syllogisms.

but some one from among such as are useful to these. Again, we ought not to mention the conclusions,‡ but afterwards conclude them in a body; for thus he (the interrogator) will recede farthest from the original thesis. In a word, it is requisite that he who secretly interrogates, should so question, that when the whole assertion has been questioned, and the conclusion is announced, it may be asked why it is so.§

§ i. e. whence the principal conclusion is inferred.

Now this will be particularly done through the before-mentioned mode, for when the last conclusion only is mentioned, it will not be evident how

it results, from the respondent not foreseeing from what the inference would be drawn, the previous syllogisms not having been dissected, but the syllogism of the conclusion would be least of all dissected, when we do not lay down its assumptions, but those by which the syllogism arises.²

5. Propositions not to be as-

Moreover, it is useful to take the axioms from which the syllogisms arise, not continuously, but

¹ i. e. if he does not admit the universal proposition, viz. that there is the same science of opposites.

² There is no difference in dialectic, between *λημμάρα* and *ἀξιωμαρά*, (the former being propositions previously taken for granted,) because it does not teach us how to investigate truth, but how to refute an adversary.

alternately mixed with the conclusions, for when the appropriate ones are placed by each other, the result from them will be more evident.

sumed continually.

It is right also, to assume in the definition, as far as we can, an universal proposition, not in the things themselves,¹ but in their conjugates, for (the respondents) deceive themselves by paralogism, when the definition is assumed in the conjugate, as if they did not grant the universal; e. g. if it should be necessary to assume that the angry man desires vengeance on account of apparent contempt, and anger should be assumed to be the desire of vengeance on account of apparent contempt, for it is evident when this is assumed, we should have the universal, which we prefer. Where however, it* is proposed in the very things themselves,† it frequently happens that the respondent rejects it, because he has rather the objection to it; e. g. that the angry man does not desire vengeance, for we are angry with our parents, and yet do not desire vengeance. Perhaps therefore, this objection is not enough, as in some things it is sufficient vengeance only to grieve, and to produce repentance, nevertheless it has something persuasive, in order that what is proposed, may not seem to be denied without reason: to the definition however, of anger, it is not similarly easy to find an objection.

6. Rule to be observed as to assuming an universal prop. in the definition.

* The definition.
† Which are the subject of discussion.

Again, (we ought) to propose as if we did not propose on account of the thing itself,‡ but for the sake of something else, for (respondents) are cautious of such things as are useful against In short, as much as possible the (interrogator) ought to render it obscure, whether he desires to assume the thing proposed or the opposite, for when what is useful against the argument is doubtful, they § rather lay down that which seems true to them.

‡ The subject of discussion.

the thesis.

7. Concealment of the object of the desired concession, necessary.

§ The respondents.

Moreover, we must interrogate through similitude, for the universal is persuasive and more latent;|| for instance, that as there is the same science and ignorance of contraries, so also there is the same sense of contraries, or on the con-

8. The desired proposition to be elicited from similitude.

|| Taylor and Buhle read more "latent

¹ i. e. those which are the subjects of discussion,

than universal."

* In induction. assumed is contained.

9. Rules to be observed for masking design.
1. Self-objection.

2. Custom.

3. Apparent indifference.

4. Comparison.

5. Non-proposition of assumption.

consequent,

† i. e. the consequent.

‡ i. e. which ought to be assumed.

6. Question of desired assumption.

in earnest.²

trary, since there is the same sense, there is also the same science. This, indeed, is like, yet not the same as, induction, for there* the universal is assumed from singulars, but in similars, what is not universal, under which, all the similars are contained.

Again, it behoves him sometimes to object to himself, since the respondents have no suspicion towards such as appear to argue justly,¹ and it is also useful to say besides this, that such a thing is what is usually asserted, since they are reluctant to change what is usual when they have no objection; at the same time, because they use such things themselves they are careful not to change them. Besides, (we must) not be earnest, although the thing be altogether useful, for men make greater opposition against persons in earnest; also (we should) propose as by comparison, for what is proposed on account of something else, and is not of itself useful, men rather admit.

Again, we must not propose that, which ought to be assumed, but that to which this is necessarily consequent, for men more readily concur, from the inference from this not being similarly manifest, and when this,† is assumed that‡ also, is assumed. In the last place, let the interrogator ask that, which he wishes especially to assume, for (the respondents) will at first especially deny, because most interrogators assert those things first, about which they are most

in earnest.² Against some however, propose such things first; since those who are difficult to be persuaded, concede at first, especially if the result is not perfectly apparent, but at the last they assent with difficulty; likewise, also, they who think themselves acute in answering, for admitting many things, at

¹ These rules are the digest of crafty practice, by a full development of which, the rogue, shall most readily pass for the honest man: most of them are alluded to by Whately on Fallacies. Gibbon, who, as the archbishop observes, "reminds one of a person never daring to look one in the face," uses these constantly.

² True enough: Suetonius tells us, that Caius Rabirius, having been condemned by Cæsar, the thing that most prevailed upon the people, to whom he had appealed, to determine the cause in his favour, was the vehemency which Cæsar manifested, in the sentence. Suet. in Vit. Cæsar.

last they make use of sophistical arguments, as if the conclusion did not follow from the things laid down, but they allow readily, trusting to habit, and apprehending that they will suffer no inconvenience. Moreover, we must extend the discourse and insert things which are of no use to it, as they do, who write falsely, for when there are many things, it is dubious in which consists the falsity, wherefore sometimes also, interrogators escape notice, proposing secretly, things which proposed by themselves, would not be admitted.

7. Extension and irrelevant amplification.

For concealment then, we must use the thing stated, but for ornament, we must employ induction and division of things homogeneous. What kind of thing then induction is, is clear, but division is one of such a kind, as that one science is better than another,¹ either from its being more accurate, or from its belonging to better subjects; and that of sciences, some are theoretical, others practical, but others effective, for each thing of this kind adorns a speech, yet it is not necessary that it should be adduced, in order to the conclusion.

10. Induction and division to be used for ornament. Whately, b. iv. ch. 1.

For the sake of perspicuity, we must adduce examples and comparisons; examples indeed appropriate, and from which we derive information, such as Homer, not as Choerilus (employs),² for thus, what is proposed will be more perspicuous.

11. Examples, and comparisons, for illustration.

CHAP. II.—*Other Topics relative to Dialectic Interrogation.*

IN disputation we must employ syllogism with dialecticians, rather than with the multitude, but induction, on the contrary, rather with the multitude, concerning which also we have spoken before.* Still, in some cases, he who makes an induction may question the universal, but in others this is not easy, from a common name not being laid down in all similitudes,† but when it is necessary to assume the universal, they say it is

1. Of the employment of induction in disputation.

* Vide ch. 1; also b. i. ch. 12. Whately, iv. 1.

† i. e. in all similar things.

¹ This axiom is employed in the commencement of the treatise *De Animâ*.

² A contemptible poetaster who recounted the exploits of Alexander: Horace also quizzes him; his namesake however, whom Archelaus, king of Macedon, rewarded, appears to have been a true poet.

thus in all such particulars; yet it is one of the most difficult things to define this, viz. which of those adduced are, and which are not, such. Wherefore in disputation they oftentimes circumvent each other, some asserting that those which are not similar are similar, but others doubting whether similars are not similars.¹ On this account, in all such cases he (the disputant) must endeavour to assign a name, so that it

* By the questionist.

may neither be possible for the respondent to doubt, as if what is adduced is not similarly stated,* nor for the interrogator to find fault, as if it were similarly stated, since many things which are not similarly stated, appear to be so.

2. When an objection may fairly be demanded, and how.

When, an induction being made in many things, a person does not grant the universal, then it is fair to demand the objection; he however who does not state in what this occurs, does not justly demand in what it is not so, for he ought, having first made

† Vide Waitz, vol. ii. p. 513.

an induction, thus to demand the objection.† It must be claimed too, that the objections be not alleged in the thing itself, which is proposed, unless there should be only one such thing, as the dual alone is the first of even numbers, since it is necessary that the objector should bring the objection in something else, or should state that

3. How to meet it.

this alone is a thing of such a sort. As to those indeed, who object to the universal, yet do not allege the objection in the same (genus), but in the equivocal, (as that some one may have not his own colour, or foot, or hand, for a painter may have colour, and a cook a foot, not his own,) employing division in such things, the interrogation must be made, since from the equivocation escaping notice,

† The respondent.

he † will appear to object rightly to the proposition. Still if the objector impede the interrogation, by objecting not in the equivocal, but in the same genus, it is necessary by removing that, in which the objection consists, to bring forward the remainder, making it universal, until what is useful is assumed. Thus, in the case of oblivion and of having forgotten, for they do not allow that he who

¹ The aptitude of simile, for veiling fallacy, is notorious, and Burke used to remark, that whenever deception in argument was to be accomplished, commend him to a simile, or asserted parallelism. Cf. Whately, b. iii.

has lost knowledge, has forgotten, because the thing failing, he has lost indeed knowledge, yet has not forgotten removing: then that, in which the objection consists, we must assert the remainder, as if, the thing remaining, he has lost knowledge, (we must say) that he has forgotten. Likewise, also, against those who object that a greater evil is opposed to a greater good, for they advance this, that to health being a less good than good bodily habit, a greater evil is opposed, since disease is a greater evil than cachexy, therefore in this case also we must take away that in which the objection consists, for when it is removed, the person would more readily concede, as that a greater evil is opposed to a greater good, unless one thing co-introduces another, as a good bodily habit, does health. Still, not only must this be done when there is an objection, but also if without an objection there should be a denial,* from foreseeing something of this kind, since when that is removed in which the objection lies, (the objector) will be obliged to concede from his not foreseeing in the remainder, as to what particular thing it is not so, but if he should not concede when he is asked for his objection, he will not be able to allege it. Propositions indeed of this kind are such as are partly false and partly true, for in these it is possible, when we have taken away, to leave the remainder true; nevertheless, if (when interrogating), he proposes in many things, (the other) does not adduce an objection, concession must be claimed, since the proposition is dialectic, against which thus subsisting in many things there is not an objection.

2. Examples.

4. Case of denial.

* i. e. of the proposition.

5. Direct demonstration preferable to the deduction "ad absurdum."

When we can syllogistically infer the same thing, both without and through the impossible, it signifies nothing to him, who demonstrates, and does not dispute, whether the syllogism be in this, or in that way,¹ but a syllogism through the impossible must not be used by him, who disputes against another. For no doubt can exist, if he syllogizes without the impossible, but when the impossible is inferred, except the falsity be very evident, they say that it is not impossible, so that the interrogators do not obtain what they desire.

¹ Cf. Anal. Post. i. ch. 26, where a different notion appears enunciated.

6. Things to be proposed which it is difficult to meet.

It is necessary indeed to propose such as subsist thus in many things, but the objection either is not at all, or is not easily perceived, since not being able to see where it is not so, men admit a thing as being true.

7. The conclusion not to be made a matter of petition.

Yet we ought not to make the conclusion a question, for otherwise the (respondent) denying, a syllogism does not appear to have been framed.

For frequently they deny when the person does not question, but infers as a consequent, and doing this, they do not appear to confute, to those who do not see that, it happens from the things laid down; when then he interrogates, not asserting that the conclusion follows, but the other denies, a syllogism does not entirely appear to have been framed.

8. Not every universal, is a dialectic prop.

Neither does it seem that every universal is a dialectic proposition,* as "what is man?" or "in how many ways is good predicated?" since a dialectic proposition is one, to which we can answer

either yes or no, which is impossible to those above-named. Hence, such interrogations are not dialectic unless the person speaks by defining or dividing, as; "is good predicated in this or in that way?" for the answer to such things is easy either by affirmation or denial. Wherefore we must endeavour to set forth such propositions in this way, and at the same time it is perhaps just to ask him in how many ways good is predicated, when the (interrogator) divides and proposes, but he (the respondent) by no means concedes.

9. The same thing ought not to be repeatedly interrogated.

Nevertheless, whoever questions for a long time one reason, interrogates badly, for if he who is interrogated answers the question, it is evident that (the querist) asks many or oftentimes the

same questions, so that he either trifles or has not a syllogism, since every syllogism is from a few things; but if he does not answer, why does he not reprove him, or depart?

CHAP. III.—*Of Dialectic Argument generally.*

1. Things first and last, difficult to impugn, but easy to defend.

NOTWITHSTANDING, it is difficult to attack, and easy to maintain, the same hypothesis; such are those which are first and last naturally, for those which are first require definition, but the last are

concluded through many things, by him who wishes to assume continuously from the first, or the arguments appear captious, as we cannot demonstrate any thing without beginning from appropriate principles, and continuing in a regular series, as far as the last. Respondents, therefore, neither think fit to define, nor consider whether the questionist defines, but when it is not evident what the proposition is, it is not easy to attack it;¹ now, such a thing especially occurs about principles, for other things are demonstrated through these, but these cannot possibly be through others, but it is necessary to make known each thing of this kind by definition.

Those also are difficult to impugn which are very near the principle, since it is impossible to provide many arguments against them, since there are but few media between the thing itself and the principle, through which it is necessary that things subsequent to them should be demonstrated. Still, of all definitions, those are most difficult to impugn which employ such names, as at first are uncertain whether they are predicated simply or multifariously; besides which, it is unknown, whether they are predicated by the definer properly or metaphorically. For from their obscurity a person does not obtain arguments, but from his being ignorant whether such things are said metaphorically, he is without reprehension.

In short, every problem, when it is difficult of opposition, must be supposed either to stand in need of definition, or as among the number of things predicated multifariously, or metaphorically, or as not remote from principles, or from its not being first apparent to us, to which of the before-named modes this

2. Those proximate to the principle, difficult to impugn.

3. What definitions are most difficult of attack.

4. What difficulties hinder a confutation of an opponent's thesis.

¹ Here again, we have the necessity of definition impressed, and the faults incident to its omission hinted at, of which omission also, Aristotle shows that they are most frequently guilty, who, attacking the position of an adversary, either do not require, at first, a definition of the thing, to be given, which forms the subject of dispute, or do not examine its accuracy, when given. Definition may be compared to the key, which locks the door of the room, and having put this key into his pocket by the admission of his opponent, the disputant cuts off all means of escape from his adversary, who otherwise, after an hour's argument, often slips through his fingers, with the plausible excuse, that he meant a different thing to that which the reasoner supposed. Breaches of Contract, Polemical Arguments, etc., furnish fertile proofs of the result of non-attention to this rule.

very thing which occasions the doubt is to be referred; for the mode being evident, it is clear that it will be necessary, either to define, or to divide, or to prepare middle propositions, since through these, the last are demonstrated.

5. Difficulty arising from a badly enunciated definition. In many theses also, when the definition is not well delivered, it is not easy to discourse and argue, as whether one thing is contrary to one or many things, but contraries being defined properly, we can easily collect whether there can be possibly many contraries of the same thing or not. In the same way also, as to other things which require definition, and in mathematics, some appear not easily described*

through a defect of definition, as that a line which laterally cuts a superficies divides similarly both a line and a space.¹ When, however, the definition† is stated, the assertion is forthwith evident, for both the spaces and the lines have a correspondent division,² but this is the definition of the same sentence.³ In short, the first elements when definitions are laid down, as what is a line, and what a circle, are easy of demonstration, except that we cannot advance many arguments against each of these, from there not being many media, but if the definitions of the principles be not laid down, it is difficult, and perhaps altogether impossible; likewise also in those, which belong to disputations.

* i. e. demonstrated.

† Of cutting similarly.

6. Whether things are to be conceded, which are more difficult than the problem itself.

It ought not, therefore, to escape us, that when a thesis is opposed with difficulty, it has experienced some one of the above-mentioned (modes); since, however, it is more difficult to discuss an axiom and a proposition than a thesis, a person may doubt whether things of this kind are to be laid down or not. For if he does not admit them, but thinks fit to discuss this also, he will enjoin a greater work than what was at first laid down, but if he does admit, he will

¹ For instance, a parallelogram with a line drawn through two of its sides, parallel to each of the two other sides, will present a figure, in which this line will similarly cut one of the sides, through which it is drawn, and also the area, of the parallelogram.

² i. e. as well the side as the area is divided into two parts, corresponding to each other in the same ratio. Taylor.

³ i. e. of cutting similarly; in other words, so to divide, that there may be the same ratio, between the parts of each division.

believe from things less credible. If, then, we ought not to make the problem more difficult, (that axiom) must be laid down, but if (it is necessary) to syllogize through things more known, it must not be laid down; or must it not be posited by the learner, except it be more known, but must be laid down by him who exercises himself, if it only appear true? so that it is evident that the querist, and the teacher ought, not similarly to require a thing to be laid down.

CHAP. IV.—*Of Dialectic Responsion.*

ALMOST sufficient then, has been said as to how it is necessary to interrogate and arrange, but about reply, we must first determine what is the employment of him who answers rightly, as also of him who rightly interrogates. Now, it is the duty of the interrogator, so to induce the argument, as to make the respondent assert the most incredible things, of those which are necessary through the thesis, but of the respondent (to take care) that the impossible, or the paradoxical, do not seem to result through him, but through the thesis,¹ since perhaps it is another fault, to place that first which ought not to be so, and not to keep what is laid down, in a proper manner.

1. The duty of the questionist and of the respondent.

CHAP. V.—*Various Objects in Disputation of the Thesis, etc.*

SINCE the several particulars are indefinite, (which should be observed) by those who dispute for the sake of exercise and experiment—(for the same objects are not (proposed) to the teacher or the learner, and to those who contend, nor to both these, and to those who practise with each other for the sake of inquiry; for to the learner always, things which appear (true) are to be laid down,

1. Different method in dispute to be observed by him who wishes to teach, to overcome, and to investigate. Cf. Whately, iv. 2 and 3.

¹ It is the duty of the questionist, i. e. of him who attacks the thesis, to compel his adversary to infer the most absurd consequences, but of the respondent who defends the thesis, to show that these absurdities do not result from himself, but from the thesis which he defends, since it is only to be attributed to the respondent as a fault, if he defends the thesis badly, not if the latter be itself false, for as far as the defence of the argument is concerned, he does not err, but his error is of another kind, viz. in that he assumed from the first, the false for the true.

since no one attempts to teach a falsity ; but of those who contend, it is necessary that the querist, should altogether seem to do something, but the respondent appear to suffer nothing ; yet in dialectic associations it has not yet been distinctly explained by those who dispute, not for the sake of contest, but of experiment and inquiry, what the respondent ought to aim at, also what to concede and what not, in order to preserve the thesis well, or ill)—since then, we have nothing delivered by others, we shall endeavour to say something, ourselves.¹

The respondent then is required, to sustain the dispute, a probable or improbable thesis, or neither, being laid down, and which is either simply, or definitely, probable, or improbable, as to a certain person, whether himself, or another. In what way it is probable, or improbable, makes no difference, as the method of answering well, and of granting, or not granting, the question, will be the same ; if then the thesis is improbable, it is necessary that the conclusion be probable, but if that, is probable, that this, should be improbable, for the querist always concludes the opposite, of the thesis. If however what is laid down, be neither improbable, nor probable, the conclusion also will be of this sort, but since he who syllogizes properly, demonstrates the proposed question, from things more probable and better known, it is evident that when what is laid down, is simply improbable, the respondent must not grant either that which does not seem simply, nor that which seems indeed, but is less apparent than the conclusion, for the thesis being improbable, the conclusion is probable, so that it is necessary that all the assumptions, should be probable, and more so, than what is proposed, if what is less known, is to be concluded, through things better known. Wherefore, except such a thing as this, is amongst the things questioned, it must not be laid down by the respondent, but if the thesis be simply probable, it is clear that the conclusion is simply improbable. Whatever then seems (true) must be laid

¹ At the risk of appalling the reader, by the immense length of the above sentence, which is generally at the commencement stopped off, as an instance of anacoluthon, we have written it parenthetically, and thus endeavoured to systematize it more intelligibly, by allowing the apodosis, after the break, to close the sense.

down, and of those which do not appear (true), such as are less improbable than the conclusion, for it will appear then, that the disputation has been sufficiently well conducted.

In like manner, if the thesis be neither improbable nor probable, for thus all things apparent must be admitted, and of those which do not appear, such as are more probable than the conclusion, for thus it will happen that the arguments will be more probable. If then what is laid down be simply probable or improbable, we must make a comparison with reference to those which appear simply (true),¹ but if what is laid down, be not simply probable or improbable, but to the respondent, it must be laid down, or not, with reference to him deciding what appears, and what does not appear. If moreover the respondent defends the opinion of another, it is clear that the several particulars must be laid down and denied, looking to the conception which he forms; wherefore they who entertain strange opinions, e. g. that good and evil are the same, as Heraclitus says, do not admit that contraries are not simultaneously present with the same thing, not as if this did not seem so, to them, but because, according to Heraclitus, so it must be asserted. They also do this who receive theses from each other, since they conjecture what he who lays the thesis down will say.

5. Of what is neither.

6. Defence of what is not simply, probable or improbable.

7. Of defending the opinion of another.

CHAP. VI.—*Certain Rules as to Admissible Points.*

It is evident then what the points are, which the respondent should direct his attention to, whether what is laid down be simply probable, or is so to a certain person; since however every question must be of necessity either probable or improbable, or neither, also must pertain either to the disputation or not, if indeed it be probable and not relevant to the argument, it must be admitted when it has been stated that it is probable; but if it be improbable and irrelevant to the argument, it must be admitted indeed, yet we must signify besides, that it does not seem probable, for the sake of avoiding

1. Of admitting and refusing those things which do, and do not, pertain to the subject.

1. Of the probable irrelevant.

2. The improbable irrelevant.

¹ See Waitz.

- silliness.¹ If, on the other hand, it does belong to the argument, and is probable, we must say that it seems indeed,² but is too near to the original proposition, and that this being admitted, the position is subverted. Still if it be relevant to the argument, but the axiom be very improbable, we must say that from this position, a conclusion indeed follows, but that what is proposed is very silly; and if it be neither improbable nor probable, if indeed it is in no respect relevant to the argument, we must grant it with no definition; but if relevant to the argument, we must signify that the original position is subverted, from this being laid down. For thus the respondent will seem to suffer nothing through himself,³ if the several things be laid down with foresight, and the interrogator will obtain a syllogism, when all things more probable than the conclusion are admitted by him.⁴ Nevertheless, it is clear that they do not syllogize well, who endeavour to argue from things more improbable than the conclusion, wherefore they must not be conceded by the questionists.
3. The probable relevant.
4. Improbable relevant.
5. Neither, and irrelevant.
6. Relevant.
7. Badness of argument, from things more improbable than the conclusion.

CHAP. VII.—*The Practice of the Respondent in cases of Ambiguity.*

LIKEWISE, we must meet those things which are obscurely and multifariously enunciated; for since it is allowed to the respondent, if he does not comprehend, to say, I do not comprehend, and if a thing be multifariously predicated, not to confess, or deny it, of necessity, it is clear that, first, if the statement be not lucid, he must not hesitate to say, that he does not understand it, since frequently, from persons interrogated, not clearly conceding, some difficulty occurs. If however a thing multifariously predicated be known, if too what is asserted be in all things true or false, it must be simply admitted or denied, or if it be partly false and partly true, we must moreover signify

1. Respondent to confess his incomprehension of the obscure.

2. What is to be simply admitted or denied, etc.

¹ Buhle and Taylor insert a clause.

² To be true.

³ The duty of the respondent has been expounded in this respect, in ch. 4. See note.

⁴ i. e. the respondent.

that it is multifariously predicated, and why it is partly false and partly true; for if this distinction is made afterwards, it will be doubtful whether he (the respondent) perceived the ambiguity at first. Now, if indeed he did not foresee the ambiguity, but laid down the position, looking to the other (signification), it must be said against him, leading to the other, that he granted without looking to this, but to the other of the things (signified); for since there are many, under the same name or sentence, a doubt easily occurs; still if the question asked be clear and simple, the answer to it must be yes or no.¹

3. Result of not foreseeing ambiguity.

CHAP. VIII.—*Of Responson to Induction.*

SINCE every syllogistic proposition, is either some one of the things, from which a syllogism is formed, or (is assumed) for the sake of one of them, (for it appears manifest when it is assumed for the sake of one of them, i. e. from many things of a similar nature being interrogated, since men assume the universal, for the most part, either through induction or through similitude,)—therefore all the several particulars, must be laid down; if they be true and probable, yet we must make an attempt to urge an objection against the universal, for without an objection either real, or apparent, to impede the argument, is to be perverse.² If then, where many things appear, a person does not admit the universal, having no objection, it is clear that he is perverse; moreover, if he has no argument on the contrary, (to show) that it is not true, he will seem much more perverse. Yet neither is this enough, for we have many arguments opposed to opinions, which it is difficult to solve, as that of Zeno, that nothing can be moved, nor pass through a stadium; *³ still things opposite to these, are not on this account, to

1. He is shown to argue perversely, who neither has any thing to object to an induction, nor whence he can prove the contrary.

* Vide Physics, b. vi. c. 9; also

¹ That is, it must be simply admitted or denied.

² Δυσκολᾶναιεν ἔστιν. Cf. Ethics iv. 6; also an attack upon the Pyrrhonists by Montaigne, Essays.

³ Zeno's argument, called Achilles, (which has been "evaded" by Whately,) depends upon a fallacy, clearly discernible by syllogism; for if it be syllogistically represented, it will be found that the major premise is false. Aldrich says that Zeno employed it, "ut ostenderet continuum non esse infinite divisibile, quia hoc dato motus tolleretur;" but this is

Aldrich's *Logic*, upon *Fallacies*, and *Sop. Elen.* 24. be laid down. If, then, a person does not admit when he has neither an objection nor a contrary argument, he is evidently perverse, for perversity in argument is a responson contrary to the stated modes, destructive of syllogism.

CHAP. IX.—*Of the Defence of the Thesis.*

1. The disputant ought to set out to himself in argument, the thesis, and the definition.

WE ought so to maintain both the thesis and the definition, that he (the respondent) may previously argue against himself; for from what the questionists subvert the position, it is clear that to these, opposition must be made.

2. But not defend an improbable hypothesis.

Still we must beware of maintaining an improbable hypothesis, and it may be improbable in two ways, for both (that is improbable) from which absurdities happen to be enunciated; as if some one should say that all things are moved, or that nothing is; and also whatever things are chosen by the more depraved disposition, and which are contrary to the will; as that pleasure is the good, and that to injure, is better than to be injured. For men hate a person who makes these assertions, not as maintaining them for the sake of argument, but as what approve themselves (to him).¹*

* Cf. *Rhet.* i. 10.

CHAP. X.—*Of the Solution of False Arguments, and of the Methods of preventing the Conclusion.*²

1. In cases of false inference

WHATEVER arguments collect the false, must be solved, by subverting that, from which the falsity erroneous, for Zeno used it, to ridicule the opponents of Parmenides, who supported the unity of all things, by showing that the same absurdities occurred to their, as they professed to discover in his, theory. Cf. Plato *Parm.* p. 128; Cousin, *Nouveaux Fragments*, Zénon d'Elée.

¹ "It is surely wiser and safer," (says Whately admirably,) "to confine ourselves to such arguments as will bear the test of a close examination, than to resort to such as may, indeed, at the first glance be more specious, and appear stronger, but which when exposed, will too often leave a man a dupe, to the fallacies on the opposite side. But it is especially the error of controversialists, to urge every thing that can be urged; to snatch up the first weapon that comes to hand, ('furor arma ministrat,') without waiting to consider what is TRUE." B. iii. ch. 5, on *Logic*. See also his remarks upon Horne Tooke, sec. 8, of the same book.

² It has been presumed that the reader will not fail to compare

arises ; for the solution is not effected by subverting any thing whatever, even if what is subverted be false. For an argument may contain many falsities, as if some one assumed that he who sits writes, but that Socrates sits, since it follows from these that Socrates writes, when then, it is subverted that Socrates sits, the argument is not the more solved, though the axiom is false. Still, not on this account is the argument false, for if any one happen to be sitting indeed, but not writing, the same solution would no longer be suitable to such an one, so that this is not to be subverted, but that he who sits, writes, since not every one who sits, writes. He then, altogether solves (the argument) who subverts that, from which the falsity arises, but he understands the solution who knows that the argument depends on this, as (happens) in the case of false descriptions, since it is not sufficient to object, not even if what is subverted be false, but we must show why it is false, for thus it will be evident whether a person makes the objection from foreseeing something or not.

It is possible, notwithstanding, to prevent an argument being conclusive in four ways ; either by the subversion of that whence the falsity proceeds ; or by urging an objection against the questionist, (for frequently when no solution is given (by the respondent), yet the querist can proceed no further) ; thirdly, (by objecting) against the interrogations made, (for it may happen what we wish may not arise from the questions, because they are improperly made, yet when something is added that a conclusion may result ; if, then, the querist can proceed no further, the objection would lie against the querist, but if he can, against the questions asked) ; the fourth and worst objection is that which relates to time, for some object such things as require more time for discussion, than the present exercise (admits).

Objections, then, as we have said, arise in four ways, but of the particulars mentioned, the first

the cause to be investigated.

2. Four ways of preventing an argument being conclusive.

3. The first alone a solution.

Whately's Logical Treatises, with this part, connected with definition, fallacies, and argument, since the most valuable elucidation of the subject, is attainable from the archbishop's shrewd diagnosis, of fallacies of the heart, as well as those of the head. The portions of his work to which we would draw especial attention, are the 3rd and 4th books with Appendix.

alone is a solution, the rest being certain preventions and hindrances to the conclusions.¹

CHAP. XI.—*Of the Reprehension of Argument.*²

1. Reprehension of arguments themselves, different from the reprehension of persons employing them.

THE reprehension of an argument is not the same with respect to the argument itself, and when it forms the subject of interrogation, as often the person questioned is the cause of the argument not being well discussed, because he does not allow things from which it might be properly argued against the thesis, since it does not belong to the other alone, that the common work is properly effected. Wherefore sometimes it is necessary to argue against the speaker, and not against the thesis, when the respondent, out of contumely, makes observations contrary to the questionist; hence they cause through perverseness, the exercises to be contentious and not dialectic. Besides, since arguments of this kind are for the sake of exercise and experiment, and not of doctrine, it is evident that not only what is true, but also what is false, must be collected, neither always through what is true, but sometimes also through the false, for often when what is true is laid down, it is necessary for the disputant to subvert it, so that false assertions must be proposed.³ Sometimes, also, when the false is laid down, it must be subverted through falsities, since there is nothing to prevent things which have no existence, seeming to some person to be, rather than those which are true, so that when the argument subsists from things appearing (true) to him, he will be more persuaded than profited.

2. Contentious argument to be avoided.

Still, it is necessary that he who would transfer the reasoning properly, should transfer it dialectically, and not contentiously, as the geometrician (argues) geometrically, whether what is concluded be false or true; of what nature however, dialectic syllogisms are, we have shown before. Yet since he is a depraved associate, who impedes a common work, it is evident that (this is true also) in arguments, for there is something common proposed in these also, except amongst those who dispute, for the sake of con-

¹ Cf. Rhetoric, b. ii. ch. 25.

² Cf. Whately, b. iv. ch. 2 and 3.

³ Because the false is not concluded from the true, though the true may be from the false. Vide An. Post. b. ii. ch. 2—4.

test, as it is impossible for both these to obtain the same end, for they cannot vanquish more than one. Now it is of no consequence whether this is done, through the answer or through the question, since he who interrogates contentiously, disputes badly, also he who in his answer does not admit what is apparent, nor receives what the questionist wishes to inquire. Wherefore it is clear from what we have stated, that we must not similarly reprehend an argument per se, and the questionist; since nothing hinders the argument being bad, but the questionist discoursing against the respondent in the best way possible; for against the perverse, it is not perhaps possible, to frame immediately, such syllogisms as some one would, but such as he can, frame.

Since also it is indefinite when men assume contraries, and when things (investigated) in the beginning, (for often speaking by themselves they assert contraries, and having before denied, they afterwards admit, hence when questioned they frequently allow contraries, and that which (was investigated) in the beginning,) bad arguments, must necessarily arise. The respondent however is the cause, by not admitting some things, yet admitting such as these, wherefore it is clear that we must not similarly reprehend querists and arguments.

3. Origin of bad arguments.

Now there are five reprehensions of an argument per se, the first indeed, when from the questions asked nothing is concluded, neither the proposition, nor, in short, any thing; all or the greatest part of those, from which the conclusion (arises), being either false or improbable; and neither things being taken away, nor being added, nor some being taken away, but others added, the conclusion is produced. The second is, if there be not a syllogism against the thesis from such things, and in such a way, as was mentioned before. The third, if there is indeed a syllogism, from certain additions, but these should be worse than those questioned, and less probable than the conclusion. Again, if certain things are taken away, for sometimes men assume more than is necessary, so that the syllogism does not result from these being (granted); further, if from things more improbable and less credible than the conclusion, or if from things true in-

4. Reprehensions of an argument per se, five in number. Vide Whately on Fallacies, and Reasoning.

deed, but which require more labour to demonstrate than the problem.

5. Argument may be reprehensible per se, yet commendable as to the problem, or vice versâ. Cf. Whately, b. iv.

Notwithstanding, we need not require the syllogisms of all problems to be alike probable and convincing; for some things investigated, are straightway by nature more easy, but others more difficult, so that he will discourse well, who argues from such as are of the greatest possible probability.

Wherefore, it is evident then, there is not the same reprehension of an argument, as to what is laid down in the question, and when it is per se, for nothing prevents an argument being per se reprehensible, but commendable as to the problem; * and again, vice versâ, praiseworthy per se, but reprehensible as to the problem, when it is more easy to conclude from many things probable and true.¹ For sometimes an argument, even when conclusive, may be worse than what is inconclusive, when the one concludes from foolish things, the problem not being such, but the other requires such as are probable and true, and the argument does not consist in the things assumed. Still, it is not just to reprehend those who conclude the true through the false, for the false must of necessity always be collected through the false, yet sometimes it is possible to collect the true, even through the false, indeed it is evident from the Analytics.

6. When the thesis is not refuted—distinction between a philosophema, an epicheirema, a sophism, and an aporema. † Vide infra; also Anal. Pr. ii. 2.

When the before-named argument is a demonstration of something, if there is something else which has nothing to do with the conclusion, there will not be a syllogism about it; † but if there should appear (to be one), it will be a sophism, not a demonstration. Now, a philosophema is a demonstrative syllogism; an epicheirema, a dialectic syllogism; but a sophism, a contentious syllogism; and an aporema, a dialectic syllogism of contradiction.²

¹ Cf. Waitz.

² I extract the following scheme, which presents the relative position of the several terms used here, from Dr. Hessey's *Schema Rhetorica*; from which it will appear that the philosophema, or philosophic question, results from necessary, the epicheirema and enthymem from probable, and the sophism from apparently, but not really, probable, propositions.

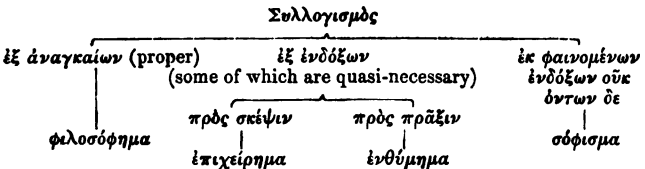
If moreover any thing should be demonstrated from both probable (propositions), yet not similarly probable, there is nothing to prevent what is demonstrated, being more probable than either (proposition), but if one be probable, but the other neither (probable nor improbable), or if one be probable, but the other not, if they be similarly so, (the conclusion) will also similarly be and not be, but if one is more, (the conclusion) will follow that which is more.

7. Of the probability of the conclusion.

Now this also is an error in syllogisms, when a person demonstrates through more, what is possible through fewer things, which also are inherent in the argument; as if any one, (in order to show) that one opinion is better than another, should require it to be granted, that each thing itself subsists in the most eminent degree, but that the object of opinion is truly itself; wherefore it is more than certain other things, but what is said to be more, is referred to the more, and the opinion itself is true, which will be more accurate than certain things; yet it was required to be granted that opinion itself is true, and that each thing itself most eminently subsists, wherefore this opinion itself is more accurate. Now, what is the fault here? It is that it makes the cause latent, from which the reasoning is derived.

8. Error of proving by circumlocution, or from things which are not evident, as to the cause whence the reasoning proceeds.

The aporema is, as Aristotle observes, a dialectic syllogism of contradiction, which the epicheirema admits of.



Cf. also Crakanthorpe's Logic, Rhet. ii. Of the epicheirema, or argumentatio, there were numerous kinds, tripartita, quadripartita, etc.; but at length the word was limited to quadripartita. Vide Trendelen. Elem. 33; ad Heren. ii. 2; Cic. de Invent. i. 37, seqq.; Quint. Inst. v. 13. It will, of course, not have escaped the student of the Rhetoric, that the elements of enthymem, discussed there, (Rhet. b. ii. ch. 2 to the end,) are correspondent with, and illustrative of, the subjects of this treatise. A striking instance of sophism is given by Hudibras, part ii. c. 2, l. 123.

CHAP. XII.—*Of Evident and False Reasoning.*

1. When an argument is clear.

way, which

* i. e. through prop., not of themselves known, but proved through pro-syllogisms.

2. False in four ways.

† i. e. an argument is said to be false.

‡ 11th chap. also An. Pr. b. ii. ch. 2—4.

3. If it be false, whether it is the fault of the arguer, or of the argument.

§ That he has stated a false argument.

|| i. e. in the demonstr. ad impossibile.

AN argument is most clear in one way, and that the most popular, if it be so concluded, as to require no further interrogation; but in another way, which is especially said to be, when things are assumed, from which (the conclusion) necessarily results, but (the argument) concludes through conclusions; * moreover, if there is any thing deficient, of what is very probable.

Again, an argument is called false in four ways; ¹ one when it appears to conclude, yet does not do so, which is called a contentious syllogism;

another when it concludes, indeed, that which does not pertain to the proposed (problem), and this happens especially in arguments leading to the impossible; or it concludes pertinently to what is laid down, yet not after an appropriate method, ² and this is when a non-medical argument appears medical, or the non-geometrical to be geometrical, or the non-

dialectic to be dialectic, whether the result be false or true. Another way, † if it concludes through falsities, and of this the conclusion will

be sometimes false, and sometimes true, as the false is always concluded through falsities, but it is possible that the true may be so even from things not true, as was said also before. ‡

That the reasoning, then, is false, is rather the fault of the arguer than of the argument, and neither is it always the fault of the arguer but when it escapes him, § since of many truths per se, we admit rather that, which from things especially appearing (probable), subverts something true. ³

For such (reasoning) is a demonstration of other truths, as it is requisite that some one of the positions || should not altogether be, so that there will be a demonstration of this; ⁴ but if it should conclude

¹ Vide Whately's Logic, b. ii. ch. 2, l: also App. i. 29; Rhet. ii. 24, 25.

² i. e. when the reasoning concludes against the thesis, as if it were a demonstration and yet it is not so.

³ i. e. the reasoning which leads to the impossible.

⁴ i. e. of the true conclusion which contradicts the hyp., from which

the true through false, and very silly assertions, it will be worse than many, which collect the false, and such will be the reasoning, collecting the false. Wherefore, it is evident that the first consideration of the argument per se will be whether it concludes; next, whether (it concludes) the true or false; thirdly, from what assertions, for if from those which are false but probable, it is a logical argument, but if from what are (true) yet improbable, it is faulty. If, also, they are false, and very improbable, the argument is evidently bad, either simply, or with respect to the thing (discussed).

4. What we are to regard in examining argument.

CHAP. XIII.—Of *Petitio Principii*, and *Contraries*.

As to what was (investigated) in the beginning and contraries, how the questionist demands a postulate according to truth, indeed, has been told in the *Analytics*,* but must now be discussed according to opinion.

* Vide An. Pr. b. ii. ch. 16. Cf. Whately Log. b. iii. 13.

Now, men appear to beg what was in the beginning in five ways, most evidently, indeed, and primarily, if any one begs the very thing which ought to be demonstrated; this, however, does not easily escape notice, as to the thing itself, but rather in synonyms,¹ and wherein the name and the definition signify the same thing. Secondly, when what ought to be demonstrated particularly, any one asks for, universally, as when endeavouring to show there is one science of contraries, he demands it to be altogether granted, that there is one of opposites, for he seems to beg together with many things, that which he ought to demonstrate per se. Thirdly, if any one proposing to demonstrate the universal, begs the particular; as if when it is proposed (to be shown), that there is one science of all contraries, some one should require it to be granted, that (there is one) of certain contraries; for he also seems to beg per se separately, that which he ought to show, together with many

1. *Petitio principii* occurrent in five ways.

hyp. an absurdity follows. The subject of this chapter is fully expounded by the observations of Whately upon argument.

¹ Synonyms here, have a different meaning to that attached to them in *Cat. sec. 1*, and answer in this place, to the polyonymous of *Speusippus*, or, as *Boethius* calls them, *multivoca*; vide note, *Cat. i*.

things. Again, if a person dividing (the problem) begs the thing proposed for discussion; as if when it is necessary to show that medicine belongs to the healthy, and the diseased, he should claim each of these, to be granted separately. Or if some one should beg one of these, which are necessarily consequent to each other, as that the side of a square is incommensurate with the diameter, when he ought to show, that the diameter is incommensurate with the side.¹

2. Of the "begging" of contraries. * As that pleasure is good, and is not evil.

Contraries, are begged in as many ways, as the original question; for first, if any one should demand the opposites, affirmation and negation; * secondly, contraries according to opposition, as that good and evil are the same; thirdly, if a man claiming universal to be granted should require contradiction particularly, as if assuming one science of contraries, he should desire it to be granted that there is different science of the wholesome and the unwholesome, or begging this, endeavoured to assume opposition as to the universal. Again, if a man should beg the contrary to what happens necessarily through the things laid down; if also, a person should not indeed assume the opposites themselves, but should claim two such

3. Difference between them.

things from which there will be an opposite contradiction. Still, there is a difference between assuming contraries and a *petitio principii*, because the error of the one belongs to the conclusion, (for having respect to this, we say that the original question is begged,) but contraries are in the propositions, from these subsisting in a certain way, as to each other.

CHAP. XIV.—Of *Dialectic Exercise*.

1. Conversion of arguments, useful for dialectic exercise.
† See An. Pr. ii. 8.

FOR the exercise and practice of such arguments † as these, we must, in the first place, be accustomed to convert arguments; for thus we shall be better provided for the subject of discussion, and we shall obtain a knowledge of many argu-

¹ The varieties of the *Petitio Principii* given here, do not correspond with those mentioned by Aldrich, and the second, is not in form, distinguishable from the regular syllogism; valuable information can be derived upon the subject, from Mansel's *Logic*, Appendix note D., and Whately, b. iii. sec. 13. It is seen by this chapter, that Aristotle regards the assumption of definitions, as a *Petitio Principii*. Cf. Pacius in *Anal. Prior* ii. 16.

ments in a few. For to convert, is when we have changed the conclusion with the remaining interrogations, to subvert one of the data, since it is necessary, if the conclusion is not, that some one of the propositions should be subverted, as when all these are laid down, the conclusion would of necessity be. We must also consider the argument as to every thesis, both that it is so, and that it is not so, and having discovered (this), the solution must be forthwith investigated, for it will happen thus, that at the same time, we shall be exercised both in question, and answer. If also we have nobody else, (we must dispute) to ourselves; also selecting arguments about the same thesis, we must compare them side by side; for this produces a great abundance, for the purpose of constraining conviction, and affords great aid to confutation, when a person is well supplied with arguments both pro and con; since, thus, it happens that care is taken against contraries. Neither is it a small instrument to knowledge and philosophical wisdom, to be able to perceive and to have perceived the results of each hypothesis, for it remains rightly to select one of these.¹ Now there is need for a thing of this kind of a naturally good disposition, and a good disposition is in reality, thus to be able to select properly the true, and to avoid the false; which those naturally (good) are able to perform well, since they who properly love, and hate what is adduced, judge well, what is best.*²

3. Also an individual scrutiny of arguments, pro and con.

* Cf. Ethics vi. 2; Mag. Mor. i. 32.

It is likewise requisite to know well, the arguments about the problems, which generally occur, and especially concerning first theses, since in

3. Also a thorough knowledge of the most usual ar-

¹ "The first energy" of the dialectic of Plato, is a true exercise of the soul, in the speculation of things, leading forth through opposite positions, the essential impressions of ideas, which it contains, and considering not only the Divine path, as it were, which conducts to truth, but exploring, whether the deviations from it, contain any thing worthy of belief; and lastly, stimulating the all-various conceptions of the soul. What is here said therefore by Aristotle, is no small encomium of this part of the dialectic of Plato. Taylor.

² Thus Montaigne, on the education of children, observes, "Make him understand, that to acknowledge the error, he shall discover in his own argument, though only found out by himself, is an effect of judgment and sincerity, which are the principal things he has to seek after. That to recollect and correct himself, and forsake a bad argument in the weight and heat of dispute, are great and rare philosophical qualities.

guments, especially as to primary theses.

* Vide Whately, b. iii. iv.

these the respondents are often dissatisfied. Moreover, we ought to abound in definitions, and to have at hand those, both of the probable and of the primary, since through these, syllogisms are formed.* We must endeavour also to possess those, into which the other disputations generally fall; for as in geometry it is of importance to be exercised about the elements; and in arithmetic, to be prompt in the multiplication of numbers in a regular series up to ten, also contributes greatly to the knowledge of the multiplication of the other numbers besides; so in like manner in arguments, the being prompt about principles, and tenaciously to retain propositions in the memory (are of great service). For as places laid down in the mnemonic (part of the soul) only, immediately cause us to remember them, so these also, will render a person more syllogistic, in consequence of his regarding these (propositions), defined numerically. A common proposition also, rather than an argument, should be committed to memory, since to abound with principle and hypothesis is moderately difficult.¹

4. An adversary's single argument, to be divided into many.

Moreover, we must be accustomed to make one argument many, concealing as obscurely as possible,² which sort of thing may be done, if a person very much recedes from the alliance of those things which are the subject of discussion. Such arguments indeed, as are especially universal, will be capable of experiencing this; as that there is not one science of many things, for thus it is in relatives, and in contraries, and in conjugates.³

5. And to be rendered as universal, as possible.

Besides, we ought to make universal records of arguments, even if that discussed, be particular; for thus it will be possible to make one argument many, so also in rhetorical enthymemes.

¹ i. e. it is easier than to commit the whole argument to memory.

² i. e. we ought to split our opponent's argument into many, in order to render demonstration a harder task to him; but we must do this as secretly as possible, in order to escape his notice, whilst we draw him off to points least connected with the subject. Examples of this kind are continually found in Voltaire, and writers of that stamp. For instances to the contrary, vide Watson's Apology, or Leslie's "Short and Easy Method with the Deists."

³ Vide Rhet. b. i. ch. 7, and b. ii. ch. 23. Conjugate is called by Hobbes "cognomination, or affinity of words."

Nevertheless, the disputant ought as much as possible to avoid the universal in introducing syllogisms; and it is also requisite always to observe whether the arguments are conversant with things common, for all particular are conversant with universal, and the demonstration of the universal is inherent in that which is particular, because nothing can be syllogistically concluded without universals.*

6. The contrary mode to be adopted, by the disputant himself.

* So Waitz.

We should assign the exercise of inductive arguments to a young man, but of syllogistic ones to a practised man;¹ we should also endeavour to assume propositions from those who are skilful in syllogisms, but comparisons from the inductive, for in these each are exercised. In short, from dialectic exercise, we must endeavour to draw either a syllogism about something, or a solution, or a proposition, or an objection, or whether any one has rightly or not rightly questioned, whether himself or another, and about what each is. For from these the power (of discussion arises), and exercise is on account of power, especially in propositions and objections; since, in short, he is the dialectician, who is ready to propose and to object; but to propose is to make many things one, (since it is requisite for that to be assumed in the whole, to which the argument belongs,) but to object (is to make) one many, since a man† either divides or subverts, partly admitting, and partly denying the proposition.

7. How inductive, and syllogistic arguments are to be allotted.

8. Object of dialectic exercise.

† Who objects.

It is requisite still, not to dispute with every one, nor to exercise ourselves against any casual person, for it is necessary to employ bad arguments against some, since against him, who altogether tries to seem to elude us, it is just indeed, by all means, to try to draw a conclusion, yet it is not becoming. Wherefore, it is not proper readily to engage with casual persons, since depraved disputation will necessarily occur; for even those who practise themselves, cannot forbear disputing contentiously.²

9. Not every one is to be disputed with. Montaigne's Ess. xxv.

¹ For the reason of this, cf. Rhet. b. ii. ch. 12, and Whately, b. iv. ch. 1; whence it will appear, that inductive reasoning, is least of all suited, to the mental temperament of the young.

² Solomon gives *similar* advice (Prov. xxvi. 4): *contrary* advice in the same chap. ver. 5.

10. Special provision to be made, as to universal arguments.

* Arguments.

† Problems.

Likewise, also it is requisite to have arguments framed against such problems, in which being supplied with the fewest,* we shall have them useful against the most; † now, these are universal (arguments), and which are with more difficulty supplied from things that are obvious.

THE SOPHISTICAL ELENCHI.¹

BOOK I.

CHAP. I.—*Of Sophistical Elenchi generally.**

* Waltz gives no distinctive title to these books, but continues this subject, under

CONCERNING sophistical elenchi, and such as appear, indeed, elenchi, yet are paralogisms but not

¹ "Whatever is concluded, is either necessarily true, probable, or false: hence every syllogism, is either analytical or demonstrative, dialectical or topical, contentious or sophistical. Of the demonstrative syllogism, Aristotle has treated in the Posterior Analytics, and of the dialectical in the Topics; it remains, therefore, that he should discuss the sophistical syllogism, which it is requisite we should learn, not that we may use, but that we may avoid it, and that we may free ourselves from the snares and arts of the sophists, just as the medical art considers poisons, not that the physician may employ them, but that he may prepare remedies against their pernicious effects. But Aristotle in this treatise employs the same method as he employed in the Topics, for in the first place, he instructs the sophist, unfolding the invention and disposition of deceptions and the sophistical method of interrogating, and in the next place, he instructs the answerer, teaching him how those sophisms may be solved." Taylor. Conformably with this distinction he divides the treatise into two books, though all the Greek MSS., and most of the modern copies, make it one book.

As to the general meaning of *ἐλεγκος*, the word implies confutation of an *actual* adversary or reproof, (Rhet. ii. 23, and iii. 13, also ii. 4,) but its more extended sense to an *imaginary* opponent, and the processes incidental to its use, are well pointed out by Dr. Hessey, (Introd. Schem. Rhet. and Table 4.) Since, however, he who uses an elenchus (redargutio) against another, employs it for the purpose of contradicting him, Aristotle defines it a syllogism of contradiction, whence Sophistical Elenchi are the syllogisms used by sophists to contradict those with whom they argue. Now these, may be either apparent, or formed from what is false and apparent, with a view to contradiction.

We may remark, that no quotations of the Soph. Elen. are found in the

elenchi, let us treat, commencing in natural order, from the first.

That some, then, are syllogisms, but that others which are not, appear (syllogisms), is clear, for as this happens in other things through a certain similarity, so also does it occur in arguments. For some have a good habit,* others appear (to have it), being inflated on account of their family, and decorating themselves; some, again, are beautiful on account of beauty, but others appear so from ornament. Likewise, in the case of things inanimate, for of these, some are really silver, and others gold, but others again, though they are not, appear so to sense; for instance, substances like litharge and tin (seem) silvery, others dyed with gall (appear) golden. In the same manner also, syllogism and elenchus, one indeed is (in reality), but the other is not, yet seems so from inexperience, for the inexperienced make their observations as it were, withdrawing to a distance; for syllogism is from certain things so laid down, as that we collect something of necessity, different from the things laid down, through the posita; but an elenchus is a syllogism with contradiction of the conclusion. Some, indeed, do not do this, but appear to do it from many causes, of which this is one place most natural and most popular, viz. through names, for since we cannot discourse by adducing the things themselves, but use names as symbols instead of things, we think that what happens in names, also happens in things, as with those who calculate, but there is no resem-

the head of 9th and 10th b. of the Topics.

1. Those not always true syllogisms, which appear so.

* i. e. nobility of manners.

2. Difference between syllogism and elenchus, cause of apparent, but unreal, syllogism.

extant writings of Aristotle, as neither of the *Cat.* nor *de Interpret.*, the allusions to the two first given by Ritter are doubtful, (vol. iii. p. 28.) In fact, the examination of fallacies is clearly extralogical, except when the consequence is formally invalid, and this treatise of Aristotle is only an account of the "pseudo-refutations," as Mansel calls them, in use amongst the sophists of his day, whether depending upon equivocal language, false assumption, or illogical reasoning. Upon the real relation which fallacies bear to Logic, the reader is referred to Whately's admirable treatise upon them in book iii. of his *Logic*, which should be taken by the student as a guide or exponent to the several matters discussed by Aristotle here. Spurious sophistry is in fact nothing but "the art of wrangling," but nevertheless, the doctrine of this treatise is necessary, to arm the man of science, against the attacks of false reasoning. Cf. also Hill's *Logic*, *de Solutione Sophismatum*.

blance. For names and the number of sentences are finite, but things are infinite in number, wherefore it is necessary that the same sentence and one name should signify many things. As therefore there, those who are not clever in calculation are deceived by the skilful, in the same manner also, with regard to arguments, those who are unskilled in the power of names are deceived by paralogisms, both when they dispute themselves, and when they hear others, for which reason also, and others which will be assigned, there may be a syllo-

3. The distinction between the man of science, and the sophist.

gism and elenchus in appearance, but not in reality.¹ Since, however, to some men it is more the endeavour to seem, than to be, wise, and not to seem, (for the sophistical is apparent but not

real wisdom, and a sophist is a trader from apparent and not real wisdom,) it is clearly necessary to these, that they should rather seem to perform the office of a wise man, than to perform it and not to seem to do so. On the other hand, it is the business of him who is skilful in any thing, (that I may compare one thing with one,)² not to deceive* about

* Not to be deceived himself.—Taylor, malè.

what he knows, and to be able to expose another who does deceive; and these consist, the one, in being able to give a reason, and the other in

receiving one. Therefore it is necessary, that those who desire to argue sophistically, should investigate the genus of the before-named arguments, since it is to the purpose; for a power of this kind, will cause a man to appear wise, which these happen to prefer.

4. Purport of the following treatise.

That there is then, a certain such genus of arguments as this, and that they, whom we call sophists, desire such a power, is evident; but how

many species of sophistical arguments there are, and from what number this power consists; also, how many parts there are of this treatise; and concerning the other points, which contribute to this art, let us now speak.

¹ In its extended sense, every fallacy is an Ignoratio Elenchi. Cf. ch. 6: vide also Mansel's Appendix 120, note; Whately, iii. 3.

² That is, comparing the employment of the scientific with that of the sophist.

CHAP. II.—*Of the Genera of Arguments.*

IN disputation, there are four genera of arguments, the didactic, the dialectic, the peirastic (or tentative), and the contentious. The didactic, indeed, are those which syllogize from the proper principles of each discipline, and not from the opinions of him who answers, (for it is necessary that he who learns, should believe:)¹ the dialectic are such as collect contradiction from probabilities: the peirastic are those which are (conclusive) from things appearing to the respondent, and which are necessary for him to know, who pretends to possess science, (in what manner, indeed, has been defined elsewhere:)* the contentious are those which infer, or seem to infer, from the apparently, but not really, probable. Now concerning the demonstrative,² we have spoken in the Analytics, but concerning the dialectic and peirastic in other treatises; † let us now, therefore, speak about those which are contentious, and litigious.

1. That there are four kinds of arguments. Connexion between this book and the Analytics and Topics.

* Top. b. i. ch. 2, and b. viii.

† In the Topics.

CHAP. III.—*Of the Objects of Sophistical Dispute.*

WE must, in the first place, assume how many are the objects which they aim at, who contend, and strive, in disputations, and these are five in number: an elenchus, the false, the paradox, the solecism, and the fifth, to make their opponent in disputation trifle, (this is to compel him frequently to say the same thing,) or what is not, but seems to be, each of these. They specially indeed, prefer, to appear to confute by an elenchus, next to point out some false assertion, thirdly, to lead to a paradox, and fourthly, to make (their adversary) commit a solecism, (and this is, to make the respondent, from the argument, speak barbarously), in the last place, to make (a person) frequently say the same thing.³

1. The objects, which disputants have in view, are five.

¹ Cf. An. Post. i. 2. The term *διαλέγεσθαι*, was applied to all these four kinds. In ch. 11, he distinguishes between *ἑριστικοί* and *σοφιστικοί*, they were the earliest special developments of the dialectic.

² Taylor and Buhle insert the didactic and demonst.

³ The Sophist's aim is either:—

CHAP. IV.—*Of Elenchi as to Diction.*

1. Two-fold method of employing elen-chus. Causes of the latter appearing from diction are six.

* Cf. Rhet. ii. 24.

1. Equivoca-tion, cf. Whately, iii. 10; Mansel App. 117, et seq.; Hill, 309, et seq.

THE modes of employing elen-chus are two, for there are some conversant with diction, but others without diction,¹ those which cause appearance (of elen-chus) according to diction, are six in number, which are equivocation, ambiguity, composition, division, accent, and figure of speech.*

The credibility of this, however, is from induction and syllogism, both whether some other (mode) be assumed, and because we may signify what is not the same in so many ways by the same names and sentences. Such arguments as these are from equivocation, as that those scientifically cognizant, learn, for grammarians learn those things which they recite from memory; for to learn, is equivocal, (signifying) both to understand, by using science, and also to acquire science. Again, also, that things evil, are good, for that things necessary are good, but that things evil are necessary; for necessary is twofold, viz. that which is indispensable, which frequently happens also in evils, for (some

1. The Elenchus—by which, his opponent may contradict, what before, he allowed.
2. The False—by which, the opponent may be compelled to state a manifest absurdity.
3. The Paradox—by which, he opposes universal opinion.
4. The Solecism—wherein, he employs barbarous terms.
5. Tautology—by which, refutation of what is nugatory, in the same discourse, may be induced.

¹ "The division of fallacies, into those in the words, (in dictione,) and those in the matter, (extra dictionem,) has not been, by any writers hitherto, grounded on any distinct principle, at least, not on any, that they have themselves adhered to." Whately. The archbishop, therefore, adopts the method of interpreting the former, as logical fallacies, wherein the conclusion does not follow from the premises; the latter, as material fallacies, where the conclusion follows, but the falsity is in the assumption—this, however, as shown by Mansel, is not the ancient principle of distinction, as stated by several Logicians. See Sanderson's Logic. Cf. also Alex. Aphro. Scholia, p. 298, b. xxviii.; Occam, Logica, iii. 4, cap. 1. Waitz, vol. ii. p. 532. Fallacies "of diction," are mostly instances of ambiguity in the middle term, or in either of the extremes; I need hardly observe, that both kinds of fallacy, are noticed by Aldrich and the common Logics, but Hill gives some very good examples.

evil is indispensable), and again, we say that good things are necessary, (that is, expedient). Moreover, that the same person sits, and stands, and is ill, and well, for he who rose, stands, and he who became well, is well; but he who was sitting, rose, and he who was ill, became well, for that he who is ill, does, or suffers any thing, does not signify one thing, but sometimes signifies him who is now ill, or sitting, sometimes him who was ill before, except that both he who was ill, and being ill, became well, but he is well, not being ill, and he who was ill, not (who is) now, but (who was) before.¹ Such arguments as these however, are from ambiguity:²

τὸ βούλεσθαι λαβεῖν με τοὺς πολεμίους,
and

ἄρ' ὁ τις γινώσκει τοῦτο γινώσκει;

for both he who knows, and what is known, may signify in this sentence, the same thing as knowing; also

ἄρ' ὁ ὄρᾳ τις, τοῦτο ὄρᾳ—but he sees a pillar, so that the pillar sees:^{*} and,

ἄρα ὁ σὺ φῆς εἶναι, τοῦτο σὺ φῆς εἶναι; φῆς δὲ λίθον εἶναι, σὺ ἄρα φῆς λίθος εἶναι: †

and,

ἄρ' ἔστι σιγῶντα λέγειν; for σιγῶντα λέγειν is two-fold, signifying both that he who speaks,

2. Ambiguity, cf. Whately, iii. 10, and Mansel, App. 117, et seq; Hill, 309, et seq.; Poetics, ch. 25.

* The ambiguity here is in τοῦτο being either accusa. or nom.

† The ambiguity lies in the words τοῦτο σὺ φῆς εἶναι, which

¹ The whole of this chapter is fully expounded by Whately, Hill, and Mansel. The third argument, is where the sophist apparently confutes by an equivocation of the minor, thus: The sophist asks "Whether a person sitting, stands, and a sick man, is well?" The respondent denying this, the sophist rejoins, "He who rose from his seat, stands, and he who is healed, is well; but sitting, he rose, and a sick man, was made well; therefore, sitting, he stands, and a sick man is well." Thus, in the minor there is an equivocation, because when it is said that a man sitting, or being ill, does, or suffers something, two things are signified, first, that when he sits, he does something, and secondly, that he who before sat, now does something; so that being taken in one sense in the premise, and in another in the conclusion, there is no confutation.

² Ambiguity is a fallacy founded upon a certain sentence signifying many things, e. g. the sentence given is ambiguous, because it may equally signify that "I wish to take the enemies," as that "The enemies wish to take me;" also the other, which may either mean, "Does he who knows, know what he is said to know, or whether does the thing known, know." Cf. Aristop. Ranæ, 1156, where Aristophanes represents Euripides as bantering Æschylus, by inferences drawn from his ambiguous expressions. Many of these resolve themselves into, not only difference of punctuation of clauses, but even of tone in which the words are uttered.

may be either assumed in the acc. or nom.

* *σιγήματα* may be either nom.,

"Is it possible that things silent can speak?" or acc.

"Can any one speak of those things which are silent?"

† i. e. a bird or the gable of a house.

is silent, and those things which are spoken.* There are, however, three modes of the equivocal and ambiguous, one when the sentence or word properly signifies many things, as an eagle† and a dog; another when we are accustomed thus to speak; and a third, when the conjoined signifies many things, but separated (is taken) simply, as *ἐπίσταται γράμματα*, for each *ἐπίσταται*, and *γράμματα*, signifies if it should so happen, one thing, but both (conjointly) many things, either that letters themselves have science, or that some one

else knows letters.

3. Composition. Vide Whately iii. 11.

Ambiguity therefore, and equivocation, are in these modes, but the following belong to composition; as that he who sits, can walk, and that he

who does not write, may write. For it does not signify the same if a person speaks separately and conjointly, that it is possible that a person sitting, may walk, and that one not writing, may write, and this in a similar manner, if some one should connect (the words), that he who does not write, writes; since it signifies that he has a power by not writing, of writing. If however he does not join (the words, it signifies), that he has a power, when he does not write, of writing; also he now learns letters, since he learned what he knows; moreover, that he who is able to carry one thing only, is able to carry many.¹

4. Division. Whately iii. 11.

Concerning division, (the arguments) are such as these, that five is two and three, and odd and even,² and that the greater is equal, for it is so

much, and something more; for the same sentence divided, and conjoined, does not always appear to signify the same thing; as

¹ The example given here, shows a wrong composition of clauses in a sentence capable of two punctuations, the sense varying according as "sedentem" is joined with "possibile est," or with "stare;" so also the fallacy of division will include the separation of clauses which ought to be united. In the fallacy of combination, the same term is taken, first, in a distinctive, and then in a collective sense; in the fallacy of division, the argument contains the word, first, employed in a collective, or combined application, and subsequently in one divided or distributed. There are some excellent examples in Hill.

² For if five is divided into three and two, three is an odd, and two an even number.

“Ἐγὼ σ' ἔθηκα δούλον ὄντ' ἐλεύθερον,”¹

and this,

“*πεντηκοντ' ἀνδρῶν ἑκατὸν λίπε διὸς Ἀχιλλεύς.*”²

But from accent, in discussions which are not committed to writing, it is not easy to frame an argument, but rather in writings and poems, as, for instance, some defend Homer against those who accuse him as having spoken absurdly,

*τὸ μὲν οὖν καταπίθεται ὄμβρῳ,**

for they solve this by accent, saying that *οὖν* is to be marked with an acute accent. Also about the dream of Agamemnon, because Jupiter himself does not say,

δίδομεν δέ οἱ εὖχος ἀρέσθαι,†

but commanded the dream *διδόναι*; † such things therefore are assumed from accent.³

Those (arguments) occur from figure of speech, when what is not the same, is interpreted after the same manner, as when the masculine is interpreted feminine, or the feminine as masculine, or

5. Accent.

* Iliad, b. xxiii. v. 328. Poetics, ch. 25.

† Iliad xxi.

297, Ritter.

‡ i. e. to give promise of glory to Agamem.

6. Figure of

speech. Vide

Mansel, App.

119; Hüll, 317;

Waitz, p. 534.

¹ This verse, apparently from Menander, is given by Terence in the *Andria* :

“Feci e servo ut esses libertus mihi.”

* This of course bears a different signification, according as *ἀνδρῶν* is united with *ἑκατὸν* or *πεντήκοντα*.

³ These fallacies are almost beneath notice, being founded on mere similarity of sound or of spelling; for an example, see the ridicule passed upon Alcibiades, for his imperfect utterance, by Aristoph. (*Vesp.* 45). The fallacy, as Aristotle observes, can hardly occur in Greek sentences, delivered *vivâ voce*, because of the accent and breathing used, but that it might happen in writings, from the Greeks, in his time, not marking written words with accent and spiritus. In the 2nd example from the *Iliad*, *οὖν* ought not to be read “*spiritu aspero*,” and with a circumflex accent, so as to signify “where;” but with a grave accent and “*spiritu leni*,” so as to signify “not.” Hippias Thasius thus defends Homer in the *Poetics*. In the first example, at *Iliad* xxi. 297, there is *δίδομεν δέ τοι, κ. τ. λ.*; but the line, as here given, and in the *Poetics*, does not occur in Homer. See Ritter. Taylor observes, “It is from the second book of the *Iliad*, where Jupiter orders a dream to deceive Agamemnon, and, as some read, Jupiter is made to say, that he will give glory to Agamemnon, and therefore they represent Jupiter as lying, but the fallacy arises from accent; we ought not to read *δίδομεν* with an accent on the antepen., so that it may signify “*damus*;” but *διδόμεν*, with an accent on the penult., so that it may be an infinitive Ionic, and signify “*dare*.” Vide Taylor, and cf. Proclus, in Taylor’s Introduction to the 2nd book of the *Repub.* of Plato.

the neuter as either of these, or again, quantity as quality, or quality as quantity, or the agent as the patient, or the disposed as the agent, and other things as they were divided before.* For what is not (in the category) of action, it is possible to signify in the diction, as if it were in it, (action); thus, to be well is asserted in a similar form of speech, as to cut or to build, though that signifies a certain quality, and being disposed in a certain way, but this to do something, and in the same manner also with regard to other things.¹

* Vide Top. i. ch. 9.

CHAP. V.—Of Fallacies "*extra-dictionem*."

THE elenchi, then, which belong to diction, are from these places, but the species of paralogism without diction are seven; one from accident; the second on account of what is asserted simply, or not simply, but in a certain respect, or some where, or at some time, or with a certain relation; the third from ignorance of the elenchus; the fourth from the consequent; the fifth from *petitio principii*; the sixth from placing non-causa pro causâ; the seventh from making many interrogations, one.

Paralogisms, then, which arise from accident, are when it is required to be granted, that any thing is similarly present with a subject and accident, for since there are many accidents to the same thing, it is not necessary that all these should be present with all the predicates, and the subject of which they are predicated.† Thus, if Coriscus is different from man, he is different from himself, for he is a man; or if he is different from Socrates, but Socrates is a man, they say that it is granted, that he is different from man, because it happens that that from which he is said to be different is a man.³

1. From accident.

† "For thus all will be the same as the sophists say"—inserted by Taylor and Buhle.

¹ Cf. Pet. Hisp. Summ. Log. Tract 6; Rhet. ii. 24; Soph. Elench. 15. The fallacy is rather "*extra-dictionem*:" Hill gives several instances.

² These comprehend all cases of deception resulting from another cause than ambiguity of language.

³ Since it is clear that many things may be predicated of a subject which cannot be predicated of every circumstance, quality, or relation connected with such subject: hence the error of arguing from a term

Other (paralogisms arise) from some particular thing being said to be simply this, or in a certain respect, and not properly, when what is predicated in part, is assumed as spoken simply; e. g. if (some one should infer that if) what is not, is the object of opinion, what is not, is, for it is not the same thing to be a certain thing, and to be, simply.¹ Or, again, that being is not being, if some one of the number of beings is not, for instance if man is not, for it is not the same for a certain thing not to be, and not to be simply, but there seems from the affinity of diction, to be but a small difference between a certain thing existing and existence, and a certain thing not existing and non-existence. Likewise, also, (paralogisms arise) from (predication) in a certain respect, and simply, thus, if an Indian, being wholly black, has white teeth, he is white and not white, or if both are present in a certain respect, that contraries are present at the same time. Such a case, however, (of paralogism) it is easy for every body to perceive in certain (sentences), for instance, if assuming the Ethiopian to be black, he should ask whether he is white as to his teeth,* if then in this respect he is white, it may be thought syllogistically proved, when he has perfected the interrogation, that (the man) is black and not black. In some (sentences), indeed, (the paralogism) is frequently latent, viz. in those, where when an assertion is made in a certain respect, the simply (being asserted) also seems to follow, and in those wherein it is not easy to perceive, whether

2. From a thing being simply, or in a certain respect, stated. Vide Whately, iii. 12; Aldrich, Mansel's App. Hill, 320.

* Cf. Aldrich, Log. ch 2. sec. 4; Martial, lib. xii. Ep. 54.

taken simply, to the same term modified by any adjunct; which sophism is called "fallacia accidentis," because it applies to the accident, what is true of the subject, only. For examples, see Hill's Logic; that given by Arist. in the text may be thus stated,

Coriscus is different from Socrates,

Socrates is a man,

∴ Coriscus is different from a man: and the fallacy consists in assuming, that whatever is different from a given subject is incompatible with all the predicates (*τὰ συμβαίνοντα*) of the subject.

¹ This, as Whately states, is the converse to the last fallacy: it involves four terms, as in the example stated by Aristotle, which will be thus,

"Æthiops non est albus,

Æthiops est albus dentes,

∴ Qui est albus non est albus:" the conclusion, therefore, as Aristot. observes, is not syllogistically drawn.

the attribution is appropriate. Now such a thing occurs, wherein opposites are similarly inherent, for it seems that either both, or neither, must be granted as simply predicated; e. g. if one half (of a thing) is white, but the other black, whether is it, (the thing itself,) white or black?

3. From the absence of definition of syllog. or elenchus. Cf. next chapter, Mansel's Logic, App. 120, et seq.

Others (arise) from its not being defined what a syllogism is, or what an elenchus,¹ but the definition is omitted, for an elenchus is a contradiction of one and the same, not of a name but of a thing, and of a name not synonymous, but the same (collected) necessarily from the things granted, the original (question) not being co-enumerated according to the same, with reference to the same in a similar manner, and in the same time. In the same way also, falsity about any thing (occurs); some, however, omitting some one of these, appear to employ an elenchus, as that the double and the non-double are the same, for two are the double of one, but not the double of three; or if the same thing is the double and not the double of the same, yet not according to the same, for according to length it is double, but according to breadth it is not double: or if it is (the double) of the same thing, and according to the same, and in a similar manner, yet not at the same time, wherefore there is an apparent elenchus. A person, however, might refer this, too, to those which belong to diction.

4. From petitio principii. Vide Whately's Logic, b. iii. sec. 4; Hill, p. 331.

Those which are from *petitio principii*, arise thus, and in as many ways as it is possible to beg the original question; they seem, however, to confute from inability to perceive what is the same, and what is different.

5. From the consequence by converse. Cf. Rhet. ii. 24. See Waitz, vol. ii. 536.

The elenchus on account of the consequent, is from fancying that the consequence reciprocates. For when from the existence of *that* thing, *this* necessarily is, they fancy that if *this* is, *the other* necessarily is, whence also deceptions from sense

¹ In its strict sense, Ignoratio Elenchi denotes the unintentional use of an argument, the conclusion of which does not actually involve the falsehood of the question it was intended to disprove; but more extensively it is applied to every argument which fails to prove, or to disprove, the exact question under discussion, whether the fallacy be the result of ignorance or of intention. Hill. In an extensive sense, every fallacy is an Ignoratio Elenchi, as Aristotle observes in the next chapter.

about opinion occur. For often men take gall for honey, because a yellow colour is consequent to honey,¹ and since it happens, that the earth when it has rained becomes moist, if it be moist, we think that it has rained, yet this is not necessary. In rhetorical (arguments), the demonstrations which are derived from a sign are from consequent, for when persons desire to show that a man is an adulterer, they assume a consequent, that he is fond of adorning his person, or that he is seen wandering by night, these things, however, are present with many men, but the thing predicated is not present. Likewise, also, in syllogistic (arguments), for instance, the argument of Melissus, that the universe is infinite, assuming the universe to be unbegotten, (for nothing can be generated from what is not,) but what is generated is generated from a beginning; * if, therefore, the universe was not generated, it had not a beginning, so that it is infinite. Nevertheless, this does not necessarily happen, for it does not follow, that if whatever is generated has a beginning, whatever has a beginning is also generated, as neither is it necessary, if a man in a fever is hot, that whoever is hot should have a fever.

* Cf. Phys. Ausc. i. 3, 2.

That which is from what is not a cause, being assumed as a cause, is when what is causeless is taken, as if the elenchus were produced on account of it.² Now such a thing happens in syllogisms leading to the impossible, since in these it is necessary to subvert some one of the posita; if then it be reckoned in necessary interrogations, for the impossible to result,³ the elenchus will often appear to arise on account of this, as that soul and life are not the same, for if generation be contrary to destruction, a certain generation will be to a certain destruction, but death is a certain

6. From a cause erroneously assumed. Cf. Rhet. ii. 24: vide Hill's Logic, 326; Whately of Fallacies; Mansel, App. 121.

¹ Honey is yellow, gall is yellow, therefore gall is honey; here the middle is undistributed: in the argument of Melissus, there is an illicit process of the major.

² This fallacy consists in pretending that the prop. we wish to refute, is the cause of the false conclusion, which in reality follows from other premises, i. e. in maintaining that the conclusion is false, because *that particular assumption* is false. Mansel.

³ 'Εάν οὖν ἐγκαταριθμηθῆ, intell. τὸ μὴ αἰτιον ὡς αἰτιον s. ἐάν τὸ οὐκ ἀναγκαῖον πρὸς τὸ συμβαίνειν τὸ ἀδύνατον ἐγκαταριθμηθῆ ἐν τοῖς ἐρωτήμασιν ὡς ἀναγκαῖον ὄν πρὸς τὴν ἐς ἀδύνατον ἀπαγωγὴν. Waitz

destruction, and is contrary to life, so that life is generation, and to live is to be generated, but this is impossible, wherefore soul and life are not the same. It is not, however, syllogistically concluded, for the impossible happens even if some one should not say that life is the same as soul, but only that life is contrary to death, which is corruption, and generation to corruption. Such arguments, then, are not simply unsyllogistic, but unsyllogistic as to the thing proposed, and a matter of this kind frequently escapes, no less the observation of the interrogators themselves.

7. From the conjunction of several questions. Vide Mansel's Log. App. 123; Hill, 337; Whately, b. iii. 9; Wallis, de fallac.

Such, then, are the arguments which result from what is consequent, and from what is not a cause, but others from making two interrogations one, when it escapes notice that there are many, and one answer is given as if there were one (interrogation).¹ In some cases, therefore, it is easy to perceive that there are many (interrogations), and

that one answer must not be given, as, whether is the earth sea, or the heaven? in others it is less (easy), and as if there were one interrogation, men either assent, because they do not answer what is asked, or seem to be confuted, as, whether is this person, and this, a man? so that if some one should beat this, and that person, he will beat a man, and not men. Or again, in those things of which some are good, but others not good, are all good or not good? for whatever a man replies, it is possible to appear either to assert an elenchus or what is apparently false; for to say that some one of the things not good is good, or that some one of the things good is not good, is a falsehood. Still, sometimes, there may be a true elenchus from certain assumptions, for instance, if a man should grant that things white, naked, and blind, are similarly called one and many, for if that is blind which has not sight, but is adapted to have it by nature, those also will be blind which have not sight, but are naturally adapted to have it; when therefore, one thing has it, but another has not, both will see or will be blind, which is impossible.

¹ Whately observes that the "Fallacia plurium interrogationum," or, as it may be named simply, the fallacy of interrogation, should be referred to the head of ambiguous middle; it consists in putting two questions as one, and hence insnaring the opponent by an answer partly false.

CHAP. VI.—*Of the Reference of all Fallacies to an Ignorance of the Elenchus.*

WE must either, therefore, thus divide apparent syllogisms and elenchi, or refer them all to ignorance of the elenchus, assuming this as a principle, for it is possible to resolve all the modes mentioned into the definition of the elenchus.¹ In the first place, if they are unsyllogistic, for the conclusion must result from the posita, so that we may say it is of necessity, and not that it appears to be. Next, as to the parts of definition, for of those (paralogisms) which are in diction, some are from two-fold signification, for instance, equivocation, and a sentence (ambiguous) and a similar figure (of speech), (for it is usual with all these to signify this particular thing,) but composition, and division, and accent, (produce false reasoning,) from the sentence not being the same, or the name being different. But it is necessary that this should be the same as the thing is so, if there is to be an elenchus or syllogism; thus, if a garment (is to be concluded), a garment, and not a vestment, ought to be syllogistically concluded: for that is true, indeed, but is not syllogistically inferred, as there is still need of interrogation, that it signifies the same thing by him who investigates the why.

1. All deceptions may be referred to ignorance of syllogistic art.
1. Those in diction.

Paralogisms from accident, become evident when the syllogism is defined, for it is necessary that there be the same definition of the elenchus, except that contradiction is added, for the elenchus is a syllogism of contradiction. If then there is not a syllogism of accident, there is not an elenchus, for neither if when these things exist it is necessary that this should be, (but this is white,) is it necessary to be white on account of the syllogism, nor if a triangle has angles equal to two right, but it happens to it to be a figure, either first or the principle, (does it follow) that figure, or principle, or first, is this thing. For the demonstration is not so far as it is figure, nor so far as it is first, but so far as it is triangle, and similarly in other cases.

2. And those "extra-dictionem," as, 1. from accident.

¹ If any condition required for proving the contradictory of a proposition be neglected, there is of course an ignoratio elenchi. Vide Mansel's note, App. 121.

Wherefore, if an elenchus is a certain syllogism, that which is from accident will not be an elenchus, but by this, artists, and the scientific generally, are confuted by the unscientific, for they form syllogisms from accident, against scientific men, but they, not being able to distinguish, either grant when questioned, or not granting, fancy that they have granted.

Those which belong to "in a certain respect," and "simply," (arise) because the affirmation and negation are not of the same thing, for of what is in a certain respect, white, the negation is, that which in a certain respect, is not white, but of what is simply, white, that which is simply, not white. If then, when it is granted that a thing is in a certain respect white, a person assumes it as if said, simply white, he does not produce an elenchus, but he seems to do so, from ignorance of what an elenchus is.

3. Ellipse of definition.

The most evident of all, are those which were before mentioned, from the definition of an elenchus, wherefore they are thus also denominated; as an appearance (of elenchus) is produced from the ellipse of definition, and by those who thus divide, the defect of definition must be laid down, as common to all these.

4. Petitio principii.

Those also which are from *petitio principii*, and from admitting "non-causa," "pro causâ" become manifest by definition, for it is necessary that the conclusion should happen in consequence of these things existing; which is not amongst "non-causes;" and again, the original question not being enumerated, which those paralogisms have not, which subsist from *petitio principii*.¹

5. Those from the consequent (which are a part of accident).

Those which belong to the consequent, are a part of accident, since what is consequent, happens; still it differs from accident in that it is only possible to assume accident in one thing, as that yellow and honey are the same, also whiteness and a swan, but what follows is always in many things, for those which are the same with one and the same thing, we consider the same with each other, wherefore there is an elenchus from

¹ Sensus loci hic est. Ubi vitium refutationis in eo est, quod quædam assumuntur in demonstrationem quæ nihil omnino faciunt ad conficiendum id quod volumus, conclusio non fit τῶ ταῦτα εἶναι nam ubi cogitur ex ἀναίτιος, conclusio non provenit τῶ ταῦτα εἶναι (hoc est enim quod dicit ὅτι οὐκ ἦν ἐν τοῖς ἀναίτιος). Waitz.

the consequent. Still this is not altogether true, as if it should be from accident,* for snow, and swan, are the same, so far as each is white. Or again, as in the argument of Melissus,† a person assumes that to have been generated, and to have a beginning, are the same; or that to become equals, is identical with to receive the same magnitude; for because what was generated has a beginning, they require it to be granted, that what had a beginning, was generated, as if both these were the same from having a beginning, viz. that which was generated, and what was finite. Likewise, also in things made equal, if those which receive one, and the same magnitude, become equal, those also which become equal, receive one magnitude, so that the consequent is assumed. Since then, an elenchus which is from accident, subsists in the ignorance of the elenchus, it is clear that this also is the case, with that which is from the consequent, and this is also to be considered in another way.

Notwithstanding, those paralogsms which are from making many interrogations, one, consist in our not distinctly unfolding the definition, of the proposition. For the proposition is one thing of one, since there is the same definition of a thing, one only and simply, as of man, and of one man only, and similarly in other cases. If then, one proposition be that which requires one thing of one, an interrogation of this kind will be simply a proposition, but since a syllogism is from propositions, and the elenchus is a syllogism, an elenchus also will consist of propositions, wherefore if a proposition be one thing of one, it is evident that he (who errs) in the definition of syllogism, is in ignorance of an elenchus, as that seems a proposition, which is not one. If then he gives an answer, as if to one interrogation, it will be an elenchus, but if he does not, yet seems to do so, it will be an apparent elenchus, so that all the places fall into ignorance of the elenchus, those from diction, because there is apparent contradiction, which was the characteristic of an elenchus, but the rest from the definition of syllogism.¹

¹ Because an elenchus being defined, a syllogism of contradiction, this latter word separates an elenchus from other syllogisms, and the definition of syllogism does not accord with the rest.

• Buhle and Taylor insert "whiteness."
† Vide Phys. Ausc. l. 3, 2.

6. Those from making many questions one.

CHAP. VII.—*Of the Methods of Deception.*

1. The method of deception, "specie veritatis," in the several paralogisms explained.

* Vide Met. iv. ch. 6.

DECEPTION of these (paralogisms) from equivocation and (ambiguous) sentence, arises from our not being able to distinguish that which is multifariously predicated, (since it is not easy to divide some things, for instance, the one, being, and the same;*) but of those from composition and division, in consequence of fancying there is no difference between a conjoined, and a divided sentence, as is the case in most things. Similarly also with regard to those from accent, for either in nothing, or not in many things, a sentence with intention, and a sentence with remission, appear to signify the same thing.¹ But of those from figure of speech, it is on account of the similarity of diction, for it is difficult to distinguish what things are predicated after the same, and what in a different manner, (since he who is able to do this, almost approaches the perception of truth, and especially knows how to assent,) because we suppose that every thing predicated of a certain thing, is this definite thing, and we admit it as one; for this particular definite thing, and being, seem especially to be consequent to the one, and to essence. Wherefore this mode is to be placed amongst those (fallacies) which belong to diction; first, because deception rather arises to those who consider with others, than by themselves, (for consideration with others, is through discourse, but that by oneself, is no less through the thing itself;) next, it happens that one is deceived by oneself, when one makes the consideration by words; moreover, deception is from resemblance, but resemblance from diction. Of the paralogisms from accident, (there is deception) from our inability to distinguish the same, and

¹ Vide Waitz, vol. ii. p. 541. We are deceived, 1st, By ambiguity and equivocation, from not knowing the distinction of a multifariously predicated term; 2nd, By the fallacy of composition and division, from erroneously supposing it immaterial whether certain terms be united or separate; 3rd, By accent, because as sometimes when changed, accent does not affect the sense, so when the sense is changed, we take it as the same. 4th, By figure of speech, because when words have the same figure, we erroneously take them in the same way. 5th, By accident triply, from not distinguishing between the "same" and the "different;" between "one" and "many;" from ignorance as to all things which are said of the attribute, being said of the subject.

different, and one, and many, and to what attributes, and thing, all these are accidental. Likewise also, as to those from what is consequent, for the consequent is a certain part of accident; besides also, in many instances it appears, and is required to be granted thus, that if this thing is not separated from that, neither will that, be separated from this. Nevertheless, of those which are from the defect of definition, and of those from a certain respect, and simply, there is deception from the difference being small, for we concede universally, as if a certain thing, or in a certain respect, or in what manner, or now, signified nothing in addition. Likewise also, in the case of those which assume the original question, and which are not causes, and such as make many interrogations as if they were one, since in all these, the deception arises from smallness, as we do not accurately distinguish either the definition of the proposition, or of the syllogism, on account of the before-named cause.

CHAP. VIII.—*Of Sophistical Syllogisms and Elenchi.**¹

* Cf. Rhet.
ii. 24.

SINCE we have assigned the causes from which apparent syllogisms arise, we also have those from which sophistical syllogisms and elenchi may be produced. Now I call a sophistical elenchus and syllogism, not only the syllogism and elenchus which are apparent but not real, but also the real, but which appear (falsely) appropriate to a thing. Such are they which do not confute according to a thing, and expose the ignorant, which was the province of the peirastic art, but the peirastic is a part of the dialectic, which is able syllogistically to conclude the false through the ignorance of him who admits the argument. Sophistical elenchi, on the other hand, though they syllogistically infer contradiction, do not render it evident whether he, (the opponent) is ignorant, for by these arguments, persons impede the man of science.

1. Definition
of a sophistical
elenchus.

¹ Ad locos supra expositos referri possunt omnes argumentationes quæ videntur esse syllogismi et omnes sophistici syllogismi sive elenchi: i. e. non solum illi qui peccant in formâ quia non concludunt secundum regulas syllogisticas, sed etiam qui peccant in materiâ quia constant ex propositionibus falsis. Buhle.

* i. e. sophistical elenchus.

2. All paralogisms referred to the before-named heads.

Now that we obtain these* by the same method is evident, for from those things, through which it appears to the hearers, that the subjects of investigation are syllogistically concluded, from these they may appear also to the respondent, so that there will be false syllogisms through either all or some of these, for what a person, not interrogated, thinks he has granted, he will also admit when interrogated, except that in some cases it happens at the same time that what is deficient is questioned, and what is false is detected, as in the paralogisms from diction and solecism. If then, paralogisms of contradiction arise from apparent elenchus, it is clear that false syllogisms will be derived from as many (places) as apparent elenchus. But the apparent is from parts of the true; for when each fails, there may appear an elenchus, as that which is from the conclusion not happening in consequence of the reasoning; that which leads to the impossible; also, that which makes two interrogations, one, from the proposition; † and that which assumes what is from accident, instead of what is per se, and a part of this, which is (derived) from what is consequent; besides not to happen in the thing, but in the discussion; then, instead of (assuming) contradiction universally, according to the same, and with reference to the same, and after the same manner, (to assume it) in a certain thing, or according to each of these; ‡ further from the original (question), not being reckoned, to assume the original question. Hence, we shall be in possession of those things from which paralogisms occur, since they cannot arise from more, but they will all be from the (places) specified.

† i. e. being erroneously assumed.

‡ To err.

3. A sophistical elenchus always relative.

A sophistical elenchus, is yet not simply an elenchus, but against some person, and a syllogism likewise, for except it be assumed that what is from the equivocal signifies one thing, and what is from a similar figure of speech, (signifies) this thing only, and the rest in like manner, there will neither be elenchi nor syllogisms, whether simply, or against him who is interrogated, but if this is assumed, there will be, indeed, against him who is interrogated, but simply there will not be, since they do not assume that which signifies one thing, but what appears (to do so) and from this person. §

§ i. e. the respondent.

CHAP. IX.—*Of the Places of Elenchi.*

NEVERTHELESS, we should not endeavour to assume from how many places they are confuted, who are confuted by elenchi, without the science of all things, which, however, belongs to no one art, since there are perhaps infinite sciences, so that evidently there are also infinite demonstrations.¹ Still there are also true elenchi, for in whatever it

1. Why we must not assume from how many places confutation by elenchus occurs, without universal science.

is possible to demonstrate, we may also therein confute him who lays down a contradiction of the truth, as if he asserted the diameter of a square to be commensurate with its side, a person might confute him by showing it incommensurate. Wherefore, it will be necessary to be scientifically cognizant of all, for some (elenchi) will be from geometrical principles, and their conclusions; others from medical principles; others from those of other sciences; moreover, false elenchi are similarly amongst infinities, since according to each art there is a false syllogism, as the geometrical in geometry, and the medical, (false syllogism) in medicine. Now I mean by according to art, that which is according to the principles of that art, therefore it is evident that places are not to be assumed of all elenchi, but of those which belong to dialectic, since these are common to every art and faculty.

It is also, indeed, the province of the man of science to investigate the elenchus which is in each science, whether it is only apparent, not real, and if it is, why it is; but that (elenchus) which is from things common, and does not fall under any art, belongs to dialectics. For if we have those particulars from which probable syllogisms

2. Duty of the scientific man.

¹ In examining the force and accuracy of an argument, the first step is to acquire a clear and definite understanding of the question to be proved, and laying aside all extraneous matter, to express that question as simply as possible. If then, we wish to ascertain the elements of all refutation, we must evidently be cognizant in a perfect manner, (not allowed to humanity.) of all truth; also as there may be an infinite number of true, so there may be of false refutations, thence Aristotle does not here treat of every false or sophistical confutation, but only of the false dialectic confutation which is common to all arts, since as dialectic shows how to effect demonstration from probable propositions, it will also show, how to effect confutation when the same probabilities are employed.

about any thing arise, we have those also from which (probable) elenchi are formed, since the elenchus is a syllogism of contradiction, so that an elenchus is either one or two syllogisms of contradiction, therefore we have the number of places from which all such originate, and if we have this, we also possess their solutions, for objections of these are solutions. We have, however, the places from which apparent elenchi arise, not apparent to every one, but to certain persons, for the places are infinite, if any one considers from what they appear to the multitude casually.* Hence it appears, that it is the province of the dialectician, to be able to assume from what number of particulars, through common (propositions), either a real, or an apparent elenchus, whether dialectic, or apparently dialectic, or peirastic, is produced.

* To be produced.

CHAP. X.—*Of the Distinction of Arguments, as to Name and as to Reason.*†

† πρὸς τὴν διένοιαν—sententiam. Buhle. Cf. Biese, vol. i. p. 89, 327; Mansel's Logic, p. 5, note. 1. Error in asserting that arguments are to be distinguished as to name, and as to conception.

THAT however is not a difference of arguments which some state, viz. that some arguments belong to the name, but others to the reason, since it is absurd to suppose that some arguments belong to a name, but others, and not the same, pertain to the reason. For what else is it, not to pertain to the reason, than for the arguer not to employ the name, in (the sense in) which, he who is interrogated, would admit it, fancying that the question was (in that sense) made? still this very thing belongs also to name; but to the reason, when it is understood ‡ in the sense, in which it was admitted. § If indeed any one, when a name signifies many things, fancies that it signifies one thing, both the questionist and the person questioned, (as perhaps being, or one, signifies many things, but the respondent and the questionist (Zeno), thinking it to be one, interrogate, and the argument is that all things are one,) this discussion will belong to the name, or to the reason of the person interrogated.¹ || If however a person thinks that it signifies many things, it evidently does not pertain

‡ By the opponent.

§ By the respondent.

|| Cf. Phys. Ausc. vi. 9, 3;

¹ Zeno's argument, to support Parmenides, has the major premise false.

to the reason ; for in the first place, what belongs to name and reason, is conversant with such arguments as signify many things ; next it is (adapted) to any one, for to pertain to reason does not consist in argument, but in the respondent being disposed in a certain manner to the things granted. Further, all these arguments may possibly pertain to name, for to belong to name is here not to pertain to reason, for unless all these arguments (may be referred hither), there will be certain others pertaining neither to name nor to reason ; but they say that all (belong to one of these), and distinguish all to be either belonging to name or to reason, and that there are no others. Still, whatever syllogisms belong to multifarious signification, some of these belong to name,* for it is absurdly said, that all which are from diction are from name ; nevertheless, there are certain paralogisms which are not produced, from the respondent being disposed in a certain manner towards these, but because the very argument itself contains such an interrogation as signifies many things.

Top. viii. 8 ;
Plat. Parm. p.
128 ; Cousin
Nouv. Frag.
Zéno d'Elée.

* Buhle and
Taylor insert
"not."

In short, it is absurd to discuss an elenchus,¹ and not prior to it a syllogism, for an elenchus is a syllogism ; so that we must discuss a syllogism prior to a false elenchus, for such an elenchus is an apparent syllogism of contradiction. Wherefore, the cause (of deception) will either be in the syllogism, or in the contradiction, (for it is necessary that the contradiction be added,) sometimes indeed in both, if the elenchus be apparent.† But it‡ is in the contradiction and not in the syllogism, when a person asserts that he who is silent speaks ;² § but this is in both, || viz. that some one may give what he has not got ;³ but that the poetry of Homer is a figure from being a circle,⁴

2. Of the kinds
of false refuta-
tion.

† And not real.
‡ i. e. the cause
of deception.
§ Taylor in-
serts "not"
erroneously.
|| i. e. contra-
diction and syl-
logism.

¹ That is, to discuss it immediately.

² The sophist inquires, "Can he who is silent speak," the respondent replies "No." "But," rejoins the sophist, "Socrates can speak, but he is silent; therefore one who is silent can speak." Now, this elenchus is erroneous, because it does not infer a contradiction, since the latter does not subsist between "Socrates being silent does not speak," and "Socrates being silent speaks."

³ "Because that which he has not willingly, he may give willingly." Taylor.

⁴ κύκλος signifies both a figure and a kind of verse.

is in syllogism, and that (which errs) in neither, is a true syllogism.

3. The previous statements confirmed.

1. By mathematical questions.

2. By identifying ignorance of equivocation with the reason.

3. Absurdity of demanding a certain distinction.

* To be multifarious.

But (to return), whence the discussion digressed, do mathematical arguments pertain to the reason or not? and if a triangle seems to some one to signify many things, and he grants (not so far as it is figure, of which this is concluded) that it has angles equal to two right, does this discussion belong to the reasoning faculty of his mind or not?¹

Again, if a name signifies many things, but he does not understand, nor fancy (that it does), how does this disputation not pertain to the reason? or how must we interrogate, unless by granting a distinction,² whether any one may inquire if it is possible for him who is silent to speak or not, or whether it partly is not, and partly is, possible? If then, some one should grant that it is by no means possible, but another should contend that it is, will not the disputation be against the reasoning faculty? though the dispute seems to belong to those which are from name; there is not then a certain genus of arguments, which belong to the reason. Nevertheless, some pertain to name, yet not all are such, not (I say) those which are elenchi, but not the apparent elenchi, for there are apparent elenchi, which are not from diction, for instance, those which are from accident, and others.

Notwithstanding, if some one thinks fit to claim a division, I mean that the silent speaks, partly in this and partly in that manner; yet to demand this, is, in the first place, absurd, (for sometimes what is interrogated does not seem to subsist multifariously, and it is impossible to divide that which a man does not conceive).^{*} Next, what else will to

¹ Vide Stewart's Phil. of Human Mind, part 1; Whately's Logic, p. 52, 158; Outline of Laws of Thought, p. 44; Scotus super Univ. Iq. 3; Locke's Essays, b. iv. 5, 5, and vi. 2; Leibnitz, Med. de cognitione Veritatis et Ideis, Opera, p. 80, ed. Erdmann.

² Buhle and Taylor read *διδόντα*, and translate, "unless so that some one may afterwards ask him, who admits the division." Bekker and Waitz read *διδόναι*, and the last observes, that Alexander has evidently mistaken the place, which means that the interrogation is to be so framed, as that an option of choosing a meaning, from the ambiguity employed, may be allowed to the respondent. Cf. Waitz, vol. ii. p. 548.

teach be?¹ for it will render the manner in which a thing subsists evident to him who neither considered, nor knew, nor supposed that it is predicated in another way. Since what prevents this* also being done in things which are not double? are then unities equal to duals in four? but the duals are inherent, some in this, but others in that way. Is there also one science of contraries or not? but some contraries are known, others unknown: so that he appears to be ignorant, who requires this, viz. that to teach is different from to discuss, and that it is necessary that the teacher should not interrogate, but himself declare, but that the other† should inter-rogate.

* Division.

† The disputant.

CHAP. XI.—*Of Difference in Elenchi.*

MOREOVER, to postulate‡ affirmation or denial is not the province of one who demonstrates, but of him who makes a trial, for the peirastic art is a certain dialectic,§ and considers not the scientific, but him who is ignorant, and who pretends.¶ Whoever therefore considers things which are common really, is a dialectician, but he who does this apparently, is a sophist; the contentious and sophistical syllogism also are, one indeed, apparently syllogistic about things with which the peirastic dialectic is conversant, although the conclusion be true, for it deceives in assigning the why, and (in the other kind are those paralogisms), which not being according to the method of each thing, seem to be according to art. For false descriptions are not contentious, (since paralogisms are according to those things which are subject to art,) neither even if there is a certain false description about the true (conclusion), as that of Hippocrates, viz. the quadrature of the circle through lunulæ,² but as Bryso¶ squared the

‡ ἀξιῶν omitted by Taylor.

§ Cf. ch. 2.

¶ That he knows.

1. Definition of the sophistical, or contentious syllogism.

¶ Vide An. Post. i. ch. 9.

¹ If it should be demanded, from the questionist, that where a distinction is made, he should point out the latent fallacy, the request would not only be absurd, since the querist may himself not perceive the fallacy, but such a process also is not disputation, but teaching.

² Hippocrates of Chios, a Pythagorean philosopher, attempted to square the circle through lunulæ, upon which Simplicius has commented fully in his remarks upon the Physic. Ausc. b. i. Cf. also Pacius in Anal. p.

* By his method.

circle, though the circle should be squared,* yet, because it is not according to the thing, it is on this account *sophistical*. Wherefore both the apparent syllogism about these things, is a contentious argument, and the syllogism which seems to be according to the thing, even if it be a syllogism, is a contentious argument,† for it appears to be according to the thing, wherefore it is deceptive and unjust. For as injustice, in contest,

† Taylor omits a clause here.

test, has a

‡ *ἐν ἀντιλογίᾳ*.
Waltz.

2. Difference between the contentious and the *sophistical*.

certain form (of justice), and is a certain unjust combat, so in contradiction‡ the contentious is an unjust combat, for both there, those who make conquest entirely the object of their preference, try all things, and here, the contentious do. Those therefore who are such, for the sake of victory itself, seem to be contentious men and lovers of strife; but those who are so for the sake of the glory which tends to gain, are sophists, for the *sophistical art*, as we said, is a certain art of making money from apparent wisdom, wherefore they desire an apparent demonstration. Those who love strife also, and sophists, employ the same arguments, yet not for the sake of the same things, and the same argument will be both *sophistical* and contentious, yet not according to the same, but so far as it is for the sake of apparent victory, it is contentious, and so far as it is for (apparent) wisdom, it is *sophistical*, for the *sophistical art* is a

3. Relation of the contentious to the *dialectician*.

certain apparent, but not real wisdom. The contentious man however is in a certain respect disposed with reference to the *dialectician*, as the false describer is to the *geometrician*, for (the one) *paralogizes* from the same things with *dialectic*, and the false describer (subsists in the same way with regard to) the *geometrician*. Still he is not contentious, because he describes falsely from principles and conclusions which are subject to art, but it will be evident that he who is subject to *dialectic*, is about other things contentious, as the *quadrature of the circle through lunulæ* is not contentious, but (the *quadrature*) of Bryso

501, and Buhle, vol. ii. p. 687. Alexander, (Schol. 307, a. 15,) for Hippocrates, reads Antipho, concerning whom, see I. E. Montucla, *Recherches sur la Quadrature du Cercle*, Paris, 1754; this author compared Antipho with Bryso, and proves that the former ought not to be accused of *paralogism*.

is contentious, and it is impossible to refer the one except to geometry alone from its being from the proper principles,* but (we may refer) the other to many who do not know what is possible and impossible in each thing, for it will accord. Or as Antipho squared the circle,† or if a man should not grant it is better to walk after supper on account of the argument of Zeno,¹ it is not medical,‡ for it is common. If then, the contentious person subsists altogether with reference to the dialectician, as he who makes a false description does to the geometrician, there would not be a contentious syllogism about those; now however the dialectician is not in any definite genus, nor does he demonstrate any thing, nor is he such as the universal (philosopher).§ For neither are all things in one certain genus, nor if they were, is it possible that beings should be under the same principles, so that none of those arts which demonstrate a certain nature is interrogative, for it is not possible to grant each of the parts,||*for a syllogism does not arise from both. Dialectic however is interrogative, but if it should demonstrate, though not all things, yet it would not interrogate primary things and proper principles; for there being no concession,¶ he would no longer have arguments from which he could discourse against the objection. It* is also peirastic, for neither is the peirastic art such as geometry, but even an unscientific man may possess it, since it is possible that he who is ignorant of a thing may make trial of one who is ignorant, if he concedes not from what he knows, nor from properties, but from consequents, which are such as there is nothing to prevent him who knows them, not knowing the art, but it is necessary that he who does not know them, must be ignorant (of the art). Wherefore, it is evident that the peirastic art is the science of nothing definite; hence also, it is conversant with all things, since all arts use certain common things, on

* Of geometry.

† Vide Physics, b. i.

‡ Geometrical. Taylor.

§ Or metaphysician.

|| Of contradiction.

4. Dialectic is interrogative.

¶ By the opponent.

* Dialectic.

5. Also peirastic.

¹ That nothing can be moved. Vide Physics, b. vi. Aristotle observes that it is contentious to argue that a man ought not to walk after supper, because there is no such thing as motion, inasmuch as he endeavours to prove by reference to motion generally, what pertains properly to arguments drawn from medicine.

6. That all men use it after a certain manner.

which account all men, even idiots, use after a certain manner, the dialectic and peirastic, for all up to a certain point endeavour to form a judgment of such as announce any thing. These

however are common, for they know these no less, though they appear to speak very foreign from the purpose. All men therefore confute, for without art they partake of this with which dialectic is artistically conversant, and he is a dialectician who is peirastic in the syllogistic art. Nevertheless, since these are many, and are about all things, yet are not of such a kind as to be in a certain nature and genus, but as negations, other things again are not such, but are properties, it is possible from these to make a trial about all, and that there should be a certain art, and that it should not be such

7. The contentious conversant with principles of every genus.

as those are which demonstrate. Wherefore, the contentious person is not one who in all respects thus subsists, as the maker of a false description,

for the contentious person will not be paralogistic from a certain definite genus of principles, but will be about every genus.¹

Such then are the modes of sophistical elenchi, but it is not difficult to perceive that it is the province of the dialectician to investigate these, and to be able to effect them, for the method about propositions comprehends the whole of this theory.

CHAP. XII.—*Of the Demonstration of the False and the Paradoxical.**

* Cf. ch. 3.

1. Methods of forcing the opponent to assert

WE have treated of the apparent elenchi, but with regard to showing that something is falsely as-

¹ The following digest of the above chapter may be useful :

1. The demonstrative elenchus is derived from the peculiar principles of the science, and is opposed to the pseudo-graphic or false elenchus.

2. The tentative elenchus is a species of dialectic, for it consists of common principles.

3. The dialectic elenchus considers of every subject, those things which are common; the sophistical only *appears* to do so.

4. The pseudo-graphic differs from the sophistical elenchus, for the former seems to conclude, yet does not; the latter concludes, but is sophistical in that it would appear a demonstration, when it is not one.

5. Lastly, the sophistical differs from the litigious or contentious, for the latter regards victory only, the former seeks gain from pretended knowledge.

serted, and bringing an argument to something contrary to opinion, (for this was the second object of sophistical preference,) in the first place, this generally happens from a certain manner of inquiry, and through interrogation. For to make an interrogation to nothing definitely laid down, is adapted to the investigation of these things; since those who speak casually commit a greater fault, and they speak casually who have nothing proposed. Both to ask many questions, even if that should be defined against which a discussion is made, and to require a person * to assert what appears, † produces a certain abundance of argument, so as to lead to what is contrary to opinion, or false; and whether being questioned, he asserts or denies some one of these things, to lead him to those particulars against which an abundance of argument is supplied. They are able however, to injure by these means, less now, than formerly, for they ask what this has to do with the original proposition; still the element of obtaining something false or contrary to opinion, is to question no thesis immediately, but to assert that the question is made from the desire of learning; for this consideration makes a place for argument.

In order to show a false assertion, a proper sophistical place is to bring (the opponent) to those things against which there is an abundance of arguments; but we may do this both well and badly, as was observed before.

Again, to state paradoxes, observe from what genus ‡ the disputant is, then ask what that is which such men assert to be contrary to the common opinion, for to each (sect) there is something of this kind. The element however of these is to assume the thesis of the several (sects) in the propositions, but an appropriate solution of these, is adduced to show that what is contrary to opinion does not happen through the argument, and this is always the wish of him who contends.

Moreover, from volitions and apparent opi-

some falsehood or paradox.

1. To interrogate nothing definitely laid down.

2. To ask many questions.

* The respondent.

† to him true.

being questioned,

3. Recent prevention of these.

4. To assert the question is made for the sake of learning.

5. To induce the opponent to the arguer's strong points. Cf. Top. ii. 5.

‡ Of philosophers.

6. To ascertain what the philosophers of the opponent's order—assert—paradoxical.

7. From voli-

tions and apparent opinions.
* Arguments must be derived.

nions,*¹ since they do not desire and say the same thing, but employ the most seemly words, and desire things which appear profitable; for instance, they say, it is necessary to die well, rather than to live pleasantly, and to be justly poor, than to be basely rich; but they desire the contrary. He therefore who speaks according to volitions, must be brought to apparent opinions, but he who speaks according to these, must be brought to concealed (volitions), for it is necessary in both ways to speak paradoxes, since either they assert what is contrary to apparent or to unapparent opinions.

8. The place for inducing paradox, very extensive.

The place indeed of causing the assertion of paradoxes is very extensive, as Callicles in the Gorgias is introduced, saying, (which also all the ancients consider to happen,) from what was according to nature, and according to law; for they say nature, and law, are contraries, and that justice according to law, is excellent, but according to nature, it is not excellent. Wherefore we must oppose him according to law who speaks according to nature, but lead him to nature who speaks according to law, for to say that it exists in either of these two ways, is paradoxical. But according to them, that which is after nature is true, but what is according to law is that which appears to the multitude; wherefore it is evident that they, as the disputants, now endeavoured either to confute the respondent, or to make him assert paradoxes.

9. That some questions have answers either way paradoxical.

Some questions, indeed, have on both sides an answer contrary to opinion, as whether is it right to obey the wise or a father, and ought we to do things advantageous or just, and is to be injured more eligible than to injure? We ought, however, to lead to conclusions which are opposed to the multitude and the wise, if, indeed, some one speaks as those who are conversant with disputations, we ought to bring him to conclusions contrary to the multitude; but if he speaks as the multitude, (to conclusions contrary) to those who are conversant with disputations.

For the one, † indeed, say that the happy man is necessarily just, but it seems contrary to the opinion of the many, that a king should not be happy; thus to

† The wise.

¹ Cf. Waitz in loc.

collect things contrary to opinion, is the same with leading to what is contrary to nature and law, for law is the opinion of the many, but the wise speak after nature and after truth.¹

CHAP. XIII.—*Of Loquacious Trifling.*

PARADOXES, indeed, we must investigate from these places, but with regard to making a man trifle, what we mean by trifling we have already declared,² but all such arguments will produce this, if it is of no consequence whether a name or a sentence is stated, but the double and the double and the half are the same, if then, the double is the double of the half, it will be the double of the half of the half.³ Again, also, if instead of double, we lay down the double of the half, it will be thrice said, the double of the half of the half of the half. And is desire then the desire of the pleasant? but this is the appetite of the pleasant, wherefore desire is the appetite of the pleasant of the pleasant.

All such arguments, then, are among the num- 2. Such argu-

¹ The Topics above may be thus resolved: We may prove the false,

1. From the thesis or problem being passed over; whereby the deputation is rendered vague and uncertain.

2. By overwhelming the respondent with a multitude of questions.

3. By a feigned desire of instruction, which by throwing him off his guard, leads him to admissions he would otherwise avoid.

4. By shifting the argument.

Again, we may prove a paradox,

1. From the school of philosophy to which the respondent belongs, identifying his opinion with any enunciated by the school, contrary to the common opinion.

2. From the secret wish of the mind.

3. From nature and law.

4. From the opinion of the wise and of the multitude.

² Vide ch. iii. The term *ἀδόλισχος* is used in a bad sense, Arist. Nub. 1482, and in a good one, signifying an acute reasoner, Plato, Cratyl. p. 401, B. ed. Heind.; Parmenides, cap. 19. It originally was applied to those who reasoned upon natural phenomena from insufficient principles; here the verb is expressive of those notions, which whether signifying genus or species, always refer to one and the same thing. Taylor, with his usual quaintness, Anglicizes it "nugacity."

³ If instead of "double," we say "the double of the half," then to affirm "the double is the double of the half," will according to the sophists be equivalent to saying, "the double is the double of the half of the half." Vide Whately, Logic, b. iii. and iv.

ments belong to relative notions. ber of relatives, where not only their genera, but also the things themselves are predicated with reference to something, and are referred to one and the same thing; thus appetite is the appetite of something, and desire the desire of something, the double also is the double of something, and the double of the half. Those also whose essence is not really amongst relatives, but in short, of which there are habits or passions, or some such thing manifested in their definition which are predicated of these. Thus, the odd is a number having a middle, but there is an odd number, wherefore there is a number number having a middle, and if τὸ σιμον is a concavity of nose, but there is a concave nose, there is then nose nose concave.

3. Cause of ταντολογία. They seem to produce (trifling) sometimes which really do not produce it, because the inquiry is not added, whether the double enunciated by itself signifies something or nothing, and if it signifies any thing, whether it signifies the same,* or something else, but the conclusion is immediately ad-
 * As that which is conjoined. deduced; yet from the name being the same, there seems to be the same thing and the same signification.

CHAP. XIV.—Of Solecism.†

† Cf. ch. 3.

SOLECISM is what we have declared before; sometimes, however, it is possible to produce this, and not producing to seem to do so, and producing it, not to appear to, as Protagoras said, if μήνις † and πήληξ, § are of the masculine gender: for he who says οὐλόμενην, commits a solecism according to him, but to others does not seem to, but he who says οὐλόμενον, seems to solecize but does not.¹ Hence it is clear that a certain art can produce this; wherefore many arguments which do not infer a solecism, seem to infer it as in the elenchi.

2. Whence Almost all apparent solecisms, indeed, are from

¹ If it is said μήνις οὐλόμενη it is solecism, because μήνις is masculine, but it does not seem so, and if it is said μήνις οὐλόμενος, it seems a solecism, yet is not. We may remark that the word (taken from the Σόλοικοι, a people in Cilicia notorious for their corruption of the Greek language) is applied to impropriety of behaviour, as of expression. Cf. Rhet. b. ii. ch. 16; Massinger's Unnatural Combat, act iii. sc. 1; Ben Jonson's Fox, vol. iii. p. 275.

hoc, and when the case signifies neither male nor female, but what is between,¹ for *hic* signifies the masculine, *hæc* the feminine, and *hoc*, indeed, ought to signify what is between, but frequently signifies either of these, as, for instance; "What is this?" "Calliope," "wood," "Coriscus."² All* the cases then of the masculine and feminine differ, but of what is between, some do, and others do not;³ frequently, therefore, when "hoc" is given, they syllogize as if "hunc" were said, and in like manner take one case for another. Now a paralogism is produced, because "hoc" is common to many cases, for "hoc" at one time signifies "hic," and at another time "hunc;" it is requisite, however, that it should signify alternately with the verb "est," "hic," but with "esse," "hunc," for instance, "est Coriscus," "esse Coriscum." Also in like manner with feminine nouns, and with those which are called *σκεύη*, (furniture,) but which have a feminine or masculine inflection, for whatever end in *ο* and *ν*, have alone the inflection of *σκεύη*,⁴ as *ξύλον*, wood, *σχοινίον*, a rope, but those which are not thus, (have the inflexion) of the masculine or feminine, some of which we refer to *σκεύη*, as *ἀσκός*, a bladder, is a masculine noun, but *κλίνη*, a bed, is feminine; wherefore, likewise, in such things also, "est" and "esse" will produce a difference. In a certain respect too, a solecism is similar to those so called elenchi, from things not similar being similarly assumed,⁵ for as in them in things, so in these a solecism is committed in words, for "man" and "white" are both things and words.

apparent solecisms arise.

* Quid est hoc?

3. That a solecism resembles an elenchus so called. Cf. ch. 4.

It is evident, then, that we must endeavour to infer a solecism from the cases enumerated.

Such, then, are the species of contentious arguments, and the parts of the species and the modes

4. Necessity of arranging the elements of

¹ That is, the neuter gender.

² Of the fem., neut., and masc. genders severally.

³ Three cases in the neut. are alike, viz. the nom., acc., voc., but the gen. and dat. differ.

⁴ Those things called *σκεύη* when they terminate in *ον* are neut., as *ξύλον*, otherwise they may be either masc. or fem.

⁵ Solecism, he says, resembles the fallacy from figure of speech; for either is produced, *ὅταν τὸ μὴ ταῦτὸ ὡσαύτως ἐρμηνεύηται*, but the former consists in not employing words according to general usage, the latter errs in the matter itself.

these interrogations. which have been stated; still it makes no slight difference to concealment, if things which belong to interrogation, are arranged in a certain manner, as in the case of dialectics, hence, after the above-mentioned particulars, these must be first discussed.

CHAP. XV.—*Of Arrangement and Interrogation.*

* Cf. Top. viii. 1.

1. Of certain artifices to be used by interrogators, and of the arrangement of the questions.

1. Prolixity.
2. Rapidity.
Vide Ethics, b. ii.; Rhet. b. ii. ch. 2.

3. Alternate arrangement of questions.
Whately, Logic, b. iii.

ONE thing which contributes to confutation by an elenchus is prolixity,* for it is difficult to consider many things at once, and for prolixity we must employ the above-named elements. Another thing is rapidity, for those who are slow, perceive less; anger also, and contention, for all men who are disturbed, have less power of observation.¹ The elements, however, of anger, are for a man to render himself obviously willing to commit injustice, and to conduct himself with thorough impudence. Moreover to arrange the questions alternately, whether a man has many arguments for the same thing, or (to show) that they subsist in one way, and not in another, for at the same time it happens that (the opponent) will guard against many things or such as are contrary. In short, all the things enumerated before as contributing to concealment, are useful also for contentious arguments; for concealment is for the sake of escaping notice, and escaping notice for the sake of deception.

4. By interrogation from negation. Against those indeed who deny whatever they think contributes to the argument, an interrogation must be made from negation, as if he (the querist)

¹ For which reason, Archytas Tarentinus spared his steward: "Go," said he, "were I not in anger I would beat thee." Vide Seneca de Ira, iii. 12. And Charillus the Lacedæmonian evinced the same forbearance towards an audacious Helot, knowing his anger took away all consideration: "By the gods," he exclaimed, "were I not angry I would kill thee." Plutarch, Apoth.

"secum petulans amentia certat." Claudian in Eutrop.

The reader will find the principles of these several topics of fallacy enunciated by Whately.

wished the contrary, or by making the interrogation equally;* for it not being evident what (the interrogator) wishes to assume, (the respondents) are less indignant. When, too, any one admits the several particulars partially, by making an induction of the universal, frequently an interrogation must not be made, but we must use it as granted, for sometimes they (the respondents) think they have admitted, and appear to the auditors from making mention of induction, as if the particulars had not been questioned in vain; and in those wherein the universal is not signified by name, we must yet use similitude, as may be expedient, for similitude frequently escapes notice. In order also to assume a proposition, we ought to make the inquiry by a comparison of the contrary; as if it should be necessary to assume, that it is right in all things to obey a father, (we must ask) whether it is necessary to obey parents in all things, or to disobey them in all? and, (if it is answered that we ought) frequently (to obey them, we must ask) whether many things are to be conceded to them, or a few? for if it is necessary (to obey them), many things will seem to be conceded, for when contraries are placed by each other, they appear to men to be greater, and great, and worse, and better.

The sophistical false accusation indeed of those who question, when not syllogistically concluding any thing, they do not question the extreme, but conclusively say, as if a syllogism had been made, "it is not so and so;" this very much and frequently causes a person to appear confuted by an elenchus.

It is also sophistical, when a paradox is laid down, to demand that what is apparent should be answered, that being proposed which seemed true from the beginning, and to question things of this kind thus, "Whether does it seem so to you?" for it is necessary if the question be of those things from which a syllogism is formed, that there should be either an elenchus or a paradox; if he grants,† an elenchus, but if he neither concedes nor says that it seems to him to be true, something contrary to opinion, and if he does not concede, but acknowledges it seems true to him, a form of elenchus.

* From each part of contradiction.

5. By employing the universal as granted. Cf. Rhet. ii. 24.

6. Assumption of a prop. to be effected through comparison of the contrary.

7. Sophistical conclusion an element of apparent confutation.

8. Case of a paradoxical position.

† The question.

9. How contraries are to be investigated.

* The respondent.

10. Plea of a double sense.

11. Withdrawal from argument in order to prevent further attack.

12. Impugning something different to the assertion.

13. Statement that in elenchi we assert contradiction.

Moreover, as in rhetorical, so also in elenctic disputations, we must investigate contrarieties in a similar manner, either (such as are contrary) to what is said by him,* or to what he acknowledges well said or done, or to those that seem to be such, or to similars, or to most, or to all. And as also respondents frequently, when they are confuted, assert that what they seem to be confuted in has a two-fold meaning;¹ so questionists must use this mode against objectors, so that if it happens in one way, but not in another, (they say) they admit it only thus, as Cleophon does in his *Mandrobulus*.² It is also necessary, by withdrawing from the argument, to cut off the remaining parts of the attacks, and for the respondent, if he foresees, to anticipate in objection and speaking. Sometimes also, we must attack something different to the assertion, assuming that, if a person has it not in his power to attack the position; which Lycophon did, when the thing proposed was an encomium on the lyre. Against those indeed who require arguments to be advanced against a certain thing, (since it seems necessary to assign a cause, but certain things being mentioned, more caution can be used,) it must be said that it universally happens in elenchi, that we assert contradiction, because we deny what the arguer asserted, but what he denied we assert; but (we must not say that we begin to prove one part of the contradiction);³ for instance, that there is the same

¹ Taylor inserts, "and that they deny it in one sense, and it is approved by the opponent in another," and observes that what is here said, is so obscure in the original, that he has been under the necessity of paraphrasing it, to render it legible. The meaning however is, as Waitz expresses it, that as the respondent foreseeing a refutation, endeavours to escape by pleading a distinction in the meaning of a term, so the questionist must use the same plea to remove an objection, in order that he may adopt whatever sense is most suitable to confute his opponent.

² Alexander Aphro. reads "Calicles" for Cleon (fol. 37, b.); the last named was a tragic poet, who wrote a tragedy called *Mandrobulus*, not extant.

³ Taylor paraphrases, "certain things being mentioned, (the opponent) will be more cautious, it must be said that it universally happens in elenchi, that he who argues, asserts that he wishes to prove the affirma-

science of contraries, or that there is not the same. But it is not proper to question the conclusion after the manner of a proposition, since some things are not to be questioned, but to be employed as if acknowledged.¹

14. The conclusion ought not to be questioned as a proposition.

CHAP. XVI.²—*Of Reply to Sophistical Elenchi.*

FROM what places then questions are, and how we must make them in contentious exercises, has been shown; but concerning reply, and how it is proper to solve,* and what, and for what use such arguments are profitable, must be stated in the next place.

1. What the following chapters treat of.

* Sophistical argument.

They are useful then to philosophy for two causes; first, indeed, as being for the most part from diction, they enable us to know in a better manner, in how many ways each thing is predicated, and what kind happen similarly, and what differently, both in things and in names. Secondly, (they contribute) to inquiries by oneself, for he who is easily deceived by a paralogism by another, and does not perceive this, may also himself frequently experience the same thing from himself. Thirdly, in the remaining place, (they tend) still more to fame from appearing to be exercised about all things, and not to be unskilful in any thing; for that he who engages in disputation should blame the arguments (of another), without being able to distinguish any thing about their badness, produces a suspicion of apparent indignation, not on account of the truth, but on account of unskilfulness.

2. The arguments discussed are useful to philosophy for two causes.

How therefore respondents should oppose such arguments is evident, since we have before rightly

3. Of the solution of so-

tion of that which is denied, and the negation of that which is affirmed, rather than definitely to say that he proves one part of contradiction." Cf. Waitz. The translation I have given is literal, and notwithstanding the difference of stopping between Waitz and Buhle, corresponds with the interpretation given by both.

¹ Taylor concludes the first book of the *Soph. Elen.* with the commencing sentence of the next chapter.

² Taylor here begins his second book; this latter portion treats of the method of solving (*λύειν*) sophistical arguments. Cf. Hessey's *Schem. Rhet.* Tables 3 and 5.

phisms generally.
* Of the sophists.

shown from what, paralogisms arise, and have sufficiently exposed impostures* in interrogation. It is not the same thing however assuming an argument to see and to solve its futility, and to be able quickly to oppose an interrogator, for what we know we are often ignorant of, when it is transposed. Moreover, as in other things, the quicker and the slower increase by exercise,¹ so is it also with arguments; hence, if a thing is evident to us, but we have not meditated upon it, we are frequently deficient in it on certain occasions.

4. Necessity of argumentative exercise.

Sometimes indeed it happens† as in diagrams, for having analyzed them, we sometimes are unable to reconstruct them; thus also in elenchi, knowing the cause of the connexion of the argument, we are unable to dissolve the argument.

† In elenchi.

CHAP. XVII.—*Of Solution from Probability.*

1. In solution of sophistical syllogisms, not real, but apparent, confutation to be sought.

FIRST then, as we say, we ought sometimes to prefer to syllogize probably, rather than truly, thus also we must solve sometimes rather probably than according to truth, for in short, we must contend with contentious men, not as if they were confuting, but as appearing to do so, since we do not say that they conclude syllogistically, so that we must direct ourselves to their not appearing.² For if an elenchus is a

¹ Cf. Blair's Lectures on Rhetoric, sect. 2. So "usus efficacissimus rerum omnium magister." Pliny Nat. Hist. xxvi. 2. The story of the girl who carried a calf, until by daily practice she was able to carry an ox, told by Stobæus, (serm. 29,) from Favorinus, (see also Quintilian i. 9,) is strictly applicable to this remark, in fact, Petronius gives it, as a proverb,

Tollere taurum

Quæ tulerit vitulum illa potest.

Cf. Erasmus Chil. i. Cent. 2, ad 51.

² Taylor renders this, "We must contend with litigious men and consider them not as confuting, but as appearing to confute, since," etc. "Hence, (he who answers) must endeavour that his arguments may not appear (to syllogize and be confuted)." Buhle supposes the direction to apply to "our, i. e. the respondents, not appearing to confute." The translation accords with the interpretation of Waitz, viz. that as sophistical syllogisms do not really but only apparently infer, we must address ourselves to the removal of that practice, so that they may not even seem

contradiction not equivocal, from certain (assumptions), there will be no necessity of distinguishing against things ambiguous and equivocation, for he* does not make a syllogism. Still we must make a division, for no other reason than because the conclusion appears to have the form of elenchus. Wherefore we must be cautious not of being confuted, but of seeming to be so, since ambiguous interrogations and those which are from equivocation, and other such deceptions, both obscure the true elenchus, and render it dubious whether a person is confuted by an elenchus or not. For since it is possible at the end, when a conclusion is made (for the respondent) to say that he has denied, (viz. the interrogator) not what the respondent affirmed, but equivocally,¹ even if he † happens especially to tend to the same point, it is doubtful whether he ‡ is confuted by an elenchus, for it is dubious whether he now asserts the truth. If on the other hand, dividing, he questions the equivocal or the ambiguous, the elenchus will not be obscure, and what the contentious less require now than formerly, viz. that the person questioned should answer yes or no, should occur. Nevertheless, now because querists do not question well, it is necessary that the person questioned should add something to his answer, correcting the faultiness of the proposition, § since if he, the querist, distinguishes sufficiently, the respondent must necessarily say yes or no.

* Who interrogates such things.

† The querist.

‡ The respondent.

§ Question, Buhle. Answer, Taylor.

If, indeed, any one should suppose that to be an elenchus, which is according to equivocation, it will be impossible for the respondent in any way to avoid confutation by an elenchus, for in visible things it is necessary to deny the name which he affirms, and to affirm what he denied.² For as some correct there is no benefit, for they say that Coriscus is not musical and unmusical, but that *this* Coriscus is musical, and

2. Case of equivocation when the respondent cannot avoid confutation.

to infer; and this appears not only most correct in signification, but is decidedly most consonant with the expression, (πρὸς τὸ μὴ δοκεῖν διορθωτέον).

¹ Buhle and Taylor insert the following clause here, which is omitted by Bekker and Waitz, "But has interrogated ambiguously, and therefore that he affirms one thing, and the interrogator assumes another, and denies in the conclusion."

² Cf. Alexand. in Schol. 310, 621. Waitz.

that unmusical, since that Coriscus is, will be the same sentence with that *this* Coriscus is unmusical or musical, which he* at one and the same time affirms and denies. Yet perhaps they do not signify the same thing, for neither does the name there, so that there is some difference,¹ if, however, he assigns to the one to mean simply Coriscus, but adds to the other a *certain one* or *this one*, it is absurd, for it will not be more in one than in the other, as it is of no consequence to which it is attributed.

* The respondent.
3. The ambiguity to be expounded.

Nevertheless, since it is dubious whether he who does not distinguish the ambiguity, is confuted by an elenchus or not, but it is allowed in disputations to make a distinction, it is evident that he who does not distinguish, but simply grants the interrogation, errs, wherefore, if not the man himself, yet his argument, resembles a confuted elenchus. It frequently happens, however, that they who see the ambiguity, are unwilling to distinguish from the frequency of those who propose things of this kind, that they may not seem to be morose in every thing, and next, not thinking that the argument depends on this, a person frequently meets with a paradox, wherefore since distinction is allowable, it must not be delayed as we said before.†

† Top. b. viii. ch. 7.

4. The querist by ambiguity, makes two questions, one. Vide Whately, book iii.

Unless, indeed, a person makes two interrogations to be one, there will not be a paralogism from equivocation and ambiguity, but either an elenchus or not. For what difference is there in asking whether Callias and Themistocles are musicians, or whether to both, being different men, there is one common name? for if that signify more than one, he (who uses it) will ask many things. If, then, it is not right to require that we assume simply, one answer to two questions, it is evidently not becoming to answer simply, any thing equivocal, not even if, as some require, it be true in all; for this is just the same as if it were asked, whether Coriscus and Callias are at home or not? whether both are present or not present? since in both ways the propositions are many. For it does not follow if the assertion is true, that there is on this account

¹ I follow Waitz here; Buhle and Taylor read (οὐδέν) τι διαφέρει. Upon the method of solving the sophism, vide Waitz, vol. ii. p. 520.

one question, since there may be ten thousand different questions asked, to all of which it may be true to answer yes or no, yet nevertheless, one answer must not be given, for disputation would be subverted, and this is the same as if the same name, should be assigned to different things. If, then, it is not right to give one answer to two questions, it is evident that we must not answer yes or no in things equivocal, since neither does he who says this, answer, but speak, (merely,)¹ and this is claimed in a certain respect amongst those who dispute, because the result is concealed.²

As, therefore, we said since neither are certain things, elenchi really, which seem to be so, in the same manner also, certain will seem to be solutions which are not, but which we say that sometimes it is necessary to adduce rather than the true, in contentious arguments and in opposition to (a paralogism from) duplicity. Likewise, we must answer things which seem to be (true) by saying, "be it so," for thus, least of all, would there be a *parexelenchus*, but if a person should be compelled to assert some paradox, there "to seem," must especially be added,* for thus, there will appear to be neither an *elenchus*³ nor a paradox. Since, however, it is clear how the original proposition is made a postulate, and men think altogether (that it is made so), if it be near (the question) we must subvert and not grant certain things, as if the interrogator made a *petitio principii*, and when any one requires such a thing to be granted which necessarily, indeed, results from the thesis, but is false or contrary to opinion, it must be said to be the same (as the question), for things consequent from necessity appear to be parts of the thesis itself. Moreover, when universal is assumed not in name but by comparison, it must be said that he (the opponent) assumes it, not as it was

5. How reply is to be made.

* To the answer.

¹ Because what he replies to is nought, for he answers as if to one thing, whereas the ambiguous is not one thing, but one name and many things.

² Through ignorance, those who dispute are praised as if they answered well, when they simply answer. Taylor.

³ That is, it is better to reply "be it so," or "it seems so," than "yes," because we thereby do not seem to admit any fact so much as courteously to use an expletive, in order not to appear unnecessarily to contradict our opponent; this gives us time also for retracting more easily afterwards.

given, nor as he proposed it, for from this an elenchus frequently arises.

He however who is excluded from these, must have recourse to (asserting) that the thing is not well demonstrated, objecting according to the definition stated.*

* Of syllogism and elenchus.

6. What is obscure in argument ought not to be simply conceded.

In names then, which are properly so called, it is necessary to answer either simply or by distinction. As to, however, those things which we admit, secretly perceiving them, for instance, whatever are not clearly interrogated, but with diminution, from this an elenchus happens, as, for instance, "Is what belongs to the Athenians, the possession of the Athenians?" "Yes." In like manner, as to other things, "Does not man also belong to animals?" "Yes." Man therefore is the possession of animals. For we say that man is *of* animals, because he is an animal, and Lysander is *of* the Lacedæmonians, because he is a Lacedæmonian; wherefore it is clear that where the proposition is obscure, we must not make a simple concession.

7. Of certain other arts in respension.

But when of two existents, the one existing, the other also appears of necessity to exist,¹ but *this* existing, *that* does not from necessity; he who is asked which of the two (he thinks exists) ought to give that which is less (widely extended), for it is harder to syllogize from many things.² Yet if some one should argue that there is something contrary to the one, but not to the other, even if the assertion be true, we must say that the contrary (of the other, is), but that the name of the other, is not laid down.

2. Transference of name.

Nevertheless, since some of the things which the multitude assert, are such that he who does not admit them, they would say, answered falsely, but others are not such; as those of which there are contrary opinions, (for whether the soul of animals, is corruptible or incorruptible, is not determined by the multitude,) in which then it is doubtful how it is usual to enunciate what is proposed, (so that it may be asked) whether (it appears to the respondent) as sentences, for they call both true opinions and universal

¹ As when an universal and particular prop. exist, the existence of the second seems to follow from that of the first, but not vice versâ.

² In this case he ought to admit the particular, rather than the universal, because an argument from particulars is more difficult.

enunciations* sentences, as that the diameter of a square is incommensurate with its side. Besides, of which there is a two-fold opinion as to truth, in these, by transferring the names, a person would especially escape detection, for from its being doubtful in what way the truth subsists, he will not appear sophistically to cavil, and from there being opinions on both sides, he will not seem to answer falsely, for the transition will render his answer incapable of confutation by an elenchus.¹

Further, those interrogations which a person foresees, must be previously objected to and declared, for thus especially he will impede the inquirer.

* An. Pr. ii. ch. 2—4.

3. Preliminary objection to anticipated questions.

CHAP. XVIII.—Of True Solution.

SINCE however a right solution is the detection of a false syllogism, (showing) by what interrogation the falsity occurs; but a syllogism is called false in two ways, (either if it is falsely concluded, or if not being a syllogism, it seems to be one,) what is now said to be a solution will be a correction of an apparent syllogism, (showing) from what interrogation it is apparent. Hence, it happens that those arguments which conclude by syllogism, are solved by negation, but apparent ones by distinction.² Again, since some of the arguments syllogistically concluded are true, but others have a false conclusion; those which are false, according to the conclusion, we may solve in two ways, by taking away some one of the interrogations, and by showing that the conclusion does not thus subsist; but those (which are false), according to the propositions,³ by taking away some

1. In what consists a true solution.

¹ I have given this paragraph as literally as it could be rendered consistent with any meaning, and thereby concur in my interpretation of it with Waitz and Buhle: Taylor, by his excessive interpolation, has rendered it doubly obscure. If Bekker's pointing be used, the commencing sentence will have neither apodosis, nor meaning. The rule conveyed is, that if any doubt exist of the truth of a proposition, we ought to change the names, in order to avoid the appearance of sophism, being defended by the acknowledged mutability of opinion, from the charge of advancing a falsity.

² Taylor has translated this erroneously, but gives the general meaning of the passage correctly in a note: viz. that if the argument consist in the matter, we must reply by negation; if in the form, by distinction.

³ Viz. which conclude the true from false premises.

2. What considerations are to be made by those desirous of solving argument. (interrogation) only, for the conclusion is true. So that they who desire to solve an argument, should first consider if it is conclusive or inconclusive; next, whether the conclusion is true or false, that we may solve it either by division or subversion, and subverting it either in this or that way, as was observed before. Still, it makes a great difference whether a person, being interrogated or not, solves the argument, since to foresee is difficult, but to consider at leisure is easy.

CHAP. XIX.—*Of Solution of Elenchi from Equivocation and Ambiguity.*

1. Difference in elenchi from ambiguity and equivocation. OF elenchi which are from equivocation and ambiguity, some have an interrogation signifying many things, but others a conclusion multifariously stated; for instance in the case, that he who is silent speaks, the conclusion is two-fold, but in this, that he who knows, at the same time does not know,¹ one interrogation is ambiguous, and what is two-fold is at one time (true), and at another not, for the two-fold signifies that which is, and that which is not.*

* Cf. ch. 4, Soph. Elench.

2. How ambiguous syllogisms are to be solved. In those assertions, therefore, in the conclusion of which there is the multifarious, except (the opponent) assumes contradiction, there is not an elenchus, as in this, that the blind man sees,² for without contradiction there was not an elenchus; but in those in the interrogations,† of which (there is the multifarious), it is not necessary previously³ to deny what is two-fold, for the argument does not subsist with reference to this, but on account of this. In the beginning, then,‡ since both the name and the

† i. e. the propositions.

‡ Cf. ch. 17,

¹ Buhle's text and Taylor's translation insert—"as in this argument, 'He who knows how to speak or to act, at the same time knows that which he says or does; but this man knows how to speak Iambic verses, he therefore at the same time knows Iambic verses.'" Neither Bekker nor Waitz, whose text I follow, admits the interpolation. In this example, the ambiguity is not in the conclusion but in the minor prop.

² In our thesis a blind man is said not "to see:" in the conclusion of the sophist a blind man is said to "be seen." For in this "cæcum" (the acc. of *cæcus*) is the acc. patient, in *that*, it is the acc. agent.

³ That is, before the distinction is drawn.

sentence are two-fold, we must answer thus, that it partly is, and partly is not, as that the silent speaks is partly true, and partly not.¹ And that τὰ δέοντα should be done, is true of some things, but not of others, for τὰ δέοντα are predicated multifariously. Still if it* be latent, at the end we must correct the interrogation by an addition; "Is it then true, σιγῶντα λέγειν;" "No, but τόνδε σιγῶντα."² In those, also, which have the multifarious in the propositions, (we must act) in like manner; "Do they not at the same time then, know what they know?" Yes, but not those who thus know, for it is not the same thing that (those who know), at one and the same time know, and that those who thus know, cannot (at one and the same time know).³ In short, (the respondent) must contend even if the adversary simply concludes, and (he must assert) that he denied not the thing affirmed by him, but the name, so that it is not an elenchus.

and Top. b. viii.
ch. 7.

* The multifarious.

CHAP. XX.—*Of Solution of Arguments from Composition and Division.*

It is evident how these arguments which are from division and composition must be solved, for if a divided and a composite sentence have a different signification, that must be stated† which is contrary to the conclusion.⁴ Now all such arguments are from composition or division.⁵ "Did he strike him with that,

† In the solution.

1. Distinction to be drawn where there is

¹ If the sense be, "An quis possit dicere silentem?"—"Can any one speak of him who is silent?" it is true. If it means, "An quis possit dicere silens?" it is false.

² After the sophist has concluded, the respondent who has not detected the ambiguity before, ought to correct his answer by distinguishing thus: I have denied that the silent can speak, as that any one being silent can speak, but I do not deny that some one may speak of silent things, as wood, stones, etc.

³ If the sophistical inquiry be put, "Does every one who says a thing, know what he says?" the reply should be, that in some respects he does, in others he does not, know. He may know, so far as the words are concerned, he may be ignorant, as to the signification.

⁴ By the respondent must be stated what is contrary to the sophist's inference.

⁵ Vide Whately's Logic, b. iii.; Mansel, Appendix, note, pp. 117 and 118.

different signi- with which you saw him striking?"¹ and "with
fication. what he struck, with that, did you see him strik-
ing?"² have something of ambiguous interrogations, but never-
theless it is from composition. For what is assumed from
division is not two-fold, because there does not arise the same
sentence when divided,³ unless also ὄρος, and ὄρος pronounced
with the accent, signify a different thing;⁴ but in writings the
name is the same, since it is written from the same elements,
and after the same manner, and there indeed the marks are the
same, but the things pronounced are different. Hence what is
assumed from division is not two-fold, and it is likewise clear
that not all elenchi are from the two-fold, as some say.

2. Examples . . . The respondent therefore must make a distinc-
of this. tion, for it is not the same thing for a man to say,
that he saw some one striking with his eyes, and that with
his eyes he saw some one striking, and the argument of
Euthydemus (belongs to this).* "Have you now,
• Vide Rhet. ii. 24. being in Sicily, seen the triremes which are in
the Piræus?"⁵ and again, "Can a man being good, be a bad
shoemaker?" but some one being a good shoemaker, may be
bad, so that there will be a bad shoemaker. (Again,) "Are
those exercises worthy, of which the sciences are worthy?" but
the exercise of a bad man is worthy; wherefore, what is bad,
is a worthy exercise, but what is bad is both an exercise and
that which is bad, so that what is bad, is a bad exercise. "Is
it true to say now that you are born? you are therefore born
now." Or does this (sentence) signify another thing when
divided, for it is now true to say that you are born, but not
that you are now born. As to the manner in which you are
able, and the things which you are able to do, will you do
these things, and in this manner? but when not playing on
the harp, you have the power of playing, wherefore, you

¹ Supply—But you saw him with your eyes striking, . . . he struck with eyes.

² Supply—But he struck with a staff, . . . you saw with a staff.

³ As when conjoined.

⁴ Whereas this word with the spiritus lenis, is "a mountain," with the spiritus asper, is "a boundary."

⁵ Some of these quibblings would be beneath notice, were they not in various shapes frequent. The case here was that Euthydemus knew that there were galleys extant, he being in the Piræus when he knew this . . . he knew that there were galleys in the Piræus.

would play when not playing ; or may we not say that he has the power of playing on the harp, when he does not play, but when he does not do it,* of doing it?

* He has the power.

Some indeed solve this (sophism) in another way, for if (the respondent) grants that he is able to do so, they say it does not happen that he who does not play plays, for he does not grant that he does it in whatever way it is possible, nor is it the same thing to say *as it is possible*, and *in whatever way it is possible to do it*. Still, it is evident that they do not solve it well, for of arguments from the same (place) there is the same solution, but this will not suit all, nor questions in every way, but is (adapted) to the interrogator, not to the argument.¹

3. Another method of solving the last sophism.

CHAP. XXI.—*Of Solution of Arguments from Accent.*

ARGUMENTS indeed are not derived from accent, neither in writings nor sentences pronounced, unless there may be a few, such as this argument, "Is τὸ οὐ καταλύεις a house?" yes! "Is not τὸ οὐ καταλύεις the negation τοῦ καταλύεις?" yes! "But you said that τὸ οὐ καταλύεις was a house, therefore a house is a negation." How therefore the solution must be made, is clear, for "ου" does not signify the same thing, when pronounced more acutely, and when more gravely.²

1. That few arguments are derived, κατὰ τὴν προσφῶδιαν —solution. Cf. Sop. Elench. 4; Mansel's Logic, App. 118.

CHAP. XXII.—*Of Solution of Argument from Figure of Speech.*³

MOREOVER, it is evident how we must oppose arguments derived from things asserted after the same manner, which are not the same, since we have the genera of the categories; for the one

1. Error of these sophisms pointed out to consist in their taking different things for

¹ That is, the very solution of the sophism is itself sophistical. Cf. ch. viii.

² "Is not the place where you dwell, a house?" here the sophism is conveyed in the particle ου, which, circumflexed, signifies "where," but acutely accented, "not," so that by granting that οὐ, *where you dwell*, is a house, it is inferred that οὐ *κατάλυεις*, i. e. *you do not dwell*, is a house. Taylor.

³ Cf. the rules of method, general and special, in Watts' Logic, b. iv. ch. 2.

the same, referring those to the same category which belong to different categories. Examples.

indeed grants when interrogated, that it is not any of those things which signify essence, but the other shows that it is one of the number of relatives or quantities, and seems to signify essence on account of the diction, for instance, in this argument. Is it possible to do, and to have done, the same thing at the same time? No. But it is possible to see, and at the same time to have seen, the same thing, and according to the same.*¹ Is it possible for any thing which suffers, to act? No. But "it is cut," "it is burned," "it is perceived," are enunciated similarly, and all signify to suffer something; again, "to speak," "to run," "to see" are enunciated similarly with each other, but "to see" is to perceive something, so that it is to suffer, and to act something, at one and the same time. Still, if any one having there granted that it is impossible to do and to have done the same thing at the same time, should say that it is possible to see and to have seen, he is not yet confuted, if he should not say that "to see" is *to do* something, but *to suffer*, for there is no need of this interrogation, but he is supposed by the hearer to have granted this, when he granted that "to cut" is to do, and "to cut" is to have done something, and whatever other things are similarly asserted. For the auditor himself supplies the rest as asserted in a similar manner, but this is not similarly asserted, but seems to be so from the diction. The same thing indeed happens, as in equivocations, for in them, he who is ignorant of words, thinks that (the opponent) denies the thing which (the respondent affirms), and not the name (only), though there is still need of an interrogation, whether regarding one thing he asserts the equivocal, for this being granted there will be an elenchus.

2. Examples continued.

The following arguments also are like these: Whether has some one lost that, which once

¹ These are similar expressions, yet an invalid argument alone is derived from them, since to *do* and to have *done* is agency, but to *see* and to *have seen* signify passive qualities elicited in the percipient, by the object. So, Pet. Hisp. Sum. Log. Tract. 6, speaking of this fallacy, as "multiplex phantasticum," observes, "Est autem multiplex phantasticum, quando aliqua dictio significat unum, et videtur significare aliud, propter similitudinem quam habet in parte, cum aliâ dictione: ut 'videre' significat passionem et videtur significare actionem, propter hoc quod est simile huic verbo 'agere.'"

having, he afterwards has not? for he who has lost one die will not have ten dice, or may we not say that he has lost what he has not (now), but which he had before; but that it is not necessary that he who had not so much, or so many things, should have lost so many. Asking then, what he has, in the conclusion he introduces so many, for ten things are so many; if then, it had been asked at first, has he who has not so many things as he formerly had, lost so many, no one would admit it, but either that he had lost so many, or some one of these. Also (the deception is similar), that some one may give what he has not, for he has not one die only, or does he not give that which he has not, but as to the manner in which he had it not, viz. one, for the word "only," does not signify this particular thing, nor such a quality, nor quantity, but how it subsists with relation to something, (i. e.) that it is not with another.¹ It is therefore as if some one asked, can any one give what he has not, and if a person denied it, should ask whether any one can give rapidly, when he does not possess rapidly, and this being agreed to, should conclude that a man may give what he has not. It is also manifest that it is not syllogistically considered, (for to give) rapidly is not to give this thing, but in this way, and a person may give in a manner different from that in which he possesses, for possessing it gladly, he may give it painfully.

Similar also are all the following: Can any one strike with that hand which he has not? or see with the eye which he has not, for he has not one alone.²

¹ I read this puzzling paragraph with Waitz; the sophistry seems to be this: He who had ten dice, having lost one, has no longer ten, therefore he has lost ten, which is absurd. The solution is, He who had something, having it not now, has lost that something, yet it is not necessary that he who had so many or so much, and now has not, should have lost so many or so much, since a man who once had ten things, but has not them now, need not have lost ten, but may only have lost one or two. Again, it is not absurd to say that he who has one die without other dice, may give a die without other dice.

² When it is denied that a man can strike with that hand which he has not, or can see with that eye which he has not, the sophist argues: He alone strikes with one hand, he sees with one eye alone; but he has not one hand alone, nor one eye alone; therefore he strikes with a hand which he has not, and sees with an eye which he has not. The solution is the same as in the fourth example, for the particle "alone," does not signify that which is possessed, in the relation of the thing possessed.

Some indeed solve this by saying, that he has one alone, whether it be an eye or any thing else, who has more than one, but others that he has received what he has, for he gave one die alone, and this man has, they say, one die alone from this man. Others, again, immediately subverting the question, (say) that it is possible to have what he has not received, as if having received sweet wine, when it is corrupted in the receiving of it, a man should have sour wine; still, as we have observed before, all these solve, not with reference to the argument, but to the man. For if this were the solution, he who gave the opposite would not be able to solve it, as in other cases; thus, if the solution is, that it partly is, but partly is not, if it be simply granted, there is a conclusion, but if there is not a conclusion, there cannot be a solution; but in the before-named, all things being granted, we do not admit that there is a syllogism.

Further, of such arguments are the following:

4. Examples. Has some one written what is written? But it is written that you now sit, which is a false statement, yet it was true when it was written, wherefore at one and the same time, there was written a false and a true assertion. To declare, however, an assertion or opinion false or true, signifies, not this particular thing, but this quality, for the reasoning also is the same in opinion. Again,¹ as to what a learner learns, is it that which he learns? but some one learns quickly what is slow, therefore he* does not say what some one learns, but how he learns.

Again, what a person walks through does he tread on? But he walks through the whole day, it is not said *that* which he walks *upon*, but *when* he walks;² nor when (we say) he drinks a cup (do we show) *what*, but *from what*, he drinks. Also with regard to what a person knows, does he know it by learning or discovery? but of those, one of which he discovers and the other he learns, (with these,) when both are (assumed), neither (accords): or is it that here "every thing"

Taylor. Cf. Blair on Precision in Style, at the words "only," "alone." Lectures on Rhetoric, p. 125.

¹ The writer writes an assertion, at one time true, at another false, but as the true and false constitute not the *essence* of a sentence, but its *quality*, so likewise the true or false is not the *essence* but *quality* of opinion. Taylor.

² Here is a sophistry by changing "place" into "time,"

is assumed, but there not "every."¹ Also, (we may add the deception,) that there is a certain third man besides man himself, and individuals, for man and every common thing, is not this particular thing, but signifies a certain "quale" or relative, or in some way, or something of this kind.^{2*} Likewise, also, in the question, whether Coriscus and Coriscus the musician, are the same or different question, for the former signifies this particular thing, but the other a thing of a certain quality, so that we cannot set out this;³ nor does the exposition make a third man, but the concession, (that what is common) is that very thing which is this particular thing, for (thus) to be this particular thing, is not that which Callias is, and which man is. Neither will it signify, if some one should say that what is set out, is not what this particular thing is, but what is a thing of a certain quality, for besides the many, there will be one certain thing, for instance man. We must evidently therefore, not grant that what is predicated in common of many, is this particular thing, but that it signifies either quality, or relation, or quantity, or something of the kind.

* Vide Mansel's Appendix Logic, p. 131. Cf. Metaph. i. 9. ..

5. That such sophisms must be solved by distinction of the categories.

CHAP. XXIII.—*Of the same generally.*⁴

IN short, of disputations from diction, the solution will always be according to the opposite of that from which the argument is derived, thus if the argument is from composition, the solution will

1. Syllogisms whose fault consists "in dictione," may all be solved by asserting

¹ Waitz, *οὐχ ἅπαντα*. It is supposed here that of things known, by a person, one is by his own discovery, the other by instruction from some one else; hence the sophist argues, "This man knows both these; but not both by discovery nor both by instruction, therefore what he knows, he does not know either by instruction or by discovery." The solution is that the singular *οὐχ ἅπαν*, is changed into the plural; "every" into "all;" the singular was granted, but not the plural.

² In the proposition *ἀνθρώπος περιπατεῖ*, the subject is not the Platonic *ἀντροάνθρωπος*, who is immovable, nor yet any individual: therefore there is a third man, distinct from the idea, and from the individual. Vide Alex. Scholia, p. 314, b. xlii.; Scholia, p. 567, ch. 41; Alex. in Met. p. 62, ed Bonitz.

³ We cannot show that Coriscus the musician, is something by itself separate from Coriscus.

⁴ The remarks here upon solution are consequent to those at chap. 18.

the contrary to what the sophist assumes, and which being affirmed, causes the false syllogism.

be through division, but if from division, it will be through composition. Again, if (the argument) is from acute accent, the grave accent will be the solution, but if from the grave, an acute (will be). If, however, from equivocation, it is possible to solve by adducing the opposite name, thus if it happens that we can say a thing is animated, by denying that it is not animated, we can show that it is animated, but if (the respondent) says it is inanimate, but (the arguer) concludes it is animated, we must say that it is inanimate. In the same way with ambiguity, but if (the argument is derived) from similitude of diction, the opposite will be the solution, as, "Can any one give what he has not?" or not what he has not, but in the way in which he has not; for instance, one die alone.¹ What any one knows, does he know by learning or discovery, and yet not *the things* which he knows, and does he tread on what he walks through, but not *when*,² and so of the other (deceptions).

CHAP. XXIV.—Of Solution of Deceptions from Accident.³

1. Method of solution, to assert that what is present with the accident need not be with the subject—In other words, to deny the consequence from the accident to the subject. Examples.
* Solution.

WITH respect to those which are from accident, there is one and the same solution for all of them, for since it is uncertain when an assertion can be made of a thing present from accident, and in some things this appears and is conceded, but in others, men deny that it is necessary, it must be said as being* similarly adapted to all, that (the conclusion) is not necessary. Nevertheless, it is necessary to produce something similar. All such arguments however as these are from accident.

Do you know what I am about to ask you?⁴ Do you know him

¹ The paralogism, "He has not one die alone, but he gives one die alone, . . . he gives what he has not," is founded in "alone," being taken in its wrong category, *essence*, whereas it signifies, *relation*.

² Vide these explained last chapter; the last example is a mere jest, like Falstaff asking Pistol, "What am I about?" answer, "Yards and more." Cf. Whately, book iii. sec. 11, and 20.

³ Fallacia accidentis quando accidentarium aliquod confunditur cum eo quod est essenziale seu principaliter intentum, unde quatuor termini. Aldrich.

⁴ Thus, "Do you know what I am about to ask?" No. "But I am about to ask whether virtue is good, . . . you know not whether virtue is good." The next example is the same; supply—"But Socrates approaches."

who approaches, or him who is covered? * Is this * Electra So-
statue your work; or is the dog your father? ^{phoc. 1222.} ¹ Are
not a few things, assumed a few times, few? ² For it is evident
in all these, that it is not necessary that what is verified of ac-
cident, should also be verified of the thing, for in things alone
which according to essence are without difference and one, all
things appear to be inherent as the same, since to what is
good, it is not the same thing to be good, and to be that which
is intended to be asked, neither to him who approaches or
who is covered, is it the same thing to be one approaching,
and (to be) Coriscus, so that it does not follow, if I know
Coriscus, but do not know the person approaching, ³ that I
know, and am ignorant of, the same person, neither if this is
a work and is mine, is it my work, but either (my) possession,
or thing, or something else; the other deceptions also (we
must solve) after the same manner.

Some however solve them by distinguishing the
question, for they say that it is possible to know,
and not to know the same thing, yet not according
to the same; therefore not knowing him who ap-
proaches, but knowing Coriscus, they say they know indeed,
and are ignorant of the same thing, but not according to the
same. But in the first place, as we have already said, it is
necessary that there should be the same correction of argu-
ments (derived) from the same (place), but this will not be

2. Solution by
distinguishing
the question.
Observation.

¹ This statue is a work and is yours, . . . it is your work: This dog is
yours and is a father, . . . it is your father. Upon the fallacy "Electra,"
see note 5.

² Thus two are a few, ergo two twice taken, viz. four, are few, ergo
4×4 are few and so on, ad infinitum: the solution of these paralogisms
is that what is asserted of a subject, is not necessarily asserted of an acci-
dent, nor vice versâ, because what is said of one thing, can then *alone*
be said of another, when both are one and do not differ in definition and
essence. This last fallacy is a species of the *Υπερθετικὸς*, and nearly re-
sembles that called "Sorites," (cf. Cic. Acad. Quæst. iv. 48,) or more
commonly *Acervus* and *Calvus*, supposed by Diogenes Laertius (2, sec.
108) to have been invented by Eubulides; they are alluded to by Horace,
Ep. ii. 1, 45, and by Persius, Sat. vi. 80.

³ The fallacy here intimated and alluded to before, belongs to the
Electra or *Obvelatus*, and consists, says Aldrich, "a dicto secundum quid
ad dictum simpliciter;" Diogenes attributes it to Eubulides. The variety
of the sophism given here, may be found in Lucian Vit. Auct. sec. 22.
ΧΡΥΣ. Ἦν σοι παραστήσας τινὰ ἐγκεκαλυμμένον, ἔρωμαι, τοῦτον ὄσθα;
τι φήσεις. ΛΓΟ. Δηλαδὴ ἀγνοεῖν. ΧΡΥΣ. Ἄλλὰ μὴν αὐτὸς οὗτος ἦν ὁ
πατήρ ὁ σός, ὥστε εἰ τοῦτον ἀγνοεῖς δῆλος εἶ τὸν πατέρα τὸν σὸν ἀγνοῶν.

(the solution) if some one does not assume the same axiom from "to know," but from "to be," or "to subsist after a certain manner;" as if this (dog) is a father, and is yours, (therefore it is your father,) for though this is true in certain instances, and it is possible to know, and to be ignorant of, the same thing, yet here what is said, is by no means appropriate. Still there is nothing to prevent the same argument having many faults, yet not the exposition of every fault is a solution, for it is possible that some one may show that to be false, which is syllogistically concluded, but may not show whence it is false;

* Cf. Plat.
Parm. Phys.
Ausc. vi. 9;
Top. viii. 8;
Mansel's Log.
126, note.

as that argument of Zeno, that nothing can be moved.* Wherefore, if some (respondent) should endeavour to lead to the impossible, he errs, though it should be concluded ten thousand times, since this is not a solution, for the solution was

the display of a false syllogism, (showing) whence it is false, if then (the opponent) concludes nothing, whether he endeavours to collect the true or the false, the manifestation of that thing is a solution. Perhaps indeed, nothing prevents this occurring in certain cases, except that in these,† this

cannot appear, for he knows that Coriscus is Coriscus, and that he who approaches is he who approaches. It seems indeed to be possible to know, and not to know the same thing, for instance, to know that a thing is white, but not to know that it is musical, for thus a man knows and does not know the same thing, yet not according to the same, but here he knows what approaches, and Coriscus, and Coriscus (to be) that which approaches, and (to be) Coriscus.

3. Another erroneous method of solution. Likewise, also they err, who solve (by stating) that every number is few,¹ as those whom we mentioned, for if nothing being concluded, leaving out this, they say that they have concluded the true, for that every number is both much and few, they err.

4. By duplicity. Some also solve these syllogisms by duplicity, as that it is your father, or son, or servant;² yet

¹ The words *καὶ πολλὸς καὶ*, retained by Taylor and Buhle, are omitted by Waltz, who however reads *οὐκ εἶπομεν*, omitted by the other two. Aristotle means, that they err who solve, by saying every number is both large and small, inasmuch as they do not perceive that in reality no conclusion is drawn, but admit the statement as a true syllogism.

² All such sophisms depend more or less upon equivocation; here, for instance, is an equivocal of "your," which may signify either that such

it is evident that if the elenchus appears to be assumed from the multifarious, it is necessary that the name or the sentence should properly be of many, but that this person is the son of this man, no one asserts properly, if he is the master of a son, but the composition is from accident. Is this yours? yes! but this is a son, therefore this is your son, because it happens to be both yours and a son, yet not your son.

Also (the solution of the deception by which it is concluded),¹ that something amongst evils is good, since prudence is the science of things evil, for *to be of the number of these*, (they say) is not predicated multifariously, but (as) possession, or if it should be multifariously, (for we say that man is of the number of animals, yet not their possession, and if any thing is referred to evils, as to be said to be of a certain thing, is it on this account of evils, yet this is not to be of the number of evils;) it † seems then (to be assumed) from, "in a certain respect" and "simply." Perhaps, however, it is possible that something good may be of evils in a two-fold respect, yet not in this argument, but rather (in that), "Can there be a good servant of a bad (master)?" But perhaps neither thus, ‡ for it does not follow if he is good and pertains to this man, that he is the good of this man at the same time, nor when we say that man is of animals, is this predicated multifariously, since neither when we signify any thing, by removal, § is this predicated multifariously, for when we say the half of a verse, we signify, Give me the Iliad, as, for instance, (Give me,) "Sing, Goddess, the anger."²

is yours, as a possession, or yours, as a relation; e. g. father or son; nevertheless, from this double sense, the conclusion following only in one, there is a deception of what is multifariously predicated.

¹ Supply—"is similar to this."

² Though the Iliad is signified by half the first verse, from understanding the rest, yet this half is not predicated multifariously, nor does it signify either "give me the Iliad," or "give me the half of this verse;" but it alone signifies "give me the Iliad," because half of the verse being recited, the rest is understood. Taylor. Cf. Waitz, vol. ii. p. 574, & seq. Upon these sophisms, or, as they were absurdly called, "unanswerable arguments," being for the most part unworthy of notice, and reducible to the thirteen species of fallacy, see Hill's Logic, p. 349. These last may be remembered by the following mnemonic lines:

"Æquivocat, Amphi, Componit, Dividit, Acc. Fi.
Acci, Quid, Ignorans, Non causa. Con. Petit. Interr."

CHAP. XXV.—*Of Solution of Arguments deduced from what is simply, etc.*¹

1. We must compare the opponent's conclusion with our own thesis, in order to ascertain whether a statement can be made, not simply, but in a certain respect or relation—a distinction drawn. Cf. ch. 5.

THOSE which are from this particular thing, being predicated properly, or in a certain respect, or some where, or after a manner, or with a relation to something, and not simply, we must solve by considering the conclusion with reference to contradiction, whether it is possible for any thing of this sort to occur in them. For contraries, and opposites, and affirmation, and negation, simply indeed, cannot possibly be inherent in the same thing, though nothing prevents each of these being inherent in a certain respect, or with relation to

something, or after a manner, or one being inherent in a certain respect, but another simply. Wherefore, if one is (predicated) simply, but another in a certain respect, there is not yet an elenchus; but this we must investigate in the conclusion, in reference to contradiction.

* i. e. paralogisms.

Nevertheless, all such arguments* are as follow: is it possible, for what is not, to be? But what is not, is something. In like manner being, will not be, for it will not be any one of beings.²

2. Examples.

Is it, then, possible that the same person can at one and the same time take an oath properly, and commit a perjury? † Is it possible that the same man, at one and the same time, can believe and not believe, the same person? Or are to be a certain thing, and to be

† Cf. Ethics Nic. vii. 2.

¹ Fallacia a dicto secundum quid, ad dictum simpliciter, quando proceditur a voce determinate sumptâ, ad eandem absolute positam. Aldrich, Mansel's ed.

² Sophistice,—“Do you think that non-being is?” No. “But non-being is the subject of opinion—what is the subject of opinion is . . . non-being is.” Again, “Do you think that being is non-being?” No. “But Socrates is a being—Socrates is not Callias . . . being is not.” On these paralogisms, Waitz observes, “Qui redarguere velit paralogismos qui simpliciter asserunt quod non nisi cum adjunctione quâdam concedendum est, conclusionem considerare debet, num fortasse fieri possit, ut simul ipsa sit vera et id quod ei contrarium sit vel repugnet, si utrumque cum adjunctione quâdam dicatur vel alterum simpliciter, alterum cum adjunctione; nihil enim absurdi exit, si contraria vel repugnantia simul vera sint ita ut aut utraque non simpliciter pronuntientur aut certe alterum.”

(simply) not the same? But non-being, if it is a certain thing is not simply; neither if a person swears properly this, or in a certain respect, is it necessary that he swears properly; for swearing that he shall be perjured when he swears, he swears this alone in a proper manner, but he does not swear (simply) in a proper manner, nor does he believe* who disbelieves, but he believes a certain thing. Similar is the argument about the same person speaking falsely and truly at the same time,¹ but from its not being easy to perceive, whether a person assigns the word simply to the speaking truly or falsely, it (the solution) seems difficult. Still there is nothing to prevent it being false, indeed, simply, but in a certain respect, or of a certain thing, true, also certain things being true and yet not true (simply). Similarly also, in regard to the terms, "with reference to something," and "where" and "when," for all such arguments result from this. Is health or wealth a good thing? but to the foolish and to one who does not use it properly, it is not good, wherefore it is good and not good. Is to be well or to be powerful in a city a good thing? Sometimes this is not better, therefore the same thing is good or not good to the same. Or does nothing prevent what is simply good, not being good to a certain person, or good to this man, but not now, or not good here. Is that which a prudent man would not desire, an evil? But he does not desire to lose good, wherefore good is evil, for it is not the same thing, to say that good is evil, and to lose good. Likewise, also, the argument about the thief, since it does not follow if a thief is a bad thing, that to take him is also bad, therefore he (who wishes to take him) does not desire a bad, but a good thing, for to take a thief is a good thing, and disease is bad, but not to lose disease. Is the just

¹ It is evident that we may believe a person relatively about something, but not in every thing, or simply, yet this is no proof that we can simply believe and not believe, him. The fallacy touched upon previously in the text and compared with the place given in the Ethics, Cicero denominates "Mentiens," and thus enumerates it, "Si dicis te mentiri, et verum dicis, mentiris; sed dicis te mentiri et verum dicis, mentiris igitur." Acad. Quæst. iv. 30. Its solution is easy enough. If a man lies, he does so about something; but the something is not stated in the sophism, "As Mansel says, the question as it stands is unmeaning." Is this thing very like? Like what? Vide Mansel, 129; Laertius gives the invention of this sophism to Eubulides of Miletus. Vide Laert. ii. 138.

preferable to the unjust, and the justly to the unjustly, yet to die unjustly is preferable.* Is it just for every man to have his own property, yet those which some one † according to his own opinion adjudges, though it be false, are the property (of that person) by law, therefore the same thing is just and unjust. Also, whether is it necessary to condemn him who speaks justly, or him who speaks unjustly? Yet it is just that the injured should state sufficiently what he has suffered, but these would be unjust things, since it does not follow if to suffer any thing unjustly is eligible, the unjustly is more eligible than the justly, but simply indeed the justly, ‡ yet nothing hinders this particular thing, though unjustly (done, being more eligible) than what is justly (done).¹ Also, for every one to have his own is just, but to have another person's, is not just, yet nothing hinders this judgment from being just, e. g. if it be according to the opinion of the judge, since it does not follow if this thing is just or in this way, that it is simply just. Likewise, also, those which are unjust, nothing prevents its being just to relate them, since it does not follow, if it is just to relate them, necessarily that the things are just, as neither if it is beneficial to speak of them, (does it follow) they are beneficial; and the like of just things. Wherefore if things asserted are unjust, it does not follow that he who speaks unjust things prevails, for he says those things which are just to say, but simply, and unjust to bear.

CHAP. XXVI.—*Of Solution of Arguments from the Definition of Elenchus.*

1. Rule to be observed in comparing the opponent's conclusion with the thesis; except there is a contradiction, there is no elenchus. Examples.

To those which arise from the definition of elenchus, as was before described, we must make a reply by considering the conclusion with reference to contradiction, how it will be the same thing,² and according to the same, and with reference to the same, after the same manner, and in the same time. If then, an interrogation be made in the

¹ Thus to die justly is not simply justly, and therefore it is less eligible than to die unjustly which is not simply unjustly. Taylor. The solution of all such points is evident from that of the preceding sophisms.

² "Of the same thing." Taylor and Buhle.

beginning, we must not acknowledge as if it were impossible¹ for the same thing to be double and not double, but we must state that it is not possible so as that an elenchus be acknowledged to be made. All these arguments however are from such a place as this: Does he who knows each particular that it is each particular, know the thing? and the ignorant person in like manner? But some one knowing Coriscus that he is Coriscus, may be ignorant that he is a musician, so that he knows and is ignorant of the same thing. Also, is the size of four cubits greater than that of three cubits? But a size of four cubits in length may be made out of three cubits,² and the greater is greater than the less, wherefore the same thing is greater and less than itself.

CHAP. XXVII.—*Of Solution of Arguments derived from petitio principii.**

* Cf. Sop. Elen. 5; An. Prior ii. 16; Top. viii. 13; Mansel's Log., App., note D.

THOSE from begging the (original question) and assuming it if it is manifest, must not be granted to the inquirer, not even if it be probable that he speaks the truth; but if † it be latent, ignorance, from the fault of such arguments as these, must be retorted on the questionist, as not disputing (well), for an elenchus is without that (which was interrogated) from the beginning. Next, ‡ that he granted not that he (the opponent) should use it, but as being about syllogistically to prove the contrary, as in parexelenchi.³

1. How paralogisms must be refuted, in which there is a petitio principii.
† The original question.

‡ The defender must plead.

CHAP. XXVIII.—*Of Solution of Deceptions from Consequents.⁴*

THOSE also which prove from the consequent we must show from the argument itself. Now

1. That there are two modes

¹ As if it were "possible." Taylor. Compare with this chapter, Sop. Elen. 1 and 5; An. Prior ii. 20.

² A body of three cubits may be extended and become four cubits in length, but not at the same time, nor as to the same length.

³ For a digest of the rule given here, see Waitz, vol. ii. p. 575.

⁴ The modes of true consequence are:

- (1.) From the position of the antecedent to the position of the consequent.
- (2.) From the subversion of the consequent to the subversion of the antecedent.

of right consequence, and two of false consequence. there is a two-fold consequence of consequents, for it is either as universal to particular, as animal to man, for it is taken for granted, if this is (joined) with that, that also is with this; or according to oppositions, for if this follows that, the opposite also follows the opposite.

* Cf. Phys. Ausc. i. 3. Hence also the argument of Melissus,* for if what was begotten had a beginning, he requires it to be granted that the unbegotten had not (a beginning), wherefore, if the heaven is unbegotten, it is also infinite.¹ Yet this is not so, for the consequence is vice versâ.

CHAP. XXIX.—*Of Solution of Deceptions from Irrelevant Assumption.*²

1. Rule in these paralogisms. IN whatever syllogistically conclude from something being added, we must observe whether it being taken away, the impossible, nevertheless, results. Next, † By the respondent. we must make this clear, and we must say that it was granted, † not as seeming (true), but as adapted to the argument, but he, the arguer, uses what is nothing to the purpose.

CHAP. XXX.—*Of Deceptions which take many Interrogations as one.*³

1. Definition to be employed in these paralogisms at first, AGAINST those which make many interrogations one, we must employ definition immediately in the beginning, for the interrogation is one to

The modes of false consequence are :

- (1.) From the position of the consequent to the position of the antecedent.
- (2.) From the subversion of the antecedent to the subversion of the consequent. Compare Sop. Elen. v. 8; Rhet. ii. 24.

¹ The fallacia consequentis is an error in reasoning, for instance, in this argument of Melissus, there is an illicit process of the major.

Whatever is generated has a beginning,

The universe is generated . . . it has not a beginning.

² Compare Sop. Elen. 5; Anal. Prior ii. 17; Rhet. ii. 24. Vide Waitz, vol. ii. p. 576. Aristotle describes the fallacy, "a non causâ pro causâ," as most frequently occurring in the deductio ad impossibile. See Mansel's and Whately's Logics.

³ Quando plures quæstiones velut una proponuntur: evertitur (fallacia, etc.) ad singulas quæstiones distincte respondendo. Aldrich. Cf. Sop. Elen. 5; Rhet. ii. 23, 24.

which there is one answer, so that neither many things must be affirmed or denied of one thing, nor one of many, but one of one. As indeed in things equivocal, at one time (the attribute) is in both,* but at another in neither, so that the interrogation not being simple, it happens that those who answer simply, suffer nothing; † in like manner also, in these cases. When then many are present with one, or one with many,¹ nothing repugnant happens to him who simply concedes, and who errs according to this error; but when it is in one, but not in the other, or many are predicated of many, and both are partly present with both, and partly not, this, again, is to be avoided. For instance, in these arguments: If one thing is good, but another evil, it is true to say that these are good and evil, and again, that they are neither good nor evil, since each is not each, wherefore the same thing is good and evil, and is neither good nor evil. Also, Is every thing the same with itself, and different from something else? but since these are not the same with others, but with themselves, and are different from themselves, the same things are different from, and the same with, themselves. Besides, if what is good becomes evil, and what is evil good, there will be two things, and of two, being unequal, each itself will be equal to itself, so that the same things will be equal and unequal to themselves.

Such arguments, then, fall into other solutions,² for "both" also, and "all" signify many things, ‡ wherefore, except the name, it does not happen that the same thing is affirmed and denied, but this was not an elenchus. Still, it is clear that

and distinctions to be drawn in reply.

* Things signified.

† Inconvenient.

2. These arguments come under equivocation.

‡ Cf. Whately's Logic, b. iiii. 118; Waitz, vol. ii. 577.

¹ Taylor and Buhle insert, "or are not present;" the latter also translates, "who admits this error;" also both read "when one is, but the other is not." I follow Waitz and Bekker, the former paraphrases the passage thus: "Sin autem alterum affirmari debet, alterum vero negari, vel si num plura de pluribus prædicentur simul interrogatur, et si res ita se habet, ut utrumque de utroque quodammodo prædicari possit, quodammodo non possit, facile redarguitur qui simpliciter omnia simul affirmat vel negat.

² He says that these have another solution, e. g. It is asked, "Are these two things good or evil?" Here the interrogation is ambiguous, and may either be taken in a collective or distributive sense; if in the former, it is one, and requires an answer; if it is the latter, it requires many answers.

unless many interrogations are assumed for one, but one thing be affirmed or denied of one, there will not be an impossibility.

CHAP. XXXI.—*On the Solution of Paralogisms leading to Repetition.*

1. We must deny that a word separately signifies the same as when conjoined with another. Cf. ch. 12.

WITH regard to those which lead to frequently saying the same thing, we must evidently not grant that the categories of relatives, separated by themselves, signify any thing; as the double without the double of the half, because it is manifest; ¹ for ten is (understood) in (the expression) ten minus one, and "to make" in the (expression) "not to make," in short, affirmation in negation, yet still it does not follow, if a man says that this is not white, that he should say it is white. Perhaps indeed, the double signifies nothing (alone), as neither what is in the half, or if indeed it does signify any thing, yet not the same as when conjoined.² Nor does science in species (as if it is medical science) signify what is common, but that was the science of the object of science. Indeed, in those attributes through which (the subjects) are declared,³ we must say this, that what is signified

¹ It is evident that the double is the double of the half. Taylor translates it, "because it appears to be one thing."

² "Negation does not signify affirmation, and yet it cannot be understood without affirmation:" wherefore, when I say, "Socrates is not white, though what I say cannot be understood, unless the affirmation of white is understood, yet I do not signify the affirmation of white. Hence, it is one thing, that a name or a sentence signifies something which cannot be understood without another thing, and it is another thing that it signifies that other thing. Though the signification of the double therefore cannot be understood unless the half is understood, to which the double is referred, yet the double does not signify the half. And if it should signify something to which it is referred, yet it does not signify the same thing, assumed by itself, and posited in a sentence. Hence it appears that there is not a negation. For when it is said that the double is the double of the half, since the double by itself does not signify the half, at least, expressly, a repetition is not made, nor does it follow that it should be said, *the double is the double of the half of the half.*" Taylor.

³ "In those attributes which are manifested through subjects—" Taylor translates erroneously. Aristotle means, those attributes which are so predicated of subjects, as to signify at the same time the notion of what they are predicated of, as the notion of number is contained in the idea of "unequal," which is predicated of number: such we are not to admit

separately, and what in a sentence are not the same. For the hollow in common; signifies the same thing in a flat nose and a crooked leg, but when added,* nothing prevents (its signifying a different thing), but the one signifies (what happens) to the nose, and the other to the leg, for there it signifies a flat nose, but here a crooked leg, and it makes no difference to say a flat nose or a hollow nose. Moreover, we must not grant diction in a direct (case),† for it is false, since τὸ σιμὸν is not a hollow nose, but this is an affection, as it were, of the nose, so that there is no absurdity, if a flat nose be a nose having a hollowness of nose.

* To a subject.

† κατ' εὐθεί.

CHAP. XXXII.—Of avoiding Solecisms.‡

‡ Cf. cap. xiv. supra.

CONCERNING solecisms, indeed, whence they appear to happen we have shown before, but how we must solve them will be evident in the arguments themselves. For all these aim at constructing *hoc*; Is what you say truly this thing truly, but you say that something is a stone, something then is a stone. Or is to say a stone, not to say “quod” but “quem,” not “hoc” but “hunc,” if then some one should ask; Num quem vere dicis est hunc?¹ he would not seem to speak conformably to the Latin § language, as neither if he should say; Num quam dicis esse, est hic? but when he says wood, or whatever signifies neither the feminine nor the masculine, it makes no difference. Wherefore, a solecism does not arise, if what you say is, be “hoc,” but you say that wood is, this therefore is wood: a “stone,” however, and “hic,” have the appellation of the masculine. If, indeed, some one should inquire is he, she? and again, what? (quid)? Is not he Coriscus? and then should say, he therefore is she, he does not syllogistically collect a solecism, not even if Coriscus signify, what *she*

§ Greek.

as having the same signification, when enunciated alone, with that which they bear when united with the idea which they necessarily contain.

¹ In these paralogisms, I have followed the example of Taylor, and used the Latin language, as they consist in the diversity of verbal termination, a peculiarity incident to Greek and Latin, but not to English—they are too trivial and plain to need comment.

signifies; but the respondent does not grant it, and it is necessary that this should be questioned, besides. If, however, it neither is nor is granted, it is not syllogistically collected, neither in reality nor against him who is questioned, hence in like manner there also, it is necessary that a stone should signify *hic*, but if this neither is (assumed) nor granted, we must not admit the conclusion, nevertheless it seems to be from the dissimilar case of the noun appearing similar. Is it true to say that *hæc* is that which you say *hanc* is? but you

* To admit this conclusion.

† I. e. not acc. but nom.

say it is a shield, *hæc* then is a shield. Or is it not necessary* if *hæc* does not signify *parmam*, but *parma*,† but *parmam* is *hanc*. Neither if what you say is *hunc* be *hic*, but you say it is Cleon,¹ therefore *hic* is Cleon,² *hic* is not Cleon,³ for it was said, *quem aio hunc esse, est hic, non hunc*; for when the question is thus made it is not according to the rules of grammar. Do you know *hoc*? but this is a stone, you know then a stone, or does it not signify the same thing in the expression, do you know *hoc*? and in *hoc autem est lapis? but this is a stone?* but that in the former it signifies *hunc* and in the latter *hic*. *Num cujus scientiam habes hoc, scis? Habes autem scientiam lapidis: scis igitur lapidis*; is it not that when you say *hujus*, you say *lapidis*, but when you say *hoc*, *lapidem*? but it is granted *cujus scientiam habes, te scire, non hujus, sed hoc*; and therefore *non lapidis, sed lapidem*.

From what is stated then, it is manifest that such arguments as these do not syllogistically collect a solecism, but seem (only) to do so, also why they thus seem, and in what manner they are to be opposed.

CHAP. XXXIII.—*Of the Methods of detecting the Genus of Arguments.*

1. The true solution of paralogisms in which there is the same error

Of all arguments we must know that in some it is more easy, and in others more difficult, to perceive from what cause, and in what, they deceive the hearer,⁴ since often the one are the same

¹ "Ais autem esse Cleonem." ² "Id circo hic est Cleonem."

³ "Non enim est hic Cleonem."

⁴ See Whately's remark upon the error of supposing all fallacies easy of detection, book iii. sec. 6, Logic.

with the other,¹ for we ought to call that the same argument which is derived from the same place, and the same argument may appear to some to be derived from the diction, to others from accident, to others from another (place), because each when it is transferred is not equally evident. As then in (deceptions) from equivocation, which mode of paralogism seems to be the most usual, some are manifest to every one, (for almost all absurd sentences are from diction, for instance, *Vir ferebat per scalas δίφρον; a man put δίφρος through a ladder*: and *ἔπου στέλλεσθε? To the sail-yard*: and *Utra boum ante pariet? Neutra; sed retró ambæ*: again, *Estne Boreas καθαρός?* By no means, for it caused the death of a mendicant and a merchant. Is it Evarchus? No, but Apollonides;² and almost all other deceptions in the same manner.) Some seem notwithstanding to escape the most experienced, a proof of which is, that they oftentimes contend about names, as whether *the one* and *being* are predicated in the same signification, or in a different one, of all things. For to some indeed, *being* and *the one** seem to signify the same thing, but others solve the argument of Zeno and Parmenides, from saying that *one* and *being* are predicated multifariously.³ Likewise, also with regard to those derived from accident and each of the other (places), some arguments will be easy to perceive, but others difficult, and it is not alike easy in all, to perceive

is in some cases more difficult than in others.

* Cf. Whately's Logic, App. i. 17.

¹ That is, they are referred to the same kind of deception.

² This last is a mere pun upon the etymology of the word, Evarchus being a good manager, but Apollonides a destroyer. Of the other examples given above which all turn upon equivocation, some are evident, others obscure. Amongst the first kind we may reckon: "A man put *δίφρος*, (a bench or a chariot,) through a ladder," of course in one sense it is true, in the other, false. Again, *ἔπου στέλλεσθε*, a pun upon the different meanings of being "sent" and of "shortening sails." Again, some one asks: Which of the cows was delivered of a calf, *ante*, i. e. prior or first, but the respondent, playing upon the signification of "ante," "before," applies it not to time, but to the anterior part of the body. Lastly, *καθαρός* means "pure" and "harmless," so that Boreas may be called so in the first sense because it purifies, but not in the last, because it killed two people with cold. In fact, as Whately and others have remarked, jests are mock fallacies, i. e. fallacies so palpable as not to be likely to deceive any one, yet bearing just that resemblance to argument which is calculated to amuse by the contrast. Vide Whately's Logic, b. iii. sec. 20; Wallis's Logic, and also Rhetoric, part i. chap. 3, sec. 7.

³ So Aristotle Physic Ausc. chap. 4; Cf. Plato Parm. p. 128.

* Of deceptions.

in what genus* they are contained, and whether it is, or is not an elenchus.

2. Those arguments most acute which reduce a person to the greatest doubt.

Yet the argument is acute, which reduces a person to the greatest doubt, since this is especially pungent. Now doubt is two-fold, one in arguments concluding syllogistically, with regard to which interrogation is to be subverted,¹ but

the other in contentious arguments, as to how some one should speak of the thing proposed, wherefore in the syllogistic, the shrewder arguments cause greater investigation, but a syllogistic argument is most acute, if from things which appear especially probable, a person subverts † what

† "And confirms." Taylor and Buhle.

is especially probable. For the argument being one, when the contradiction is transposed,² will

have all the syllogisms alike,³ for a person will always, from probable assertions, subvert or confirm what is similarly probable, wherefore it will be necessary to doubt. An argument then of this kind is especially acute, which makes a conclusion equal to the questions,⁴ but that next, which is from all similar (assumptions), for this in like manner will produce doubt, as to which of the interrogatories is to be subverted; nevertheless, this is difficult, since a subversion is to be made, but what is to be subverted is uncertain. Of contentious arguments, the most acute is that in which at first it is forthwith uncertain whether it is syllogistically concluded or not, and whether the solution is from the false or from division, but the second of the rest is that which evidently must be (solved) through division or removal, but in which it is not clear through the removal or division of what interrogation it must be solved, indeed whether this removal or division is from the conclusion, or from one of the interrogatories.

3. Of foolish argument.

Sometimes therefore, the argument which is not conclusive is silly, e. g. if the assumptions be very incredible or false, but sometimes it is not to be despised.⁵ For when one of such interrogations is deficient,

¹ i. e. which prop. is to be denied.

² i. e. the conclusion being taken for a prop. in the converse syllogism, after having been converted into contradiction. Cf. Anal. Pr. b. ii. ch. 8.

³ i. e. the first syll. and the converse syll. will be alike probable.

⁴ i. e. to the propositions.

⁵ See Waitz, vol. ii. p. 581.

the syllogism about which, and through which, the argument (is employed), and which neither assumes this, nor concludes, is silly, but when (the interrogation is deficient,) which may be externally (assumed), the argument is by no means to be despised, but (here) the argument indeed is good, but the querist has not interrogated well.

Since the solution at one time belongs to the argument, at another to the questionist, and the question, and sometimes to neither of these,¹ in like manner also, it is possible both to question and conclude against the thesis, and against the respondent, and against the time, when the solution requires more time than the present opportunity (allows) to argue against it.

4. That the querist may argue against the thesis, or against the party defending it, or plead time in excuse.

CHAP. XXXIV.—*Conclusion.*

FROM how many, and what kind of particulars then, paralogisms are produced by disputants, also how we shall both prove the false and compel (the opponent) to argue paradoxically; further, from what things a syllogism* results, and how we must interrogate, moreover, what is the order of interrogations, for what, too, all such arguments are useful, and concerning both every answer simply, and how arguments and syllogisms must be solved, concerning all these, let what we have said suffice. It now remains that recalling our original proposition,† we should say something briefly concerning it, and add an end to what has been enunciated.

1. Summary of the preceding topics.

* Solecism. Taylor and Buhle.

† Topics, b. i. ch. 1.

We designed then to discover a certain syllogistic faculty, about a problem proposed from things in the highest degree probable, for this is the office of the dialectic per se, and also of the peirastic² art. Since, however, there is added to this, on account of the affinity of the sophistical art, that a person may not only make trial dialectically, but even as one endowed with knowledge;³

2. Concluding observations upon dialectic.

¹ e. g. to the time. See Topics, b. viii. ch. 10.

² Which belongs to dialectic.

³ Like a sophist who professes to know what he does not. Cf. Waitz, vol. ii. p. 581.

on this account we not only supposed what was said to be the object of this treatise, viz. to be able to assume an argument, but also that sustaining the argument, we may defend the thesis in a similar manner, through the greatest probabilities. We have besides, assigned the cause of this;¹ since, for this reason also, Socrates questioned, but did not answer, for he confessed that he knew nothing.² Moreover, it has been shown in the preceding treatise, with reference to how many,^{*} and from what number † this will be, and whence we shall be well supplied with these; further, how interrogations must be made, and how every one must be arranged, and likewise, concerning the answers and solutions of things appertaining to syllogisms. Such other particulars besides, have been developed as belong to the same method of arguments, and in addition to these, we have discussed paralogisms, as we stated before, wherefore, it is evident that what we proposed has sufficiently obtained its end. Still we ought not to be ignorant of that which occurs in this treatise; for of all discoveries, some being received formerly from others,³ elaborated partially afterwards, have been increased by those who received them; but others being discovered from the beginning, are wont to receive, at first, but small increase, becoming much more useful by the increase which they receive from others afterwards. For the beginning of every thing is perhaps, as it is said, the greatest thing, and on this account the most difficult; for that is the hardest to be perceived, which, as it is the most powerful in faculty, is by so much the smallest in size; yet when this is discovered, it is more easy to add and co-increase what re-

¹ He here appears to refer to what is stated in the first chapter of this treatise.

² He who interrogates is presumed to do so for the sake of instruction, but Socrates' method (which was characterized by much of the tentative system) he resorted to, not only because he confessed his own ignorance, notwithstanding the testimony of the oracle to his being the wisest of men, (Plat. Apol., p. 21,) but because he had a mean opinion of the knowledge of the sophists, who, like written books, could discourse freely, yet if examined by questions, were unable to reply (vide Protagoras, p. 329).

³ Taylor and Buhle have translated this erroneously, notwithstanding the remark of Alexander, (Schol. 321, a. 14,) that the word *πρότερον* is to be joined to *ληφθῆντα*.

mains, which also occurs in rhetorical* arguments, and is almost all the other arts. For they who discovered principles, altogether made but little progress; but men who are now celebrated, receiving, as it were, by succession from many who promoted (art) by parts, have thus increased it; Tisias after the first (authors), but Thrasy-machus after Tisias, Theodorus after him, and many (others) have brought together many particulars, wherefore it is no wonder that the art† has a certain multitude (of precepts).¹ Of this subject,‡ however, there has not been a part cultivated, and a part not before, but nothing of it has existed at all, for of those who employed themselves about contentious arguments for gain, there was a certain instruction, similar to the treatise of Gorgias.

* Taylor and Buhle, political.

† Of rhetoric.
‡ Dialectic.
3. Peculiarity of this subject, in that, unlike others, it has received no previous elucidation.

For some gave rhetorical, others interrogative discourses to learn, into which each thought their conversation with each other would most often fall. Hence the instruction indeed to their disciples was rapid, but without art, since they supposed they should instruct them by delivering not art, but the effects of art, just as if a person professing to deliver the science of keeping feet from injury, should afterwards not teach shoe-making, nor whence such things (as safe-guards for the feet) may be procured, but should exhibit many kinds of shoes of every form; for he would indeed afford assistance as to use, yet not discover the art.§ And indeed, about rhetoric, many old discourses are extant, but about the art of syllogism we have received nothing at all from the ancients, but we have laboured for a long time by the exercise of investigation. If then, it appear to you, when you have inspected (our writings), that this method derived from such materials as existed originally, when compared with other treatises which have been increased from tradition, has|| been (handled) sufficiently, it remains for you all,

§ Of making shoes.

4. Appeal to the judgment.

|| Taylor and Buhle, "not."

¹ Knowledge is like a town, he who builds the first walls, seldom sees the completion of the last tower. Concerning Tisias and his successors, vide Spengel, F. D. Gerlach, Hist. Studien, and Winckelmann in Plat. Euthydem. p. 34, seqq.; and upon the progress of ancient and modern knowledge, some admirable remarks may be found in Blair's Lectures on Rhetoric, Lect. 35.

or for those who have heard this work, to excuse the omissions in this method, and to be very grateful for its discoveries.¹

¹ Though hardly equal to the dexterous conclusion of the *Poetics*, wherein the example of the peroration is practically employed for a farewell to the reader, we cannot help drawing attention to the simplicity and candour of the philosopher's present address, at once courting the decision of his readers, yet honestly declaring to them their duty.

THE

INTRODUCTION OF PORPHYRY.¹

CHAP. I.—*Object of the writer, in the present Introduction.*

SINCE it is necessary, Chrysaorius, both to the doctrine of Aristotle's Categories, to know what genus, difference, species, property, and accident are, and also to the assignments of definitions, in short, since the investigation of these is useful for those things which belong to division and demonstration,² I will endeavour by a summary briefly to discuss to you, as in the form of introduction, what on this subject has been delivered by the ancients, abstaining, indeed, from more profound questions, yet directing attention in a fitting manner, to such as are more simple. For instance, I shall

1. Knowledge of the predicables requisite as preliminary to that of the Aristotelian Categories, and the Platonic dialectic.

¹ At the request of Chrysaorius, his pupil, who had recently met with the Categories of Aristotle, Porphyry wrote this introduction, in order to his comprehension of that treatise: nearly the whole of it is composed from the writings, and often almost in the very words of Plato. As philosophers reduced all things under ten common natures, as grammarians also, with respect to eight words, so Porphyry has comprehended every significant word, except such as are significant of individuals, under five terms. The five heads of predicables therefore, taken from this Isagoge, which was written in the third century, are an addition to the Aristotelian Logic, in part of which, (the Topics,) the doctrine laid down differs from that enunciated here, in several points, as Porphyry's view also differs from that of Aldrich. Upon the subject generally, the reader may compare Albertus Magnus de Prædicab. Aquinas. Occam Logica. Abelard de Gen. et Spec. ed Cousin. Trendelenb. Elem. Crakanthorpe's, Whately's, Hill's, and Wallis' Logics, also Boethius de Divisione.

² Dialectic, according to Plato, consists of four parts, division, definition, demonstration, and analysis; hence a treatise adapted to the formation of these, will be evidently useful to the dialectic of Plato. The difference between the dialectic of Plato and that of Aristotle, is noticed in the subsequent notes upon the Organon, and the reader will find the subject ably discussed in the introduction to Mansel's Logic; here we need only observe that Aristotle in the Topics, looks to opinion (in his treatment of dialectic), while Plato disregards it, and the former delivers many arguments about one problem, but the latter, the same method about many problems. Cf. Proclus. MSS. commentary on the Parmenides, Philip, Schol. p. 143, ch. 4; Waitz, vol. ii. p. 437.

omit to speak about genera and species, as to whether they subsist (in the nature of things) or in mere conceptions only; whether also if subsistent, they are bodies or incorporeal, and whether they are separate from, or in, sensibles,¹ and subsist about these,^{2*} for such a treatise is most profound, and requires another more extensive investigation.³ Nevertheless, how the ancients, and especially the Peripatetics, discussed these and the other proposed subjects, in a more logical manner, I will now endeavour to point out to you.

* Kant. Sir W. Hamilton, Ed. Review, No. 115, and Reid's works; also Cat. 5, note.

CHAP. II.—Of the Nature of Genus and Species.⁴

1. Neither genus nor species appear to be simply denominated, for that is called genus which is a collection of certain things, subsisting in a certain respect relatively to one thing, and to each other, according to which signification the genus of the

¹ On the metaphysical part of this question, the opinions of philosophers are as vague as (I may add) they are unprofitable, hence the term "universals," is the best to be employed, as least liable to commit the logician to any metaphysical hypothesis; since the realist may interpret it of "substances," the nominalist of "names," the conceptualist of "notions." Cf. Occam, Log. p. 1, Albertus Magnus, Abelard. The agreement between the first and last, proves that there is no real difference between nominalism and conceptualism, since they were both. Vide also Mansel, Appendix A, where the authorities upon each side will be found quoted.

² Genus and species, in short all forms, have a triple subsistence, for they are either prior to the many, or in the many, or posterior to the many. Taylor. Philoponus, in his extracts from Ammonius, illustrates this as follows: Let a seal-ring be conceived, having the image of Achilles upon it, from which seal let there be many impressions taken in pieces of wax, afterwards let a man perceiving the pieces of wax to have all the impression of one seal, retain such impression in his mind: then the seal in the ring is said to be *prior to the many*; the impression in the wax to be *in the many*, and the image remaining in the conception of the spectator, *after the many*, and of *posterior* origin. This he applies to genus and species.

³ Viz. metaphysics; it is, in fact, psychological. Cf. Leibnitz *Meditat. de Cognit. Ver. opera.* ed Erdmann. and Mansel's *Prolegomena Logica.*

⁴ With this chapter compare ch. 5, of the Categories, and Top. i. 5 and 8, whence the discrepancies between the account of the predicables given by Arist. and this by Porphyry will appear, upon which see Mansel's comment. Log. App. A, p. 9. Cf. also Albertus Mag. de Predicab. Trac. 11, cap. 1, Metaph. iv. 28.

Heraclidæ is denominated from the habitude from one, I mean Hercules, and from the multitude of those who have alliance to each other from him, denominated according to separation from other genera.* Again, after another manner also, the principle of the generation of every one is called genus, whether from the generator or from the place in which a person is generated, for thus we say that Orestes had his genus from Tantalus, Hyllus from Hercules, and again, that Pindar was by genus a Theban, but Plato an Athenian, for country is a certain principle of each man's generation, in the same manner as a father. Still, this signification appears to be most ready,¹ for they are called Heraclidæ who derive their origin from the genus of Hercules, and Cecropidæ who are from Cecrops; also their next of kin. The first genus, moreover, is so called, which is the principle of each man's generation, but afterwards the number of those who are from one principle, e. g. from Hercules, which defining and separating from others, we call the whole collected multitude the genus of the Heraclidæ.

Again, in another way that is denominated genus to which the species is subject, called perhaps from the similitude of these; for such a genus is a certain principle of things under it, and seems also to comprehend all the multitude under itself. As then, genus is predicated triply, the consideration by philosophers is concerning the third, which also they explain by description, when they say that genus is that which is predicated of many things differing in species, in answer to what a thing is, e. g.

subsistent in a certain manner with reference to one and to each other.

* Cf. An. Post. i. 18.

2. Or the principle of the generation of every one.

3. Or that to which species is subject—this last denomination regarded by philosophers. Vide Aldrich; Mansel's Log., App. A, p. 5; Arist. Metap. iv. 25.

¹ Ammonius remarks that, "It is worth while to doubt why Porphyry says that the first signification of genus appears to be the one easily adopted, and not the second signification, which is the habitude of one thing to one; since this nature first knows, for she first produces one thing from one, and thus many from many." But as Taylor observes, the second signification of genus, which is second with reference to us, is first to nature; for from Hercules, one man is first produced, and thus afterwards the multitude of the Heraclidæ. Universally, whatever is first to nature is second to us, and vice versa, e. g. she begins with form and matter, then flesh and bone; we begin from man, so that things prior to nature are posterior to our knowledge, wherefore the first signification is clearer than the second.

4. Individuals predicated of one thing alone—but those properly are predicables which are predicated of many. Examples. Cf. Whately, Hill, and Wallis's Logic.

5. Distinction of genera from individuals. Cf. ch. 6; An. Prior i. 31; An. Post. ii. 5 and 13.

6. From species. Cf. ch. 8.

7. From property. Cf. ch. 9.

8. From difference. Cf. ch. 7. And accident. Cf. ch. 10.

9. Genus predicated "in quid," difference and accident "in quale." Cf. Top. iv. 2.

animal.¹ For of predicates some are predicated of one thing alone, as individuals, for instance, "Socrates," and "this man," and "this thing;" but others are predicated of many, as genera, species, differences, properties, and accidents, predicated in common, but not peculiarly to any one. Now genus is such as "animal," species as "man," difference as "rational," property as "risible," accident as "white," "black," "to sit." From such things then, as are predicated of one thing only, genera differ in that they are predicated of many, but on the other hand, from those which are predicated of many and from species, (they differ) because those species are predicated of many things, yet not of those which differ in species, but in number only, for man being a species, is predicated of Socrates and Plato, who do not differ from each other in species, but in number, while animal being a genus is predicated of man, and ox, and horse, which differ also in species from each other, and not in number only. From property, moreover, genus differs because property is predicated of one species alone of which it is the property, and of the individuals under the species, as "risible" of man alone, and of men particularly, for genus is not predicated of one species, but of many things, which are also different in species. Besides, genus differs from difference and from accidents in common, because though differences and accidents in common are predicated of many things, different also in species, yet they are not so in reply to *what a thing is*, but (*what kind of a thing*) it is. For when some persons ask *what* that is of which these are predicated, we reply, that it is genus; but we do not assign in answer differences and accidents, since they are not predicated of a subject, as to *what a thing is*, but rather as to *what kind of a thing it is*. For in reply to the question, *what kind of a thing man is*, we say, that he is rational, and in answer to *what kind of a thing a crow is*, we say that it is black, yet

¹ Genus speciebus *materia* est. Nam sicut æs, acceptâ formâ, transit in statuam, ita genus acceptâ differentiâ transit in speciem. Boethius de Divisione. Cf. Metap. iv. 28, and Cic. Top. cap. 7.

rational is difference, but black is accident. When however we are asked what man is, we answer, an animal, but animal is the genus of man, so that from genus being predicated of many, it is diverse from individuals which are predicated of one thing only, but from being predicated of things different in species, it is distinguished from such as are predicated as species or as properties. Moreover, because it is predicated in reply to what a thing is, it is distinguished from differences and from accidents commonly, which are severally predicated of what they are predicated, not in reply to what a thing is, but what kind of a thing it is, or in what manner it subsists: the description therefore of the conception of genus, which has been enunciated, contains nothing superfluous, nothing deficient.¹

Species indeed is predicated of every form, according to which it is said, "form is first worthy of imperial sway;"² still that is called species also, which is under the genus stated, according to which we are accustomed to call man a species of animal, animal being genus, but white a species of colour, and triangle of figure. Nevertheless, if when we assign the genus, we make mention of species, saying that which is predicated of many things differing in species, in reply to what a thing is, and call species that which is under the assigned genus, we ought to know that, since genus is the genus of something, and species the species of something, each of each, we must necessarily use both in the definitions of both. They assign, therefore, species thus: species is what is arranged under genus, and of which genus is predicated in reply to what a thing is: moreover, thus species is what is predicated of many things differing in number, in reply to what a thing is. This explanation, however, belongs to the most special,

10. Species predicated of every form, and under genus. Cf. Crakanthorpe's Log. lib. ii.; Aldrich and Hill.

11. The latter predicated of the former "in quid."

¹ Porphyry does not recognise the distinction between "quale quid" and "quale," (cf. Aldrich, Abelard de Gen. et Spe. ed. Cousin,) but makes difference, property, and accident to be all predicated *ἐν τῷ ὁποῖόν τι ἐστίν*: Boethius distinguishes quale in substantiâ, from quale non in substantiâ. Moreover, Porphyry makes difference to be always predicated de specie differentibus; upon his consideration of property, vide note to ch. 4, Isagog.

² Athenæus attributes this verse to Euripides. Vide Ath. lib. xiii. ch. 7.

and which is species only, but no longer genus also,¹ but the other (descriptions) will pertain to such as are not the most special. Now, what we have stated will be evident in this way: in each category there are certain things most generic, and again, others most special, and between the most generic and the most special, others which are alike called both genera and species, but the most generic is that above which there cannot be another superior genus, and the most special that below which there cannot be another inferior species.

12. Difference between summum genus and infima species. Examples of subaltern genus and species. - Cf. Hill's Log., p. 59, and Aldrich.

Between the most generic and the most special, there are others which are alike both genera and species, referred, nevertheless, to different things, but what is stated may become clear in one category. Substance indeed, is itself genus, under this is body, under body animated body, under which is animal, under animal rational animal, under which is man, under man Socrates, Plato, and men particularly. Still, of these, substance is the most generic, and that which alone is genus; but man is most specific, and that which alone is species; yet body is a species of substance, but a genus of animated body, also animated body is a species of body, but a genus of animal; again, animal is a species of animated body, but a genus of rational animal, and rational animal is a species of animal, but a genus of man, and man is a species of rational animal, but is no longer the genus of particular men, but is species only, and every thing prior to individuals being proximately predicated of them, will be species only, and no longer genus also. As then, substance being in the highest place, is most generic, from there being no genus prior to it, so also man being a species, after which there is no other species, nor any thing capable of division into species, but individuals, (for Socrates, Plato, Alcibiades, and this white thing, I call individual,) will be species alone, and the last species, and as we say the most specific. Yet the media will be the species of

13. Subalterns are species to the terms higher, but are genera to those lower than

such as are before them, but the genera of things after them, so that these have two conditions, one as to things prior to them, according to which they are said to be their species, the other to things after

¹ An infima species can be maintained by none consistently but a Realist. Vide Mansel, p. 21

them, according to which they are said to be their genera. The extremes on the other hand, have one condition, for the most generic has indeed a condition as to the things under it, since it is the highest genus of all, but has no longer one as to those before it, being supreme, and the first principle, and, as we have said, that above which there cannot be another higher genus. Also, the most specific has one condition, as to the things prior to it, of which it is the species, yet it has not a different one, as to things posterior to it, but is called the species of individuals, so termed as comprehending them, and again, the species of things prior to it, as comprehended by them, wherefore the most generic genus is thus defined to be that which being genus is not species, and again, above which there cannot be another higher genus; but the most specific species, that, which being species is not genus, and which being species we can no longer divide into species; moreover, which is predicated of many things differing in number, in reply to what a thing is.¹

themselves.
Vide Hill, p. 57, Aldrich, and Wallis.

14. Definition of summum genus and infima species. Cf. ch. 8, and Metap. lib. iv. and vi.; Wallis's *Jog.* i. 4; Hill, p. 56, et seq.; also vide next chapter.

Now, the media of the extremes they call subaltern species and genera, and admit each of them to be species and genus, when referred indeed to different things, for those which are prior to the most specific, ascending up to the most generic, are called subaltern genera and species. Thus, Agamemnon is Atrides, Pelopides, Tantalides, and lastly, (the son) of Jupiter, yet in genealogies they refer generally to one origin, for instance, to Jupiter; but this is not the case in genera and species, since being is not the common genus of all things, nor, as Aristotle says, are all things of the same genus with respect to one summum genus. Still, let the first ten genera be arranged, as in the Categories, as ten first principles, and even if a person should call all things beings, yet he will call them, so he says, equivocally, but not synonymously, for if being were the one common genus of all things, all things would be synonymously styled beings, but the first principles being ten, the community is in name only, yet not in the definition

15. Subaltern species and genera exemplified.

¹ For the exemplification of the above, see the "Arbor Porphyriana," (sometimes called by the Greek logicians, the "ladder," κλίμαξ,) given at page 7, ch. 5, of the Categories, with the note.

also belonging to the name: there are then ten most generic genera. On the other hand, the most specific

16. Summa genera are ten: infimæ species a limited number: individuals infinite.

* Plato, Philob. Cf. An. Pr. i. 31; Post. ii. 5; Cat. 5.

they place in a certain number, yet not in an infinite one, but individuals which are after the most specific are infinite; wherefore, when we have come down to the most specific from the most generic, Plato exhorts us to rest,¹ but to descend through those things which are in the middle, dividing by specific differences; he tells us however to leave infinities alone, as there cannot be science of these.

17. In descending from summa genera, we pass through media genera, dividing by specific differences; in ascent, on the contrary, we collect. Hill's Log. 46, et seq.

In descending then, to the most specific, it is necessary to proceed by division through multitude, but in ascending to the most generic, we must collect multitude into one, for species is collective of the many into one nature, and genus yet more so; but particulars and singulars, on the contrary, always divide the one into multitude, for by the participation of species, many men become one man; but in particulars and singulars, the one,

and what is common, becomes many; for the singular is always divisive, but what is common is collective and reductive to one.²

18. Summum genus predicated of subaltern genera, etc.; infima species predicated of individuals. Cf. ch. 15.

Genus then, and species, being each of them explained as to what it is, since also genus is one, but species many, (for there is always a division of genus into many species,) genus indeed is always predicated of species, and all superior of inferior, but species is neither predicated of its proximate genus, nor of those superior, since it

does not reciprocate. For it is necessary that either equals should be predicated of equals, as neighing of a horse, or that the greater should be predicated of the less, as animal of man, but the less no longer of the greater, for you can no longer say that animal is man, as you can say that man is animal. Of those things however whereof species is predicated, that

¹ See notes to pp. 6 and 8, Categor. An infima species implies a notion so complex as to be incapable of further accessions, the Realist maintains it to be the *whole essence* of the individuals of which it is predicated. Cf. Boethius; also Wallis, lib. i. 13, et seq.; Whately, b. ii. ch. 5, sect. 3 and 5.

² Cf. Mansel, pp. 18 and 21, note; Whately, p. 52, 138; Outline of Laws of Thought, p. 44; Stewart, Philo. of Human Mind, part i. ch. 4.

genus of the species will also be necessarily predicated, also that genus of the genus up to the most generic; for if it is true to say that Socrates is a man, but man an animal, and animal substance, it is also true to say that Socrates is animal and substance. At least, since the superior are always predicated of the inferior, species indeed will always be predicated of the individual, but the genus both of the species and of the individual, but the most generic both of the genus or the genera, (if the media and subaltern be many,) and of the species, and of the individual. For the most generic is predicated of all the genera, species, and individuals under it, but the genus which is prior to the most specific (species), is predicated of all the most specific species and individuals; but what is species alone of all the individuals (of it), but the individual of one particular alone.¹ Now, an individual is called Socrates, this white thing, this man who approaches the son of Sophroniscus, if Socrates alone is his son, and such things are called individuals, because each consists of properties of which the combination can never be the same in any other, for the properties of Socrates can never be the same in any other particular person;² the properties of man indeed, (I mean of him as common,) may be the same in many, or rather in all particular men, so far as they are men. Wherefore the individual is comprehended in the species, but the species by the genus, for genus is a certain whole, but the individual is a part, and species

19. Genus a certain whole, individual a part: species a whole and a

¹ Properly speaking, there cannot be more than one highest genus, which is a cognate term to every substance and quality supposed to exist; yet a subaltern genus may be relatively considered as a highest genus. Species, when resolved into its component parts, is found to be combined of genus and difference, and in different points of view, may be referred to different genera, also many species have no appropriate name, but are expressed by the combination of their constituent parts, genus and difference, e. g. "rectilinear-figure," "water-fowl;" indeed, some are denoted by the difference alone, as "repeater" (a watch which strikes the hour). Cf. ch. 3, Cat. note; Crakanthorpe, Log. lib. ii. Any singular term (denoting one individual) implies, (vide Whately, b. ii. ch. 5, 5,) not only the whole of what is understood by the species it belongs to, but also more, namely, whatever distinguishes that single object from others of the same species, as London implies all that is denoted by the term "city," and also all that distinguishes that individual city. Cf. Wallis, ch. 2.

² Hence, in describing an individual, we do not employ properties (which belong to a whole species), but generally, inseparable accidents, i. e. such as can be predicated of their subject at all times.

part. Vide Cat. ch. 5, note both a whole and a part; part indeed of something else, but a whole not of another, but in other things, for the whole is in its parts.¹ Concerning genus then, and species, we have shown what is the most generic, and the most specific, also what the same things are genera and species, what also are individuals, and in how many ways genus and species are taken.

CHAP. III.—Of Difference.²

DIFFERENCE may be predicated commonly, properly, and most properly: for one thing is said to differ from another in common from its differing in some respect in diversity of nature, either from itself, or from something else; for Socrates differs from Plato in diversity of nature, and himself from himself when a boy, and when become a man, also when he does any thing, or ceases to do it, and it is always perceived in the different ways in which a thing is somehow effected. Again, one thing is said to differ properly from another, when one differs from another by an inseparable accident; but an inseparable accident is such as blueness, or crookedness, or a scar become scirrhous from a wound. Moreover, one is most properly said to differ from another, when it varies by specific difference, as man differs from horse by specific difference, i. e. by the quality of rational. Universally then every difference acceding to a thing renders it different, but differences common and proper render it different in quality, and the most proper render it another thing. Hence, those which render it another thing are called specific, but those,

1. Difference predicated commonly, properly, and most properly. Cf. Whately, Mansel, and Wallis.

2. Every difference is effective of diversity—the common and proper render a thing *ἄλλοιον* (alienum), the most

¹ Genus is a whole in *predication*, containing under it various subjective species; species is a whole in *definition*, containing genus and differentia, as parts of the essence; the former may be called "Totum Universale," the latter "Totum Essentiale," (cf. Crakanthorpe, *Logica*, lib. ii. ch. 5): sometimes the distinction is expressed by the terms, "*whole of extension*," and "*whole of comprehension*." Port Royal Log., part i. ch. 6. Species contain genus by implication, genus contains species by comprehension, so also in this latter sense, does species contain "individuals," yet it is a *less full and complete* term than that of "individual." Vide Whately, *Log.* ii. ch. 5, sec. 3; Wallis, lib. i. 4; Abelard de Gen. et Spec.; Hill's Log. vol. i.

² Vide notes to ch. 5, Categories, and chapters 7, 12, 13, 14, Isag.

which make it different in quality, are simply (called) differences, for the difference of rational being added to animal, makes it another thing, (and makes a species of animal,) but difference of being moved makes it different in quality only from what is at rest, so that the one renders it another thing, but the other only of another quality.¹

According then, to the differences which produce another thing do the divisions of genera into species arise, and the definitions arising from genus and such differences are assigned. On the other hand, as to those which only make a thing different in quality, diversities alone consist, and the changes of subsistence of a thing; beginning then, again, from the first, we must say that of differences some are separable, others inseparable, thus to be moved, and to be at rest, to be ill, and to be well, and such as resemble these, are separable, but to have a crooked, or a flat nose, to be rational, or irrational, are inseparable differences. Again, of the inseparable, some exist per se, others by accident, for rational, mortal, to be susceptible of science, are inherent in man per se, but to have a crooked or flat nose, accidentally, and not per se. Wherefore, such as are present per se, are assumed in the definition of substance, and effect a different thing, but what are accidental are neither taken in the definition of substance, nor render a thing another, but of another quality. Those too, which are per se, do not admit of the more and less, but the accidental, even if they be inseparable, admit of intention and remission,

proper render it ἄλλο (aliud); this last kind is called specific.

3. Specific differences divide genus into species.

4. Differences divided into separable and inseparable; these last subdivided into those "per se," and those "per accidens." Vide Whately and Mansel.

5. Differences "per se" assumed for definition, and do not admit the more and less; those "per accidens" contra.

¹ According to Porphyry, difference is always predicated "de specie differentibus," and he recognises only a *relative* difference between two given species; thus "rational" is not the difference of man per se, but of man as distinguished from brutes. Specific difference (*διαφορὰ εἰδωποῖος*) is opposed by him to accidental difference, (*διαφορὰ κατὰ συμβεβηκότος*), and marks the difference proper, which distinguishes species from species, (whether subaltern or infima,) as contrasted with accidental, which only distinguishes between individuals. We must distinguish, however, between the accidents of a class, and those of an individual. Vide Mansel's Logic, and upon this chapter generally, cf. Whately, b. ii. 5, sec. 4; Wallis, i. 4; Aldrich.

for neither is genus more and less predicated of that of which it is the genus, nor the differences of genus according to which it is divided. For these are such as complete the definition of each thing, but the essence of each is one and the same, and neither admits of intension, nor remission; to have however a crooked or a flat nose, or to be in some way coloured, admits both of intension and remission. Since then,

there are three species of difference considered, some indeed separable, but others inseparable, again, of the inseparable, some are per se, but others accidental, moreover of differences per se, some are those according to which we divide genera into species, but others according to which the things divided become specific:—thus of all

such differences per se of animal as these, animated and sensitive, rational and irrational, mortal and immortal, the difference of animated and sensitive is constitutive of the essence of animal, for animal is an animated substance, endowed with sense, but the difference of mortal and immortal, and that of rational and irrational, are the divisive differences of animal, for through these we divide genera into species: yet these very differences which divide the genera are constitutive and completive of species. For animal is divided by the difference of rational and irrational, and again, by the difference of mortal and immortal; but the differences of rational and mortal are constitutive of man, but those of rational and immortal of God, those again, of mortal and irrational, of irrational animals.¹ Thus also, since the differences of animate and inanimate, sensitive and void of sense, divide the highest

substance, animate and sensitive added to substance, complete animal, but animate and deprived of sense, form plant; since then, the same differ-

6. Some differences "per se," are such as divide genera into species, others by which the members divided, become specific.

7. The same differences in one way con-

¹ Porphyry's definition of man, "animal rationale mortale," was adopted by Abelard, Albertus Magnus, and Petrus Hispanus, though sometimes with the saving clause, that it must be understood with reference to the Stoical notions of the gods. Aquinas first removed the genus animal rationale from the Arbor Porphy., and limited rationality to man, distinguishing angels as intellectuales. Cf. Summa, p. 1; Qu. lviii. 3; Opusc. xlviii. Tract 1. In the Aristotelian definition of man, ζῷον πέλζον δίπουν, the last would be regarded by him as a difference. Upon the constitutive element of generic and specific diff., see note to Cat. ch. 5; also Hill de Prædicab.

ences taken in one way become constitutive, but in another divisive, they are all called specific.

These indeed are especially useful for divisions of genera, and for definitions, yet not with regard to those which are inseparable accidentally, nor still more with such as are separable.¹ And indeed defining these, they say that difference is that by which species exceeds genus, e. g. man exceeds animal in being rational and mortal, for animal is neither any-one of these, (since whence would species have differences?) nor has it all the opposite differences, (since otherwise the same thing would at the same time have opposites,) but (as they allege) it contains all the differences which are under it in capacity, but not one of them in energy, and so neither is any thing produced from non-entities, nor will opposites at the same time subsist about the same thing.

Again, they define it (difference) also thus: difference is that which is predicated of many things differing in species in answer to the question, of what kind a thing is,² for rational and mortal being predicated of man, are spoken in reply to *what kind of thing* man is, and not as to the question *what* is he. For when we are asked what is man, we properly answer, an animal, but when men inquire what kind of animal, we say properly, that he is rational and mortal. For since things consist of matter and form, or have a constitution analogous to matter and form, as a statue is composed of brass, matter, but of figure, form, so also man, both common and specific, consists of matter analogous to genus, and of form analogous to difference,³ but the whole of this, animal, rational, mortal, is

stitutive, in another, divisive.

8. Employment of specific differences: one definition of it. Cf. ch. 8; also Top. i. 8.

9. Another definition. Cf. ch. 12 and 7; also Wallis's Log. lib. i. c. 4.

¹ Boethius agrees with Porphyry, that accidents, properly so called, are useless in definition, (vide Opera, p. 3.) accidental definition is, in fact, merely a description. Cf. Albert. l. c. Occam, pt. i. ch. 27. The only proper definition is by genus and differentia, hence all definable notions will be species. The definition here given of difference, as to its being the excess of species over genus, is clear, from a reference to what was stated in the last note of the preceding chapter.

² "Ratione ejus, quale quid est predicatur." Buhle; so Aldrich. There is no warranty, as we have observed, by Porphyry, for distinction between "quale quid" and "quale."

³ Taylor reverses this:—the reader will find what follows profitably illustrated by Whately, in his supplement to ch. 1, Logic, and Mansel's Appen. A and B.

10. A third definition. Cf. ch. 7. man, in the same manner as the statue there. They also describe it thus, difference is what is naturally adapted to separate things which are under the same genus, as rational and irrational separate man and horse, which are under the same genus, animal. Again, they give it in this way: difference is that by which each singular thing differs, for man and horse do not differ as to genus, for both we and horses are animals, but the addition of rational separates us from them; again, both we and the gods¹ are rational, but the addition of mortal separates us from them.
11. A fourth definition. Cf. ch. 7. They however who more nicely discuss what pertains to difference, say that it is not any casual thing dividing those under the same genus, but such as contributes to the essence, and to the definition of the essence of a thing, and which is part of the thing. For to be naturally adapted to sail is not the difference, though it is the property of man, since we may say that of animals, some are naturally adapted to sail, but others not, separating man from other animals; yet a natural ability to sail does not complete the essence, neither is a part of it, but only an aptitude of it, because it is not such a difference as those which are called specific differences. Wherefore specific differences will be such as produce another species, and which are assumed in explaining the very nature of a thing: and concerning difference this is sufficient.
12. Its most accurate definition. Cf. ch. 12 and 13.

CHAP. IV.—*Of Property.*

1. Four-fold division of property. Cf. ch. 9, 13, 15 and 17, and Top. ii. 3; Aldrich, Log. in ver. Whately, ii. 5. 4; Wallis, i. 5. PROPERTY they divide in four ways: for it is that which happens to some one species alone, though not to every (individual of that species), as to a man to heal, or to geometrize: that also which happens to a whole species, though not to that alone, as to man to be a biped: that again, which happens to a species alone, and to every (individual of it), and at a certain time, as to every man to be-

¹ "Rationales enim sumus et nos et Dii," vetus interpret Latinus. Commonly the word ἀγγελοι was substituted here, probably, as Casaubon conjectures, from the emendation of some Christian: Ammonius and Boethius (Comment. v.) attest that Porphyry wrote θεοι.

come grey in old age: in the fourth place, it is that in which it concurs (to happen) to one species alone, and to every (individual of it), and always, as risibility to a man; for though he does not always laugh, yet he is said to be risible, not from his always laughing, but from being naturally adapted to laugh, and this is always inherent in him, in the same way as neighing in a horse. They say also that these are validly properties, because they reciprocate, since if any thing be a horse it is capable of neighing, and if any thing be capable of neighing it is a horse.¹

CHAP. V.—*Of Accident.*

ACCIDENT is that which is present and absent without the destruction of its subject. It receives a two-fold division, for one kind of it is separable, but the other inseparable, e. g. to sleep is a separable accident, but to be black happens inseparably to a crow and an Ethiopian; we may possibly indeed conceive a white crow, and an Ethiopian casting his colour, without destruction of the subject.²

They also define it thus; accident is that which may be present and not present to the same thing;

1. Accident two-fold. Cf. ch. 10, 14, 16, 17; also Aldrich, Log. Metaph. iv. (v.) 30, ed. Leipsic.

2. Two definitions of it in general.

¹ For examples of the above kinds of property, see Hill's Log., page 65: the fourth kind of property corresponds strictly with the *ιδιον* of Porphyry, who with Aristotle does not distinguish property from accident, as flowing necessarily from the essence, but as co-extensive and simply convertible with its subject. Compare here Boethius, and for the other distinction, see Albert de Prædicab. Tract. vi. c. 1; also Mansel, Appendix A. An act (as that of speaking or laughing) cannot correctly be esteemed a property; moreover, as Whately remarks, "when logicians speak of property and accident, as expressing something united to the essence, this must be understood as having reference, not to the nature of things as they are in themselves, but to our conceptions of them." Property is sometimes termed "essential," but with this distinction with regard to difference; to which last predicable also, the same term is applied, viz. that Difference is called "Essentiale constituens;" Property, "Essentiale consequens." A generic property, upon the principles of Aristotle and Porphyry, can only be regarded as a property, with respect to the highest species of which it is predicable, as to all subordinate species it must be considered an accident, e. g. "mobile," a property of "corpus," is an accident to "animal," and to "homo," as not convertible with them.

² Upon the distinction of separable and inseparable accidents, see Mansel's Log., p. 28, note; Whately, ii. 5, 5, and Wallis, i. 5.

also that which is neither genus, nor difference, nor species, nor property, yet is always inherent in a subject.

CHAP. VI.—*Of Things common and peculiar to the Five Predicables.*

1. It is common to all predicables to be predicated of many: difference of their subjects of predication. Hill's *Log. de spec. Prædicab.*

HAVING discussed all that were proposed, I mean, genus, species, difference, property, accident, we must declare what things are common, and what peculiar to them. Now it is common to them all to be predicated, as we have said, of many things, but genus (is predicated) of the species and individuals under it, and difference in like manner; but species, of the individuals under it; and property, both of the species, of which it is the property, and of the individuals under that species; again, accident (is predicated) both of species, and individuals. For animal is predicated of horse and ox, being species, also of this particular horse and ox, which are individuals, but irrational is predicated of horse and ox, and of particulars. Species however, as man, is predicated of particulars alone, but property both of the species, of which it is the property, and of the individuals under that species; as risibility both of man, and of particular men, but blackness of the species of crows, and of particulars, being an inseparable accident; and to be moved, of man and horse, being a separable accident. Notwithstanding, it is pre-eminently (predicated) of individuals, but secondarily of those things which comprehend¹ individuals.

CHAP. VII.—*Of the Community and Distinction of Genus and Difference.*²

1. Genus and difference severally comprehend species, IT is common to genus and difference to be comprehensive of species, for difference also comprehends species, though not all such as the genera;

¹ Upon Porphyry's peculiar method of predication, in some instances, we have already remarked. Mansel gives the method of expressing the definitions of the three last predicables as to predication. Cf. also Whately, b. i. sec. 3 and 2, ch. 5, sec. 2 and 3; Aquinas, *Opusc.*; Abelard, *de Gen. et Spec.*; Albert de Prædicab.

² Compare notes on Cat. 5. This and the subsequent chapters may be elucidated by what has been said before, and by reference to the common Logics.

for rational, though it does not comprehend irrational, as animal does, yet it comprehends man and divinity, which are species. Whatever things also are predicated of genus as genus, are predicated of the species under it, and whatever are predicated of difference as difference, will be also of the species formed from it. For animal being a genus, substance is predicated of it as of a genus, also animated, and sensible, but these are predicated of all the species under animal, as far as to individuals. As moreover, rational is difference, the use of reason is predicated of it, as of difference, yet the use of reason will not be predicated of rational only, but also of the species under rational. This too is common, that when genus or difference is subverted, the things under them are also subverted, for as when animal is not, horse is not, nor man, thus also, when rational is not, there will be no animal which uses reason. Now, it is the property of genus to be predicated of more things than difference, species, property, and accident are, for animal (is predicated) of man and horse, bird and snake, but quadruped of animals alone, which have four feet; again, man of individuals alone, and capacity of neighing of horse alone, and of particulars. Likewise, accident of fewer things: yet we must assume the differences by which the genus is divided, not those which complete, but which divide the essence of genus.

but not to an equal extent.

2. Either being subverted co-subverts its subject; but genus is predicated of more than the other predicables.

Moreover, genus comprehends difference in capacity,¹ for of animal one kind is rational, but another irrational, but differences do not comprehend genera. Besides, genera are prior to the differences under them, wherefore they subvert them, but are not co-subverted with them. For animal being subverted, rational and irrational are co-subverted, but differences no longer co-subvert genus, for even if all of them should be subverted, yet we may form a conception of animated, sensible substance, which is animal.

3. Genus comprehends difference in capacity, *δύναμις* (potentiâ): some other distinctions.

¹ *Δύναμις*—potentiâ. For the meaning of this expression, see Metaph. lib. viii. (ix.), Leipsic ed., and de Animâ ii. 1, ed. Trendelenb. While the whole comprehension, however, of a notion, may remain the same, the genus and difference may change places, according as it is compared with this or that other relation. Vide Mansel, App. A, p. 8.

Yet more, genus is predicated in reference to what a thing is, but difference in reference to what kind of a thing it is, as was observed before; besides there is one genus according to every species; e. g. of man, animal (is the genus), but there are many differences, as rational, mortal, capable of intellect and science, by which he differs from other animals. Genus also is similar to matter, but difference to form:¹ however since there are other things common and peculiar to genus and difference, these will suffice.

CHAP. VIII.—*Of Community and Difference of Genus and Species.*²

GENUS and species possess in common, (as we have said,) the being predicated of many things, but species must be taken as species only, and not as genus, if the same thing be both species and genus. Moreover, it is common to them both to be prior to what they are predicated of, and to be each a certain whole; but they differ, because genus indeed comprehends species, but species are comprehended by, and do not comprehend genera, for genus is predicated of more than species. Besides, it is necessary that genera should be presupposed, and when formed by specific differences, that they should consummate species, whence also genera are by nature prior. They also co-subvert, but are not co-subverted, for species existing, genus also entirely exists, but genus existing there is not altogether species; genera too, are indeed univocally predicated of species³ under them, but not species of genera. Moreover, genera exceed, from comprehending the species which are under them, but species exceed genera by their proper differences; be-

¹ Ὑλῆ—μορφῆ. Upon the union of the former term with οὐσία, and its signification, see note 2, ch. 5, Categ.; also de Animâ, lib. ii. 1, sec. 2; the latter word pertains to the colour, figure, and magnitude of superficies. Metap. lib. vii. (viii.), Leipsic ed. The simile employed above, is closely characteristic of the analogy instituted by Aristotle in his Physics, b. i. ch. 8, also b. iv. Vide also Simplicius Comment. Plato Timæus.

² Cf. Arist. Metap. iv. 25, also the notes at ch. 2, Isag., and Cat. 3 and 5.

³ "Genera quidem de speciebus univoce predicantur." Vetus interp. Latin. Taylor renders the expression "synonymously." Cf. Aldrich, Wallis, and Hill's Logics, and Cat. ch. 1, where see note; also Rhet. iii. 2; Top. viii. 13.

sides, neither can species become most generic, most specific.

CHAP. IX.—Of Community and Difference of Genus and Species.

BOTH to genus and to property it is common to follow species, for if any thing be man, it is animal, and if any thing be animal, it is risible. Likewise to genus, to be equally predicated of species, and to property, (to be equally predicated) of the individuals which participate it; thus man and ox are equally animal, and Anytus and Melitus risible.¹ It is also common that genus should be univocally predicated of its proper species, and the things of which it is the property; still the cause genus is prior, but property posterior, for first necessarily exist, afterwards be divided by genera and properties. Also genus indeed is predicated of species, but property of one certain species of which it is the property. Besides property is reciprocally predicated of which it is the property,² but genus is not reciprocally predicated of any thing, for neither if any thing is a man, nor if a thing be animal is it risible, but if it is a man it is risible, and vice versâ. Moreover, genus is inherent in the whole species, of which it is the property, and always,³ but genus in the whole species of which it is the genus, and always, yet not in the parts, more, properties being subverted do not co-subvert genera being subverted, co-subvert species, to which they belong; wherefore, also those things of which they are the properties, being subverted, the properties themselves are co-subverted.

¹ The property of a subaltern genus is predicated of a species comprehended in that genus; that of a lowest species is predicated of the individuals which partake of the nature of that species.

“Shape is the generic property of body,
Growth is the generic property of living body,
Voluntary motion is the generic property of animals,
Risibility, the specific property of man.” Vide H.

² Vide Whately's Log. ii. 5, 4, and cf. Top. ii. 3.

³ Upon the nature of the *ἰδιον* of Porphyry, see note to

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Anima, lib. ii. l. 1, sec.
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h. 2, Isag., and Cat. 3
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see note; also Rhet. iii.

CHAP. X.—*Of Community and Difference of Genus and Accident.*¹

1. Accidents, whether separable or not, predicated of many. Inferiority of accident.

It is common to genus and accident to be predicated, as we have said, of many things, whether they (the accidents) be separable or inseparable, for to be moved is predicated of many things, and blackness of crows, and of Ethiopians, and of certain inanimate things. Genus however differs from accident, in that genus is prior, but accident posterior to species, for though an inseparable accident be assumed, yet that of which it is the accident is prior to the accident. Also the participants of genus participate it equally, but those of accident do not equally; for the participation of accidents accepts intension and remission, but not that of genera. Besides, accidents primarily subsist about individuals, but genera and species are by nature prior to individual substances. Moreover, genera are predicated of the things under them, in respect to what a thing is, but accidents in respect to what kind of a thing it is, or how each thing subsists; for being asked, what kind of man an Ethiopian is, you say that he is black; or how Socrates is, you reply that he is sick or well.

CHAP. XI.—*Of Community and Difference of Species and Difference.*

1. Differences between the predicables reducible to ten, viz.,

WE have shown then, wherein genus differs from the other four, but each of the other four happens also to differ from the rest, so that as there are five, and each one of the four differs from the rest, the five being four times (taken), all the differences would appear to be twenty. Nevertheless, such is not the case, but always those successive being enumerated, and two being deficient by one difference, from having been already assumed, and the three by two differences, the four by three, the five by four; all the differences are ten, namely, four, three, two, one. For in what genus differs from difference, species, property, and accident, we have shown, wherefore, there are four differences; also we explained in what respect

¹ Cf. Metap. lib. iv. (v.) 80, ed. Leipsic; also note 2 at ch. 3, Isag., and Whately's Supplement to ch. 1, Logic.

difference differs from genus, when we declared in what genus differs from it. What remains then, viz. in what respect it differs from species, property, and accident, shall be told, and three (differences) arise. Again, we declared how species differs from difference, when we showed how difference differs from species; also we showed how species differs from genus, when we explained how genus differs from species; what remains then, viz. in what species differs from property and from accident, shall be told: these, then, are two differences. But in what respect property differs from accident, shall be discovered, for how it differs from species, difference, and genus, was explained before in the difference of those from these. Wherefore, as four differences of genus with respect to the rest, are assumed, but three of difference, two of species, and one of property with regard to accident, there will be ten (differences altogether), of which, four we have already demonstrated, viz. those of genus, with respect to the rest.

2. Four of genus, three of difference, two of species, and one of property.

CHAP. XII.—*The same subject continued.*

It is common then to difference and species to be equally participated, for particular men partake equally of man, and of the difference of rational. It is also common always to be present to their participants, for Socrates is always rational, and always man, but it is the property of difference indeed to be predicated in respect to what kind a thing is of, but of species in respect to what a thing is, for though man should be assumed as a certain kind of thing, yet he will not be simply so, but in as far as differences according to genus constitute him.¹ Besides, difference is often seen in many species, as quadruped in many animals, different in species, but species is in the individuals alone, which are under the species. Moreover, difference is prior to the species which subsists according to it, for rational being subverted, co-subverts man, but man being subverted, does not co-subvert rational, since there is still divinity. Further, difference is joined with another difference,

1. Species and difference participated equally: peculiarities of the latter.

¹ Vide Aldrich, pp. 22, et seqq., Mansel's ed.; also notes at ch. 3, and Cat. 3 and 5; and cf. Metap. lib. ix. (x.), Leipsic; Abelard de Gen. et Spec.; Aquinas Opusc. xlviii. c. 2.

(for rational and mortal are joined for the subsistence of man,) but species is not joined with species, so as to produce some other species; for indeed a certain horse is joined with a certain ass, for the production of a mule, but horse simply joined with ass will not produce a mule.

CHAP. XIII.—*Of Community and Difference of Property and Difference.*¹

1. Difference and property equally participated: their relative peculiarities.

DIFFERENCE also and property have it in common to be equally shared by their participants, for rational are equally rational, and risible (equally) risible (animals). Also it is common to both to be always present, and to every one, for though a biped should be mutilated, yet (the term biped) is always predicated with reference to what is naturally adapted, since also risible has the "always" from natural adaptation, but not from always laughing. Now, it is the property of difference, that it is frequently predicated of many species, as rational of divinity and man, but property (is predicated) of one species, of which it is the property. Difference moreover follows those things of which it is the difference, yet does not also reciprocate, but properties are reciprocally predicated of those of which they are the properties, in consequence of reciprocating.

CHAP. XIV.—*Of Community and Difference of Accident and Difference.*²

1. Difference and accident predicated "de pluribus:" dis-

To difference and accident it is common to be predicated of many things, but it is common (to the former) with inseparable accidents to be pre-

¹ Whately observes, "It is often hard to distinguish certain properties from differentia, but whatever you consider as the most essential to the nature of a species, with respect to the matter you are engaged in, you must call the differentia, as rationality to man, and whatever you consider as rather an accompaniment (or result) of that difference, you must call the property, as the use of speech seems to be a result of rationality. He adds also, that the difference is not always one quality, but is frequently compounded of several together, no one of which would alone suffice." Vide also Huyshe's Log., pp. 33, 34.

² Cf. notes at ch. 3; Whately, ii. 5, 3; Wallis, lib. i. ch. 5 and 6; Metap. lib. v. (vi.) 2.

sent always and with every one, for biped is always present to man, and likewise blackness to all crows. Still they differ in that difference indeed comprehends but is not comprehended by species; for rational comprehends divinity and man, but accidents after a certain manner comprehend from their being in many things, yet in a certain manner are comprehended from the subjects not being the recipients of one accident, but of many. Besides, difference indeed does not admit of intension and remission, but accidents accept the more and less; moreover contrary differences cannot be mingled, but contrary accidents may sometimes be mingled. So many then are the points common and peculiar to difference and the others.

inction between them, as to comprehension, intension, etc.

CHAP. XV.—*Of Community and Difference of Species and Property.*

IN what respect species differs from genus and difference, was explained in our enunciation of the way in which genus, and also difference, differ from the rest; it now remains that we should point out how it (species) differs from property and accident. It is common then to species and property, to be reciprocally predicated of each other, since if any thing be man, it is risible, also if it be risible, it is man, still we have frequently declared that risible must be assumed according to natural adaptation to risibility. It is also common (to them) to be equally present, for species are equally present to their participants, and properties to the things of which they are properties, but species differs from property, in that species indeed may be the genus of other things, but property cannot possibly be the property of other things. Again, species subsists prior to property, but property accedes to species, for man must exist, in order that risible may: besides, species is always present in energy with its subject, but property sometimes also in capacity, for Socrates is a man always in energy, but he does not always laugh, though he is always naturally adapted to be risible.¹ Once more, things of

1. Species and property reciprocally predicated of each other, but the one prior to the other: further distinctions.

¹ Upon the distinction between *ἐνεργεία* and *δυνάμις*, vide note ch. 13. On Interpretation, p. 75. Cf. also *Ethics Nic. b. i. ch. 2*; *Metap. books ii. vii. viii.*; also *Physics, lib. ii.*

which the definitions are different, are themselves also different, but it is (the definition) of species to be under genus, and to be predicated of many things, also differing in number, in respect to what a thing is, and things of this kind, but of property it is to be present to a thing alone, and to every individual and always.¹

CHAP. XVI.—*Of Community and Difference of Species and Accident.*

1. Reason why points of community, between species and accident, are rare. Their several peculiarities. Cf. Whately, Mansel, Huyshe, and Wallis (Logics).

To species and accident it is common to be predicated of many, but other points of community are rare, from the circumstance of accident, and that to which it is accidental, differing very much from each other. Now, the properties of each are these: of species, to be predicated of those of which it is the species, in respect to what a thing is, but of accident, in reference to what kind a thing is of, or how it subsists.² Likewise, that each substance partakes of one species, but of many accidents, both separable and inseparable: moreover, species are conceived prior to accidents, even if they be inseparable, (for there must be subject, in order that something should happen to it,) but accidents are naturally adapted to be of posterior origin, and possess a nature adjunctive to substance. Again, of species the participation is equal, but of accident, even if it be inseparable, it is not equal; for an Ethiopian may have a colour intense, or remitted, according to blackness, with reference to an(other) Ethiopian.³

CHAP. XVII.—*Of Community and Difference of Property and Accident.*⁴

1. Property and inseparable accident cannot

It remains to speak of property and accident, for how property differs from species, difference, and

¹ The points mentioned here, will be elucidated by a reference to notes at chapters 2, 4, and to the Logics of Whately, Mansel, Huyshe, and Wallis.

² Buhle retains the distinction here, between quid and quale quid, upon which, see notes on ch. 2 and 3. The reading is that of Julius Pacius, whom all later editors have followed: the Latin interpretation renders it, "accidentis vero in eo, quod quale quiddam, vel quomodo se habens."

³ Cf. Metap. lib. v. (vi.) and vi. (vii.), Leipsic ed.

⁴ Accidents may be distinguished from properties by the very defini-

genus, has been stated. It is common then to property and inseparable accident not to subsist without those things in which they are beheld, for as man does not subsist without risible,¹ so neither can Ethiopian subsist without blackness, and as property is present to every, and always, so also is inseparable accident. Nevertheless, they differ, in that property is present to one species alone, as the being risible to man, but inseparable accident, as black, is present not only to an Ethiopian, but also to a crow, to a coal, to ebony, and to certain other things. Moreover, property is reciprocally predicated of that of which it is the property, and is equally (present), but inseparable accident is not reciprocally predicated, besides, the participation of properties is equal, but of accidents one (subject partakes) more, but another less. There are indeed other points of community, and peculiarity of the above-mentioned (predicables), but these are sufficient for their distinction, and the setting forth of their agreement.²

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tions given of them. The latter belong necessarily, and therefore universally, to an essence, whereas the former are those qualities which do not of necessity belong to any essence, but are mere contingencies. Huyshe. Vide also note ch. 4, and cf. Albert de Predicab. Tract. vi. cap. 1.

¹ Risibility is considered to be so dependent upon rationality, as that the latter could not exist without the former, and if this were not so, the term risible would not be a property of man, but only an inseparable accident. Cf. Whately and Mansel.

² As a digest of the preceding chapters, (from ch. 6, inclusive,) I subjoin the following extract from Wallis: "Quæ omnia (prædicabilia sc.) (utpote Voces communes seu universales) in hoc conveniunt, quod de pluribus prædicari seu dici possint Particularibus, Singularibus, seu Individuis. Cum hoc tamen discrimine; Genus naturam innuit magis generalem; Species magis specialem; (pluribus individuis communem.) Differentia, est quæ specierum sub eodem genere oppositarum, alteram ab altera distinguit; suamque (cui convenit) speciem constituit, ejusque essentiam (unâ cum genere) complet. Proprium, eandem essentiam necessario consequitur. Accidens (commune) ita subjecto suo adesse potest, ut etiam possit abesse, nullam (cum essentiâ) necessariam habens connexionem." Vide Wallis, lib. i. cap. 5.

ANALYSIS

OF

ARISTOTLE'S ORGANON.

THE CATEGORIES.

INTRODUCTORY.—It being the intention of Aristotle to lay down a system by which truth and certainty, in respect of human knowledge, might be ascertained, the term “Organon,” though not sanctioned by himself, appears not inapplicable to this collection of treatises constituting an instrument, for the accurate verbal enunciation of all mental conceptions whatsoever. Regarding language as the vehicle of thought, he commences his subject by discussing primary words, so far as they are significant of things; understanding by “Categories,” the most extensive genera of what the simple word expresses. Properly the appellation signifies accusations pertaining to judicial processes, but as Porphyry remarks, that “to treat of things publicly, according to any signification, in short, to assert any word of a thing, is to predicate,” the word “Categories” or “Predicaments,” is applied to such terms as are always adapted to predication. They were held to be the most universal expressions for the various relations of things, as classes under some of which every thing might be reduced, and of these he enumerates ten, not assigning any reason for the number, neither pretending that the classification is complete, though it appears to have been considered satisfactory, until Kant ventured on another. Moreover, as truth and falsehood consist in a combination of words or ideas, to analyze the various processes of the mind, and to exhibit logic, both as the art of thinking, and the science of affirmation, were the objects of these treatises; their spirit

runs through the whole Aristotelian philosophy, and especially elucidated here, has made his logic prized above all his other works.

Prior to inquiry into the connexion of subject and predicate, he investigates the first element of thought, the simple word, treats of the materials of incomplex and complex apprehension, and explains the nature of homonyms, synonyms, and paronyms, so as to prepare the reader by what was necessary to the doctrine of the Categories, for their subsequent consecutive analysis, without digression. For as geometers first adduce axioms, definitions, and postulates, so such antecedent inquiry is necessary to the logical division of things and their attributes, as well as to the exposition of the affirmative and negative sentence, taught in the treatise on Interpretation; afterwards we proceed to the syllogism and demonstration contained in the Prior and Posterior Analytics.

CHAP. I.—1. Homonyms are things of which the name is common, but the definition of substance, according to the name, is different; they answer to equivocal words.

2. Synonyms have both the name common, and the definition the same, corresponding to univocal.

3. Paronyms differ in case, yet take their nominal appellation from something, they are equivalent to derivatives.

CHAP. II.—1. Subjects of discourse are complex and incomplex.

2. Moreover, some things are predicated of, yet are in no subject.

3. Others are in, yet are not predicated of a subject. By being in a subject, Aristotle means that which is in any thing, not as a part, but which cannot subsist without that in which it is. *(i.e. Plato's forms?)*

4. Others are both predicated of, and are in a subject.

5. Lastly, some are neither in, nor are predicated of any subject.

6. Individuals are predicated of no subject, though they may be in it.

CHAP. III.—1. Whatever is said of the predicate may be said of the subject of which it is predicated.

2. The differences of different genera are diverse in species.

3. Of subaltern genera, the differences may be the same.

CHAP. IV.—1. The Categories are :

Substance.	When.
Quantity.	Position.
Quality.	Possession.
Relation.	Action.
Where.	Passion.

2. The above, by themselves, are neither affirmative nor negative.

CHAP. V.—1. Primary substance is neither in, nor is predicated of any subject.

2. Secondary substances contain the first.

3. In predication the name and definition of the subject must be predicated, though sometimes the name may be predicated of the subject, when the definition cannot be.

4. The universal involves the particular.

5. Of secondary substances, species is more substance than genus, because it is nearer to the primary substance.

6. Primary substances, from their becoming subjects to all predicates, are especially termed substances.

7. Genus is a predicate of species, but species is not reciprocally predicated of genus.

8. Infimæ species concur in not being substance.

9. After the first substances, of the rest, species and genera alone, are termed secondary, from their declaring the primary substances of the predicates.

10. The same relation which primary substances bear to all other things, do the species and genera of the primary bear to all the rest.

11. No substance is in a subject.

12. Of inhesives, the name, but not the definition, may be predicated of the subject : of secondary substances, both the definition and the name are predicated of the subject.

13. Difference concurs with substance, in not existing in the subject.

14. Parts of substances are also substances.

15. Both of substances and differences the predication is univocal.

16. Every substance signifies this particular thing.

17. Secondary substances however signify a certain "quale."

18. The species and genus determine the quality about the substance, though genus is of wider extension than species.

19. It is proved by many instances that substance and quantity admit no contrary, neither the greater nor less.

20. Individually substance can receive contraries, which non-substances cannot, and any objection made to this statement is refuted by proving a difference in the mode.

21. When things inherent in substances are changed, they are capable of contrariety, yet in the case of sentence and opinion, they are not capable of contraries, from having received any thing, but in that about something else, a passive quality has been produced.

CHAP. VI.—1. Quantity is of two kinds, one discrete, the other continuous; the former consists of parts having no position with respect to each other; the latter of parts having such position. The examples of discrete quantity are number, and a sentence; of continuous quantity, are superficies, body, time, and place.

2. The above are the only proper quantities, all others are so denominated, merely by accident, and with reference to these.

3. Quantity "per se" has no contrary, since there is nothing, for example, contrary to superficies, but if a person object that "much" is contrary to "little," it may be replied that a thing is so called in reference to something else, wherefore such terms rather belong to relatives: also if "great" and "small" be contraries, the same thing will at the same time receive contraries, and the same things be contrary to themselves.

4. Nothing, except substance, appears to receive contraries simultaneously.

5. The contrariety of quantity subsists especially about place, as "upward" is contrary to "downward," and contraries are defined to be those things, which being of the same genus, are most distant from each other.

6. Quantity is incapable of degree, e. g. "three" or

"five" are not said to be more than "three" or "five," neither "five" more "five" than "three," "three."

7. Quantity is especially characterized by equality and inequality; whatever are not quantities, being rather termed similar and dissimilar.

CHAP. VII.—1. Relatives are so defined from being such things as belong to others, or may in some way be referred to something else, e. g. "the double" and "the greater."

2. Of the number of relatives, are habit, disposition, sense, knowledge, position.

3. Contrariety is not inherent in all relatives, but they admit degree in some cases.

4. Relatives are styled so by reciprocity, e. g. servant and master.

5. An exception occurs to this, if that be not appropriately attributed to which relation is made.

6. A name must sometimes be invented for that to which the reference may be properly applied.

7. A person may however assume things to which names are not given, if from the primary he assigns names to those others with which they reciprocate.

8. All proper relatives reciprocate, since if they refer to something casual, and are not properly attributed to what they relate, they will not reciprocate.

9. By nature relatives are simultaneous, with some exceptions.

10. The object of science being subverted co-subverts the science, but this is not true vice versâ, since the object of science may exist when science does not exist. In carrying out this example, he shows that the sensible being subverted, body which is of the number of sensibles, is subverted, but sense does not co-subvert the sensible.

11. Primary substances have no relation, either wholly or partially; but in the case of some secondary substances, there is a doubt whether they do really or apparently possess it.

12. One relative being known, the co-relative can be known also; but in secondary substances this does not follow, whence the latter appear not to be relatives, nevertheless, a determinate statement upon such is difficult.

CHAP. VIII.—1. Quality is defined that, according to which certain things are said to be what they are: there are four species of it, viz.

1st, Habit and disposition: the former differs from the latter in being more lasting, also the former is the latter, but the latter is not the former.

2nd, That kind of quality which comprehends the faculties and natural powers.

3rd, That which consists of the passions: this is proved by the fact of their recipients being called "qualia" from them. Colour moreover is excepted from this number, and such things as are produced from what is easily dissolved and quickly restored, are *πάθη* and not qualities: but certain things supervening upon birth from passions difficult of removal are comprehended in the latter Category.

4th, Form and figure, and whatever resembles them. These four are most commonly called qualities, although there may appear some other mode.

2. Qualia are things denominated derivatively from these, although in some cases this is impossible, from no names having been given to the qualities, or even when there is a name, the "quale" is not derivatively denominated: this latter instance however does not often occur.

3. To quality, contrariety is incident, though not always, e. g. in colours.

4. If one contrary be a "quale," the other will also be one.

5. Qualia also admit degree, but not always: form and figure, for instance, are incapable of it.

6. It is the property of quality that similitude is predicated in respect of it.

7. It may be objected that in discussing quality, habits and dispositions, which are reckoned as relatives, are included, but the reply is, that in all such things the genera are called relatives, but not one of the singulars: hence too singulars are not of the number of relatives, though we are called "quales" from singulars.

CHAP. IX.—1. Action and passion admit both contrariety and degree; of the other categories, nothing additional is mentioned to what was stated at first, because they are evident.

CHAP. X.—1. Opposition takes place in four ways; as rela-

tive, contrary, privation and habit, affirmation and negation.

2. Relative opposition is so denominated, with reference to opposites, e. g. knowledge, to the object of knowledge.

3. Contrary opposition is that which is by no means incident to relatives: some contraries have something intermediate, others have not, and in some instances the intermediates have names, e. g. certain mixed colours.

4. The opposition of privation and habit is predicated of something identical, and universally of what the habit is naturally adapted to be produced in.

5. To be deprived of, and to possess habit, however, are not privation and habit: but the two former appear to be similarly opposed as the two latter.

6. The above remark applies also to the opposition of affirmative and negative.

7. Returning to privation and habit, he proves that they are not relatively opposed, nor contrarily, since relatives are referred to reciprocals, and neither privation nor habit need always be inherent in what is capable of either. Moreover, they are not included amongst such as have any intermediate, and in contraries a change into each other may happen, unless one is naturally inherent; but though a change may take place from habit to privation, vice versâ it is impossible.

8. The peculiarity of affirmative and negative opposition consists in one being true, and the other false, which, though apparently, is not really nor always necessary to contraries predicated conjunctively.

CHAP. XI.—1. Though "evil" is opposed to "good," yet at one time "good," and at another "evil," may be contrary to "evil;" otherwise, generally "good" is contrary to "evil."

2. Where one contrary exists, the other need not exist, for sometimes one destroys the other.

3. Nevertheless, contraries generally subsist about the same thing in species or genus.

4. Also they must be either in the same genus, or in contrary genera, or be genera themselves.

CHAP. XII.—1. Priority subsists in four respects, viz. either, 1st, In regard to time.

2nd, When there is no reciprocity as to the consequence of existence.

3rd, In respect of order.

4th, As to excellence: this however is almost the most foreign of all the modes.

2. Another mode of priority may be added where one thing is the cause of another existing.

CHAP. XIII.—1. Things are properly called simultaneous which are produced at the same time, and reciprocate, or, which derived from the same genus, are by division mutually opposed, i. e. those which subsist, according to the same division, as “winged” to “pedestrian” and “aquatic.”

2. Things are naturally simultaneous, which reciprocate, yet one is not effective of the other’s existence.

CHAP. XIV.—1. Motion possesses six species: generation, corruption, increase, diminution, alteration, and change of place.

2. Although considered doubtful sometimes, yet it is erroneous to suppose that what is altered, is so in respect of some one of the other motions. It is proved different from the other motions, 1st, By no increase or diminution necessarily occurring to what is altered. 2nd, By no change taking place in quality.

3. Generic contrariety between the different motions, corresponds to the specific contrariety.

CHAP. XV.—1. “To have” is predicated, either, 1st, as quality; 2nd, quantity; 3rd, investiture; 4th, as in a part; 5th, as to a part; 6th, in measure; 7th, as possession; it is also predicated indirectly or by analogy.

ON INTERPRETATION.

INTRODUCTORY.—From the view that a true or false thought must be expressed by the union or separation of a subject and a predicate, Aristotle in his treatise “On Interpretation,” considers the combination of the general term and the verb; whence arises the proposition or λόγος. Although, there

are many species of proposition, yet the enunciative alone in its two kinds, affirmative and negative, admits the discovery of truth or falsehood, and is therefore the subject of his especial consideration. Again, contradiction arising from the mutual opposition of the affirmative and negative, is discussed as constituting the principle of all subsequent demonstration, also the nature of opposition generally, so as to admit fixed rules for the true enunciation of thought in its relation to being, whether possible or impossible, necessary or contingent. In short, the design of the present treatise is to examine the first composition of simple terms, subsisting according to the categorical form of the enunciative sentence, and, as here, he considers these terms as enunciations, so in his *Analytics* he assumes them as parts of the syllogism itself. The subject discussed may be divided into four sections; the first, developing the principles of the enunciative sentence, by determining what the noun and verb, negation, affirmation, enunciation, and a sentence are; the second, unfolding the most simple proposition or enunciation from a subject and predicate; the third, expounding proposition as composed of a subject, predicate, and something additional; and the fourth, treating of proposition with a mode. The title on Interpretation seems to be applied as descriptive of language in its construction, being enunciative of the gnostic powers of the soul, Aristotle considering that truth was only possible in combination of words into a proposition, and that the truth of language is invariably connected with the truth of being.

CHAP. I.—1. Things enunciated by the voice are symbols of the passions in the soul; these passions and the things of which symbols are used are the same in all.

2. Falsehood and truth are involved in composition and division: the noun and verb of themselves resemble conception without composition and division.

CHAP. II.—1. The noun is defined a sound significant by compact without time of which no part is separately significant: it is according to compact, because naturally there is no noun but when it becomes a symbol.

2. The indefinite is not a noun, but is called so because it exists alike in respect of entity and non-entity.

3. Cases of the noun differ from it in that being joined to the copula, they signify neither truth nor falsehood.

CHAP. III.—1. The verb is defined to be that which besides something else signifies time, of which no part is separately significant; also it is always indicative of those things which are asserted of something else.

2. A verb joined with negation is an indefinite and not a proper logical verb, this also is true of other tenses, but the present.

3. Infinitives are properly nouns, and are insignificant, except in composition.

CHAP. IV.—1. A sentence is defined voice significant by compact, of which any part separately possesses signification as a word, but not as affirmation or negation.

2. Not every sentence is enunciative, but that in which truth or falsehood is inherent.

3. Other sentences dismissed as belonging more properly to Rhetoric or Property, here the enunciative sentence alone is considered.

CHAP. V.—1. The first enunciative sentence is affirmation, afterwards negation.

2. Every enunciative sentence must be from a verb, or its case.

3. The enunciative sentence either signifies one thing, or that which is one by conjunction.

4. Of enunciations, one is simply affirmative or negative, another is composed of these.

5. Simple enunciation is defined to be voice significant of something being inherent or non-inherent, according as times are divided.

CHAP. VI.—1. Affirmation is the enunciation of something concerning something, but negation is the enunciation of something from something.

2. We may enunciate what is, as though it were not, and what is not, as though it were inherent; i. e. to all enunciation, truth or falsehood is incident.

3. Affirmation may be denied, and vice versâ; hence it follows, that,

4. To every affirmation there is an opposite negation, and to every negation an opposite affirmation.

5. Opposition between affirmative and negative, constitutes contradiction.

CHAP. VII.—1. Universal is that which may naturally be predicated of many things ; singular, that which may not.

2. Contrariety is that which subsists between universal affirmative and universal negative.

3. No affirmative is true in which the universal is predicated of an universal predicate.

4. Contradiction is between the universal affirmative and the particular negative, or between the universal negative and the particular affirmative.

5. Contraries cannot at the same time be true, though their opposites may.

6. One negation is incident to each affirmation.

CHAP. VIII.—1. What constitutes single affirmation and negation is the unity of the subject and of the predicate, without equivocation.

CHAP. IX.—1. In things present and past, affirmation and negation must be true or false, in universals taken as such, and in singulars ; but in universals not universally enunciated, this is not necessary.

2. Whatever true affirmation or negation is made of futures, excludes casual existence.

3. It cannot be truly affirmed that a thing will neither be, nor not be.

4. Whatever is generated, always so subsisted, as to have been generated from necessity, so far as regards the predication at any future time, being true or false.

5. In things which do not always energize, there is equally a power of being and of not being, so that many things subsist casually, as to the nature of their affirmation or negation.

6. Being must necessarily be when it is, and non-being not be when it is not ; yet every being need not be, nor every non-being not be ; this reasoning is parallel as to contradiction.

CHAP. X.—1. As all affirmation and negation will be either from a noun and verb, or from an indefinite noun and verb ; so without the verb, there is neither affirmation nor negation.

2. With the addition of the copula, oppositions are enunciated doubly, wherefore there are four enunciations.

3. There are also four others, if the affirmation be of a noun taken universally, yet the diametrically opposed do not happen to be co-verified.

4. Opposites, as to indefinite nouns and verbs, are not negations without a noun and verb.

5. An indefinite is not a legitimate enunciation.

6. When a noun and verb are transposed they have the same signification, as to affirmation and negation.

CHAP. XI.—1. One thing cannot be said of many, nor many of one, by one affirmation or negation.

2. "What is it?" is not a dialectic interrogation, because it does not afford a choice to enunciate either part of contradiction.

3. Disjunctions must not be assumed as conjunctively true.

4. In whatever categories contrariety is not inherent, if definitions are essentially predicated, of these a particular thing may be singly asserted with truth.

CHAP. XII.—1. It is necessary to consider how the affirmations and negations of the "possible" and "impossible to be," of the contingent and the non-contingent, and of the impossible and necessary, subsist.

2. The reason that the same thing may both be and not be, is that every thing which is thus possible does not always energize.

3. The negation of "It is possible to be," is "It is not possible to be;" also of the contingent in like manner, and of the necessary and the impossible.

4. The negation of "It is possible not to be," is "It is not possible not to be;" the two first follow each other; but the two former and the two latter are never true at the same time of the same thing.

5. *ἔιναι* and *μὴ εἶναι* must be considered as subjects with which the affirmation and negation are to be connected.

CHAP. XIII.—1. The following is the proper method of disposing relative consequence:

1	3
It is possible to be.	It is not possible to be.
It may happen to be.	It may not happen to be.
It is not impossible to be.	It is impossible to be.
It is not necessary to be.	It is necessary not to be.
2	4
It is possible not to be.	It is not possible not to be.
It may happen not to be.	It may happen not to be.
It is not impossible not to be.	It is impossible not to be.
It is not necessary not to be.	It is necessary to be.

2. In the table above, the two former in each column are contraries to the two former in the opposite, and the two latter in each are contrary sequences from the two former; but in necessary matter it is not thus, but contraries follow, and contradictories are placed separately.

3. A distinction must be drawn between rational and irrational potentiality, since not every thing which "can be" is capable also of the opposite, hence,

4. Rational powers are those of many things, and of the contraries; but irrational are those which do not always receive opposites.

5. Some powers are equivocal: thus the possible is sometimes predicated as *being* in energy, sometimes because it *may be* in energy.

6. The necessary and the non-necessary may perhaps be the principle of all existence, or non-existence.

7. Whatever exists of necessity, is in energy.

8. If eternal natures are prior in existence, energy is prior to power.

9. The first substances are energies without power.

10. Those are energies with power, which are prior by nature, but posterior in time.

11. Lastly, there are some which are never energies, but capacities only.

CHAP. XIV.—1. Those opinions are contrary which are of contrary matter, and propositional contrariety corresponds with the contrariety of opinion; also as generations arise from opposites, so also do deceptions.

2. Contraries belong to those things which are the most diverse about the same thing.

3. Whatever things have no contraries, of these the opposite to the true opinion is false.

4. The opinion of good, that it is not good, will be the proper contrary to that of good, that it is good.

5. To "Every thing good is good," the contrary is "Nothing is good;" but the contradictory to it is, "Not every thing is good."

THE PRIOR ANALYTICS.

BOOK I.

INTRODUCTORY.—IN this portion of his work, Aristotle investigates the parts and principles of syllogism, and in the *Posterior Analytics*, those of demonstration: unfolding the resolution of syllogisms from one figure to another, and explaining how syllogisms framed without art, are reducible to modes and figures.

The theory of reasoning generally, with a view to accurate demonstration, depends upon the establishment of a perfect syllogism, which is defined an enunciation, wherein certain propositions being laid down, a necessary conclusion is drawn, distinct from the propositions, and without the employment of any idea not contained in them. For reasoning is a certain transition from one thing to another, in the development of successive truths, each dependent upon, and concluded from, the other, when the last conclusion is primarily not conceded. Hence intellect and sense do not produce arguments, because the perception of the former is intuitive, and the inertness and mutability of the latter forbid it to assume the province of reasoning. Neither can opinion reason, since, though it may know conclusions, yet it cannot frame them by a syllogistic process, so that demonstrative reasoning results from certain principles, like axioms established and acted upon, the conclusions of which, derived by fixed rules, are always true. Although indeed Aristotle, after establishing the actual laws, did not fully elucidate their results, appearing only to know the first three figures of the

so-called Categorical syllogism, yet this does not militate against the value of that inquiry into the facts relative to the language of reasoning, instituted in the *Analytics*; since the examination of the syllogism itself shows how the more general principles of science must be obtained.

The first figure he considers the only perfect syllogism, because in this alone, an universal can be established. To determine how the conclusion is formed and found, he distinguishes three species of entity or being, one of which cannot be predicated of any other; a second may be predicated of some other, which yet cannot be predicated of it; whereas the third can be both predicated of other, and other of it. By the first, all individuals are understood as apprehended by the senses, or as contained in the lowest genera; by the second, the highest genera; and by the third, the genera intermediate between the highest and lowest. Now, since from the highest genera, we can derive no conclusion, as no other higher idea can be predicated of them; since also the lowest cannot be concluded, as they cannot be predicated of aught else, it remains that the demonstrative process acts freely about the middle genera, in which procedure the essential point is, to derive by experience from general notions those which admit of being predicated of others. Moreover, since Plato's method appeared to Aristotle vague and unsatisfactory, and virtually to involve a "petitio principii" in its doctrine of the remembrance of ideas originally subsistent in the human mind, being awoke by means of sensation; he established the syllogism of induction, which is further distinguished from the demonstrative, in that proceeding from the lower notion, it shows the middle one to belong to the higher, whereas the other proceeds from the middle notion, and connects the lower with the higher. These two alone, according to Aristotle, are strictly scientific procedures, and in a word, the value of syllogism generally is proved by its rendering the laws of thought necessary and certain, instead of allowing them to become merely contingent, and by its substitution of proof for vague probability.

CHAP. I.—1. The purport of this treatise being the attainment of demonstrative science, it is necessary to define a proposition, a term, and a syllogism. Of the latter, more-

over, what kind is perfect, and what imperfect; also what is meant by a thing being in a certain whole, and what it is to be predicated of every thing, or of nothing of a class.

2. A proposition is a sentence affirming or denying something of something, and is either universal, by which is implied presence with all or none; particular, the being present not with every thing; or indefinite, i. e. the being present or not without the universal or particular sign.

3. The demonstrative proposition is an assumption of one part of contradiction; the dialectic proposition is an interrogation of contradiction: as to forming the syllogism from either, there exists no difference.

4. A syllogistic proposition is an affirmation or negation of something concerning something, after the above-mentioned modes.

5. A term is that into which a proposition is resolved, e. g. the predicate and the subject, with or without the copula.

6. A syllogism is a sentence wherein certain things being laid down, something else different from the premises necessarily results in consequence of their existence; and a perfect syllogism is that which requires nothing else beyond the premises assumed, for the necessary consequence to appear.

7. Predication "de omni" is said to occur when nothing can be assumed of the subject of which the other may not be asserted; and "de nullo" the reverse.

CHAP. II.—1. The universal negative proposition (E) is converted universally.

2. A and I are converted particularly.

3. The conversion of O is unnecessary.

CHAP. III.—1. The same rule obtains in the conversion of necessary (modal) propositions.

2. In contingent affirmatives, the conversion is similarly ordered, but this is not the case with negatives, but in these E is not converted, but O is.

CHAP. IV.—1. Syllogism is more universal than demonstration, since demonstration is a certain syllogism, but not

every syllogism is demonstration ; hence the former is first discussed.

2. When three terms so subsist with reference to each other, as that the last is in the whole of the middle, and the middle is or is not in the whole of the first, there is then a perfect syllogism of the extremes.

3. The middle is that which is itself in another, while another is in it, and which becomes the middle by position, i. e. in the first figure.

4. The extreme is that which is itself in another and in which another also is.

5. If the first is in every middle, but the middle is in no last, there is not a syllogism of the extremes.

6. If one of the terms be universal and the other particular, when the major extreme is universal (A or E), but the minor I, there is necessarily a perfect syllogism.

7. The major extreme is defined that in which the middle is, the minor that which is under the middle.

8. The syllogistic ratio is the same for the indefinite as for the particular.

9. If the minor be universal, but the major particular or indefinite, there is no syllogism.

10. Nor when the major is A or E, but the minor O.

11. Nor when both propositions are particular, or one or both indefinite.

12. From the above, it is concluded that the first figure is complete, and comprehends all classes of affirmation and negation.

CHAP. V.—1. The second figure is defined to be that where in the middle is present with every individual of the one, but with none of the other term, or with every or with none of each.

2. The middle term is that which is predicated of both extremes.

3. The extremes are those of which the middle is predicated: the greater extreme being that which is placed near the middle, and the less that which is further from the middle.

4. No perfect syllogism occurs in this figure from the middle being placed beyond the extremes, and being first in position.

5. From universal affirmatives or negatives, there is no consequence: also when the major is A or E, and the minor I or O, the conclusion is O.

6. An affirmative syllogism is not produced in this figure, but all are negative, both the universal and the particular.

CHAP. VI.—1. The third figure is defined to be that in which with the same thing one is present with every, and another with no individual, or both with every or with none.

2. The middle is that of which we predicate both.

3. The predicates are the extremes, the greater being more remote from, the less nearer to, the middle.

4. There is no perfect syllogism in this figure.

5. When both premises are affirmative, there will be a syllogism, but not when both are negative: moreover, the major may be negative and the minor affirmative.

6. An universal conclusion cannot be drawn from this figure.

CHAP. VII.—1. In all the three figures generally, if one premise be A or I, and the other E, in the conclusion the minor is predicated of the major.

2. An indefinite taken for I, will produce the same syllogism in all the figures.

3. All incomplete syllogisms are completed by conversion in the first figure.

4. All syllogisms may be reduced to universals in the first figure.

CHAP. VIII.—1. A different syllogism arises from the simple *ὑπαρχειν*, the *τὸ ἀναγκαῖον εἶναι* and the *τὸ ἐνδέχασθαι*.

2. Necessary syllogisms resemble generally those which are absolute.

CHAP. IX.—1. Conclusion of a syllogism with one necessary premise often follows the major.

CHAP. X.—1. In the second figure when one necessary premise is joined with a simple one, the conclusion follows the negative necessary premise.

2. If the affirmative be necessary, the conclusion will not be.

CHAP. XI.—1. In the third figure, if either premise be necessary and both be A, the conclusion will be necessary.

2. If one premise be A or I, when A is necessary, the conclusion is so, but not when I is necessary.

3. When the affirmative is necessary, either A or I, or when O is assumed, there will not be a necessary conclusion.

CHAP. XII.—1. There is no pure categorical syllogism unless both premises are affirmative.

2. One of the premises must be similar to the conclusion, therefore also it appears that there is no simple or necessary conclusion, unless one premise be necessary or pure.

CHAP. XIII.—1. The contingent is defined that which, not being necessary, but assumed to exist, nothing impossible hence arises; the accuracy of this definition is proved by opposite affirmatives and negatives.

2. All contingent propositions are mutually convertible, i. e. as many as have an affirmative figure, as to opposition.

3. The contingent is predicated in two ways, one generally, the other indefinitely, and the method of conversion varies in each.

4. As science and the demonstrative syllogism do not belong to indefinites, the indefinite contingent is not generally investigated.

CHAP. XIV.—1. With contingent premises, both universal, there will be a perfect syllogism.

2. When the premises are both negative, or the minor negative, there is either no syllogism or an incomplete one; in the case of the major universal with the minor particular, there is a perfect syllogism.

3. Hence it is concluded, that when the premises are A or E, a syllogism arises in the first figure, the former (A) complete, the latter (E) incomplete.

CHAP. XV.—1. In syllogisms with mixed premises, (pure and modal,) if the major is contingent, the syllogism will be perfect, not otherwise.

2. From a false hypothesis, not impossible, a similar conclusion follows.

3. Universal predication is not to be limited by time.

4. The general law of mixed syllogisms is that when the minor premise is contingent, a syllogism is constructed, either directly or by conversion.

5. If the major is particular there will be no syllogism, neither if both premises be particular or indefinite.

CHAP. XVI.—1. When one premise is necessary and pure, and the other contingent, there is a syllogism perfect when the minor is necessary.

2. When both premises are A, there is not a necessary conclusion.

3. Also in particular syllogism, when the negative is necessary the conclusion is simply negative.

4. When in a negative syllogism the particular affirmative is necessary, there is no syllogism *de inesse*. Neither if the minor be universal and the major particular necessary.

5. Nor when indefinite propositions or both particular are assumed, will there be a syllogism.

CHAP. XVII.—1. In the second figure when both premises are contingent there is no syllogism, nor if the affirmative be pure and the other contingent.

2. A contingent negative is not convertible in its terms.

3. Contingency is predicated negatively in two ways, either if a thing is necessarily present with something, or if it is necessarily not present with something.

4. From two premises A or E, contingent in the second figure, no syllogism is constructed.

5. Nor from one universal and the other particular, or both particular or indefinite.

CHAP. XVIII.—1. If one proposition signifies the *in esse*, and the other the contingent, the affirmative being simple, but the negative contingent, there will never be a syllogism, but there will be when the affirmative is contingent, but the negative simple.

2. If both propositions be negative, there is a syllogism by conversion of the contingent.

3. If both be affirmative, there will not be a syllogism.

4. If the negative be pure and particular, there will not be a syllogism, nor when both are assumed indefinite.

CHAP. XIX.—1. In syllogisms with one necessary and the other a contingent premise in the second figure, when the negative is necessary, a syllogism may be constructed, but not when the affirmative is necessary.

2. When both premises are negative, a syllogism is formed

by converting the contingent, but if both be affirmative, there is no syllogism, neither if both premises be indefinite or particular.

CHAP. XX.—1. In the third figure with both premises or only one contingent, there is a syllogism in which the conclusion follows the contingent.

2. If one premise be universal and the other particular, there will and will not be a syllogism, but there will not be one when both are particular or indefinite.

CHAP. XXI.—1. A contingent is inferred in the third figure from one simple and another contingent premise.

2. From a negative minor or from two negatives no syllogism results.

3. When both premises are indefinite or particular, there is not a syllogism.

CHAP. XXII.—1. If one premise be necessary, but the other contingent in the third figure, a syllogism of the contingent arises when the terms are affirmative.

2. When one is affirmative necessary, but the other negative, there is a syllogism of the contingent non-*in esse*; if it be negative, there will be one both of the contingent and of the pure non-*in esse*.

CHAP. XXIII.—1. Every syllogism must show affirmation or negation of the *in esse*; either universally or partially, ostensively or by hypothesis.

2. In the ostensive a simple conclusion must have two preliminary propositions connected by a middle term, which connexion is three-fold, and all ostensive syllogisms are perfected by the above-named figures.

3. Of syllogism per impossibile there is the same method, which kind of reasoning implies the showing an impossibility from the original hypothesis.

CHAP. XXIV.—1. In every syllogism it is necessary that there be one term affirmative, and one universal.

2. An universal conclusion follows from universal premises, though sometimes only a particular, results.

3. One premise must resemble the conclusion in character and quality.

CHAP. XXV.—1. Every demonstrative syllogism consists of only three terms, and of two premises.

2. The same conclusion may arise from many syllogisms.

CHAP. XXVI.—1. The conclusion by more figures constitutes a greater facility of demonstration.

2. An universal affirmative is proved by the first figure, in one way only.

3. A negative is proved in one way by the first figure, and in two ways by the second figure.

4. A particular affirmative is proved by the first and third figures, in one way by the first, and in three ways by the last.

5. A particular negative is proved by all the figures, in the 1st in one way, in the 2nd in two, and in the 3rd in three.

6. An universal affirmative is most difficult of construction, and easiest of subversion, and universals generally are more easy to subvert than particulars, which last are easier of construction.

CHAP. XXVII.—1. In the analysis of the principles of syllogism, it is observable that there are several kinds of predicates, some of which can only be employed accidentally. Also, there are some things at which we must stop, since another predicate of them cannot be pointed out.

2. Argument generally is conversant with intermediates, that is, with such as may be predicated of others, and others of them.

3. In the arrangement of propositions we must first assume (hypothetically) the subject, the definitions, and the peculiarities of a thing: next, its consequents, and what it is consequent to; lastly, such as cannot be in it.

4. In the consequents, what are predicated as properties must be distinguished from what are so as accidents: also if according to opinion or to truth.

5. The universal and not the particular consequents are to be selected: and the properties of each thing must be taken, but not things consequent to all.

CHAP. XXVIII.—1. Every portion of the problem must be examined; also the first elements in the consequents and antecedents, and those which are for the most part universal.

2. Whoever wishes to conclude a negative, must take a middle, which concurs with one extreme.

3. We must select in investigation, not that wherein the terms differ, but in which they agree.

CHAP. XXIX.—1. The same method must be observed in selecting a middle term in syllogisms of “the impossible” as in the others.

CHAP. XXX.—1. The method of demonstration laid down previously is applicable to all matters of philosophical inquiry.

2. As the appropriate principles of every science are many, it belongs to experience to supply those of each thing.

3. The end of analytical investigation is to elucidate subjects naturally abstruse.

CHAP. XXXI.—1. Division through genera, i. e. by which the latter are divided into species by addition of differences, is a species of weak syllogism, being in some sort a *petitio principii*.

2. In demonstration of the absolute, the middle must be less, and not universal, in respect of the first extreme.

3. Division is unsuitable for refutation, and for various kinds of question.

CHAP. XXXII.—1. In order to reduce every syllogism to one of the three figures, we must first investigate the propositions, as to quantity, examining also wherein they are superfluous or deficient.

2. Next, consider the reality of inference.

3. Ascertain the figure to which properly the problem belongs, by the middle.

CHAP. XXXIII.—1. Error frequently arises from our inattention to the relative quantity of propositions.

CHAP. XXXIV.—1. Also from an inaccurate exposition of the terms.

CHAP. XXXV.—1. The middle must not always be assumed as a particular definite thing, since one word cannot always be used for some terms, inasmuch as they are sentences.

CHAP. XXXVI.—1. For the construction of a syllogism, it is not always requisite that one term should be predicated of

the other, "casu recto," as either major or minor premises, or both may have an oblique case.

2. The proposition must be assumed according to the case of the noun.

CHAP. XXXVII.—1. For true and absolute predication, we must accept the several varieties of categorical division.

CHAP. XXXVIII.—1. Whatever is reiterated must be annexed to the major, not to the middle term.

2. The position of the terms differs, according as the inference is simple or qualified.

CHAP. XXXIX.—1. In syllogistic analysis, simplicity of terms and perspicuity are to be studied.

CHAP. XL.—1. The definite article is to be added, according to the nature of the conclusion.

CHAP. XLI.—1. There are certain forms of universal predication which require distinction; e. g. it is not the same thing to assert that A is present with every individual with which B is, and to say that A is present with every individual of what B is present with.

CHAP. XLII.—1. All conclusions in the same syllogism are not produced by one figure, but the conclusion shows in what figure the inquiry is to be made.

CHAP. XLIII.—1. For the sake of brevity, the thing impugned in the definition, and not the whole definition itself, is to be laid down.

CHAP. XLIV.—1. Hypothetical syllogisms need not be reduced, as they are admitted by consent.

2. Nor syllogisms per impossibile, which are incapable of analysis: for the present, however, further consideration of hypotheticals is deferred.

CHAP. XLV.—1. Whatever syllogisms are proved in many figures, may be reduced from one figure to another.

2. Universals in the second are reducible to the first, but only one particular.

3. Of those in the third figure one only, when the negative is not universal, is not reducible to the first.

4. In order to reduction, the conversion of the minor premise is necessary.

5. Syllogisms of the third figure, may be reduced to the second, when the negative is universal.

6. Those syllogisms are not mutually reducible into the other figures, which are not into the first.

CHAP. XLVI.—1. There is a difference in statement arising from whether we conceive the expressions “not to be” and “to be not” identical or different: it is shown that they are not the former.

2. As to the relation also between privatives and attributes, the different character of the assertion is proved by the difference in the mode of demonstration.

3. A fallacy often arises from not assuming opposites properly.

BOOK II.

CHAP. I.—1. UNIVERSAL syllogisms infer many conclusions, so also do the particular affirmative, but the negative particular infer one only.

2. Three conclusions may be drawn from the same syllogism, viz. one of the minor extreme, another of what is under the minor, the third of what is the subject of the middle.

CHAP. II.—1. The propositions of a syllogism may be true or false indifferently, but the conclusion must of necessity be either one or the other.

2. From true propositions we cannot infer a falsity, but from false premises we may infer the truth, except that not “the why” but the mere “that” is inferred.

3. When the major is wholly false, but the minor is true, the conclusion is false; but when the whole is not assumed false, the conclusion is true.

4. If the major is true wholly, but the minor wholly false, the conclusion is true.

5. In particulars with a major false, but a minor true, there may be a true conclusion.

6. If the major is partly false, the conclusion will be true.

CHAP. III.—1. In the middle figure we may infer the true from premises, either one or both wholly or partially false.

CHAP. IV.—1. The case is the same in the third, as in the preceding figures.

2. Particulars follow the same rule, i. e. those with one universal and one particular premise.

3. If the conclusion be false there must be falsity in one or more of the premises, but this does not hold good vice versa.

CHAP. V.—1. The demonstration of things in a circle and from each other is by the conclusion, and by taking one proposition converse in predication to conclude the other, which we had taken in a former syllogism.

2. A demonstration of this kind not truly made, except through converted terms, and then by assumption “pro concessio” only.

CHAP. VI.—1. As to the same in the second figure, in universals an affirmative proposition is not demonstrated.

2. In particulars, the particular proposition alone is demonstrated when the universal is affirmative.

CHAP. VII.—1. In the third figure, when both propositions are universal, there is no circular demonstration.

2. There will be demonstration where the minor is universal, and the major particular.

3. When the affirmative is universal there is demonstration of the particular negative, but not when the negative is universal.

CHAP. VIII.—1. Conversion is by transposition of the conclusion to produce a syllogism, either that the major is not with the middle, or that this last is not with the minor.

2. There is a different syllogism, according as the above is done contradictorily or contrarily.

CHAP. IX.—1. As to conversions in the second figure, we cannot, in universals, infer the contrary to the major premise, but we may the contradictory; the minor is dependent upon the assumption of the conclusion.

2. In particulars, if the contrary of the conclusion be assumed, neither proposition is subverted; if the contradictory, both are.

CHAP. X.—1. In the third figure, if the contrary to the conclusion be assumed, or the contradictory, the same result respectively occurs, as in particulars of the second figure.

CHAP. XI.—1. A syllogism “per impossibile” is shown when

the contradiction of the conclusion is laid down and another proposition is assumed: it is produced in all the figures.

2. It resembles conversion, except that the opposite is not previously acknowledged, but is manifestly true.

3. In the first figure the universal affirmative is not demonstrable "per impossibile."

4. The particular affirmative and universal negative may be demonstrated, when the contradictory of the conclusion is assumed.

5. The particular negative is demonstrated, but if the sub-contrary to the conclusion be assumed, what was proposed is subverted.

CHAP. XII.—1. In the second figure A is proved "per absurdum," if the contradictory be assumed, not if the contrary.

CHAP. XIII.—1. In the third figure, both affirmatives and negatives are demonstrable "per absurdum."

CHAP. XIV.1.—. A demonstration to the impossible differs from the ostensive, in that it admits what it wishes to subvert, leading to an acknowledged falsehood, whilst the ostensive commences from confessed theses: in the ostensive also, the conclusion need not be known, whether it is or is not, but in the other we must previously assume that it is not.

2. What is demonstrated "per absurdum" in the first figure, is proved in the second ostensively, if the problem be negative, and in the third figure if it be affirmative.

3. What is demonstrable "per absurdum," is so also ostensively, and vice versâ.

CHAP. XV.—1. Opposite propositions are according to diction four, apparently, but in truth, they are three.

2. There is no conclusion from opposites of either kind in the first figure, but from both in the second; in the third no affirmation is deduced.

3. Since the oppositions of affirmations are three, we may take opposites in six ways.

4. From such propositions no true conclusion is deducible, but from contradictories a contradiction to the assumption is inferred; in order, however, to infer contradiction in the conclusion, we must have contradiction in the premises.

CHAP. XVI.—1. A “*petitio principii*” generically defined, consists in not demonstrating the proposition, which also happens in many ways, when a person tries to show by itself, what cannot be known by itself: mathematicians are frequently guilty of this fallacy.

2. This error may occur in both the second and third figures; but in the case of an affirmative syllogism, in the third and first.

CHAP. XVII.—1. In the consideration of the syllogism, in which it is argued that the false does not happen “on account of this” (*παρὰ τοῦτο*), it is remarked as occurrent, first in a deduction to the impossible which is contradicted, not in ostensive demonstration.

2. A perfect example of this is, when the syllogism leading to the impossible does not conjoin with the hypothesis by its *media*: it is necessary however to connect the impossible with the terms assumed from the first.

CHAP. XVIII.—1. False reasoning arises from error, in the primary propositions.

CHAP. XIX.—1. In order to prevent a *catasyllogism*, or syllogistical conclusion being adduced against us, we must watch against the same term being twice admitted in the proposition.

2. In argument, we should conceal that which we direct the respondent to guard against, and the two methods of effecting this are:

1st, If the conclusions are not pre-syllogized, but unknown, when necessary propositions are assumed.

2ndly, If a person does not question things proximate, but such as are especially immediate.

CHAP. XX.—1. An *elenchus* is a syllogism of contradiction, to produce which there must be a syllogism, though the latter may subsist without the former.

CHAP. XXI.—1. Deception, as to supposition (*κατὰ τὴν ὑπόληψιν*), arises if the same thing being present with many primary, a person should be ignorant of one, and think it present with nothing, but should know the other; or if a man is deceived about things from the same class.

2. There is a difference between universal and particular

science: for we have not a pre-existent knowledge of particulars, but together with induction receive the science of particulars, as it were by recognition, after which manner is the reasoning in the *Meno*, that discipline is reminiscence.

3. Some things we immediately know, and by universal knowledge observe particulars; but as we do not know them by innate, peculiar knowledge, we are liable to deception, yet not contrarily, but possessing the universal, may err in the particular.

4. Scientific knowledge is predicated triply; as to the universal, the peculiar, or as to energizing, hence deception is incident in as many ways.

5. From the above, it results that a man may imagine a thing concurrent with its contrary.

CHAP. XXII.—1. If the terms connected by a certain middle are converted, the middle must be converted with both: in converting a negative syllogism the method commences from the conclusion.

CHAP. XXIII.—1. Not only dialectic and demonstrative syllogisms, but also rhetorical, and every kind of demonstration are through the above-named figures: we believe all things either through syllogism or induction.

2. Induction then, or the inductive syllogism, is to prove one extreme in the middle through the other, i. e. proving the major of the middle by the minor: it is also occurring in those demonstrations which are proved without a middle.

CHAP. XXIV.—1. Example (*παράδειγμα*), is proving the major of the middle, by a term resembling the minor. It subsists as part to part, and differs from induction because the latter shows from all individuals that the major is present with the middle, and does not join the syllogism to the extreme, but the former both joins it and does not demonstrate from all individuals.

CHAP. XXV.—1. Abduction (*ἀπαγωγή*), is a syllogism with a major premise certain, and the minor more credible than the conclusion: moreover, when the minor is proved by the interposition of few middle terms.

CHAP. XXVI.—1. Objection (*ἐνστάσις*), is a proposition con-

trary to a proposition, it differs from a proposition, however, in that it may be either καθόλου or ἐπὶ μέρος.

2. It is occurrent in two figures, because they are used opposite to the proposition, and opposites are concluded in the first and third figures alone: wherefore, if the proposition is negative, an objection to it cannot be proper in the second figure, since the objection ought to affirm.

3. Objections may be adduced from the contrary, the similar, and from what is according to opinion.

CHAP. XXVII.—1. Likelihood (εἰκός) is a probable proposition, for what men know to have generally happened or not, or to be, or not to be, this is a likelihood.

2. A sign (σημείον), is a demonstrative proposition, either necessary or probable; it is assumed triply, according to the number of figures.

3. An enthymeme is a syllogism drawn from either of these.

4. If one proposition be enunciated, there is only a sign, but if the other also, there is a syllogism, which last, if it be true, is incontrovertible in the first figure, but not so in the last or second figure.

5. Τεκμήριον (indicium), is a syllogism in the first figure, which Aristotle proves to belong to it, by the example of physiognomy; the first physiognomic hypothesis being that natural passion changes at one time the body and soul; the second, that there is one sign of one passion; the third, that the proper passion of each species of animal may be known. Whatever, however, is inferred in this respect, is collected in the first figure.

THE POSTERIOR ANALYTICS.

BOOK I.

INTRODUCTORY.—The title of Prior and Posterior was given to the Analytics in the time of Galen; in the first, syllogisms are considered in respect of their form; in the last, in respect of their matter.

From *certain* premises a conclusion being formally drawn,

demonstration is deduced, and also demonstrative science. Syllogisms of this kind, called apodeictic, are the subject of the Posterior Analytics: dialectic syllogisms, or those from uncertain and merely probable premises, are discussed in the eight books of the Topics; whilst such as are apparently, yet not really perfect in matter and form, being fallacious, are called sophistical, and are found in the book under that title.

All knowledge rests upon antecedent conviction, and as the general principle which is the basis of all demonstrative reasoning is better known in itself and in its nature, so the particulars from which induction proceeds, are better known to us. This antecedent knowledge is the major proposition of a syllogism, the conclusion being the application of the general to the particular, whence the syllogism is the form of all proper science, nor, though strongly attacked by Ramus, has the latter critic ever substituted a better inferential method.

From these statements, it follows that things cannot be demonstrated in a circle; neither can the number of middle terms between the first principle and the conclusion be infinite. Again, these principles and intermediate propositions must be necessary and general, since of what is fortuitous or mutable there is no demonstration. Of all figures the first is best adapted to demonstration, from its conclusions being universally affirmative, and as the proof of an affirmative is preferable to that of a negative, so universal is more eligible than particular and direct demonstration to that ad absurdum.

Moreover, since it is one thing to know *that* a thing is so, and another to know *why* it is so, we have to consider demonstration in two respects, that $\tau\omicron\upsilon\ \delta\omicron\tau\iota$, or "the deduction of the cause from a consideration of the effect;" and the other, $\tau\omicron\upsilon\ \delta\iota\omicron\tau\iota$, "the deduction of the effect from the presence of the cause." In the second book therefore, we have an exposition of cause, definition, and the acquisition of first principles, and we may remark that so closely did Aristotle consider intellectual knowledge and sensuous perception blended with each other, in the cognizance of these elements, that he broadly asserts the loss of a sense to entail the loss of a species of science. The knowledge of first principles, indeed, is not acquired by demonstration, and not being entitled to be called science is termed intelligence; still the conception of the

general, is in a manner in the soul itself, and Aristotle did not so derive all scientific knowledge from the senses, as not to draw a strong distinction between experience and science, as also between memory and intellectual thought.¹

CHAP. I.—1. All doctrine and intellectual discipline arise from pre-existent knowledge, e. g. mathematical sciences, also arguments, whether syllogistic or inductive: this previous knowledge, however, must be possessed in a two-fold respect, either with some things presupposing that they are, or with others understanding the subject; with some again, both must be known.

2. What we know universally and generally, we may not know singly, yet not in the same manner; indeed a man may in a certain respect know, and in another be ignorant.

CHAP. II.—1. Scientific knowledge is possessed when we know the necessary connexion between a thing and its cause.

2. Demonstration being a scientific syllogism, i. e. a syllogism which causes us to know, it is necessary that demonstrative science should be from things true, first, immediate, more known than, prior to, and the causes of the conclusion.

3. Things are prior and more known in two ways; 1st, As regards nature; 2nd, As regards ourselves; the latter are such as are nearer to sense, the most remote are those which are especially universal, the nearest are such as are singular.

4. The principle of demonstration is an immediate proposition, the latter is that to which there is no other prior.

5. A proposition is one part of enunciation; dialectic, which similarly assumes either part of contradiction; demonstrative, that which definitely assumes one part to be true.

6. Enunciation is either part of contradiction; contradiction is an opposition which has no medium in respect to itself; affirmation is that part of the latter which declares

¹ This is well laid down by Ritter, to whose great work the reader is referred, as well as to the excellent remarks upon formal and material induction, enunciated by Mansel in his *Prolegomena Logica*.

something of somewhat ; negation that which signifies something from somewhat.

7. The thesis of an immediate syllogistic principle is that which we cannot demonstrate, nor need the learner possess it : what the latter must possess is an axiom.

8. Of thesis, that which receives either part of contradiction is hypothesis ; what is without this, is definition.

9. He who would possess knowledge through demonstration, must not only know in a greater degree first principles ; but also nothing should be more credible or known to him than the opposites of the principles, from which a syllogism of contra-deception may consist.

CHAP. III.—1. Two errors occur as to science and demonstration, the one in thinking that science does not exist, because first things must be known ; the other in the supposition that there are demonstrations of all things, whereas all science is not demonstrable, for that of things immediate is indemonstrable, and at these we must some time or other arrive.

2. There is not only science, but also a certain principle of it, by which we know terms : we cannot however demonstrate in a circle simply.

CHAP. IV.—1. A syllogism is a demonstration from necessary propositions, previous to examining which last, it is necessary to define, "of every," "per se," and "universal."

2. "Of every" is that which is not in a certain thing, and in another certain thing is not, nor which is at one time, and not at another.

3. Such are "per se" which are inherent in the definition of what a thing is : also those which are inherent in their attributes in the definition declaring what a thing is ; also that which, on account of itself, is present with each thing.

4. Accidents are such as are inherent in neither way.

5. A contrary is either privation or contradiction in the same genus.

6. "Universal" is that which is both predicated "of every" and "per se," and "so far as the thing is:" these two last expressions are equivalent. Universal is present when it is demonstrated of any casual and primary thing.

CHAP. V.—1. An error about the primary universal occurs, as to demonstration, when either nothing can be assumed higher, except the singular or singulars; or when something else can be assumed, but it wants a specific name; or when it happens to be as a whole, in a part of which the demonstration is made.

CHAP. VI.—1. By a recapitulation it is proved, that the demonstrative syllogism consists of certain propositions “per se.” The demonstrative syllogism is from necessary matter, wherefore the sophists err, who think they assume principles rightly, if the proposition be probable and true, alleging that to know is to possess knowledge.

2. Neither the probable nor the improbable is the principle, but that which is primary of the genus, about which the demonstration is made. Not every thing true is appropriate.

3. If the conclusion be necessary, the premises need not be so, but when the latter are so, the conclusion must be necessary.

4. Of accidents there is no demonstrative science: yet the non-necessary is not to be neglected in disputation.

CHAP. VII.—1. Three things are present in demonstrations; viz. the demonstrated conclusion; axioms, i. e. those from which the demonstration is made; and the subject genus whose properties and essential accidents demonstration makes manifest.

2. The extremes and media must be of the same genus.

CHAP. VIII.—1. There is no demonstration nor definition “per se” of mutable natures, because the universal is non-existent therein.

CHAP. IX.—1. True demonstration only results from principles appropriate to the subject of demonstration.

2. The terms must be either homogeneous, or from two genera of which one is contained in the other.

3. The appropriate principles of each thing are themselves incapable of demonstration: the science of them is the mistress of all sciences.

4. It is difficult to decide whether a thing is really known or not; we think however that we know, if we have

got a syllogism from certain primary truths, which however is an error.

CHAP. X.—1. Those are principles (*ἀρχαί*) in each genus whose existence, it being impossible to demonstrate, must be assumed.

2. Of those employed in demonstrative sciences, some are peculiar to each, others are common.

3. Proper principles are those which are assumed to be.

4. Of the three things with which all demonstration is conversant, (*vide vii. 1.*) we sometimes neglect two.

5. Neither hypothesis nor postulate need exist “*per se*,” nor be necessarily seen, since neither syllogism nor demonstration belongs to external speech, but to what is in the soul.

6. Postulate is any thing sub-contrary to the opinion of the learner, which, though demonstrable, a man assumes, and uses without demonstration.

7. Definitions are not hypotheses, since they are not asserted to be or not to be; hypotheses also are in propositions, and definitions need only be understood.

8. Hypotheses are those from the existence of which, in that they are, the conclusion is produced.

9. Postulate and hypothesis are either as a whole, or as in a part, but definitions are neither of these.

CHAP. XI.—1. It is not necessary for demonstration that there should be forms (*εἶδη*), or one certain thing besides the many, yet one thing must be truly predicated of the many, so that there must be an universal conception.

2. In order to conclude, we assume the major proposition to be true of the middle; the middle may be assumed either to be or not to be; similarly also the minor.

3. The demonstration “*ad impossibile*” assumes that of every thing, affirmation or negation is true.

4. All sciences communicate with each other, according to common principles, i. e. those which men use as demonstrating from these, not those about which they demonstrate, nor that which they demonstrate.

5. Dialectic is common to all sciences, and conversant with all subjects.

CHAP. XII.—1. There is a certain scientific interrogation, from which the syllogism, appropriate to each science, is drawn.

2. He who possesses science is not to be interrogated with every question, nor every question to be answered, but those which are defined about the science.

3. Some argue unsyllogistically from assuming the consequences of both extremes.

4. Mathematical demonstrations rarely prove the same by many media.

CHAP. XIII.—1. There is a two-fold difference if the syllogism be not through things immediate; next, if it be, but not through cause in the same science; wherefore this constitutes the fundamental distinction between the science, “that” a thing is, and “why” it is.

2. The $\delta\acute{\omega}\tau\iota$ is demonstrated, where the media do not reciprocate, also where the middle is externally placed.

3. There is a difference between a syllogism of the $\delta\acute{\omega}\tau\iota$ and one of the “ $\delta\acute{\iota}\omega\tau\iota$,” in respect of each belonging to a different science; moreover, the knowledge of the former belongs to the perceptive, of the latter to the mathematical arguer.

4. The superior sciences are essentially different from their subject sciences, and use forms.

CHAP. XIV.—1. The first figure is most suitable to science, for the mathematical, and nearly all those sciences which investigate the “why,” demonstrate by this: the investigation of the “why” constitutes the highest property of knowledge.

CHAP. XV.—1. One thing may possibly not be individually present with another, i. e. have no medium between them.

CHAP. XVI.—1. Ignorance, according to disposition ($\acute{\alpha}\gamma\nu\omicron\iota\ \eta\ \kappa\alpha\tau\grave{\alpha}\ \delta\iota\acute{\alpha}\theta\epsilon\sigma\iota\nu$), is a deception through syllogism, occurrent in two ways, in those things which are primarily present or not present, viz. either by simple opinion or by syllogism.

2. Of simple opinion the deception is simple; of that which is through syllogism it is manifold.

CHAP. XVII.—1. In cases which have no medium, both propositions cannot be false, but only the major, when deception is produced.

CHAP. XVIII.—1. Universals, from which demonstration proceeds, depend upon induction, the latter upon sense.

CHAP. XIX.—1. By those who syllogize according to opinion only, and dialectically, it must be considered whether the

sylogisms arise from propositions especially probable: as to truth, we must observe from things inherent.

2. If a stated series of terms or demonstrations proceed to infinity, there are no first principles, since these are indemonstrable.

3. In circular proofs, as in the circle itself, there is nothing first or last.

CHAP. XX.—1. If the predications, both downward and upward, stop, the media cannot be infinite.

CHAP. XXI.—1. In negative demonstration there is not an infinity of media in the several figures: since as progression stops in cases of affirmation, so it must do also in negation.

CHAP. XXII.—1. Of predications, as to what a thing is, there cannot be infinity: it is to be understood that the predicate is always spoken of its subject simply, and not accidentally, and that it is enunciated of its subject with reference to some one category. True predications either define their subjects or are accidents.

2. The theory of ideas is useless as to demonstration.

3. That of which infinites are predicated, is undefinable.

4. It is proved from the nature of category, that there cannot be an infinite series.

5. Propositions are not multiplied by the conjunction of attributes.

6. If there be infinity of predication, demonstration cannot exist, and this is also shown analytically from the nature of those things which are predicated *καθ' αὐτά*.

CHAP. XXIII.—1. It follows from the above that one thing may not be always inherent in another, according to something common.

2. Also that as there are certain indemonstrable principles of affirmative, so there are certain such of negative demonstration.

3. In affirmative syllogisms nothing falls beyond the middle: in negatives, in the first figure, nothing falls beyond that which ought (*not?*) to be inherent.

CHAP. XXIV.—1. Particular demonstration may appear preferable to universal, because by the former we know apparently a thing per se, and therefore know it better; and

because universal is nothing else than particulars, is less conversant with being, and produces false opinion.

2. It is replied however to the above, that the preliminary observation made in the last section is applicable to both universal and particular, and that he who knows the universal knows more of the absolute being present than he who knows the particular; moreover, that in the universal, things are incorruptible, but particular more corruptible.

3. Universal alone is cognizant of cause: hence the universal demonstration is better.

4. Particulars more nearly, universals less, approach infinities: the latter therefore are more scientific.

5. He who possesses the universal, has also the particular, the former also comes closer in demonstration to the principle.

6. The universal, moreover, is intuitively intelligible, but the particular ends in sense.

CHAP. XXV.—1. Affirmative is better than negative demonstration, since that is the better demonstration “*cæteris paribus*” which is through fewer postulates.

2. The negative requires the affirmative, but the latter does not need the former: also the latter (affirmative) comes nearer to the nature of a principle.

CHAP. XXVI.—1. Since affirmative is better than negative demonstration, it is also evidently superior to the demonstration “*ad impossibile*.”

CHAP. XXVII.—1. One science is more subtle and accurate than another, e. g. “that a thing is,” and “why it is,” but not separately “that it is,” than “why it is:” also that which is not of a subject, than that which is of a subject: and that which consists of fewer things, than that which is from addition.

CHAP. XXVIII.—1. Whatever things are demonstrated from principles of a common genus, these constitute one science.

CHAP. XXIX.—1. The same thing may be demonstrable in many modes, both when the middles are taken from the same and from a different genus.

CHAP. XXX.—1. There is no science of the fortuitous, which is neither as necessary, nor as for the most part, but what

is produced besides ; hence it is inconsistent with demonstration, the latter being one of these.

CHAP. XXXI.—1. We do not possess scientific knowledge through sensation, neither is sense science, though they are employed about the same things, for sense apprehends particularly, science universally.

2. The universal exceeds the scope of sensuous perception as to its ascertainment, the perception of the senses being limited by time and place, while science is not so restricted.

3. Nevertheless, certain things are unknown from a deficiency of sensible perception.

CHAP. XXXII.—1. It is impossible that there should be the same principles of all syllogisms, since neither are there the same of even all the true conclusions: principles are not much fewer than conclusions, which latter are infinite: moreover, some principles are from necessity, others contingent.

2. To demonstrate any thing from all things, is not the same with investigating whether there are the same principles of all.

3. Principles are two-fold ($\epsilon\xi \delta\nu$) and ($\pi\epsilon\rho\iota \delta$).

CHAP. XXXIII.—1. A difference between science and opinion consists in the former being universal and subsisting through things necessary; the principle of science is intellect, because of our cognizance of axioms by it; opinion, on the contrary, is conversant with the non-necessary.

2. Both he who knows, and he who opines, follow through media, to the immediate.

3. Science and opinion are not conversant with the same subject altogether, the subject of the one being certain, of the other uncertain.

4. We cannot at one and the same time both know and opine, i. e. the same man cannot.

5. The distinction between discourse, intellect, science, art, prudence, wisdom, belongs partly to the physical, partly to the ethical, theory.

CHAP. XXXIV.—1. Sagacity ($\alpha\gamma\chi\iota\nu\omicron\lambda\alpha$) is defined to be a certain happy extempore conjecture of the middle term.

BOOK II.

- CHAP. I.—1. THE subjects of scientific investigation are four, viz. “that a thing is;” “why it is;” “if it is;” “what it is.”
- CHAP. II.—1. The preceding four investigations may be reduced to two, concerning the middle term, if there be one, and what it is.
2. The middle is that which expresses the cause why the major is predicated of the minor.
3. We do not however investigate the middle, if the thing itself and its cause fall within the cognizance of our senses.
- CHAP. III.—1. Upon the difference existent between demonstration and definition, it may be observed that we cannot know by the latter every subject capable of the former, nor by demonstration every thing capable of definition; in fact, nothing capable of definition admits demonstration.
2. One part of a definition is not predicated of another.
3. Definition shows *what* a thing is, but demonstration *that* this is or is not of this: briefly, we cannot have both of the same thing.
- CHAP. IV.—1. In order to collect syllogistically what a thing is, the middle term should express the definition: he indeed who proves the definition by syllogism, begs the question.
- CHAP. V.—1. The method by divisions does not infer a conclusion, neither does he demonstrate who forms an induction.
2. By constant division, when a perfect definition is arrived at, we are said to arrive at the individual.
- CHAP. VI.—1. There is no demonstration of the definition, neither if one proposition defines the definition itself, nor by any other hypothetical syllogism.
- CHAP. VII.—1. By an inquiry into the method of concluding definition, it is shown that neither are syllogism and definition the same, nor of the same thing; also that definition does not demonstrate a thing, and that we can know what a thing is, neither by definition nor by demonstration.
- CHAP. VIII.—1. By an examination of the logical syllogism of what a thing is, it is proved that of what a thing is there is

neither a syllogism nor demonstration, but it is manifested by both.

2. To know what a thing is and to know its cause, are the same.

3. If the cause be different from the essence of which it is the cause, and be capable of demonstration, the cause must of necessity be a medium, and be demonstrated in the first figure.

4. Whatever we know accidentally *that* they are, we need not possess any means of knowing *what* they are.

CHAP. IX.—1. There are certain natures incapable of demonstration, hence their existence and “what they are” must be manifested after a different manner, e. g. by induction: of those which have a cause different from themselves, we may produce a manifestation by demonstration, yet not by demonstrating *what* they are.

CHAP. X.—1. Definition being said to be a sentence explanatory of “what a thing is,” one kind of it will be of what a name signifies, or another nominal sentence: hence definition either explains the name of a thing or shows its cause; in the one case, there is signification without demonstration, in the other a demonstration of what a thing is, differing however from demonstration in the position of the terms; wherefore,

2. One definition is an indemonstrable sentence, significative of essence: another, a syllogism of essence differing from demonstration in case; a third, is the conclusion of the demonstration of what a thing is.

CHAP. XI.—1. There are four causes of things, which are all expressed by the middle term, viz. the formal, the material, the efficient, and the final cause.

2. The same thing may sometimes possess two causes: so nature produces one thing for the sake of something, and another from necessity.

3. Necessity also is two-fold, one according to nature and impulse (*ὄρμη*), another with violence contrary to impulse.

4. In things from reason, some never subsist from chance, nor from necessity, whilst others are from fortune; from this last, nothing is produced for the sake of something.

CHAP. XII.—1. As to the causes of the present, past, and

future, it is observable that causes and effects are properly simultaneous, and the posterior is not collected from the prior. The medium also must be simultaneous with those of which it is the medium.

2. In the cases of past and future, some principle or first must be taken; and of things which are not universally, but usually, the principles should be non-necessary, yet for the most part true.

CHAP. XIII.—1. In investigation of definition, we must notice a division of things as to extension, since some which are always present with each individual, extend more widely, yet not beyond the genus of the subject: by wider extension is meant, that some are present with each individual universally, yet also with another thing.

2. To attain definition, such must be taken as are each severally of wider extension than, yet all together equal to, the thing to be defined.

3. In investigating the definition of a subaltern species, we should divide the genus into the individuals which are first in species, then endeavour to assume the definitions of these, next assuming in what category the thing defined is contained, examine the peculiar passions of the first species through principles common to the first and remaining lowest species.

4. Differential division is useful to the above process, but attention must be paid to whether the predicate be applied prior or posterior.

5. Nevertheless, it is not requisite that he who defines should know all other subjects, from which he distinguishes the thing defined.

6. In divisional definition we must attend to three things, viz. assume the things predicated in respect of what a thing is; arrange these as to first and second; and notice that these are all.

7. We must in our process, regard those which are similar, and do not differ, considering their point of similarity, then again, in those generically the same with them, until we arrive at one reason, which will be the definition of the thing.

8. If we do not arrive at one, but at two or more, the question will not be one, but many.

9. Every definition is universal, but the especially universal is most difficult to be defined.

10. Perspicuity is particularly necessary in definition, wherefore metaphors are not to be employed in it.

CHAP. XIV.—1. Division is necessary, in order rightly to appropriate problems to each science; first, by the common properties of the genus, then by those of the first species, also if there be any thing common without a name, we must yet assume it, in order to investigate its properties, see to what species it is attributed, and the quality of the things consequent to the anonymous genus. There is, lastly, another mode, viz. by analogy, i. e. to assume a common analogous thing.

CHAP. XV.—1. Problems are identical, which have either the same middle term, or of which the one is subject to the other.

CHAP. XVI.—1. It may be doubted whether when the effect is inherent, the cause is also; this difficulty is solved by the rule, that the middle term should always express the cause of the inference.

2. There is only one cause of one and the same thing, from which it is inferred.

CHAP. XVII.—1. If the same thing be predicated of many, except there is an accidental demonstration, it must be shown from the same cause.

2. If the conclusion is equivocal, the middle term will be so.

3. Things analogically the same will have also the same medium by analogy.

4. The major term ought to equal the minor in extent, although it ought to exceed the individuals comprehended.

5. If the same be predicated of things specifically different, it can be demonstrated by diverse middle terms.

CHAP. XVIII.—1. Upon cause to singulars, observe that the middle term ought to be the nearest to the singular, to which it is cause.

CHAP. XIX.—1. In reply to the questions whether the knowledge of immediate principles be the same or not, with a knowledge of the conclusion: also whether there is a science of each, or a varied science of either; lastly, whether

non-inherent habits are acquired, or when inherent are latent, the following observations may be adduced.

2. The habit of principles can neither be possessed nor ingenerated in the ignorant, and in those who have no habit, wherefore it is necessary to possess a certain power.

3. An innate power, called sensible perception, is inherent in all animals.

4. Sense being inherent in some, a permanency of the sensible object is engendered, but in others it is not; the latter have no knowledge without sensible perception, but others perceiving, retain one certain thing in the soul.

5. Hence it follows that with some, reason is produced from the permanency of such things, in others it is not.

6. From sense, memory is produced, and from repeated remembrance of the same thing we get experience, and from experience, the principle of art and science arises, of art, if it be conversant with things perishable, but if with being, of science.

7. Definite habits are neither inherent nor produced from other habits more known, but from sensible perception.

8. The soul can retain many successive images: the universal first exists in it, when one thing without difference abides; primary things however become known to us by induction, so that thus the universal is produced by sensible perception.

9. Of the habits conversant with intellect by which we ascertain truth, some are always true, as science and intellect, others admit the false, as opinion and reasoning: intellect is the only kind of knowledge more accurate than science.

10. Intellect alone is conversant with, and itself the principle of, science; moreover, all science through demonstration knows the objects of science.

THE TOPICS.

BOOK I.

INTRODUCTORY.—THE object and title of the Topics have been so fully expounded in the note appended to the opening

chapter, in the body of this work, that a brief summary here of the chief divisions will suffice.

The professed design is "to show a method by which a man may be able to reason with probability and consistency upon every question that can occur." Now every question either concerns the genus of the subject, its specific difference, something proper, or something accidental to it. Moreover, dialectic argument may be reduced either, first, to probable propositions suitable to an argument upon occasion; secondly, to distinctions of words nearly of the same signification; thirdly, to distinction of things so far allied as that they may be mistaken for identical; fourthly, to similitudes. The first book therefore treats of the design of this treatise, the distinction between the different syllogisms, propositions, categories, and the various predication of the word "same;" also of dialectic, problem, and thesis, with the means adapted to the provision of syllogisms, inductions, and propositions; the purport of the subsequent books will be successively prefixed to each. It is well remarked by Dr. Reid, that though in the enumeration of Topics, Aristotle has shown more the fertility of genius than the accuracy of method, yet he has furnished the materials from which Cicero, Quintilian, and other rhetorical writers have borrowed their doctrine of "Loci."

CHAP. I.—1. The purpose of this treatise is to discover a method, by which we shall be able to syllogize about every proposed problem from probabilities, and that when we ourselves sustain the argument, we may assert nothing repugnant. As a preliminary then, it is necessary to declare the nature and differences of syllogism, in order to apprehend the dialectic syllogism which is investigated in the following treatise.

2. A syllogism is a discourse in which certain things being laid down, something different from the posita happens from necessity through the things laid down.

3. Demonstration is when a syllogism consists of things true and primary, or of such as assume the principle of the knowledge concerning them through certain things primary and true, i. e. such as obtain belief, not through others, but through themselves.

4. The dialectic syllogism is that which is collected from probabilities.

5. Probabilities are those which appear to all, or to most men, or to the wise, and to these either to all or to the greater number, or to such as are especially renowned or illustrious.

6. A contentious syllogism is one constructed from apparent but not real probabilities, and which appears to consist of probabilities, or of apparent probabilities.

7. Paralogisms consist of things appropriate to certain sciences, and are effected by making a syllogism from assumptions appropriate to science, yet not from the true.

8. It is not intended in the following discourse to deliver an accurate detail of these, but merely to run through them briefly, it being deemed sufficient according to the proposed method in some way to be able to know each of them.

CHAP. II.—1. This treatise is usefully employed for exercise, conversation, and philosophical science; for the first, because we shall hence more easily argue upon every proposed subject; for the second, because, having enumerated the opinion of the many, we shall converse with, and confute their errors, not from foreign, but from appropriate dogmas; and for the third, because, being able to dispute on both sides, we shall more easily perceive in each the true and the false. It is also applicable to the first principles of each science, as it is the peculiarity of dialectic, from its investigative character, to possess the way to the principles of all methods.

CHAP. III.—1. He is a skilful dialectician, who can effect a selected purpose by the application of every possibility.

CHAP. IV.—1. As to the particulars of this method, it is found that the concomitants of arguments and of syllogisms are equal and identical in number; arguments indeed being constructed of propositions, and syllogisms being conversant with problems.

2. Every proposition and problem enunciates either genus, property, accident, or definition; difference, being generic, is placed together with genus.

3. Each of these per se is neither a problem nor a pro-

position ; moreover, problem and proposition differ in mode, and from the latter you can make the former, by changing the mode.

CHAP. V.—1. Definition is a sentence signifying what a thing is, and either a sentence is employed for a noun, or a sentence for a sentence, since we may define some things which are signified by a sentence. Such, however, as in some way or other make the explanation by a noun, do not explain the definition of the thing, though we may refer these to definition.

2. Property is that which does not show what a thing is, but is present to it alone, and reciprocates with it.

3. Genus is what is predicated of many things different in species, in answer to what a thing is, i. e. which is fitted to answer the person inquiring what the thing is. It ought also to be discussed by the same method as genus, whether one thing is in the same or in a different genus with another.

4. Accident is neither of the above, yet is present with a thing. It is that also which may be so or not, this last definition is the better, being self-sufficient for the knowledge "per se" of what accident is.

5. To accident, comparisons belong of things with each other in whatever way they are derived from accident.

6. Accident may sometimes and with reference to something become property, though simply it is not so.

CHAP. VI.—1. Whatever is advanced against genus, property, and accident, is subversive of definition, but we must not therefore on this account look for an universal method.

CHAP. VII.—1. "Same" (*τὸ ταὐτόν*) may appear to be divided as to predication triply, viz. as to number, species, or genus ; those however are especially called "same," which do not differ in number, and this is attributed most properly in name or definition ; secondly, in property ; thirdly, from accident.

CHAP. VIII.—1. It may be proved by induction and syllogism that all questions belong to definition, genus, property, or accident.

CHAP. IX.—1. As the genera of the Categories are ten, so the definition will always be in one of them.

CHAP. X.—1. A dialectic proposition is an interrogation, probable either to all, or to most, or to the wise. Dialectic propositions also are both those which resemble the probable, and which are contrary to those which appear probable, being proposed through contradiction, and whatever opinions are according to the discovered arts.

2. The probable, in comparison, will appear to be the contrary about the contrary.

CHAP. XI.—1. The dialectic problem is a theorem, (i. e. a proposition whose truth is to be inquired into,) tending either to choice and avoidance, or to truth and knowledge, either per se, or as co-operative with something else of this kind, about which the multitude either hold an opinion in neither way, or in a way contrary to the wise, or the wise to the multitude, or each of these to themselves.

2. A thesis is a paradoxical judgment of some one celebrated in philosophy, since to notice any casual person setting forth contrarieties to common opinion is absurd; or a thesis is an opinion of things, concerning which we have a reason contrary to opinions.

3. A thesis also is a problem, yet not every problem is a thesis, since some problems we can form an opinion about in neither way; almost all dialectical problems are called theses; neither, however, need be here severally considered.

4. We need not discuss those things of which the demonstration is at hand, nor those of which it is very remote.

CHAP. XII.—1. In distinguishing how many species of dialectic arguments there are, it is observed that one is induction, but the other syllogism, and the latter having been described before (top. ch. i.) the former (induction) is here defined to be a progression from singulars to universals. It is also more persuasive, clearer, more known according to sense, and common to many things: syllogism, on the other hand, is more cogent and efficient against opponents in disputation.

CHAP. XIII.—1. The instruments by which we abound in syllogisms are four, viz. 1st, To assume propositions; 2nd, To be able to distinguish in how many ways each thing is predicated; 3rd, To discover differences; 4th, The consideration of the similar.

2. In a certain way there are three propositions from these ; i. e. distinction of what is predicated in many ways ; the discovery of difference ; the examination of similarity.

CHAP. XIV.—1. Propositions must be selected in as many ways as there has been difference about proposition, proposing contradictorily those which are contrary to the apparently probable, and selecting not only the probable, but those also which resemble these.

2. We must take as principle and as apparent thesis, whatever is seen in all or in most things.

3. We must select from written arguments, but descriptions must be made supposing separately about each genus.

4. The several opinions also are to be noted, of celebrated men.

5. Comprehensively there are three parts of propositions and of problems, viz. ethical, physical, and logical : it is not easy to define what the quality of each is, but we must learn their distinctive character by habit, arising from induction.

6. As to philosophy, these propositions must be discussed according to truth ; but as to opinion, dialectically.

7. Propositions must be assumed as universal as possible, many singulars being made one universal, subsequently employing division, as far as possible.

CHAP. XV.—1. The disputant should be acquainted with the various significations of a word, and the reason of them.

2. Ambiguity must be discovered from the diversity of contraries.

3. In some cases there is no dissonance in names, but their difference is at once palpable in species.

4. We must consider if there be any thing contrary to the one, but nothing simply to the other.

5. We must also consider the media, whether there is a certain medium of some, but not of others ; or whether there is of both, yet not the same.

6. Moreover, if there is various predication in the contradictory.

7. We must also notice the same in those predicated according to privation and habit.

8. Also whether there is any ambiguity in case.

9. Whether the word belongs to the same category.

10. Consider also the genera of those under the same name, whether different and not subaltern.

11. If the contrary is variously predicated, the proposition also will be, hence the former must be regarded.

12. Examine the definitions of the composite.

13. Also the definitions themselves.

14. Whether comparison subsists as to the more or similar.

15. Whether those under the same name are the differences of different and not subaltern genera.

16. Whether of those under the same name there are divers differences.

17. Whether of those under the same name, one is species, but the other difference.

CHAP. XVI.—1. The differences of genera themselves are to be observed with respect to each other.

CHAP. XVII.—1. Similitude, in the case of things of different genera, must be considered thus: as one thing is to another, so is another to another; and as one thing in a certain other thing, so is another in another.

2. As to those things which are in the same genus, we must observe whether something identical is present with all.

CHAP. XVIII.—1. To have considered in how many ways a thing may be predicated, is useful. 1st, For perspicuity. 2nd, For syllogistic construction against the thing itself, and not merely against the name. 3rd, For avoidance of paralogism against ourselves, and for the employment of it against others: observe, arguing against a name must be altogether avoided by dialecticians, unless the proposition cannot otherwise be discussed by any one.

2. Discovery of differences, is useful to form syllogisms of the same and the different, and for the knowledge of what each thing is.

3. Speculation upon the similar, is useful for inductive and hypothetical syllogisms, and for the statement of definitions.

4. From the above statements, it is concluded that the number of instruments by which we abound in syllogism is correctly declared to be four, as given at ch. xiii.

BOOK II.

INTRODUCTORY.—THIS book relates to the conversion of the accidental, to problematical errors, to places belonging to name, genus, etc., and to affirmative and negative argument relatively; also to contraries and similars, and to arguments drawn from addition, and from what is simply.

CHAP. I.—1. Problems are either universal or particular, and to both of them those things are common which universally construct and subvert; the universally subversive are to be first discussed.

2. It is most difficult to convert an appropriate appellation derived from accident, as to be inherent partly is possible to accident only, and we must convert from definition, proposition, and genus.

3. There are two errors occurrent in problems, either from false assertion, or a departure from the established mode of speaking.

CHAP. II.—1. Of the "places" belonging to problems of accident, one is, to prove that has been assigned as accident which is present in some other mode.

2. Also to examine the subjects of predication, beginning from firsts, as far as individuals: this place converts to confirmation and refutation.

3. To make definitions both of accident and its subject, either of both severally or of one of them, then to observe when any thing has been assumed as true which is not true in the definitions: we must also assume definitions instead of the names in definitions, not desisting until we arrive at what is known.

4. Change the problem into a proposition previous to objecting to it, as the objection will be an argument against the thesis.

5. Define what kind of things we ought, and what we ought not to denominate, as the multitude do, and this place is useful for confirmation and subversion.

CHAP. III.—1. If an ambiguity of expression escape our opponent, we must employ the sense most adapted to our own position.

2. If it does not escape him, we must distinguish the various senses of predication.

3. Where there is not equivocation, yet in all cases the different relative and actual senses have to be considered.

CHAP. IV.—1. An intelligible name is to be adopted in the place of an obscure one.

2. To prove the presence of contraries, genus must be regarded; the demonstration being from the genus concerning the species, and vice versâ: the former place is false for confirmation, but true for subversion; the latter is the reverse.

3. Of what genus is predicated, some species will be, and if no species is, no genus can be: hence if any position denominated from genus be taken, we must consider its specific possibility.

4. Definitions of the subject matter must be examined.

5. Also the consequences of the proposition subsisting must be noticed by the subverter, and the confirmer must remark to what the proposition will belong.

6. Time is to be attended to, if it is any where discrepant.

CHAP. V.—1. It is a sophistical place to draw off our opponent to our own strong point, which topic is sometimes really, sometimes apparently, at others neither really nor apparently necessary: the last mode we must be cautious about, as it seems foreign from dialectic.

2. If the consequent be subverted, the original proposition is, yet we must take care not to make a transition to what is more difficult, as sometimes the consequent, at others the proposition itself, is easier of subversion.

CHAP. VI.—1. If one of two things concerning a matter be predicated, the same argument comprehends both; i. e. in those with which one thing alone can be present.

2. We must argue by transferring the name to the meaning, as being more appropriate to assume, than as the name is placed.

3. A place is afforded for argument by distinction between necessary, general, and casual subsistence, being instituted.

4. Consider whether notions only nominally different be stated as accidents to each other.

CHAP. VII.—1. Of many propositions contrary to the same, we assume that which especially suits our position; it is to be remembered here, that contraries are united to each other in six ways, but produce contrariety when united in four; the two first conjunctions not producing contrariety, which is effected only by the remaining ones.

2. If any thing is contrary to accident, observe whether it is present with what the accident is said to be present with.

3. Also whether any thing has been predicated, from which existing, contraries follow: e. g. if ideas exist, they will be both moved and be at rest, also be both sensible and intelligible.

4. Whether an accident to which there is a contrary, takes the contrary also, which contains the accident; this place is chiefly useful to the subverter.

CHAP. VIII.—1. We must employ the four kinds of opposition, so as to see whether if A follows B, non-A also follows non-B.

2. Also notice whether the contrary follows the contrary, directly or inversely.

3. In privations and habits we must make an examination, as in contraries, but in privations the inverse does not occur, but the consequence is necessarily direct.

4. Relatives are to be used similarly to habit and privation; an objection which however appears fallacious may perhaps be urged; that there need not be a consequence in relatives.

CHAP. IX.—1. What is proved of one derivative of the same word, is proved at the same time of all.

2. Things efficient and conservative are co-elementary with their products.

3. Remark whether the contrary is predicated of the contrary, (vide ch. viii.,) for as a principle the contrary follows the contrary.

4. We must collect from the generation and corruption of a thing, whether itself be good or bad.

CHAP. X.—1. Observe whether similars are enunciated of

similar, and what is predicated of the one, be also truly said of the many.

2. Arguments must be derived from the more and less, of which there are four places :

1. If the more follows the more.

2. When one thing is predicated of two, if it is not present with the more probable to possess it, it will not be with the less, and in the same way affirmatively if present with the less, it will be with the more.

3. When two things are predicated of one, if what appears more present is not, neither will the less be ; or if the less apparent be, a fortiori, the more apparent will be.

4. When two are predicated of two, if the more apparently present with the one is not so, neither will the remainder be with the remainder ; or if what appears less present with the other is present, the remainder will be with the remainder.

3. Argument is derivable triply from similitude or analogy, as in the cases of the more present.

CHAP. XI.—1. If an addition is made affecting the quality, what is added will partake of the same quality. This place is useful in those cases wherein there happens to be an excess of the more, but it does not convert for subversion.

2. Whatever is predicated comparatively, will also be so simply, yet neither is this place useful for subversion.

3. What subsists at some time and place, and according to something, is also possible simply ; also as to the when and the where, what is simply impossible is neither possible as to any thing, nor any where, nor at any time.

BOOK III.

INTRODUCTORY.—THIS book refers to Topics connected with the more eligible and the better.

CHAP. I.—1. In the consideration of the eligible, we do not notice things vastly diverse, but those which are near and about the eligibility of which we doubt : the most excellent is the most eligible.

2. The more durable, the more certain, that which a wise or good man would choose, or upright law, or the

studious, or the scientific, or the greater number, or all would prefer, such constitute the more eligible.

3. Simply the more eligible is that which is according to the better science, but to a certain one that which is according to his proper science.

4. What is in genus is preferable to what is not in it.

5. Also what is chosen for itself: and what is per se to what is accidental. The cause also per se of good is preferable to the accidental cause.

6. What is simply good is more eligible than what is so to a certain person.

7. Also what is naturally good.

8. Also what is present with the more honourable.

9. Also the property of the better is preferable to that of the worse.

10. Also whatever is in the better or the prior.

11. Also the end to the means.

12. Also what more approximates to the end.

13. The possible to the impossible, and when there are two efficient, that of which the end is better: these however we must consider from analogy.

14. The more beautiful per se, and the more honourable and praiseworthy.

CHAP. II.—1. We must judge of the excellence of things by their consequents positively and negatively. This investigation is two-fold, since it follows both the prior and posterior.

2. More goods are preferable to fewer, either simply or when some are inherent in others, viz. the fewer in the more.

3. A thing at its acme of potentiality is more eligible.

4. Whatever is useful at all or at most times.

5. What is sufficient of itself when all possess it.

6. Arguments may be derived as to the more eligible from corruptions, rejections, generations, assumptions, and contraries.

7. The nearer to the good is preferable; also the more similar to it, and what is more similar to the better than itself.

8. Ascertain whether the similar exists in things more ridiculous.

9. Compare relative excellence of the object resembled, since that will be better which more resembles the better.

10. Examine if the resemblance to the better be in something inferior.

11. The more illustrious is preferable to that which is less so.

12. Also the more difficult.

13. The less common.

14. The less connected with evil.

15. The best in the simply better.

16. What our friends can share.

17. What we would rather do for friends.

18. Things from abundance are better than such as are necessary, yet sometimes those which are better are not also more eligible.

19. What cannot be supplied by another is more eligible than what can be.

20. What we chiefly desire to be present to us.

21. The absence of which we less reprove persons for lamenting.

CHAP. III.—1. Of things under the same species, that which possesses its own proper virtue is preferable to that which does not, but when both possess it, that which has it in a greater degree.

2. That whose presence produces good, or the greater good.

8. Judgment of the preferable is to be formed from cases, uses, actions, and works, and these last from those of which they are the cases, etc.

4. The greater good of the same thing is preferable, or if it is the good of the greater.

5. If two things are preferable to a certain one, the more eligible is preferable to the less so.

6. Again, that of which the excess is more eligible.

7. That which a man would rather procure through himself, than what he procures through another.

8. Judgment must be formed from additions, with care, however, against the proposition of such things in which what is common is employed.

9. The same must be done from detraction.

10. Also if one is eligible per se, but the other on ac-

count of estimation, i. e. such as if no one were conscious, we should not endeavour to obtain.

11. If one be eligible for both the last, but the other for one only.

12. The more honourable for its own sake is more eligible, i. e. that which, nothing else resulting, we should rather prefer for its own sake.

13. Notice in how many ways the eligible is predicated, and "quorum gratiâ."

14. What is desired is more eligible than what is indifferent.

CHAP. IV.—1. The places last enumerated are useful for showing whatever is to be chosen or to be avoided.

CHAP. V.—1. Places pre-eminently universal are to be assumed of the more and greater, as they will be useful for more problems: we may render some more universal by slightly changing the appellation.

2. Causes also are to be distinguished.

3. If of the same thing one is more, but another less such.

4. A topic of this kind is derivable from addition.

5. And from detraction.

6. Things more unmixed with contraries are more such.

7. Also what is more receptive of the definition.

CHAP. VI.—1. If the problem be laid down partially, all the above-mentioned universal places are useful, whether confirmatory or subversive.

2. Those places are especially suitable which are assumed from opposites, co-ordinates, and cases.

3. A topic is derivable from the more, and the less, and the similarly.

4. We may subvert not only from another, but from the same genus.

5. Also from hypothesis.

6. The indefinite can be subverted in one way only, but confirmation is possible in two ways.

7. When the thesis is definite, we may subvert in two ways, or in three, or in four.

8. We must attend to singulars as to things inherent; also to genera, employing specific division.

9. Besides, in what things we may define accident, we must see if no one of these is present.

BOOK IV.

INTRODUCTORY.—THIS book refers to the Topics of genus and species, similitude, and relation.

CHAP. I.—1. In considering topics relative to genus, we may observe that the latter is deceptively assumed, if it applies not to every thing in the same species with that of which it is predicated.

2. Notice whether it is predicated as accident, regarding especially the definition of accident, if it concurs with the stated genus.

3. Also whether the genus and species are not in the same category, since universally speaking, genus must be under the same division as species.

4. Whether the definition of species is predicated of genus.

5. If the genus is not predicated of what the species is.

6. If what is contained in the genus is subject to no species.

7. If what is placed in genus is of wider extension than, or equal to, the genus itself.

8. If what are in the same species are not in the genus.

CHAP. II.—1. Consider whether there is any other genus of the assigned species, which neither comprehends the assigned genus nor is under it.

2. Examine the genus of the assigned genus, and always the superior genus, whether all things are predicated of the species, in reply to what a thing is.

3. Whether the genus partakes of the species, either itself or any of the superior genera.

4. Whether the assigned genus is predicated of the same as the species is predicated of, in reference to what a thing is; also whether all those things which are above the genus.

5. Whether the definitions of the genera are predicated of the species and its subjects.

6. Whether difference has been assigned as a genus or as a species.

7. Whether genus is placed in species.

8. Or whether difference is so placed.

9. Whether genus is made subject to difference.

10. Or genus predicated as difference.
11. Whether no difference of genera is predicated of species.
12. If species is naturally prior to the genus.
13. Or the genus and difference are not necessarily joined to the species.

CHAP. III.—1. Genus is erroneously assigned, if its subject partake either of some contrary to genus or of what cannot be joined to it.

2. Observe whether the species is equivocal with the genus.
3. And if there be not another species of the proposed genus.
4. Observe also if genus has not been taken in its right sense, but something proposed as genus, which is spoken of metaphorically.
5. Also if any contrary exist to species, which consideration is multifarious.
6. The genus is rightly constituted if there be a contrary to species.
7. Both the subverter and confirmer must notice cases and co-ordinates, whether they are similarly consequent.

CHAP. IV.—1. Arguments may be obtained from similars.

2. If privation be opposed to species, we may confute in two ways: first, If the opposed be in the assigned genus; secondly, If privation be opposed both to genus and species, but the thing opposed is not in the opposite, since neither will the thing assigned be in the assigned.
3. Negatives must be considered inversely, as in the case of accident (vide b. ii. ch. 8).
4. Of expression by relation, if species be relative, genus also is, but not vice versâ.
5. Notice whether species is not referred to the same thing both per se and according to genus.
6. Or according to all the genera of the genus.
7. Whether genus and species are predicated in the same manner as to case.
8. Whether those similarly called relatives as to cases do not alike reciprocate.
9. In as many ways as species is referred to another thing, in so many also ought genus to be, and vice versâ.

10. Notice whether the opposite is the genus of the opposite.

11. If genus and species are stated as related to something, they ought to have the same ratio to those in which they are inherent.

CHAP. V.—1. The following errors are committed by some in points relative to genus.

1st, They refer habit to energy, or energy to habit.

2nd, Or arrange habit under consequent power.

3rd, Or admit as genus what is in some way consequent to species.

2. Genus and species ought to be inherent in the same thing.

3. Species ought to participate of genus "simply," not "quodammodo."

4. Sometimes by mistake men take a part of species for genus.

5. Notice if any thing culpable or to be avoided is referred to power or to the possible.

6. Or if any thing honourable "per se" is referred to power or to the effective.

7. An error is incident to those who assign genus as difference, and vice versâ.

8. Also to such as make the thing affected the genus of the affection.

9. Or declare that of which there is passion to be the genus of the passion.

CHAP. VI.—1. Examine whether the proposed genus possesses subject species.

2. Whether also the consequent of all has been taken as genus or difference.

3. Whether the assigned genus is stated to be in the subject species.

4. Or whether genus and species are not synonymous.

5. Error occurs if the better of two contraries be assigned to the worse genus.

6. The subverter may argue from the more and less, if genus accepts the more, but species does not, neither itself, nor what is enunciated according to it.

7. If the more or similar be not genus, neither is that

which is assigned. The above place is not useful to the supporter, if the assigned genus and species accept the more, yet the comparison of genera and species with each other is useful.

8. To establish genus, we must show that it comprehends species with whose nature it concurs.

9. Genus must be distinguished from difference, by employing the elements mentioned in ch. ii.; first, because genus is more widely extended than difference; next, because genus is more suitable to enunciate, in answer to the question, "What a thing is;" thirdly, because the difference always signifies the quality of the genus, but the genus not that of the difference.

10. The genus must be collected from the noun and its derivatives.

11. Examine whether one is a consequent to the other, whilst the two do not reciprocate: the disputant must employ this place, as if genus were that which is always consequent when the other does not reciprocate, but must object to this argument if advanced by the other side.

BOOK V.

INTRODUCTORY.—THIS book consists of an examination into whether what is asserted be, or be not, property.

CHAP. I.—1. Property is assigned either "per se" and always, or with reference to something and sometimes.

2. The property assigned with reference to something else, if it be affirmed of one thing, but the same denied of another, produces two problems; but if each be affirmed and denied of each, it will produce four problems.

3. That is property "per se" which is attributed to all, and separates from every thing.

4. Property with relation to another is that which does not separate from every thing, but from a certain definite thing.

5. Property "always" is what is true at all times and never fails.

6. Property "sometimes" is that which is true at a certain time, yet does not always follow from necessity.

7. Property may be assigned with reference to something else, when difference is asserted to be either in all and always, or for the most part and in most.

8. Properties are especially logical, which are "per se," and always, with reference to something else: that also is a logical problem in reference to which, numerous and good arguments may be framed.

CHAP. II.—1. What constitutes a good exposition of property is its being more evident than its subject.

2. Assignment of property is subverted if there be some name assigned in it, of multifarious predication, or if altogether the sentence signifies many things.

3. Also if there is multifarious predication of the subject.

4. Also if there be frequent repetition, which happens either when we often denominate the same, or when any one assumes definitions instead of names.

5. Also if that be in the property which is common to all.

6. And if many properties are assigned of the same thing, without distinction.

CHAP. III.—1. The subverter must remark whether the thing itself is contained in its assigned property.

2. Also whether the opposite to the thing itself, or what is less clear than the latter, be taken as the property, or in short, what is naturally simultaneous or posterior.

3. And whether that is assigned which is not always joined to the thing.

4. And whether the assigner of a *present* property does not distinguish time.

5. Whether what is only evident by sense, is assigned.

6. Whether definition is assigned as property.

7. Whether it does not necessarily consist with the very nature of a thing.

CHAP. IV.—1. As to the question whether the assigned be property or not, it is observed that it is not so, if it does not concur with every individual.

2. Also if the name be not verified of what the sentence is, and vice versâ.

3. And if the subject be assigned as the property.

4. And if that is assigned as a property which the thing partakes of, as a difference.

5. Or if the property cannot be at the same time inherent in, but either prior or posterior to, that of which it is the name.

6. Or if the same thing be not the property of the same things, so far as they are the same.

7. And if of things the same in species, the property is not always specifically the same.

8. It being difficult when "*same*" and "*different*" are sophistically assumed, to assign the property of some one thing alone, a person may object to many of these properties, if he make one subject subsistent "*per se*," but another with accident. Still in confirming we must state that that to which a thing happens and the accident, taken together with that to which it is accidental, are not different simply, but are said to be so from their essence being different. Cases also are to be inspected.

CHAP. V.—1. Observe whether for that which is always the property, something be assumed which is joined to the very nature of a thing.

2. Whether that whose property is assigned be predicated of some other first, or another of itself as first.

3. Whether the manner and subject of the property be accurately defined, as either *naturally* inherent, or from possession, participation, in species, and simply.

4. Property is subverted, if a thing is assigned as the property of itself.

5. Observe whether in those things which consist of similar parts, the property of a part or of the whole be laid down.

CHAP. VI.—1. Observe whether of opposites the properties be opposite; of contraries, contrary.

2. Observe whether one relative is not the property of another relative.

3. Property is subverted, if what is predicated according to habit is not the property of the habit.

4. The subverter must consider a topic from affirmatives and negatives, for if the one be predicated as property, the other will not be property.

5. Whether things non-repugnant be assigned as property of repugnant subjects.

6. Whether the same property be assumed of things repugnant.

7. Whether of things of the same division, properties are assigned, so as not to keep the same order of division.

CHAP. VII.—1. Property is subverted also, if case is not the property of case; and if the case of the opposite is not the property of the case of the opposite.

2. Also if what subsists similarly is not the property of what has similar subsistence.

3. Also if what subsists after the same manner is not the property of what subsists after the same manner.

4. Also if what is said to exist is not the property of what is said to exist, neither will to be corrupted be the property of that which is said to be corrupted.

5. Observe the idea of the thing proposed, subverting, if it be not present with the idea.

CHAP. VIII.—1. Whether property is rightly assigned is known from things admitting degree.

2. The subverter must consider whether the simply is not the property of the simply, since neither will the more be that of the more.

3. If the more is not the property of the more, neither will the less be the property of the less.

4. It is subverted if it is not the property of which it is more the property, as neither will it be the property of that of which it is less the property.

5. Also if what is more the property of the thing is not its property, as neither will what is less so be its property.

6. A topic of subversion arises, if what is similarly the property is not the property of that of which it is similarly the property.

7. Also if what is similarly the property of a thing is not its property.

8. Also if it is not the property of what it is similarly the property. A difference arises between the topic from things similarly affected, and that from things similarly inherent, inasmuch as the one is, and the other is not considered, in respect of something being inherent.

CHAP. IX.—1. Property is subverted if assigned in capacity

to that which is not, but it is confirmed if assigned to that to which capacity may be present.

2. It is subverted if it is placed in hyperbole.

BOOK VI.

INTRODUCTORY.—This book refers to places connected with definition.

CHAP. I.—1. Definition is subverted in five ways, viz. 1st, If the sentence is declared to be predicated of what the name is; 2nd, If the thing defined is not placed in its appropriate genus; 3rd, If the sentence is not proper; 4th, If it does not state the nature of the thing defined; 5th, If it be not defined well.

2. Whether the sentence is not verified of what the name is, must be observed from topics of accident.

3. Whether the assigned definition is not in its proper genus, or is not proper, must be observed from topics of genus and property.

4. The remaining inquiry is about proper definition, or its subsistence at all.

5. The question of defining erroneously is resolvable into two parts: 1st, Whether obscurity is employed in the interpretation; 2nd, Whether the definition is stated more extensively than is requisite.

CHAP. II.—1. The place appertaining to obscure definition is if an equivocal statement be employed, or the thing defined be equivocal.

2. Also if it is spoken metaphorically.

3. Also if in unusual terms.

4. Also if an expression be used, not in its proper sense.

5. Also if the contrary is not intelligible from it, or the definition needs explanation.

CHAP. III.—1. As to superfluity in definition, we must see whether any thing is introduced which is present with all things, or with those which are under the same genus with the thing to be defined.

2. Observe whether any part of the definition being abstracted, the remainder defines the thing.

3. Moreover, whether there is any thing in the defini-

tion which cannot be predicated of all subjects of the same species.

4. Whether the same thing be stated frequently.

5. Whether what is universally asserted, adds also something particular.

CHAP. IV.—1. In considering whether a person has defined what a thing is or not, we may discover definition to be false, if it be not through things prior to, and more known than, the thing defined.

2. To assume that definition is not framed through things more known, is possible in two ways, either if it is simply from things more unknown, or from those more unknown to us: simply the prior is more known than the posterior, but the reverse sometimes happens to us.

3. A true definition is from things simply, and of themselves more known: nevertheless, though simply, it is better to aim at the knowledge of things posterior, through those which are prior, yet to persons incapable of knowledge through such, it is sometimes necessary to define through things known to them.

4. The constant ought not to be defined by the inconstant.

5. There are three modes of showing a definition to be not from things prior: 1st, If the opposite be defined through the opposite; 2nd, If the thing defined be used in the definition; 3rd, If what is in an opposite division be defined by what is in an opposite division.

6. The superior must not be defined by the inferior.

CHAP. V.—1. We must notice whether the genus of the thing to be defined is omitted.

2. Also if when the thing to be defined belongs to many things, it is not adapted to all.

3. It is erroneous in definition to refer the thing to the worse, and not to the better.

4. And not to place what is asserted in its proper genus.

5. Also omitting proximate genus to propose remote and superior genus.

CHAP. VI.—1. Consider as to differences whether those of genus are introduced, since it is an error in definition, not to define by the proper differences of a thing.

2. Observe whether any thing is divided oppositely to the difference stated.

3. Or if there be oppositely divided difference, which is not verified of the genus.

4. Or if it be verified, but the difference added to genus does not produce species.

5. It is an error to divide genus by negation; this place is useful against the theory of ideas: a person may, however, in some cases be obliged to use negation, as in privations, yet it makes no difference whether we divide genus by negation or by such an affirmation as to which it is necessary that negation should be oppositely divided.

6. Observe if species is assigned as difference.

7. Or if genus be assigned as difference.

8. Whether also the difference signifies this particular thing.

9. Or has the notion of accident.

10. Or if difference or species be predicated of genus.

11. Or genus of difference.

12. Or species of difference.

13. Whether also the same difference belongs to another genus.

14. Whether situation be assigned as the difference of substance.

15. Whether passion be assigned as difference.

16. It is erroneous to assign the difference of a certain relative, irrelatively to something else.

17. Observe whether the relation be apt.

18. Also whether the definition be of what is proximate.

19. Whether that is receptive, of which the thing defined is stated to be the passion or disposition.

20. Whether the ratio of time concurs with the thing defined.

CHAP. VII.—1. Observe if any thing else better expresses the nature of the thing to be defined, than the proposed definition.

2. Whether the definition admits degrees, whilst the thing defined does not, and vice versâ.

3. Whether both receive increase, yet not simultaneously.

4. Whether when two things are proposed, of what the thing defined is more predicated, that which is according to definition is less predicated.

5. Whether the one is similarly present with both, but not the other.

6. Whether the definition be adapted to several things according to each.

7. Whether there is any discrepancy in framing definitions of genera and differences.

CHAP. VIII.—1. Observe if the defined be referred to something, whether that to which it is referred has not been mentioned.

2. Whether a thing be referred to generation or energy.

3. Whether respect be had to quantity, quality, place, etc.

4. Whether in the definition of appetites, a notion of things of like species be added.

CHAP. IX.—1. Observe whether the definition of the contrary or of the cognates of the thing defined can be attained from the definition given.

2. Whether if the genus is referred to any thing, the species is referred to the species of the same.

3. Whether there is an opposite definition of the opposite.

4. Whether habit be defined by privation, or a contrary by a contrary.

5. Whether of what is privatively predicated, the subject is not assigned.

6. Whether that is defined by privation which is not privatively predicated.

CHAP. X.—1. Observe whether similar cases of the definition agree with similar cases of the noun.

2. Whether the definition accords to the idea.

3. Whether in things predicated equivocally a person has assigned one common definition of them all; for those are synonymous, of which there is one definition, according to the name, and the equivocal suits every thing similarly.

CHAP. XI.—1. Observe whether of composites defined, the individual members are rightly defined, the definition being divided.

2. Whether of a composite, the definition consists of as many members as the thing defined.

3. He errs who makes a change in definition, for names more unknown.

4. Observe in the change of names, whether a person does not signify still the same thing.

5. Whether in changing one of the names, a person changes not the difference, but the genus.

CHAP. XII.—1. The definition of difference being assigned, observe whether the assigned difference is common to any thing else.

2. Whether what is defined be existent, but what is expressed by the assigned definition be non-existent.

3. Whether in the definition of a relative, that to which the notion to be defined refers, is of too wide extension.

4. Whether the definition be assigned “non rei ipsius,” sed “rei perfectæ.”

5. Whether what is eligible “per se” is defined as though eligible “propter aliud.”

CHAP. XIII.—1. Observe whether he who assigns the definition of a certain thing, defines it as “these” things, or as that which consists of “these,” or “this together with that;” for whatever arguments may be adduced to prove the parts and the whole not identical, are useful, but those are especially appropriate in whatever the composition of the parts is evident.

2. If he defines the thing as not these, but something consisting of these (*hoc ex illis*), examine whether one certain thing is not naturally adapted to be produced from these.

3. Also whether the thing defined is naturally adapted to be in some one first, but those of which it is stated to consist, are not in some one first, but each in the other.

4. Or if the parts and the whole are in one first, whether they are not in the same, but the whole in one, and the parts in another.

5. Also whether the parts are destroyed together with the whole.

6. Or whether the whole be good or evil, but the parts neither, or vice versâ.

7. Or whether the one be more good than the other is evil, but what consists of these be not more good than evil.

8. Observe whether it be stated to consist of the better and the worse, of which the whole is not worse than the better, but is better than the worse, though it is questionable if this be necessary, unless those be of themselves good, of which the thing consists.

9. Whether the whole be synonymous with the other part, which it ought not to be.

10. Whether the mode of composition has been explained.

11. If "this" thing is assigned "with that" ("hoc cum illo"), we must first state that this is with that, or is the same with these, or because this is from those.

12. Distinguishing in how many ways one thing is said to be with another, observe whether this be in no way with that.

13. When distinction is made, if it is true that each is in the same time, observe whether it is possible that each may not be referred to the same thing.

14. Some cases indeed do not fall under the division mentioned, but constitute exceptions.

CHAP. XIV.—1. Observe whether in stating a composite, the definer has not added the quality of the compound.

2. He errs, who defines through one contrary alone, that which is capable of both.

3. If the whole definition is unassailable by a person, from the whole not being known, he must attack some part known, but apparently ill assigned.

4. This is necessary also, to correct and reform obscure definitions, in order to obtain an argument by rendering something evident; since the respondent must either admit what is taken up by the querist, or himself discover what the definition signifies.

5. As bad laws are abrogated for better, so good definitions must be substituted for bad.

6. It is useful to define with oneself sagaciously the proposition, or assume a definition which has been well framed.

BOOK VII.

INTRODUCTORY.—THIS book refers to the question of identity, also to places which confirm or subvert definition.

CHAP. I.—1. Identity must be considered from cases, co-ordinates, and opposites, for if one be the same with a thing, the other will be, and of opposites the opposites are the same.

2. Observe whether of those of which one is especially said to be a certain thing, another also is especially predi-

cated according to the same: note that each of those things which are said to be the greatest or the most eligible, must be one in number, if we would show that it is the same. Xenocrates errs in this omission, as to proving the identity of a happy and a worthy life.

3. Observe whether one of the things proposed is the same as a third thing, also whether another is the same with it, for if both are not the same with it, they are not identical with each other.

4. Observe from the accidents of these and from those things to which these are accidents, if there be any discrepancy.

5. Observe if both be in the same category, the same genus, and have the same differences.

6. If both are alike or simultaneously increased and diminished.

7. If both are equal when the same addition is made to them.

8. Whether also the consequences of both upon the given thesis or hypothesis be discrepant.

9. Whether the same things may be predicated of each, and they of the same.

10. Whether they are the same generically, or specifically, not numerically.

11. Whether one can subsist without the other.

CHAP. II.—1. The preceding topics are useful for the subversion, not the confirmation of definition.

CHAP. III.—1. As a preliminary to the topics necessary for confirmation of definition, we should know that few arguers syllogistically infer definition, but assume such a thing as a principle.

2. Next, it belongs to another treatise to assign accurately what definition is, and how it is necessary to define; now it is observed only as sufficient for our present purpose, that it is possible there may be a syllogism of definition, and of the very nature of a thing.

3. In contraries and opposites generally, we must observe whole sentences and according to parts, selecting from the many connexions of contraries, that definition which especially appears contrary.

4. Consideration, according to parts, must be carried on, first, by showing that the assigned genus is rightly assigned.

5. Contrary differences also are predicated of contraries, except the latter be of contrary genera.

6. We must argue from cases and conjugates, as genera follow genera, and definitions are consequent to definitions.

7. Also from things which subsist similarly as to each other, since the definition of one, will be that of each of the rest.

8. Moreover, from the more and the similar, in as many ways as it is possible to confirm, comparing two with two: when one definition is compared with two things or two definitions with one, the consideration from the more is of no use.

CHAP. IV.—1. The places stated and those from cases and conjugates, are the most appropriate, so that we should retain these and have them ready, and of the rest such as are chiefly common are efficacious.

CHAP. V.—1. It is easier to subvert than to construct definition.

2. Also it is easier to subvert than to confirm property, since the latter being for the most part assigned in conjunction of words, may be subverted by the removal of one word, but he who confirms must conclude every thing by syllogism.

3. Almost every thing else which may be said of definition, will also be suitably said of property.

4. Genus is confirmed only in one way, viz. by being shown present with every individual, but it is subverted in two, i. e. if it is shown not present with any, and not with a certain one. The confirmer must prove it inherent also as genus.

5. Accident, if universal, is more easily subverted: if particular, more easily confirmed.

6. Definition is the easiest of all to subvert, since many things being asserted in it, very many are given, by which it may be subverted: we may also argue against it, through topics of genus, property, accident, etc.

7. Against other things, we cannot assume arguments derived from definitions. Neither can we, except in definitions, argue from some things to others.

8. Of the rest, property is easiest to subvert, as it con-

sists of many things, for which reason also it is most difficult of confirmation.

9. Accident, of all, is the easiest to confirm, and the hardest to subvert, since only its inherency need be proved, and the fewest things are given in it.

BOOK VIII.

INTRODUCTORY.—THIS last book contains a digest of rules for syllogistical disputation, which are to be observed by the questionist and respondent, whence it is evident that not merely truth, but also victory was regarded by Aristotle as an object to be attained in controversy.

CHAP. I.—1. In consideration of order, and how we must interrogate, the querist must first discover a place whence he may argue; 2ndly, he must question and arrange the several particulars to himself; 3rdly, he should advance them against another person.

2. The discovery of the place pertains in its consideration alike to the philosopher and to the dialectician: the latter's peculiar province is to arrange and to interrogate, since this refers to another person, but the philosopher cares not whether the respondent admits his data or not, if they be only true and known.

3. There are certain propositions to be assumed besides such as are necessary, (i. e. through which a syllogism arises,) and these are four, viz. either for the sake of induction that the universal may be granted, or for amplification, or for concealment of the conclusion, or for greater perspicuity. Besides these, no proposition must be assumed.

4. The necessary propositions must not be advanced immediately.

5. They must be assumed either through syllogism or induction, or some by one and others by the other, except such as are very evident.

6. Whoever uses concealment must prove his data for the syllogism of the original proposition, by pro-syllogisms.

7. The conclusions of the pro-syllogism are not to be mentioned, but collected afterwards in a body.

8. The axioms are not to be taken continuously, but alternately mixed with the conclusions.

9. As far as possible an universal proposition is to be assumed in the definition, not in the things themselves, but in their conjugates.

10. We ought to propose as if we did not do so on account of the subject of discussion, but for something else, and generally concealment of the desired object of concession is to be observed.

11. We must interrogate through similitude.

12. In order to mask design, the interrogator should sometimes object to himself, so as to gain the appearance of candour.

13. Also affirm that his point is usually asserted.

14. Wear the appearance of indifference.

15. Propose as by comparison.

16. We ought not to propose what ought to be assumed, but that which this necessarily follows.

17. Let the querist ask that which he wishes especially to assume: against some persons such things must be proposed first.

18. Extend the discourse and insert things which are of no use to it.

19. Induction and division of things homogeneous are to be used for ornament.

20. Examples and comparisons are to be adduced for perspicuity.

CHAP. II.—1. Syllogism is to be used with dialecticians rather than with the multitude, but induction rather with the latter: in some cases he who makes an induction may interrogate the universal.

2. In order to prevent the deception incident to the assertion of similarity, the disputant must endeavour to assign a name.

3. When an induction being made in many things, a person does not admit the universal, the objection may be demanded: also it may be claimed that the objections be not alleged in the thing itself, unless there is only one such thing.

4. Against such as object to the universal, yet do not so in the same genus, we must interrogate by division.

5. If the objection impede the question, being made in

the same genus, we must remove the ground of objection and advance the remainder, making it universal.

6. This must also be done when there is a denial without an objection.

7. Direct demonstration is preferable to the deduction "ad absurdum."

8. Things are to be proposed which are difficult of objection.

9. The conclusion must not be made a matter of question.

10. Not every universal is a dialectic proposition, the latter being one to which we can reply "yes" or "no."

11. He interrogates badly who questions one reason for a long time.

CHAP. III.—1. Things naturally first and last are difficult to attack, but easy to defend.

2. Those proximate to the principle are difficult to be impugned.

3. These definitions are most difficult of attack which employ such names as render it uncertain whether they are predicated simply or multifariously, properly or metaphorically.

4. Every problem difficult of attack must be supposed to require definition.

5. Or as of those things predicated multifariously.

6. Or as not remote from principles.

7. Or from the mode to which we are to refer the doubt being obscure to us.

8. It is difficult to argue when the definition is badly enunciated.

9. The querist and the teacher are not similarly to require a thing to be laid down.

CHAP. IV.—1. It is the querist's duty to make the respondent assert absurdities: the respondent's, to remove the apparent absurdity from himself to the thesis.

CHAP. V.—1. As a different method in dispute is to be observed by the teacher, the contentious, and the inquirer, it is necessary to remark that the thesis laid down may be either probable, improbable, or neither: whichever it is, the querist always concludes its opposite.

2. In the case of improbable thesis, the respondent must

neither grant that which is not simply apparent, nor what is less so than the conclusion.

3. If the thesis be simply probable, the conclusion will be simply improbable: such a thesis must be laid down as is less improbable than the conclusion.

4. The same rule must be observed, if the thesis be neither.

5. If the thesis be simply probable or improbable, we must compare it with the apparently true: if it be neither, we must refer it to the respondent.

6. If the respondent defends another's opinion, we must affirm or deny with reference to the entertainment of strange theories.

CHAP. VI.—1. As to admissible points, if a statement be probable and irrelevant, we must admit it when stated to be probable: if improbable and irrelevant, we must admit it with an intimation of its improbability: if it be probable and relevant, we must allow its apparent truth, but state that is too near the original proposition, and that this being admitted, the position is subverted: if it be relevant, but improbable, we must assert its folly: if neither probable, nor improbable, nor relevant, we must grant it with no definition: if relevant, we must assert that from its being posited the original position is subverted.

2. They do not syllogize well, who argue from things more improbable than the conclusion.

CHAP. VII.—1. The respondent must acknowledge his incomprehension of the obscure.

2. He must also signify what is multifariously predicated, and why it is partly false and partly true, in order to prove that he perceived the ambiguity at first.

CHAP. VIII.—1. He argues perversely, who neither has any thing to urge against an induction, nor whence he can prove the contrary.

2. Perversity in argument is defined to be a responson, contrary to the stated modes destructive of syllogism.

CHAP. IX.—1. The disputant ought to set out to himself in argument the thesis and the definition.

2. But must not defend an improbable hypothesis.

3. An hypothesis is improbable, either from which ab-

surdities arise: or such as the more depraved dispositions select, and which is contrary to the will.

CHAP. X.—1. Such arguments as collect the false, must be solved by subverting the ground of the falsity.

2. There are four ways of preventing the conclusiveness of an argument, viz. either,

1st, By subverting the ground of the falsity.

2ndly, By objecting to the querist.

3rdly, By objecting to the questions made.

4thly, By reference to time: this is the worst objection.

3. Of the above, the first alone is a solution, the others are certain impediments to the conclusions.

CHAP. XI.—1. The reprehension of arguments themselves differs from that of the persons employing them, as sometimes the person questioned is the cause of erroneous discussion.

2. We must object sometimes to the speaker, sometimes to the thesis.

3. Arguments of this kind, being for the sake of exercise, the false must be sometimes collected and subverted, even through the false.

4. In transferring the reasoning, it should be done dialectically and not contentiously.

5. An argument may be bad, yet the questionist may conduct it well.

6. Bad arguments arise from men asserting contraries, and admitting what they at first denied.

7. Reprehensions of argument per se are five: viz. 1st, When nothing is concluded from the questions. 2nd, When there is no syllogism against the thesis, from the things and in the way described. 3rd, If there be a syllogism from additions, worse than those questioned, and less probable than the conclusion. 4th, If certain things are taken away, when more has been assumed than was necessary. 5th, If from things more improbable and less credible than the conclusion, or from things requiring more labour to demonstrate than the problem.

8. Argument may be reprehensible per se, yet commendable as to the problem, or vice versâ.

9. When the argument demonstrates, yet there is some-

thing else irrelevant to the conclusion, and there should appear to be a syllogism, (which however there is not,) it will be a sophism.

10. A philosophema is a demonstrative syllogism.

11. An epicheirema is a dialectic syllogism.

12. A sophism is a contentious syllogism.

13. An aporema is a dialectic syllogism of contradiction.

14. If a demonstration occurs from two propositions of unequal probability, what is demonstrated may be more probable than either.

15. Circumlocution in proof is erroneous; also to prove from things not evident, as to the cause whence the reasoning proceeds.

CHAP. XII.—1. An argument is clear which requires no further interrogation.

2. Also when things are assumed from which the conclusion necessarily results, but the argument concludes through conclusions, proved through pro-syllogisms: also if any thing very probable is deficient.

3. An argument is false in four ways. 1st, When it only appears conclusive, i. e. is a contentious syllogism. 2nd, When it concludes irrelevantly. 3rd, Or in an erroneous method. 4th, Or through falsities.

4. If the reasoning is false it is the fault of the arguer, yet sometimes inadvertently.

5. Wherefore the first consideration of argument per se will be, whether it concludes: next, whether it concludes the true or false: thirdly, from what data.

CHAP. XIII.—1. In the discussion of "petitio principii" and contraries as to opinion, the former seems to occur in five ways.

1st, When that is "begged" which ought to be proved: this is usual in synonyms.

2nd, When the universal is "begged" of what ought to be particularly proved.

3rd, When proposing to demonstrate the universal, a person begs the particular.

4th, When dividing the problem, he "begs" the question at issue.

5th, When he begs one of those which are necessarily consequent to each other.

2. Contraries are also "begged" in five ways, viz.,
1st, By demanding the opposites, affirmation, and negation.

2ndly, Contraries according to opposition.

3rdly, If demanding universal to be granted, a person should require contradiction particularly.

4thly, If the contrary is begged to the necessary result of the posita.

5thly, If two such things are claimed from which there will be an opposite contradiction.

3. The difference between the above is, that the error of "petitio principii" belongs to the conclusion, but contraries are in the propositions.

CHAP. XIV.—1. As a preliminary of argumentative exercise, we must be accustomed to convert arguments.

2. To convert is, by changing the conclusion with the remaining interrogations, to subvert one of the data.

3. Argument is to be considered affirmatively and negatively, as to every thesis.

4. We must dispute with ourselves if necessary.

5. Arguments about the same thesis, must be selected and compared.

6. The results of each hypothesis are to be noticed.

7. A naturally good disposition is requisite for this exercise, and such disposition consists in ability to select properly the true, and to avoid the false.

8. A thorough knowledge is requisite of the most usual arguments, especially as to primary theses.

9. Also abundance and readiness in definitions.

10. Also promptitude about principles, and a tenacious memory for propositions; a common proposition, rather than an argument, should be committed to memory.

11. An adversary's single argument is to be divided into many: this may be done by withdrawal from things allied to the subject matter.

12. Universal records of arguments must be made.

13. The contrary mode is to be adopted by the disputant himself, who is to avoid the universal.

14. Inductive arguments are to be assigned to the young, syllogistic ones to the practised man.

15. Propositions must be assumed from those skilful in syllogism, and comparisons from the inductive.

16. The object of a dialectic exercise is to derive either a syllogism, or a solution, or a proposition, or an objection, or whether there has been a right question, and about what.

17. Exercise is on account of power, especially in proposition and objection.

18. To propose is to make many things one: to object is to make one many.

19. Not every casual person is to be disputed with, lest we fall into depraved and contentious disputation.

20. Universal arguments being with more difficulty supplied, yet of the most general application, are especially to be sought.

THE SOPHISTICAL ELENCHI.

INTRODUCTORY.—A fallacy occupies the same position to sound argument, as hypocrisy does to virtue, since it is error under the mask of truth. Since, however, the human mind would never be deceived extraneously, except it possessed an affinity to deception in itself, the detection of sophistry is no less necessary to the mind's individual deduction of truth by its own processes, than it is for its defence against the assailment of another.

It is fair to attribute all fallacies to a mistake of the connexion existing between the primary concept and its verbal sign; for if the latter be not an appropriate exponent of the former, it is clear that the simple becomes the multiform, and the relation of A to B as existent in the mind of the speaker, does not present the same combination of idea to the mind of the hearer. I say this to place at once upon simple ground the actual nature of sophistry in idea, by removing the diffuse dogmatism which has obscured the proper understanding of it.

Aristotle reduces fallacies in diction to six, which belong to ambiguity in 1. sense, 2. manner, 3 and 4. syntax, 5. accent, 6. figure of speech; and besides these annexes, seven fallacies not in diction, but in the thing itself, all which latter, he

shows may be brought under *ignoratio elenchi*. Besides this enumeration, there are many other points in the treatise, concerning the management of syllogistical dispute, and its importance cannot be overrated when we recollect that the very essence of evil, characterizing falsity, is its possessing a certain portion of mutilated truth, which falsity, under the form of genuine argument, may by the misapplication of words, or the misrepresentation of a principle, surreptitiously introduce incompetent reasoning, to disturb the formal and material laws of human thought.

CHAP. I.—1. Those are not always true syllogisms which appear so, as in other things neither is that really noble nor genuine which seems so, both in the case of what is animate and inanimate.

2. An *elenchus* is a syllogism with contradiction of a conclusion.

3. Its most natural place is from names, since using names as symbols of things, we think that what happens to the one, does also to the other.

4. The unskilful in the power of names is most exposed to paralogism.

5. As some men rather desire to seem than to be wise, so the sophist is a trader from apparent, but not real wisdom.

6. It is the duty of the skilful man not to practise, but to expose deception; this consists in being able to give and receive a reason.

7. The following treatise is intended for the investigation of such arguments from which sophistical power and its various sources may be understood.

CHAP. II.—1. There are four genera of arguments in disputation, viz. the didactic, the dialectic, the *peirastic* or tentative, and the contentious.

2. The didactic syllogize from the proper principles of each discipline.

3. The dialectic collect contradiction from probabilities.

4. The *peirastic* conclude from things appearing to the respondent, and which he must know, who pretends to science.

5. The contentious infer, or seem to infer, from the apparently probable.

6. The demonstrative having been discussed in the *Analytics*, and the dialectic and peirastic in the *Topics*, the discussion is now about the contentious.

CHAP. III.—1. The objects which disputants have in view are five, viz. 1. An elenchus. 2. The false. 3. The paradox. 4. The solecism. 5. To make the opponent trifle, or repeat himself, or what seems to be each of these. The order stated presents the comparative preference of each mode entertained by the sophist.

CHAP. IV.—1. Elenchus may be employed either, 1st, With diction; 2nd, Without diction.

2. Elenchus with diction contains six modes, viz. equivocation, ambiguity, composition, division, accent, figure of speech.

3. The modes of the equivocal and ambiguous are three: 1. When the sentence signifies properly many things. 2. When we are accustomed thus to speak. 3. When the conjoined signifies many things, but when separate is taken simply.

4. In the fallacy of composition, the same term is taken, first, in a distinctive, next, in a collective sense: in division it is vice versâ.

5. Errors in accent are chiefly incident to writing.

6. Those from figure of speech are when the gender is interpreted wrongly, or a confusion is made in the *Categories*.

CHAP. V.—1. Paralogisms without diction are seven, 1. From accident. 2. From what is asserted simply or not simply. 3. From ignorance of the elenchus. 4. From the consequent. 5. From *petitio principii*. 6. From placing non causa pro causâ. 7. From making many interrogations one.

2. Paralogism from accident is when a thing is required to be granted similarly present with a subject and accident.

3. From the simply and not simply, when what is predicated in part is assumed as spoken simply; in some cases this paralogism is latent.

4. From absence of definition of syllogism or elenchus, in fact, in an extensive sense every fallacy is an *ignoratio elenchi*.

5. Fallacies from *petitio principii* arise from as many

ways as we can beg the original question, they seem to confute from mistaken identity.

6. The elenchus from the consequent arises from fancying that the consequence reciprocates.

7. From non causa pro causâ is, when what is causeless is taken as if the elenchus arose from it, this happens in syllogisms ad impossibile.

8. From making two interrogations one, a fallacy arises when neglecting that there are many, we answer as if to one interrogation. In some cases it is easy, in others difficult, to detect this fallacy.

CHAP. VI.—1. All deceptions may be referred to ignorance of the elenchus, and of syllogistic art.

2. Paralogisms from diction are either from two-fold signification; a sentence not being the same, or the name being different.

3. If there is not a syllogism of accident, there is not an elenchus, the former frequently occurs between artists and unscientific men.

4. Those "in a certain respect and simply," are from the affirmation and negation being not of the same thing.

5. An apparent elenchus is produced from ellipse of definition.

6. Those from *petitio principii* and admitting non causa pro causâ, become manifest by definition.

7. Those from the consequent are a part of accident, differing only in that we can assume accident only in one thing, but the consequent in many things.

8. Paralogisms, from making many questions one, consist in not distinctly unfolding the definition of the proposition.

CHAP. VII.—1. Deception from equivocation and ambiguity, arises from inability to distinguish what is variously predicated.

2. From composition and division, from imagining no difference to exist between a conjoined and divided sentence.

3. From accent, because as sometimes accent does not affect the sense, so when the latter is changed, we take it as the same.

4. From figure of speech, because when words have the same figure, we wrongly take them in the same way.

5. From accident triply, by not distinguishing between the same and different, between one and many, and from ignorance as to all things which are said of the attribute being said of the subject.

6. From the consequent as being a certain part of accident, we erroneously take it universally.

7. From defective definition and from those "in a certain respect and simply," because the difference is small, likewise in the case of *petitio principii*.

CHAP. VIII.—1. A sophistical elenchus and syllogism are not only such as are apparent, but not real, but also the real, yet which appear falsely appropriate to a thing.

2. Sophistical elenchi, though they syllogistically infer contradiction, do not render manifest the ignorance of the opponent.

3. False syllogisms will be derived from as many places as apparent elenchus: the latter is from parts of the true.

4. A sophistical elenchus is not simply so, but against some person, and a syllogism likewise.

CHAP. IX.—1. We must not assume from how many places confutation by elenchus occurs, without universal science.

2. There are true elenchi, since in what we may demonstrate, we may also confute him who contradicts the truth; hence we must be scientifically cognizant of the principles of the several arts.

3. Places are not to be assumed of all elenchi, but of those which belong to dialectic, and are common to every art and faculty.

4. The scientific man ought to investigate the elenchus in each science; that which falls under no art, but is from things common, belongs to dialectics.

5. The dialectician should be able to assume from what number of particulars through common propositions, either a real or apparent elenchus, dialectic or apparently dialectic, is produced.

CHAP. X.—1. They err, who state that some arguments belong to the name, but others to the reason, since the one only derives its effect from the signification given to it by the other.

2. The immediate discussion of an elenchus is absurd, as that of a syllogism ought to precede it.

3. The cause of deception is either in the syllogism or in the contradiction, or in both, if the elenchus be apparent. This statement is confirmed by mathematical questions.

4. In order to avoid equivocation, if the questionist should be required, where distinction is made, to point out the fallacy, the demand will be absurd, since not only may the querist himself not perceive the fallacy, but such a process would be not disputation, but teaching.

CHAP. XI.—1. To postulate affirmation or denial is not the province of the demonstrative, but of the peirastic art.

2. The dialectician considers things common, the sophist does this apparently.

3. The contentious and sophistical syllogism are one, apparently syllogistic about things with which the peirastic dialectic is conversant, but false descriptions are not contentious.

4. Those who make conquest their object are contentious, those who strive for the sake of glory, which tends to gain, are sophists.

5. The sophistical art is defined to be a certain art of making money from apparent wisdom.

6. The contentious and sophistical employ the same arguments, but so far as the latter are used for apparent victory, they are contentious, and so far as they are for apparent wisdom, they are sophistical.

7. The contentious man stands in relation to the dialectician, as the false describer to the geometrician.

8. The dialectician is neither in any definite genus, nor is he such as the universal philosopher, since neither are all things in one certain genus, nor are demonstrative arts interrogative, which last is the characteristic of dialectic.

9. Dialectic is also peirastic, the latter being the science of nothing definite, but is conversant with all things.

10. All men, even idiots, use after a certain manner dialectic and peirastic, and partake without art of the subject of dialectic.

11. The contentious will not be paralogistic from a certain definite genus of principles, but will be about every genus.

CHAP. XII.—1. With regard to showing some false assertion, it is remarked that this generally happens from a certain

manner of inquiry, and through interrogation, e. g. to interrogate nothing definitely laid down, and to ask many questions requiring a person to declare his opinion.

2. Though less common than formerly, yet the element of obtaining something false is to question no thesis immediately, but to assert that the question is made from the desire of learning.

3. To prove a false assertion, a proper sophistical place is to bring the opponent to the arguer's strong point.

4. To prove paradoxes, ascertain what the philosophers of the opponent's order assert paradoxical.

5. From volitions, the secret wish of the mind, and apparent opinions, paradoxes may be elicited, indeed generally the place of causing paradoxical assertion is very extensive.

6. From nature and law.

7. From the opinion of the wise and of the multitude, indeed some questions have a paradoxical answer either way.

CHAP. XIII.—1. Loquacious trifling is produced from such arguments as belong to relative notions, or wherein there are habits, or passions, or some such thing manifested in the definition of the predicates. Generally it is from the inquiry not being added as to the meaning of the double enunciation.

CHAP. XIV.—1. Solecism may be produced without appearing to do so, and not produced when it apparently is.

2. Almost all apparent solecisms are from *hoc*, that is, the neuter gender.

3. Solecism resembles fallacy from figure of speech, from things not similar being similarly assumed.

4. In order to conceal, it is necessary to arrange the elements of interrogations.

CHAP. XV.—1. Certain artifices which contribute to confutation by an elenchus are prolixity, rapidity, anger, and contention, (which last arise from a man's conducting himself with impudence,) alternate arrangement of questions, and whatever, in short, contribute to concealment, the same are also useful for contentious arguments.

2. Against contentious opponents, we must interrogate from negation or equally.

3. Also employ the universal as granted.

4. Also assuming a proposition through comparison of the quantity.

5. The sophistical false charge of those who question without syllogistic conclusion, asserting as if a conclusion be made, often contributes to apparent confutation by elenchus.

6. It is sophistical when a paradox is laid down to challenge what is apparent.

7. In elenctic disputations, as in rhetorical, we must investigate contrarieties.

8. Also withdraw from the argument, in order to anticipate future attack.

9. Also attack something different to the assertion.

10. Also state that in elenchi we assert contradiction.

11. The conclusion must not be questioned after the manner of a proposition.

CHAP. XVI.—1. In this and the following chapters, he proceeds to discuss the solution of sophistical arguments, and in what their use consists.

2. They are useful to philosophy, for three reasons, first, as being chiefly from diction, they render us better acquainted with the various ways of predication; secondly, they contribute to inquiries by oneself, thus precluding self-deception; thirdly, they enhance our fame from giving the appearance of general skill.

3. To solve a futile argument is not the same thing as to be able quickly to oppose an interrogator; hence in argumentative as in other exercises, practice is necessary to perfection.

4. We may know the cause of connexion, yet be unable to solve the argument.

CHAP. XVII.—1. Probable rather than true solution, is sometimes to be sought. And we must guard, not only against real, but apparent confutation of ourselves.

2. If that is supposed to be an elenchus, which is according to equivocation, the respondent cannot avoid confutation by an elenchus, but wherever there is an ambiguity, it is to be expounded, and the interrogation is not to be simply granted.

3. Without two interrogations are made one, there will not be a parallogism from ambiguity.

4. As there may be pseudo elenchi, so also there may be pseudo solutions, which yet are sometimes to be adduced against contentious arguments and duplicity.

5. We must seem to admit things which seem to be true, in order to avoid a *parexelenchus*.

6. As things consequent from necessity seem to be parts of the thesis itself, that must be admitted to be the same as the question, which though false or paradoxical, yet results from the thesis, and is required to be granted.

7. When universal is assumed, not in name, but comparatively, the opponent must be said to assume it, not as it was given.

8. Whoever is excluded from these, must attack the demonstration.

9. Names properly so called, we must answer either simply or distinctively.

10. When the existence of one thing seems necessarily to follow that of another, but not vice versâ, the respondent ought to grant the particular rather than the universal.

11. By transferring names in things asserted by the multitude, and of which there is a double opinion as to truth, a person may escape detection.

12. Anticipated questions must be previously objected to.

CHAP. XVIII.—1. A right solution is the detection of a false syllogism, showing by what questions the falsity occurs.

2. A syllogism is called false, either if it be falsely concluded, or if, not being a syllogism, it seems to be one.

3. The solution now treated of as true, is a correction of apparent syllogism, showing from what question it is apparent.

4. Syllogistic arguments are solved by negation, apparent ones by distinction.

5. We solve syllogistic arguments, false in the conclusion, by removing some one of the interrogations, and by showing that the conclusion does not thus subsist.

6. Those which are false according to the propositions, we solve by removing some interrogation only.

7. Those who desire to solve argument, must first consider its conclusiveness, next, the truth or falsity of its conclusion.

CHAP. XIX.—1. Of elenchi from equivocation and ambiguity,

some have an interrogation signifying many things, others have a conclusion multifariously stated.

2. In the latter case, except the opponent assumes contradiction, there is not an elenchus: in the former, it is not necessary to deny what is two-fold before the distinction is drawn.

3. The name and the sentence being two-fold, we must partially admit and deny.

CHAP. XX.—1. In solution of arguments from composition and division, we must state what is contrary to the conclusion.

2. What is assumed from division is not two-fold, nor are all elenchi from the two-fold.

3. Where there is different signification, a distinction is to be drawn, by the respondent.

CHAP. XXI.—1. Only a few arguments are derived from accent, the solution of which is easy from the signification of the word being dissimilar, according to the variety of accent.

CHAP. XXII.—1. The error of sophisms founded upon figure of speech, consists in their taking different things for the same, and referring to the same what belong to different categories.

2. Such sophisms therefore must be solved by distinguishing the categories.

CHAP. XXIII.—1. Sophisms whereof the fault is "in dictione" may all be solved by asserting the contrary to the sophistical assumption, which being affirmed produces the false syllogism.

CHAP. XXIV.—1. As to solution of deceptions from accident, we must assert that what is present with the accident need not be with the subject, in other words, we must deny the consequence from the accident to the subject.

2. Some solve these sophisms by distinguishing the question, but in both cases there must be the same correction of arguments derived from the same place, so that this is an inappropriate method of solution.

3. It is also an imperfect solution to endeavour to lead to the impossible.

4. Also to say every number is both great and small, since in reality no conclusion is drawn.

5. Some solve them by duplicity, the deception arising from the double sense in which the word is used.

CHAP. XXV.—1. Arguments deduced from what is properly and not simply predicated, we must solve by comparing the opponent's conclusion with our own thesis, in order to ascertain whether a statement can be made, not simply, but in a certain respect or relation.

2. A thing may be simply false, but relatively true, also certain things may be true, and yet not true simply.

CHAP. XXVI.—1. In solution of arguments from the definition of elenchus, we must consider the conclusion with reference to contradiction, since except there is the latter, there is no elenchus.

CHAP. XXVII.—1. Sophisms from *petitio principii* must not be granted to the inquirer.

2. If the original question be dubious, the fault must be charged on the questionist.

3. The defender must plead that he did not grant it for the opponent's use, but in order syllogistically to prove the contrary.

CHAP. XXVIII.—1. Solution of deceptions from consequents we must draw from the argument itself.

2. The consequence of consequents is either as universal to particular, or according to oppositions.

CHAP. XXIX.—1. Whatever syllogistically concludes from some addition, we must observe whether it being taken away, the impossible results, afterwards making this clear, we must state that the respondent granted not what appeared true, but what was adapted to the argument, and the charge of irrelevant argument must be brought against the arguer.

CHAP. XXX.—1. Against sophisms which make many interrogations one, we must use definition immediately at first.

2. Some arguments of this kind come under the head of equivocation.

CHAP. XXXI.—1. In sophisms leading to repetition, we must deny that the categories of relatives signify any thing by themselves.

2. Diction must not be granted in a direct case.

CHAP. XXXII.—In solecisms it must be stated that the opponent does not really, but only apparently, conclude a solecism, because we seem to have granted what we have not granted.

CHAP. XXXIII.—1. In some arguments it is easier, in others more difficult, to ascertain the cause of deception, and the argument which may seem to some to be derived from the diction, may to others appear to arise from accident: that however is the same argument which is derived from the same place.

2. The most acute argument is that which induces the greatest doubt.

3. Doubt is two-fold, one in arguments concluding syllogistically as to which proposition is to be denied, the other in contentious arguments, as to how some one should discuss the proposition.

4. A syllogistic argument is most acute which subverts what is especially probable from things especially probable.

5. The most acute contentious argument is that wherein from the first it is uncertain whether it is syllogistically concluded or not, and whether the solution is from the false or from division.

6. The argument inconclusive is absurd, if the assumptions be very incredible or false, but sometimes it is not altogether despicable.

7. The querist may argue against the thesis, against the respondent, and against the time.

CHAP. XXXIV.—1. In recapitulation the reader is reminded of the author's original design in his work, viz. to discover a certain syllogistic faculty about a problem, proposed from things in the highest degree probable, which is the office of the dialectic *per se*, and also of the *peirastic* art.

2. That as true argument may be assailed by sophistry, the defence of the thesis in a similar manner, through the greatest probabilities was to be considered.

3. That the number of problems with their proper sources, also the method and arrangement of interrogations and paralogisms, had been developed.

4. As the commencement of every thing is perhaps the

greatest part of it, so almost all discoveries owe their excellence to an imperfect original, a subsequent partial elaboration, and successive increase, but of dialectic nothing has existed at all.

5. The schools of contentious arguers for gain, merely afforded a certain kind of instruction, similar to the treatise of Gorgias ; on the other hand, teachers gave rhetorical or interrogative discourses to be learned, according as they thought such to be adapted to their conversation with each other.

6. Though many old discourses are extant about rhetoric, yet, before Aristotle, none existed concerning the art of syllogism, wherefore as the barrenness of the materials ought to plead an excuse for any deficiency in the method, so it should enhance the gratitude felt by the student towards the author of so laborious an investigation.

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