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ELEMENTARY COURSE

OF

Christian Philosophy,

BASED ON THE PRINCIPLES OF

THE BEST SCHOLASTIC AUTHORS.

Chiefly from the French of

BROTHER LOUIS OF POISSY.

26
5/4/41

PART I.

BY

The Brothers of the Christian Schools.

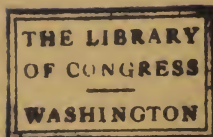


F. S. C. PROCURE.

50 SECOND STREET,

NEW YORK.

—
1889.



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Ms. B. July 29, 1911

Approbation of the Rt. Rev. Bishop of Montpellier.

MONTPELLIER, Aug. 15, 1875.

IT is with pleasure that we authorize Brother Louis, Sub-Director of the Boarding School of Beziers, to publish for the use of his pupils his *Course of Christian Philosophy based on the Principles of the best Scholastic Authors*, which by our order he submitted to a careful examination. The learned priest to whom we entrusted the revision of the work has returned it with a flattering testimonial of its merit. We shall, therefore, be glad to see it in the hands of the young men of our schools, and to learn that its principles have been made familiar even to the pupils of our first classes. For it is these old philosophical teachings, which prepared our fathers to become such good theologians, and which rendered their faith so enlightened and their reasoning so sound.

✠ FR. M. ANATOLE,
Bp. of Montpellier.

BRIEF OF OUR HOLY FATHER, POPE PIUS IX.

*Dilecto Filio, Fr. Aloisio de Poissy,
Congr. Fratrum Scholarum Chris-
tianarum, Biterras.*

PIUS PP. IX.

DILECTE FILI, SALUTEM ET APOS-
TOLICAM BENEDICTIONEM.

Si sedulo cavendum est in quali-
bet arte aut scientia, ne quoquo
modo principia deflectant a vero, id
maxime profecto curandum est in
philosophia earum duce, præsertim
vero in tanta errorum colluvie,
quæ ab ipsius nimirum corruptione
maravit.

Gratulamur itaque te, Dilecte
Fili, scientiæ hujus elementa tradi-
tutum, rejectis recentiorum com-
mentis, Angelicum Doctorem et
ceteros fuisse sequutum, qui, Ec-
clesia veritatis magistra prælucente,
sapientia et operositate sua philo-
sophiam mirifice illustrarunt; et ex
iis deprompsisse doctrinas, quibus
mentes fingeres commissorum tibi
adolescentium.

*To our Beloved Son, Brother Louis
of Poissy, of the Congregation of
the Brothers of the Christian
Schools, Beziers.*

PIUS IX. POPE.

BELOVED SON, HEALTH AND
APOSTOLIC BENEDICTION.

If in any art or science whatever
special care must be taken that
principles may in no way conflict
with truth, this is above all neces-
sary in philosophy, the queen
and moderatrix of the arts and
sciences. But especially must we
be on our guard in the great flood
of errors, of which the corruption
of philosophy has been the unfail-
ing source.

We, therefore, congratulate, you,
Beloved Son, on the manner in
which you have treated of the
elements of this science. Setting
aside the false systems of more
recent writers, you have followed
the Angelic Doctor and those who,
guided by the light of the Church,
the Mistress of truth, have, by
their wisdom and diligent labor,
wonderfully illustrated philosophy.
From their works you have drawn
the doctrines by which to form the
minds of the young men confided
to your care.

Gaudemus autem, *Elementarem* *Oursum Philosophie Christianæ*, a te editum, probatum fuisse egregio Episcopo tuo; et cum ipso tibi ominamur, ut illud in plurimorum utilitatem vergat.

Interim vero divini favoris auspiciam et paternæ Nostræ benevolentiae pignus Apostolicam Benedictionem tibi Dilecte Fili, peramanter impertimus.

Datum Romæ apud S. Petrum die 13 Martii, anno 1876, Pontificatus Nostri anno tricesimo.

PIUS PP. IX.

We are glad that the *Elementary Course of Christian Philosophy*, which you have published, has received the approbation of a Bishop so distinguished as yours; and with him we earnestly wish that it may prove beneficial to many.

In the meantime, as a presage of the divine favor and a pledge of our paternal love, we very affectionately impart to you, Beloved Son, the Apostolic Benediction.

Given at Rome, near St. Peter's March 13, 1876, in the thirtieth year of Our Pontificate.

PIUS IX., POPE.

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PREFACE.

The object of this work is to present, in as brief an outline as possible, a complete course of philosophy. Besides questions immediately useful for examinations, we have endeavored to introduce, at least summarily, many others of real importance, without which there can be no philosophy properly so-called.

A few words will suffice to explain our mode of procedure and the use which may be made of this work. Each paragraph contains an abridged formula intended to be learned *verbatim*, and a short development, which may serve as a basis for the explanation of the professor. The formulas will prove of great utility to the student who takes pains to memorize them: they classify in the mind distinctly and logically all the notions indispensably required in philosophy; they render the preparation for an examination easy; and very often they are a brief, precise, and full answer to the questions proposed. The part called the development usually indicates the principal proofs of the foregoing formula, reduced to what is essential. Comparisons, multiplied examples, detailed commentaries, have been purposely retrenched. We have confined ourselves to simple summaries, which will enable the student to follow and remember the instructions of the professor. Experience has proved that this method, apparently somewhat abstract and barren, is in reality very advantageous, since it obliges the student to have

recourse to that direct and personal work without which there can be no true intellectual formation.

Some, doubtless, may be of opinion that this work introduces questions too difficult for beginners : for example, *ideas, universals, matter and form, space, time,* and others, which offer serious difficulties even in treatises which investigate them in detail. But, these questions being essential, it seems to us that they cannot be altogether omitted without leaving philosophy destitute of foundation and consistency. This remark is especially applicable to the treatise on *General Metaphysics*. Presented in its present concise form, it will, perhaps, be found too abstruse ; still we have thought proper to retain it, should it prove of no other use than to serve as a summary for those who wish to make a more profound study of the subject.

Another charge may be brought against this course, that of being based on the method and doctrine of the Scholastics. For we have, in fact, everywhere endeavored faithfully to reproduce the principles of the Thomistic school, as interpreted by Goudin, Sanseverino, Liberatore, Kleutgen, Prisco, Gonzalez, Taparelli, and others, whose text we have often merely summarized and sometimes embodied in full. But this reproach, were it really merited, would be assuredly in our eyes the best eulogy that could be bestowed on this modest work. The Scholastic philosophy, which was adopted during many centuries by all the universities of Europe, and the abandonment of which has been accompanied by such fatal results, has undeniably in its favor, not only the sanction of time and the authority of the greatest geniuses, but that which to the Christian is of more value, the sanc-

tion of the Church. Following this philosophy we are sure never to stray from Catholic teaching ; while outside of it we find only discordant, unsubstantial doctrines, often evidently erroneous and proscribed.

But some may object that we must pay due deference to the necessities of the times, and therefore the wisest course nowadays is, indeed, to avoid manifest errors, but still not to return, at least openly, to these old doctrines, which would expose us to be regarded as not only not progressive but even retrograde minds. To this we reply that to reject the false without affirming the true is to leave the mind in suspense, without knowing where to rest ; it is to take from it all energy and vitality, by depriving it of its proper and necessary element ; it is, in fine, to deliver it over without power or defence to the seductions of error.

May this humble work be free from that vagueness, or rather absence, of doctrine, too often met with in certain elementary works on philosophy ; and may it contribute, in its own modest way, to the diffusion of the beautiful and faithful teachings of the Scholastic philosophy.

Shortly after the publication of the first edition of this work, a Latin translation of it was made at Rome by Mgr. Amoni, canon, at present secretary of the Apostolic Nunciature of Vienna.

We give below the preface of the learned translator :

“ I will be brief, kind reader, but I wish that you should know the two principal motives which have led me to consider the publication of this *Elementary Course of Philosophy* as eminently opportune.

First, though distinguished by an admirable brevity, it omits nothing necessary to a full knowledge of the subject ; secondly, and this is much more important at the present time, the method of teaching adopted by the French author is conformable to that of the old Scholastics, and his doctrines agree on all points with those of St. Thomas of Aquin. Now, however little you consider with what earnestness the learned Roman Pontiff Leo XIII. recommends to all the faithful of Jesus Christ the philosophy of the holy Doctor, you will surely understand that, in our day especially, this work merits the preference over all others.

“ In fact, if the love of truth should always and everywhere move the minds and hearts of men, and if every one should direct all his efforts to acquire truth, since its possession constitutes man’s happiness, we must apply ourselves so much the more earnestly to the task, now that the war against truth has become more active, and we are exposed to greater danger of falling into error. Although charged during seventeen years with the duty of teaching philosophy to young men, I shall never regret having undertaken this translation, because, in my opinion, there can be found in no other work anything more methodical, more exact, or more useful.”

At the time of the publication at Rome of the Latin translation, the *Osservatore Romano* recommended the work in a lengthy article, from which we extract the following:

“ He who desires to make use of this work, either for himself or others, must not expect to find therein anything new in matter or form. We assure him, however, that he will find in it a special advantage : it contains an abridged and lucid exposition of all the

parts of a sound philosophy,—principles, method, and doctrine,—all is conformable to or rather borrowed from the most accredited and safe source of a sound philosophy, whether ancient or modern. In short, errors are briefly exposed and so successfully refuted as to make young men certain of the truth and competent to defend it against Rationalism and Naturalism, which, in our day more than in any other age, infect society.

“Those who study philosophy should feel thankful to the author, as well as to the learned translator, who has favored Italy, and especially institutions of scientific education, with a book entirely safe on all points. It is also extremely useful on account of the principles which it contains and expounds, the matter for reflection which it offers to young men, and the opportunity of making a fuller exposition which it furnishes to professors of philosophy. We believe, in fact, that it is neither useful nor advisable to put into the hands of young students a book which fatigues by its copiousness and the unnecessary difficulties introduced, and which, moreover, renders the oral instruction of the teacher superfluous.”

A Vienna journal, the *Vaterland*, in the issue of April 9, 1882, concludes an article upon the same work translated by Mgr. Amoni in these words :

“This work, by the richness of the matter presented, must take its place among the best works on Christian Philosophy which have appeared in these latter times. We do not possess in German any manual of philosophy which, in 416 pages, contains such a large amount of matter so happily and perfectly elaborated.”

INTRODUCTORY.

Philosophy is the knowledge of things in their ultimate causes.—Its object is *being* in general ; but this object may be considered under three aspects : as *real* and possessing attributes independent of our cognition ; as *ideal* and having attributes which result from our mental activity ; or as *moral* when regarded as the term of voluntary action. Philosophy, therefore, may treat of the ultimate principle of things either in the order of reality, or of knowledge, or of morality ; in other words, it comprises philosophy of *real* being, philosophy of *rational* being, and *moral* philosophy. Philosophy of rational being or logic is studied first, because it points out the laws of the human mind in the acquisition of knowledge, and enables it to discern the true from the false, thus furnishing the means to study real being with greater ease and certainty.

PHILOSOPHY OF RATIONAL BEING.

ITS DIVISIONS.

Philosophy of rational being is divided into Logic, Ideology, Criteriology.—As rational philosophy considers being in respect to our knowledge of being, it ought, first, to investigate the laws which govern the mind, the instrument by which we know; secondly, to treat of ideas, the means by which we know; thirdly, to determine the value of the knowledge acquired by the mind. Hence rational philosophy is divided into three principal parts: 1. *Logic*, or the science of the laws of thought; 2. *Ideology*, or the science of ideas; 3. *Criteriology*, or the science of the criteria of certitude.

LOGIC.

DEFINITION OF LOGIC.—ITS UTILITY.—ITS DIVISIONS.

1. *Logic is the science of the laws which the mind must obey in order to acquire readily and with certainty the knowledge of truth.*—The human mind in its search after truth is subject to laws imposed on it by its very nature. The study of these laws constitutes Logic. Logic is a science rather than an art, because it considers the laws of the mind in their intrinsic

principles and general applications, and is not confined to an enumeration of practical rules.

2. *Logic is of great utility in acquiring truth, in guarding against error, and in advancing in any science whatever.*—As Logic habituates the mind to classify and co-ordinate knowledge, it gives us a great facility for the acquisition of truth; moreover, by familiarizing the mind with all the aberrations of reasoning, it enables us readily to discern the flaws of a fallacy and the false appearance by which error seeks to mislead the mind. Finally, it is evident that, as the sciences can advance only by means of reasoning, nothing is more conducive to their progress and easy acquisition than Logic, which is, in fact, the very science of reasoning.

3. *Logic is divided into three principal parts: the first investigates the nature and laws of reasoning; the second treats of the general conditions of knowledge; the third determines the general rules of method.*—The object of logic is reasoning; but in reasoning three things may be considered: the nature of reasoning, the end of reasoning, which is science, and, lastly, the process or method followed to reach this end readily. Logic, therefore, is divided into three parts, corresponding to the three aspects under which reasoning may be considered.

PART FIRST.

REASONING AND THE ELEMENTS WHICH COMPOSE IT.

4. *The first part of Logic, which has reasoning for its object, treats : 1. Of simple apprehension ; 2. Of judgment ; 3. Of reasoning.*—Reasoning is a complex operation, whose elements are judgment and simple apprehension. All reasoning supposes several judgments, and every judgment supposes the apprehension of two objects. Hence, before considering reasoning in itself, we must treat of judgment and simple apprehension.

CHAPTER I.

Simple Apprehension.

ART. I.—NATURE OF SIMPLE APPREHENSION.

5. *Simple Apprehension is the first operation of the mind, an operation by which it perceives an object without any affirmation or negation concerning it.*—The first act of the mind is a simple glance, by which it apprehends objects presented to it, without affirming or denying anything. The result of this operation is an ideal reproduction of the object perceived ; this reproduction is called a *mental term*. If the mental term is expressed in words, it is called an *oral term*.

ART. II.—THE MENTAL TERM AND THE ORAL TERM.

6. *The mental term is the ideal and formal representation in which the object perceived is reproduced and known.*—When sensible objects have made an impression on our external senses, this impression passes to the imagination, which forms an image of the objects. The intellect, instantly apprised of these images, acts on them; it cognizes the objects by more perfect similitudes, in which it discerns many things which the senses could not perceive, such as the character of *cause*, of *being*, of *substance*, etc. From this the mind may afterwards rise to a knowledge of spiritual beings, *God*, *virtue*, *vice*, etc., which are not in the imagination. These similitudes, greatly differing in nature and number from those of the imagination, are called *ideas*, *concepts*, *reasons of things*; but in Logic they are named *mental terms*, because they are the elements in which the decomposition of judgment and reasoning *terminates*.

7. *The oral term is a conventional word which expresses the mental term.*—Unlike the mental term, which from its very nature represents the object, the oral term has a meaning only in virtue of the usage and agreement of men. It directly denotes only the mental term, and only by means of this term does it express the object itself; but habit leads us usually to unite the idea of the word with the idea of the thing.

ART. III.—DIVISIONS OF TERMS.

8. *The mental term is intuitive or abstract, clear or obscure, distinct or confused, complete or incomplete.*—Considered with reference to the manner in which the object is presented to the mind, the mental term

is *concrete*, when the object is apprehended in its physical reality ; it is *abstract*, when the object is apprehended apart from its real existence. Considered in respect to the degree of perfection with which the mind apprehends the object, the mental term is *clear*, when the object can be distinguished from any other object ; it is *obscure*, when the object cannot be distinguished from another object ; the mental term is *distinct*, when the object, besides being distinguished from other objects, is known in its constitutive elements ; it is *confused*, when the object, though discerned from other objects, is not known in its constitutive elements ; the mental term is *complete* or *adequate*, when all the constitutive elements of the object are known ; it is *incomplete* or *inadequate*, when some only of the constitutive elements are known.

9. *The oral term is significative or non-significative, fixed or vague, univocal or equivocal, analogous by attribution or analogous by proportion.*—The oral term is *significative*, if it means something, as *Man* ; it is *non-significative*, if it has no meaning, as *Tervoc*. The oral term is *fixed*, if it has a settled meaning, as *God* ; it is *vague*, if its meaning varies at the will of him who uses it, as *Nature*, which sometimes means the visible universe, sometimes the essence of a thing, etc. The oral term is *univocal*, when it has but one meaning for the several objects to which it is applied, as *Man*, which signifies one and the same thing when applied to Peter and to Paul ; it is *equivocal*, when its meaning varies for each of several different things, as *Dog*, which is applied to a star and to an animal. The oral term is *analogous*, if it signifies several things which are not wholly identical, nor yet altogether different, as *Foot*, which is applied to a

member of an animal and to the base of a mountain. The term is analogous by *attribution*, when it denotes one thing principally, and applies to others only on account of the relation which they have to the first, as in the foregoing example; the term is analogous by *proportion*, when it signifies several things which differ in reality, but which are, nevertheless, identical in a certain proportion, as *Principle*, which is applied in a certain proportion to source, heart, and point.

10. *The mental term, like the oral, is significative of itself or by means of another term, positive or negative, concrete or abstract, real or logical, absolute or connotative, simple or complex, transcendental or categorical, connected or unconnected, predicate or subject, antecedent or consequent, collective or distributive, singular or universal.*—The term, whether mental or oral, is *significative of itself*, when *of itself it has a meaning*, as *Man*; it is *significative by means of another*, when it has no meaning of itself, as *Some*. The term is *positive*, when it signifies the thing itself, as, *Sight*; it is *negative*, when it denotes the absence of something, as *Blindness*. The term is *concrete*, when it denotes a thing as it really exists, as *Peter*; it is *abstract*, when it denotes a thing apart from the subject to which it belongs, and from which it has no separate existence, as *Whiteness*. The term is *real*, when it signifies something having physical existence, as *God*; it is *logical*, when it signifies a thing which has no existence except in our mind, as *Species*. The term is *absolute* or *substantive*, when it denotes a thing existing in itself, as *Man*; it is *connotative* or *adjective*, when it denotes a thing as the accompaniment of another, as *Good*. The term is *simple*, when it de-

notes one thing by a single sign, as *Angel*; it is *complex*, when it includes several ideas or several words, as *Poet*, which is complex in idea, for it comprehends the man and his art; *Julius Caesar*, which is complex in word, for it expresses one idea in two words; the *Emperor Charlemagne*, which is complex in word and in idea, for it embraces two words and two ideas. The term is *transcendental*, when it signifies something applicable to all beings, as *Being*, *Thing*, *Something*, *One*, *True*, *Good*; it is *categorical*, when it signifies something which applies only to certain beings; as *Man*. Terms are *connected*, when one includes or excludes another, as *Man and Animal*, *White and Black*; they are *unconnected*, when they have no relation of exclusion or subordination, as *White and Learned*. The term is *predicate*, when it is affirmed of another; it is *subject*, when another is affirmed of it; thus, in the proposition, *God is just*, *God* is the subject and *just* the predicate. The *antecedent* term is that which includes another, as, *Man* in respect to animal; the *consequent* term is that which is included in another, as, *Animal* in regard to man. If the terms are deduced from each other, they are called *reciprocal*, as *Man and Rational*. The term is *collective* when it denotes several things taken conjointly, as *The City*; it is *distributive*, when it denotes several things in such a manner that it may be applied to each in particular, as *Man*. A term is *singular*, when it signifies one thing only, as *Aristotle*; it is *universal*, when it applies to several things univocally and distributively, as *Animal*. In connection with universal terms, two things may be considered: 1. Universal terms in themselves and the five Species into which they are divided; 2. Their

division into different Supreme Genera, called Categories.

ART. IV.—UNIVERSALS.

11. *Universals are terms which are applied univocally and distributively to many things.*—When the mind has perceived the essence of an object abstracted from the individual characteristics of that object, it may consider the mental term representing the essence as applicable to every being which has the common essence; the term is then called *universal*, as *Man*. Its opposite is the *singular* term, which is applied to one thing only, as *Socrates*. The *particular* term is a universal affected by the sign of particularity, which limits it to a part of its signification, as *Some men*.

12. *Universals have two properties: comprehension and extension, which are in inverse ratio to each other.*—The essence represented by the universal is formed of one element or of many elements; thus: *The essence of man consists of animality and rationality*; hence the comprehension of the universal is the sum of the elements which it contains. The essence represented by the universal is found in a greater or less number of beings; thus: *The essence of man is found in all men*; hence the extension of the universal is the number of beings to which the universal applies. The greater the comprehension of a term, the less its extension, and *vice versa*.

13. *There are five modes according to which a universal term may be applied to individuals; there are, therefore, five kinds of universal, viz.: genus, species, difference, property, and accident. These universals are called predicables or categorema.*—A universal term

expresses either the essence of a thing or something joined to the essence. If it expresses the essence, it expresses either the whole essence or a part of the essence. If it denotes the whole essence, it is the *species*, and the beings to which it is applied are called individuals, as *Man*. If the universal denotes a part of the essence, it expresses either the part common to other species, or the part by which the essence differs from other species: in the first case it is called the *genus*, and in the second the *difference*; thus: *Animality* expresses what is common to both man and brute, and *Rationality* what distinguishes man from the brute. If the universal denotes what is joined to the essence, either this attribute cannot be separated from the essence, but is a necessary effect of it, in which case it is a *property*; or it can be separated without changing the essence, and then it is an *accident*; thus: *Free Will* is a property, *Learning* is an accident of man. Genus, species, and difference are divided into highest, intermediate, and lowest or proximate.

Highest Genus : Substance	{ Incorporeal } { Corporeal }	Highest Species and Difference.
Intermediate Genus : Body	{ Inanimate } { Animate }	Intermediate Species and Difference.
Lowest or Proximate Genus : Animal	{ Irrational } { Rational }	Lowest Species and Difference.

ART. V.—PREDICAMENTS OR CATEGORIES.

14. *Predicaments or categories are generic terms under which all the species of things are co-ordinated.*—When the mind examines an object, it endeavors to find out what attributes or predicates it can affirm or deny of the object. Now, all the species of attributes which can be predicated of an object have been ar-

ranged in logic under certain supreme genera ; these genera are called predicaments or categories. ¹

15. *There are ten predicaments or categories : substance, quality, relation, quantity, action, passion, time, place, posture, habiliment.*—Every being exists either in itself or in another. If it exists in itself, it is called *substance* ; if it exists in another, it is called *accident*. The accident is subdivided into nine genera ; for, if we want to know the accidents of a substance, Charlemagne, for instance, we may put the following questions : 1. How large a man is he ? which gives the *quantity* ; 2. Whose father or son is he ? which gives the *relation* ; 3. What are his qualifications ? which gives the *quality* ; 4. What does he do ? which gives the *action* ; 5. What does he suffer ? which gives the *passion* ; 6. In what age did he live ? which gives the *time* ; 7. Where is he ? which gives the *place* ; 8. Is he sitting or standing ? which gives the *posture* ; 9. How is he clad ? which gives the *habiliment*.

16. *Comparing things arranged under the predicaments with one another, we may consider their opposition, priority, simultaneity, mutation, and mode of having ; these terms are called post-predicaments.*—*Opposition* is the repugnance of one thing to another. There are four kinds : 1. *Contrary*, when the two things, falling under a common genus, are mutually incompat-

¹ "What is the difference between the Predicaments or Categories and the Heads of Predicables ? The Categories are a classification of all existing things as they are themselves regarded in their own proper being, as the object of our mental concepts or ideas. . . . The Heads of Predicables are, on the other hand, a classification of the forms of thought, that is to say, of the various relations our ideas or concepts bear to each other." Clarke's *Logic*, Manuals of Catholic Philosophy, p. 190.

ible with the same subject ; as *Heat* and *Cold* ; 2. *Relative*, when the repugnance arises from a mutual relation, as *Father* and *Son* ; 3. *Privative*, when the repugnance arises between a thing and its privation, as *Sight* and *Blindness* , 4. *Contradictory*, when the repugnance is between being and not-being, as *Man* and *not-Man*.—*Priority* is that by which one thing precedes another. There are five kinds : 1. Priority of *duration* ; as *Youth* and *Old Age* ; 2. Of *consequence* ; as *Man* and *Rationality* ; 3. Of *order*, as *Grammar* and *Literature* 4. Of *dignity*, as a *King* and his *Subjects* ; 5. Of *nature*, as the *Sun* and its *Rays*.—*Simultaneity* is opposed to *priority*, hence it is also of five kinds.—*Mutation* is the passage from one state to another. There are six kinds : 1. *Generation* or the passage from non-being to substantial being ; 2. *Decay* or the passage from a state of being to non-being ; 3. *Augmentation* or the passage from a less to a greater quantity ; 4. *Diminution*, which is the opposite of augmentation ; 5. *Alteration* or the passage from one quality to another ; 6. *Locomotion* or the passage from one place to another. The *modes of having a thing* are five : 1. By *inherence*, as *Knowledge in man* ; 2. By *containing*, as *Wine in the cask* ; 3. By *Possession*, as *The man's field* ; 4. By *relationship*, as *Father and son* ; 5. By *juxtaposition*, as *The garment on the man*.

ART. VI.—PROPERTIES OF THE TERMS IN A
PROPOSITION.

17. *Terms have six properties : supposition, appellation, state, amplification, restriction, alienation*.—*Supposition* is the special meaning of a word in a given proposition, as *Angel is a word*. *Angel* here means

materially the word *Angel*. *Appellation* is the application of one term to something denoted by another term, as *God is good*; here *good* is applied to *God*.—*State* is the acceptance of a term for the time indicated by the verb, as *Peter sings*.—*Amplification* is the acceptance of a term for a time different from that indicated by the verb, as *The dumb speak*.—*Restriction* is the limitation of the broad signification of a term to a narrower sense, as *Eve is the mother of the living*; here the word *living* is restricted to men.—*Alienation* is the transfer of the meaning of one term to another by the addition of a second term, as *The Sun of Justice*, used to designate the Saviour.

18. *Supposition is material or formal, real or logical, particular, collective, or distributive*.—The supposition of a word is *material*, when the word signifies the term itself, as *Man is a word*. It is *formal*, when the word denotes the object, as *Man is rational*. It is *real*, when the word expresses the object such as it really exists, as *Man is a living being*. It is *logical*, when the word denotes the object abstracted from its individual characteristics, as *Man is a species*. It is *particular*, when the word signifies some only of the beings which it can represent, as *Some men are deceitful*. It is *collective*, when the word signifies all the beings which it can represent, taken conjointly, as *The Apostles are twelve*. It is *distributive*, when the word expresses all and each of the beings which it can represent, as *Man is mortal*.

19. *Supposition is subject to the following rules*:
 1. *A term affected by a universal sign has a distributive or collective supposition*; as, All the Evangelists are saints; All the Evangelists are four. 2. *A term*

affected by a particular sign has a particular supposition ; as, Some men are just. 3. When the subject of a proposition is not affected by a sign, it has a universal supposition in necessary matter, that is, when the predicate must be attributed to the subject ; as, Man is rational ; it has a particular supposition in contingent matter ; as, The French are courageous. 4. In an affirmative proposition, the supposition of the predicate is always particular ; as, Man is immortal ; in a negative proposition, the supposition of the predicate is universal ; as, Man is not a vegetable. 5. In every proposition, the supposition of the subject is according to the requirement of the predicate ; thus a numerical term requires a collective supposition ; as, The Apostles are twelve ; a necessary term requires a distributive supposition ; as, The animal is sensitive ; a contingent term requires a particular supposition ; as, The French are courageous.

20. *Appellation is material or formal.*—Appellation is material when the predicate is applied to the matter of the subject, of the quality or form denoted by the subject, and not to the form itself ; as, *The physician sings.* It is formal when the predicate is applied to the form of the subject, *i. e.*, to the quality or form which the subject expresses, as, *The physician cures.*¹

21. *Appellation is subject to the following rules :* 1. *When the predicate is a concrete term, the appellation is material ;* as, *Man is a living being.* 2. *When the subject is qualified, the predicate is affirmed of the subject only and the appellation is material ;* as, *St.*

¹ In the first example the predicate *singing* must be applied, not to the form or quality of *physician*, but to the matter, *man*, to which the form is united. In the second example, *curing* naturally belongs to the *physician* as such and therefore is applied to the form.

Thomas of Aquin was the disciple of Albertus Magnus. 3. *When the predicate is qualified, it is affirmed of the subject as having the quality expressed by the qualifier, and the appellation is formal*; as, Thomas of Aquin was a saintly disciple of Albertus Magnus. In this example, disciple is affirmed of *Thomas of Aquin*, but as being *saintly*.

ART. VII.—MEANS TO INSURE EXACTNESS OF TERMS.—
DEFINITION.

22. *Terms, to be perfect, must be clear and distinct. To obtain this result, we must have recourse to definition and division.*—The object of these two processes being to clear up what is obscure or confused, it is evident they should not be employed when things are in themselves sufficiently clear and distinct.

23. *Definition is a brief explanation of the meaning of a word or the nature of a thing.*—Whence it follows that there are two kinds of definitions, the *nominal* and the *real*; the first explains the meaning of the word, the second explains the nature of the thing signified by the word. It should be observed: 1. That the nominal definition ought to precede the real, when the nature of a thing is in question and the meaning of the word expressing it is not understood; 2. That the nominal definition, in reasoning, must never be considered tantamount to the real definition; 3. That the real definition only is scientific.

24. *There are three kinds of nominal definition: 1. According to etymology; 2. According to usage; 3. According to the meaning which the person who uses the word wishes to attach to it.*—The real definition is either *causal* or *essential*.—A nominal definition may be given according to etymology, as *Intelligence* (from

the Latin *intus legere*, to read within,) signifies intimate knowledge. We may also define a word in accordance with usage; as *By the word God, all understand the Infinite Being*. Finally, we may attach to a word whatever meaning we choose. In this case, however, care should be taken: 1. Not to be so arbitrary in our choice as to become unintelligible to others; 2. Not to use the word in a different sense during the discourse. The *causal* definition explains a thing by stating the principle which produces or generates it; as *The sphere is a solid generated by the revolution of a semicircle about its diameter*. The *essential* definition explains a thing by giving its essence, as *Man is a rational animal*; this is the most perfect kind of definition. A thing is sometimes explained by describing it; such a description is called a *descriptive* or *oratorical* definition.

25. *The definition should contain the proximate genus and the specific difference.*—By the definition the thing defined should be distinguishable from every other thing and should be known in its characteristics. But without the proximate genus the characteristics of the thing are not known; and without the specific difference the species to which the thing belongs is not known. In the definition, *Man is a rational animal*, *animal* determines the proximate genus, and *rational* the specific difference. This rule includes that laid down by the modern logicians, viz., The definition must embrace the whole of the thing defined and nothing but the thing defined. Three rules are laid down for framing a definition: 1. The definition must be plainer than the thing defined; 2. The definition must be convertible with the thing defined; 3. The thing defined must not enter into the definition.

ART. VIII.—DIVISION.

26. *Division is the distribution of a whole into its parts. Division is actual¹ or potential.*—As division is the separation of a whole into its parts, there are as many kinds of division as there are different kinds of whole. But a whole may be actual or potential, hence division may be actual or potential: *actual*, when the whole is divided into parts which it has actually, as *Man is composed of body and soul*; *potential*, when the whole is divided into parts which it has in virtue of a logical consideration, as *Substance is corporeal or incorporeal*.

27. *The division must be adequate, it must be made up of the most universal members, and of parts that exclude one another.*—1. The division must be complete, and hence equal to the whole thing divided; thus we should not divide *triangles* into *isosceles and equilateral*. 2. It should be made in such a way as to proceed from the more general parts to those which are less general; thus the division of *living things* into *plants, animals, and men* would be defective; they should first be divided into *sentient and non-sentient*. 3. The division should be such that the members in some way exclude one another, that is, no one must contain any other, much less all, so as to be equal to the whole divided; thus *man* should not be divided into *soul, body, and arms*. To these three rules may be added a fourth: The division must be *brief*, that is, the members should be few in number.

¹ The actual whole is either *physical* or *metaphysical*; *physical* when composed of physical parts, as *body and soul* in man; *metaphysical* when composed of metaphysical parts, as *animal nature and rational nature* in man.

CHAPTER II.

Judgment.

ART. I.—NATURE OF JUDGMENT.

28. *Judgment is the second operation of the mind, by which it perceives the agreement or disagreement of the predicate with the subject.*—By apprehension, the mind perceives the subject and predicate separately; but, after this operation, it compares the subject and predicate, and perceives their relation, that is, it forms a judgment. The mind, by this second act of knowledge, perfects the first, which is initial and imperfect.

The chief division of judgments is that based on their nature, and embraces the two classes of *a priori* and *a posteriori* judgments.

An *a priori* judgment is one in which the agreement or disagreement of the ideas compared is necessary, and either is manifest or can become so from their mere consideration; as *God is infinite*.

An *a posteriori* judgment is one in which the agreement or disagreement of the ideas compared is not necessary and can be known from experience alone; as *Columbus discovered America*.

A priori judgments are also called *necessary, analytical, pure, metaphysical, absolute*. *A posteriori* judgments are styled *contingent, synthetical, empirical, physical, hypothetical*.

29. *The a priori synthetical judgment of Kant must be rejected.*—In his *Critique of Pure Reason*, Kant lays down this third kind of judgment, the *a priori* synthetical. He holds rightly that all *a priori* or analytical

judgments must fulfil three conditions: 1. The predicate must be included in the notion of the subject; 2. It must be necessary; 3. It must be univocal. But he further maintains that such judgments as *Every effect has its cause*, or *7 and 5 are 12*, are wanting in the first condition. But every judgment implies the perception by the mind of the identity or diversity of the ideas compared. This identity or diversity can be apprehended either from the consideration of the ideas, and in this case the judgment is *a priori* or *analytical*; or from the consideration of the objects represented by the ideas, and then the judgment is *a posteriori* or *synthetical*. Between these there is, therefore, no middle. Moreover, if the second and third conditions are fulfilled, evidently, the first must also be fulfilled, since from it the other two result.¹

ART. II.—THE PROPOSITION AND ITS ELEMENTS.

30. *A proposition is the expression of a judgment. The elements of the proposition may be reduced to two, the noun and the verb.*—The proposition, being the expression of the judgment, must contain as many terms as the judgment. But the judgment is composed of three elements: the subject, the predicate, and the copula. To these three elements of the judgment correspond three elements of the proposition: two terms, which express the subject and the predicate, and the copula, which unites them. The two terms are generally nouns; the copula is a verb. The copula is called a verb, because the word (*verbum*) of our mind is not complete without the judgment, and the judgment is formally constituted

¹ See the clear but extended explanation in Clarke's *Logic*, p. 62 et seqq.

only by the copula. The terms constitute the matter of the proposition; the copula, which gives being to the proposition, is its form.

The verb *to be*, is often contained in the predicate, as in *I love God*, which is equivalent to *I am loving God*.¹

Besides the noun and the verb, Grammar recognizes other parts of speech, as the pronoun, adverb, conjunction, etc.; but logic is not concerned with these terms, because they do not constitute an essential element of the proposition, and because they serve only to represent or modify or correct nouns or verbs.

ART. III.—DIVISIONS OF THE PROPOSITION.

31. *The divisions of the proposition are the same as those of the judgment. The proposition is simple or compound, according to the nature of the judgment expressed. The simple proposition is either categorical or hypothetical.*—The proposition, being regarded in logic simply as the expression of the judgment, is divided into as many kinds as the judgment. But the judgment is simple or compound: simple, when the relation is established between one subject and one predicate; compound, when there are several subjects or several predicates. When the judgment is one, the predicate or subject may be absolutely simple, or simple by reason of the connection be-

¹ The use of the term predicate in Logic must be carefully distinguished from that in Grammar. In logic the predicate never includes the copula. Moreover, the copula, as the formal element of the judgment, must be in the present tense, indicative mood. Hence, such propositions as, *The Martyrs suffered for the Faith*, must be resolved into the equivalent, *The Martyrs are persons who suffered for the Faith*.

tween the parts which compose it; in the first case, the judgment is categorical, as *God is good*; in the second, hypothetical, as *If you are good, you will be rewarded*. The proposition, then, considered logically, is *categorical, hypothetical, or compound*.

32. *The categorical proposition, considered in respect to its quantity, is universal, particular, or singular, definite or indefinite; considered in respect to its quality, it is affirmative, negative, or infinite; considered in respect to the mode or manner in which it asserts that the predicate applies to the subject, it is modal.*—The categorical proposition may be divided in the same manner as the judgment which it expresses. Hence according to its *quantity*, that is, according to the extension of its subject, it is *universal* if the subject is universal; as *All men are mortal*; *particular*, if the subject is particular, as *Some men are just*; *singular*, if the subject expresses only one individual, as *Peter is just*. The proposition may sometimes appear universal without in reality being so, as *Men are deceptive*. Propositions are called *indefinite*,¹ when the subject is not affected by a determinate sign, as *The French are courageous*; and *definite*, when the subject is affected by a determinate sign, as *Some men are deceptive*. According to its *quality*, that is, according to the affirmation or negation indicated by the copula, the proposition is *affirmative*, as *God is good*; or *negative*, as *The soul is not mortal*. If the negation does not affect the copula, but the predicate, the proposition is then said to be *infinite*, as *The human soul is not*

¹ The singular proposition is the most limited case of the particular proposition. The indefinite proposition is universal or particular according as it expresses a necessary or a contingent truth. See Clarke's *Logic*, pp. 274, 275.

mortal. A proposition is *modal* when it expresses the mode or manner in which the predicate is attributed to the subject, as, *God is necessarily good*. The predicate may be asserted of the subject according to four modes: the *necessary*, the *contingent*, the *possible*, and the *impossible*. There are, then, four kinds of modal proposition: as *Man is necessarily rational*; *Man may be good*; *Man can be bad*; *Man cannot be an angel*. The truth of the modal proposition depends on the mode according to which the predicate is attributed to the subject; thus, the proposition, *Man is necessarily bad*, is false.¹

33. *The hypothetical proposition is copulative, disjunctive, conditional, causal, relative, adversative, exclusive, exceptive, comparative, or reduplicative.*—The hypothetical proposition consists of several propositions expressing several judgments which make but one in virtue of some logical bond established between them; as *If you are good, you will be rewarded*. The truth of the hypothetical proposition depends not upon each judgment, but upon the connection between the various judgments; as *If the soul is material, it is not immortal*.² The hypothetical proposition is *copulative*, when the several categorical propositions are united by the conjunction *and*, expressed or understood; as *Time and Truth are friends*. It is *disjunctive*, when the several categorical propositions are

¹ The mode always affects the *copula* in true modal propositions. They are always capable of being resolved into another proposition of which the word or words expressing the mode is the predicate. Thus, *Man can be bad* is equivalent to *That man be bad is possible*.

² Hence either subject or predicate, or both, in a conditional proposition may be affected by a negative, but the proposition will not be negative unless the dependence of the consequent on the antecedent be not true.

united by the particles *either, or*; as *It is either day or night*. It is *conditional*, when, by means of the particle *if*, it unites two categorical propositions, one of which contains the reason or condition of the other; as *If he is good, he will be rewarded*. The first proposition, which contains the reason of the other, is called the *antecedent*, the second the *consequent*. The *causal* proposition states the reason why the antecedent contains the consequent, by means of the particle *because* or a word of similar import; as *He is proud, because he is rich*. The *relative* proposition expresses some similitude between the propositions which compose it; as *Such as life is, such shall death be*. The *adversative* proposition, on the contrary, expresses some opposition between its members by means of the particles *but, nevertheless, etc.*; as *Virtue is persecuted, but it will be rewarded*.—Besides these hypothetical propositions proper, there are others, hypothetical in reality, though seemingly categorical, and called *expositive*. They are of four kinds: *exclusive, exceptive, comparative, and reduplicative*. The first is affected by an exclusive particle; *only, alone, etc.*; as *Virtue only is praiseworthy*. The second is affected by an exceptive particle, *besides, except*; as *All is lost except honor*. The third is affected by a comparative particle, expressed or implied; as *Gentleness effects more than violence*. The fourth is a proposition whose subject is affected by a particle which repeats it, *inasmuch as, in the sense that, etc.*; as *Fire, inasmuch as it is fire, burns*.

34. *The propositions composing the compound proposition may be principal or incidental*.—The compound proposition is that which, in one proposition, contains several independent judgments, which may

be expressed in several propositions ; as, *Patience and meekness are virtues ; Charity is meek and patient.* That the compound proposition may be true, all the parts which compose it must be true ; thus, the proposition *Men and angels are mortal* is false.

The compound proposition may be resolved into several grammatical propositions either co-ordinate, *i. e.*, simply in juxtaposition, as in the foregoing example, or into propositions some of which are principal and others explanatory incidents ; as *Sin, detested by God, sullies the soul*, which is equivalent to the two independent judgments, *Sin is detested by God*, and *Sin sullies the soul*. If the propositions joined to the principal one are subordinate or are restricting incidents, the whole proposition is not compound but simple.

ART. IV.—PROPERTIES OF PROPOSITIONS.

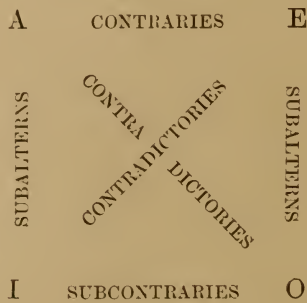
35. *The properties of propositions are three: opposition, conversion, equipollence.*

36. *Opposition is the affirmation and negation of one and the same thing on one and the same point.*

37. *Opposition is twofold, contradictory and contrary.—Contradictory* opposition is the repugnance between two opposite propositions, the one being universal and the other particular, or both being singular. *Contrary* opposition is the repugnance between two opposite universal propositions. Some recognize what is called *Subcontrary* opposition, which holds between two opposite particular propositions ; but this is not true opposition, since the subjects of the two propositions may express different things. Still less can we consider as opposition that which is called *Subaltern*, and which holds between

two affirmative or two negative propositions, the one being universal and the other particular. In this case there is no opposition, since there is no affirmation and negation of one and the same thing on one and the same point. Of the four propositions: *All men are wise*, *No man is wise*, *Some men are wise*, *Some men are not wise*, the first and second are contraries; the first and fourth, the second and third, contradictories; the third and fourth, subcontraries; the first and third, the second and fourth, subalterns.

Representing the universal affirmative proposition by *A*, the universal negative by *E*, the particular affirmative by *I*, and the particular negative by *O*, we have the following diagram:



38. *Contrary or contradictory propositions cannot both be true. Of two contradictories, the one must be true and the other false. Contraries may both be false. Subcontraries may both be true, but cannot both be false. Subalterns may both be true or both false, or, the one may be true and the other false.*

39. *Equipollence is the equivalence in meaning of two propositions which are expressed in different terms.—Equipollence may also be defined. The reduction*

of two opposite propositions to the same meaning ; as, *Every man is a rational being ; Every rational being is a man.* These two propositions are said to be equipollent.

40. *When the subject of a contradictory proposition is affected by a negation, it becomes equivalent to its contradictory. When the predicate of a contrary proposition is affected by a negation, it becomes equivalent to its contrary. When the predicate of a subcontrary proposition is affected by a negation, it becomes equivalent to the other subcontrary. When the negation affects both subject and predicate of a subaltern proposition, it becomes equivalent to the other subaltern.*—These three rules result from what has been said concerning the nature and rules of opposite propositions.

41. *Conversion is that change in a proposition by which, without altering its truth, the predicate is made the subject, and the subject the predicate.*—The proposition susceptible of being converted is called *convertible*, the proposition which results from its conversion, the *converse*.

42. *Conversion is simple, per accidens, and by contraposition.*—The conversion is *simple* when, the predicate being made the subject, the proposition retains its quantity ; as, *No man is a plant ; No plant is a man.* It is *per accidens*, when, the predicate being made the subject, the proposition changes its quantity ; as, *The French are men ; Some men are French.* It is by *contraposition*, when, the predicate being made the subject, finite terms are changed into infinite ; as *All men are animals ; All not-animals are not-men ; Only animals are men.*

The universal negative propositions and the par-

ticular affirmative are converted simply, as, *No man is an angel ; No angel is a man.*

The universal affirmative and the universal negative are converted *per accidens*, as, *All men are mortals, Some mortals are men.*¹

The particular negative and the universal affirmative are converted by contraposition, as, *Some men are not just ; Some individuals not-just, are not no-men. Some who are not just are men.*

CHAPTER III.

Reasoning.

ART. I.—DEFINITION AND ELEMENTS OF REASONING.

43. *Reasoning is the third operation of the mind, by which, from the relation existing between two judgments, it infers a third as the result of the other two.*—There are two kinds of judgments. Some are self-evident, and, on that account, are called *intuitive* or *immediate*. Others are not self-evident, and are called *deductive* or *mediate*; the relation between the predicate and the subject cannot be perceived without comparing them with a third term. The act by which we seek to determine the relation of two terms by comparing them with a third is reasoning.

44. *The elements of reasoning are three terms and three judgments, and the relation existing between these*

¹ “Conversion by contraposition is based on the fact that to assert an agreement of two objects of thought is to deny the agreement of either of them with the contradictory of the other.”—See Clarke’s *Logic*, pp. 301, 302.

terms and judgments.—Reasoning must contain three terms, since its end is to establish the relation between a subject and a predicate by means of a third term. Again, it must contain three judgments: two to show the relation of the subject and predicate with a middle term, a third to point out the relation of the predicate with the subject. The three terms and the three propositions constitute the *matter* of reasoning, their connection constitutes its *form*.

45. *The truth of a reasoning may be considered in respect both to its matter and its form.*—That a reasoning may be *materially* true, it suffices that the premises and the conclusion be separately true; but that it be *formally* true, the connection between the conclusion and the premises must be true; hence it is clear that reasoning may be materially true and formally false, and *vice versa*.

46. *All reasoning is based on one of these two axioms:*
 1. *Two things which agree with a third, wholly or in part, agree with each other, wholly or in part;* 2. *Two things, one of which agrees, wholly or in part, with a third, with which the other does not agree, do not agree with each other.*—The first axiom is the principle of affirmative reasoning; the second is the basis of negative reasoning.

ART. II.—DIVISIONS OF REASONING.

47. *Reasoning considered in respect to its form, is deductive or inductive; considered in respect to its matter, it is categorical or hypothetical.*—In a reasoning a predicate is affirmed or denied of a subject, because, after comparing each of them with a middle term, it becomes manifest whether the middle term does or does not contain the other two. Now, as one thing

may be in another as a part is in the whole, or as the whole is in the sum of its parts, reasoning is of two kinds, according as we proceed from the whole to its parts, or from the parts to the whole; that is, according as we proceed from genera to species and from species to individuals, or from individuals to species and from species to genera. The first is *deductive* reasoning, the second is *inductive*. Reasoning considered in respect to the judgments entering into it, is *categorical* or *hypothetical*. But whether reasoning be inductive or deductive, categorical or hypothetical, the truth of the conclusion is always mediate and deduced. Hence the regular form of all reasoning is deduction or the *syllogism*.

ART. III.—THE CATEGORICAL SYLLOGISM AND ITS RULES.

48. *The syllogism is that form of reasoning in which the two extremes of a proposition are compared affirmatively or negatively with a third, in order to determine whether their relation with each other is affirmative or negative.*—It is easily seen from this definition that the syllogism must contain three terms and three propositions. The subject of the deduced proposition is called the *minor term* or *minor extreme*; the predicate is called the *major term* or *major extreme*, because the predicate, when not identical with the subject, has always a greater extension than the subject. The term with which the extremes are compared is called the *middle term*. The two propositions in which the two extremes are compared with the middle are the premises or the antecedent; that which contains the major term is called the major premise; that which contains the minor term is called the minor premise. The proposition which is

deduced from the other two, or in which the minor term is compared with the major, is called the *conclusion* or *consequent*.

49. *The syllogism is subject to the following eight rules:*

I. The syllogism must contain only three terms.

II. No term must have a greater extension in the conclusion than in the premises.

III. The middle term must be taken universally at least once in the premises.

IV. The middle term must not enter into the conclusion.

V. Nothing can be concluded from two negative premises.

VI. A negative conclusion cannot be drawn from two affirmative premises.

VII. The conclusion always follows the weaker part.

VIII. From two particular premises nothing can be concluded.

I. The first rule flows from the very essence of the syllogism, which consists in establishing a relation between two terms by means of a third. This rule is usually violated by using one of the terms in two different senses; as, *Every spirit is endowed with intelligence; but alcohol is a spirit; therefore, it is endowed with intelligence.*

II. The conclusion cannot be more extended than the premises; otherwise, we should have a consequent not contained in the antecedent, an effect which transcends its cause; as, *The eagle is an animal; but the eagle flies in the air; therefore, all animals fly in the air.*

III. The middle term must be taken, at least once, universally; otherwise, being twice particular, it

would be equivalent to two different terms, and we should have a syllogism containing four terms; as, *Some animate beings are endowed with reason; but the horse is an animate being; therefore, the horse is endowed with reason.*

IV. The middle term must not be found in the conclusion; because, being used as a term of comparison, for the purpose of finding a relation between the other two terms, its proper place is in the premises, where this relation is established. Its appearance in the conclusion really introduces a fourth term into the syllogism; as, *Astronomers are learned; Peter is an astronomer; therefore, Peter is a learned astronomer.*

V. Two negatives give no conclusion; for, in that case we simply see that the term chosen for the middle cannot serve to establish any relation between the extremes; hence the antecedent is null, and no consequent can be drawn from it; as, *Shepherds are not learned; but Peter is not a shepherd. It cannot be concluded either that Peter is or is not learned.*

VI. A negative cannot be inferred from two affirmatives, for two things identical with a third cannot but be identical with each other.

VII. The conclusion always follows the weaker part; that is, if one of the premises is negative the conclusion must be negative; if one of the premises is particular, the conclusion must be particular. In the first place, it is evident that, if one of two things is identical with a third, and the other is not, the two things cannot be identical with each other. In the second place, if one of two premises is particular, the conclusion cannot be universal, otherwise it will

have a term more extended here than in the premises.

VIII. Two particulars afford no conclusion ; because if both are affirmative, the middle term must be twice particular ; if one of the two is negative, the conclusion must contain a universal term which is particular in the premises.

All these rules may be reduced to the following *Rule of Modern Logicians*: *The conclusion must be contained in one of the premises, and the other premise must show that it is therein contained.*

ART. IV.—THE MODES AND FIGURES OF THE
SYLLOGISM.

50. *The mode of the syllogism is its form according to the quantity and quality of the three propositions which enter into it.*—Propositions, considered in respect both to their quantity and quality, are of four kinds : 1. *Universal affirmative* ; 2. *Universal negative* ; 3. *Particular affirmative* ; 4. *Particular negative*. Logicians have designated these four kinds of propositions by the letters A, E, I, O. It is evident that these four propositions, combined in threes, give sixty-four possible combinations ; but applying to these the rules of the syllogism, there will be found only ten valid modes. These are : AAA, AAI, AEE, AII, AOO, EAE, EAO, EIO, IAI, OAO.

51. *The figure of the syllogism is its form according to the position of the middle term in the premises.*—The middle term in the premises may be : 1. Subject of the major and predicate of the minor ; 2. Predicate of both ; 3. Subject of both ; 4. Predicate of the major and subject of the minor. There are, then, four figures ; but many logicians make no account of the fourth, or turn it into the first. Each figure is

susceptible of the ten modes, because the propositions may preserve their quality and quantity without changing the place of the middle term.

52. *There are only nineteen conclusive modes: they are designated by the following lines:*

- I. *Barbara, Celarent, Darii, Ferio.*
- II. *Cesare, Camestres, Festino, Baroco.*
- III. *Darapti, Felapton, Disamis, Daisi, Bocardo, Ferison.*
- IV. *Bamalipon, Camentes, Dimatis, Fresapno, Fresisonorum.*

Applying the rules of the syllogism to these modes, we see that the *first figure*, in which the middle term is subject of the major and predicate of the minor, excludes: 1. Modes whose minor is negative; 2. Modes whose major is particular; 3. AAI, EAO as useless. The *second figure*, in which the middle term is used twice as predicate, excludes: 1. Modes whose two premises are affirmative; 2. Those in which the major is particular; 3. EAO as useless. The *third figure*, in which the middle term occurs twice as subject, excludes: 1. Modes in which the minor is negative; 2. Modes in which the conclusion is universal. The *fourth figure*, in which the middle term is predicate of the major and subject of the minor, excludes: 1. Modes having an affirmative major with a particular minor; 2. Modes having an affirmative minor with a universal conclusion; 3. OAO as contrary to the second rule. There remain only the following nineteen valid modes:

1st Figure, AAA, EAE, AII, EIO. 2d Figure, EAE, AEE, EIO, AOO. 3d Figure, AAI, EAO, IAI, AII, OAO, EIO. 4th Figure, AAI, AEE, IAI, EAO, EIO.

All these modes may be converted into the four modes of the first figure, which, on that account, are called perfect. They are summed up in the four lines already given, which, by a happy disposition of vowels and consonants, designate at once a particular mode, the perfect mode into which it may be converted, and the diverse operations by which the conversion is affected. The first three vowels of each word indicate the mode; the initial consonant shows to what mode of the first figure this mode may be reduced; the consonants S, P, C, M, denote the operation to be performed in order to effect the reduction. S indicates that the proposition designated by the vowel before it must be converted *simply*; P, that it must be converted *per accidens*; C, that the syllogism must be reduced *per impossibile*; M signifies that the order of the premises must be changed.

Thus the syllogism, *What is material is not simple; one simple being is the soul; therefore, the soul is not material*; is designated by *Fresisonorum* of the fourth figure; for the mode is seen from the three vowels E A O, and the figure is known by the position of the middle term. This mode may be reduced to that mode of the first figure that begins with *F*, viz., *Ferio*. The letter S following E and I in *Fresisonorum* indicates that the premises represented by these two letters are to be converted simply. Hence the syllogism becomes: *What is simple is not material; the soul is simple; therefore, the soul is not material.*

ART V.—THE HYPOTHETICAL SYLLOGISM AND ITS RULES.

53. *The hypothetical syllogism is that in which one of the premises is hypothetical.*—If one premise of the syllogism is a disjunctive proposition, the syllogism

is called *disjunctive*. If one premise is a conjunctive proposition, the syllogism is *conjunctive*. Finally, if one premise is conditional, the syllogism is *conditional*. The hypothetical syllogism, of whatever kind, besides the rules peculiar to it, is subject to the eight rules of the categorical syllogism.

54. *The disjunctive syllogism is subject to the two following rules: 1. One of the incompatible predicates being affirmed in the minor, all the others must be denied copulatively in the conclusion; 2. One of the incompatible predicates being denied in the minor, all the others must be affirmed disjunctively in the conclusion.*—It is evident that, for the legitimacy of the conclusion of the disjunctive syllogism, the disjunctive premise must make a complete enumeration of all the predicates that can agree with the subject. Hence this syllogism is false: *The rich must either squander their money or hoard it; but they should not hoard it; therefore, they should squander it.* The disjunction is not complete; it has omitted a third term, which is *to expend money prudently.*

55. *The conjunctive syllogism, from the affirmation of one of the members, infers the negation of all the others; but not vice versa.*—It is clear that the conclusiveness of this syllogism requires that the members enumerated in the conjunctive proposition be opposed to each other in such a way that they cannot agree with the same subject at the same time; as, *No one can serve God and Mammon; but many serve Mammon; therefore, many do not serve God.* From this example it is clear that, if the minor were negative, as, *But the spendthrift does not serve Mammon,* we could not infer the affirmative: *Therefore, he serves God.*¹

¹ The minor of a conjunctive syllogism always denies one of the two alternatives expressed in the major.

56. *The conditional syllogism concludes in two ways :*

1. *From the affirmation of the antecedent it infers the affirmation of the consequent; 2. From the negation of the consequent it infers the negation of the antecedent; but not vice versa.*—In fact, the antecedent contains the reason of the consequent; therefore, the affirmation of the first implies that of the second, as the negation of the second implies that of the first; as, *If Christ arose from the dead, he is God; but he did arise from the dead; therefore, he is God.* But since an effect may depend on several causes, the inverse of the rules laid down would not give a logical conclusion; as, *If Peter is studious, he merits a reward; but he is not studious; therefore, he does not merit a reward.* It is clear that a reward may be merited for some other reason besides that of *being studious.*¹

ART VI.—THE IMPERFECT AND THE COMPOUND SYLLOGISM,
OR THE ENTHYMEME, THE PROSYLLOGISM, THE
EPICHIREMA, THE SORITES, AND THE
DILEMMA.

57. *The enthymeme is an imperfect syllogism, one premise of which is understood; as, God is Just; therefore, he will reward the good.*

58. *The prosyllogism is a syllogism composed of two syllogisms, the conclusion of the first becoming the major of the second; as, Every virtue is rewarded by God; but humility is a virtue; therefore, humility is rewarded by God; but the bearing of injuries is humility; therefore, the bearing of injuries is rewarded by God.*

59. *The epichirema is a syllogism composed of premises at least one of which is accompanied with proof; as, God*

¹ The minor of a conditional syllogism must always assert the antecedent or deny the consequent.

*must be adored; but Jesus Christ is God, as his life and miracles attest; therefore, he must be adored.*¹

60. *The sorites is a form of reasoning composed of several propositions so connected that the predicate of the first becomes the subject of the second, and so on, until the predicate of the last is joined to the subject of the first.*—This form of reasoning may be separated into as many syllogisms as there are propositions less two. It rests on the principle that whatever is said of the predicate may be said of the subject. Ex. *Sin offends God; whatever offends God separates us from him; whatever separates us from God deprives us of the sovereign good; whatever deprives us of the sovereign good is the greatest of evils; therefore, sin is the greatest of evils.*

61. *The dilemma is a compound syllogism, in which each member of a disjunctive major premise is taken in a minor consisting of several conditional propositions, and serves to conclude against the adversary.*—In this form of reasoning care must be taken: 1. That the disjunction of the major be complete; 2. That each member of the minor be indisputable. Ex. *A general said to a soldier who had allowed the enemy to pass: "Either you were at your post or you were not; if you were, you deserve death for neglecting to give notice of the enemy; if you were not, you deserve death for breach of discipline."*

62. *To these arguments may be added the Example, a*

¹ Both the enthymeme and the epichirema have changed in meaning since the days of Aristotle, who defines the former as a *syllogism drawn from probabilities and signs of the conclusion*; and the latter as a *dialectical syllogism*, in which the conclusion is reached after a careful examination of objections and difficulties. See Father Clarke's *Logic*, pp. 356, 359.

species of reasoning in which one proposition is drawn from another to which it has a relation of resemblance, of opposition, or of superiority.—This argument may be reduced to a syllogism whose major is confirmed by a particular fact bearing on the consequence which we wish to draw. Ex. 1. *Our Lord pardoned St. Peter on account of his repentance; therefore, he will pardon you, if, having imitated St. Peter in his fault, you likewise imitate him in his repentance.*—2. *Louis XIV. and Napoleon I. caused great evils on account of their love of war; it is therefore desirable that a people have a sovereign who loves peace.*—3. “Behold the fowls of the air, for they sow not, neither do they reap, nor gather into barns; yet your heavenly Father feedeth them. Are not you of much more value than they?” (St. Matt. vi. 26.) In the first example we conclude *a pari*; in the second, *a contrario* or *ab opposito*; in the third, *a fortiori*.

When the example is drawn from the words and actions of an adversary and used against him, it is then called *argumentum ad hominem*.

ART. VII.—INDUCTION.

63. *Induction is that process in which the mind, after affirming or denying a predicate of each part of a whole, pronounces the same judgment of the whole.*—As has been said already, the reasoning process is twofold: it proceeds either from the whole to the parts which compose it, or from the parts to the whole which they constitute. In the first case the mind makes a deduction, and in the second an induction. Example of induction: *The Gospel has penetrated into Europe, Asia, Africa, America, and Oceanica; but these five Grand Divisions make up the whole known world; therefore,*

the Gospel has penetrated into all the known world. From this example it becomes manifest that the middle term in the inductive syllogism is simply the enumeration of the parts. These parts united are in reality identical with the whole, though logically distinct from it; they can, consequently, perform the function of a middle term.

64. *The legitimacy of the inductive syllogism rests on the principle that, the sum of the parts being identical with the whole, whatever is affirmed or denied of all the parts may be affirmed or denied of the whole.*—Hence, that the inductive syllogism may be rigorously conclusive, it is essential that the enumeration of the parts composing the whole be complete. But this enumeration may be actually or virtually complete: actually, when what has been predicated of the whole has been verified in each of its parts: virtually, when the predicate has been verified only in a certain number of the parts, and we suppose it applicable to the others on the *principle of analogy*. In virtue of this principle, the mind regards that which is constant in a certain number of beings as essential to their nature. Hence, knowing that whatever proceeds from the nature of a being is always verified in that being and in all others having the same nature, the mind concludes that a quality which it has verified in some beings must be found under the same circumstances in all beings having the same nature.

When induction is really incomplete, it does not authorize a universal and absolute conclusion.¹ It

¹ "In spite of this, these methods (of incomplete induction) cannot be passed over in the present day. They are too important a factor in the present condition of human society to admit of our neglecting them. . . . Besides, we must understand and appreciate them in order to protest against their abuse. . . . Mill and his followers drag down all the

gives only a greater or less degree of probability, in direct ratio to the number of parts in which the predicate has been verified.

ART. VIII.—THE PROBABLE OR DIALECTIC SYLLOGISM.

65. *The probable syllogism is that which gives only a probable conclusion.*—Apart from the sciences and in the affairs of life, we cannot ordinarily arrive at complete certitude ; we must be satisfied with probability. The argument which is thus concerned with contingent matter and with things known only in part is called a *probable argument*, and its expression, a *probable syllogism*.

66. *When we argue in probable matter, we must seek certitude in all that is susceptible of it.*—Hence : 1. We must be assured of the possibility of the thing ; 2. We must establish the certainty of all the circumstances of which we can be sure ; 3. We must determine with certainty whether there are stronger motives in favor of one side than of the other. Made use of in this way, the probable syllogism often prepares the way to complete certitude and leads to science properly so called ; at all events, it gives solidity to the mind, prevents it from advancing anything rashly, *a priori* laws to the level of the *a posteriori*, or rather deny the existence of *a priori* laws at all. This is the fatal result of the neglect of scholastic methods, which began at the Reformation, and has been carried further day by day." Clarke's *Logic*, p. 387. The whole chapter is worthy attentive study.

Father Clarke sums up the place in Logic of Inductive Methods by developing the following heads : 1. They certainly claim a place in Material Logic, if not in formal ; 2. These Inductive Methods can never give us *absolute* certainty, but they can give us *physical* certainty ; 3. We must always be on our guard against allowing ourselves to be persuaded into a conviction of the truth of some general hypothesis when the concurrent evidence is not sufficient of itself to establish it.

and from judging of an accomplished fact without reflection.

ART. IX.—THE FINDING OF THE MIDDLE TERM.

67. *That which is most essential in a reasoning is the finding of the middle term.*—As the art of reasoning consists in showing, by means of a term called the middle, the agreement or disagreement between the two extremes of a conclusion, it is of the utmost importance, in examining a question, to discover the middle term; hence logic should teach how and where this term is to be found.

68. *The rules for finding the middle term may be reduced to two: 1. When the conclusion is a universal affirmative, the middle term must be universally affirmable of the subject, and the predicate must be universally affirmable of the middle term; 2. When the conclusion is a universal negative, the middle term must disagree with the subject and agree with the predicate, or agree with the subject and disagree with the predicate.*—All the modes of reasoning may be reduced to the four perfect modes; but of these four modes, the first two only are scientific, because they only are universal. Hence the rules for finding the middle term may be reduced to those which relate to the middle term in these two modes. But in a universal affirmative conclusion, the predicate is found to be included in the subject by means of a term which contains the predicate, and which itself is contained in the subject. We must, therefore, look for all the superior predicates of the subject of the conclusion, and all the inferior subjects of the predicate of the conclusion. In a universal negative conclusion, the predicate and subject being denied of each other, it suffices to find a

term which, disagreeing with the one, agrees with the other. We often determine the middle term by pointing out the inconvenience which would arise if an affirmative proposition were denied, or a negative one affirmed.

69. *The sources whence middle terms are taken are called topics or common-places. Ten of them are usually assigned: cause, effect, subject, accessories, contrariety, likeness, name, definition, division, and authority.*—We are effectually aided in finding the middle term by an examination into the *cause* or *effect* of the subject or predicate of the proposition to be established. We are also assisted by examining the *subject* to which either cause or effect is applicable, the *accessories* or circumstances which accompany the cause and effect, what is contrary to them or like them, the *name* which is assigned to them, the *definition* which is given of them, either by genus or species or simple difference; also by observing how the subject or predicate is *divided* and what parts compose it; and finally, by noting on what *authority* or testimony the affirmation may be supported. The common-place of authority comprehends *law, custom, written documents, testimony, oaths, report*; these are *extrinsic* topics, that is, topics taken from outside the thing; the others are *intrinsic* topics, that is, topics taken from the nature of the thing. With the intrinsic topics may also be classed those of *genus, species, property, accident, antecedents, consequence, repugnance, comparison, the whole, and the parts*. All the topics, intrinsic as well as extrinsic, are called probable or dialectic, because they afford middle-terms to probable or dialectic reasoning. Some, however, as those of cause, division, and above all, definition, are used in demonstrative or

and analytical reasoning, because they express a necessary and evident agreement or disagreement between the extremes of the proposition.

ART. X.—THE SOPHISTICAL SYLLOGISM.

70. *A sophism is a syllogism which leads into error, and yet has the appearance of truth.*—The better to enable us to arrive at truth by means of reasoning, logic not only lays down the rules to which a syllogism must conform to be conclusive, but, moreover, exposes the artifices by which our minds are liable to be led into error, and thus enables us the better to defend ourselves against them. These artifices are called *sophisms*, when they suppose in him who makes use of them the desire to deceive; they are called *paralogisms* when they are employed through inadvertence or through ignorance of the rules of reasoning; in either case they may be called fallacies. Taken together, they constitute the art of sophistry, which was particularly taught and practised by the Greek orators, in order that by enabling them to support at pleasure all causes and parties, it might be to them the means of acquiring wealth and influence.

71. *Fallacies are divided into those of word and those of thought, according as they lead into error by an abuse of words or by captious thought.*—Fallacies in word are six in number: (a) *Equivocation*, (b) *Amphibology*, (c) *Fallacy of composition*, (d) *Fallacy of division*, (e) *Fallacy of accent*, (f) *Fallacy of diction*.—Fallacies in thought are seven in number: (a) *Fallacy of accident*, (b) *Passing from the absolute to the relative and vice versa*, (c) *False cause*, (d) *Evading the question, or, Irrelevant conclusion*, (e) *Fallacy of consequent*, (f) *Begging the question and vicious circle*, (g) *Fallacy of many questions*.

The principal fallacies in words are six :

(a) *Equivocation*, which consists in using an equivocal term ; as, *The dog is a constellation ; but Rover is a dog ; therefore, Rover is a constellation.*

(b) *Amphibology*, which consists in making use of a phrase in a twofold sense, as, *God has given us riches for our happiness ; therefore, in employing riches for our pleasures, we fulfil the design of God.*

(c) The fallacy of *composition*, which arises when things which are separately true are taken as collectively true, as, *The Gospel states that the blind saw ; but that the blind should see is a contradiction ; therefore, the Gospel contains contradictions.*

(d) The fallacy of *division*, which is the reverse of the preceding ; as, *According to the Scriptures, the impious shall not enter the kingdom of heaven ; therefore, it is useless for the impious to repent.*

(e) The fallacy of *accent*, which changes the meaning of a word by changing the accent ; as, *He conjured me not to betray my country, therefore, he practised the black art.*¹

(f) The fallacy of *diction*, which passes from the identity of the thing to the identity of the quality ; as, *The man who was with you three years ago is buried ; but the man was alive ; therefore, a man has been buried alive.*

The principal fallacies in the thought are seven :

(a) The fallacy of *accident*, which occurs when what is only accidental is affirmed as necessary ; as, *Orators often mislead the people ; therefore, eloquence*

¹ The fallacy of *accent* also includes the mistaking of one word for another having the same pronunciation but a different spelling ; as if I should say that there were small islands in the church, because it has many *aisles*.

is to be *condemned*. With this fallacy may be classed that which is called *imperfect enumeration*.

(b) The fallacy of passing from the *absolute* to the *relative*, and *vice versa*, which occurs when we argue from what is true absolutely to what is true only relatively, and *vice versa*; as, *We must obey our parents; but my parent's command me not to discharge my duties towards God; therefore, etc.*

(c) The fallacy of *false cause*, which occurs when we assign as the cause of an effect what is not really such; as, *Inebriety is bad; but wine inebriates; therefore, wine is bad.*

(d) *Evading the question*, or, *irrelevant conclusion*, which occurs when we prove something which is not in question, as would be the case if *a minister of state, being pressed to modify certain laws, should demonstrate the necessity of law.*

(e) The fallacy of *consequent*, which occurs when in a reasoning we convert things which are not convertible; as, *If that be a man, it is an animal; therefore, if it be not a man, it is not an animal.*

(f) *Begging the question*, which occurs when we assume, in fact or in principle, the thing in question, or that which requires to be proved; as would be the case if we should undertake to prove that the earth revolves about the sun thus: *The sun is at rest; therefore, the earth revolves about it.* When this fallacy proves one of two disputed propositions by the other, it is called a *vicious circle*; as if *after relying on the veracity of a witness to prove a fact, I should rely on the truth of the fact to prove the veracity of the witness.*

(g) The fallacy of *many questions*, or of *interrogation*, occurs when several questions requiring different

answers are asked, and the answer given to one is assumed as applicable to the others; as, *Are virtue and vice good or evil?* Whether we answer *yes* or *no*, we fall into error.

We may also classify among fallacies all reasonings in which any one of the rules of the syllogism is violated.

ART. XI.—UTILITY OF THE SYLLOGISM.

72. *The use of the syllogism gives clearness, strength, and flexibility to the mind.*—By the use of the syllogism the mind discerns more readily the value of a reasoning and detects more easily the vices of a fallacy. As gymnastics strengthens the body and makes it supple, so the use of the syllogistic art gives solidity, flexibility, and precision to the mind. It is evident, however, that, though the use of the syllogism presents these great advantages, its abuse may easily generate stiffness and subtlety, and impede the progress of intelligence instead of aiding it.

LOGIC.

PART II.

Truth and Science.

73. *The second part of logic, having for its object the end of reasoning, that is, science in general, treats: 1. Of the different states of the mind in respect to truth; 2. Of demonstration; 3. Of science in general and of its divisions.*—Before treating of science in itself, and the way in which the sciences are divided and coordinated, it is well to examine: 1. What is truth, the object of science, and what are the different states of the mind in respect to truth; 2. What produces science, viz., demonstration.

CHAPTER I.

Truth and the Different States of the Mind
in respect to it.

ART. I.—TRUTH.

Truth is the conformity between the mind and the thing.—I judge that *God is good*; this judgment corresponds to what God is in reality; hence it is true. In the same way, every creature corresponds to the idea which God has of it; that is, every creature is true.

75. *Truth is metaphysical or logical.*—Truth is in the thing or in our cognition of the thing. In the former case, it is the conformity of the thing to the divine intellect; this is *objective* or *metaphysical* truth. In the latter case, it is the conformity of our cognition to the thing known; this is *subjective* or *logical* truth. Logical truth, according to its object, is of the spiritual or corporeal order, general or particular, natural or supernatural. To metaphysical and logical truth may be added *moral* truth or *veracity*, the opposite of which is *falsehood*. Moral truth depends on logical truth, as the latter depends on metaphysical.

76. *The opposite of logical truth is error; metaphysical truth has no opposite.*—Our intellect is not the cause of creatures, and the knowledge which it acquires of them may represent them differently from what they are. There may, therefore, exist in our mind logical falsity or *error*. On the contrary, the divine intellect being the cause of everything that is, every being is necessarily such as God knows it; every being, therefore, must necessarily be metaphysically true. Hence being and metaphysical truth may be affirmed of each other, and it may be said that whatever is is true, and whatever is true is, and that God, the absolute Being, is also the absolute truth.

ART. II.—IN WHAT OPERATION OF THE MIND LOGICAL TRUTH IS FOUND.

77. *Logical truth is, properly speaking, found only in the act of judgment.*—Logical truth is a correspondence between the mind and the thing; it can, therefore, strictly speaking, be found only in that operation of the mind which perceives and expresses this correspondence, that is, in the act of judgment.

78. *Truth is not properly in simple apprehension nor even in sensation.*—Every cognoscitive faculty, put in presence of its object, must apprehend the object as it is. Hence simple apprehension, and even sensation, knows things as they are, and this knowledge is *materially* true or conformed to the thing. But as the mind has no cognition of this conformity, since there is no judgment, it follows that there is not, in apprehension or sensation, *formal* truth or truth properly so called.

ART. III.—DIFFERENT STATES OF THE MIND IN RESPECT TO TRUTH.

79. *There are three different states of the mind in respect to truth : 1. Certitude, 2. Opinion or probability, 3. Doubt.*—*Certitude* is that state of the mind in which it firmly adheres to a known truth without fear that the contrary may be true. *Opinion* is that state of the mind in which it adheres to something known, but with fear that the contrary may be true. *Doubt* is that state of the mind in which it is in suspense and adheres neither to the affirmative nor the negative of the thing proposed. Doubt is *negative* when the mind perceives no motive to adhere either to the affirmative or the negative ; doubt is *positive* when the mind has as strong motives for adhering to the affirmative as to the negative.

80. *Probability, whatever its degree, is specifically distinct from certitude.*—Probability holds a middle place between doubt and certitude ; it is susceptible of increase and diminution and may have several degrees ; but none of these degrees, however great, will constitute certitude. This latter, on the contrary, cannot admit of degrees ; it is or it is not. The calcula-

tion of probabilities has its foundation in the ascertained relation existing between the probable thing and its contrary. This calculation confined within proper bounds may become a legitimate source of knowledge, on which are based certain social institutions, such as insurance companies.

81. *The elements of certitude being, 1. The truth of the object, 2. The firmness of conviction, 3. The motive which produces conviction, it may be divided according to the particular element in reference to which it is considered.*—Relatively to the truth of the object, certitude is *experimental or scientific, immediate or mediate*, according as the truth itself is experimental or speculative, known immediately or by means of reasoning. In respect to the firmness of adhesion, this adhesion, while it always excludes doubt, may be more or less perfect according to the perfection of the motive producing it; we have, therefore, *certitude of evidence*, which is produced by an intrinsic motive, and *certitude of faith*, which is produced by an extrinsic motive. Certitude of evidence is *metaphysical, physical, or moral*; for the intrinsic motive which produces it is nothing more than the perception of the connection existing between a thing and its attribute. But this connection belongs either to the metaphysical order, that is, is absolutely necessary, or to the physical or the moral order, that is, it is necessary in accordance with the laws of the physical or of the moral world, established by God. The certitude of faith is *divine or human*, according as it rests on divine or on human authority.

ART. IV.—IGNORANCE, ERROR, AND THEIR CAUSES.

82. *Ignorance is the absence of truth in the mind.*—

Ignorance and error have not been reckoned among the states of the mind in respect to truth, since, instead of being a cognition of truth, they are respectively its absence and its negation.

83. *The causes of ignorance are: 1. The limited nature of our mind; 2. A want of intellectual culture.*—The first cause of ignorance arises from the very nature of man, who is essentially a finite being. To this cause may be referred the organic defects, which, in certain men, impede the cognition of truth. The second cause is the absence of intellectual culture. Truth is not infused into man; he must acquire it either by instruction from others, or by his own efforts. If he has not been taught and does not himself labor to develop his intellectual faculties, he must remain in ignorance of many truths.

84. *Error is the adhesion of the mind to a false judgment.*—Since error is an adhesion to a false judgment, it can be found neither in the senses nor in simple apprehension, but solely in the act of judgment. It would be wrong to regard error, with Cousin, as incomplete truth. An incomplete truth is none the less a truth; whereas error is the opposite of truth.

85. *The principal causes of error are: 1. Precipitancy of judgment; 2. Liveliness of imagination; 3. Prejudice; 4. Passion.*—Precipitancy of judgment consists in judging of a thing not sufficiently known. It is remedied by attention and reflection. The imagination often obscures truth by presenting too lively images of sensible things. Its excesses are corrected by keeping it under a severe control of the judgment. Prejudices are judgments adopted without examination. A prudent man will weigh his prejudices in the balance of reason; he will not

rashly reject them, neither will he blindly follow them. The passions are the most fruitful source of our errors; they obscure the intellect and present things to it in the borrowed light of a badly regulated will. The remedy for this evil is found in virtue alone. To these internal causes may be added external ones, as education, the school, the vices of language; all of which are remedied by a prudent scrutiny and a sincere love of truth. Bacon has divided our errors into four classes: 1. *Idols of the tribe*, that is, errors arising from the weakness of our common nature; 2. *Idols of the cave*, that is, errors arising from our individual character; 3. *Idols of the market-place*, that is, errors resulting from the vices of language; 4. *Idols of the theatre*, that is, errors of the school. Evidently the causes assigned by Bacon for our errors may be reduced to those already indicated.

86. *Man, in his actual condition, cannot constantly avoid all error.*—If man always made use of his faculties in conformity to the laws imposed on him, he would not err. But, owing to his natural weakness, he is incapable of always conforming to these laws, and, consequently, of avoiding all error.

CHAPTER II.

Demonstration.

87. *Demonstration is a syllogism which produces science, or it is a reasoning which, by the aid of premises evidently true, gives a certain and evident conclusion.*—The sophistical syllogism is a source of error; the

probable syllogism gives only doubtful knowledge ; the demonstrative syllogism alone produces science, that is, certain and evident knowledge of a truth.

88. *Demonstration is necessarily preceded by that species of doubt called methodic, and which is defined as Doubt which attends a thesis before it is demonstrated.*—A truth to be demonstrated is first proposed in the form of a question, and the mind is in suspense between its affirmation and negation ; that is, it doubts. This doubt, called *methodic*, bears only on the truth or truths to be demonstrated, and not on the indemonstrable principles. Unlike the systematic doubt of sceptics, methodic doubt is not absolute, permanent, or universal ; unlike the Cartesian doubt, it not only admits the veracity of consciousness, but also that of all the cognoscitive faculties, and does not touch self-evident truths. Methodic doubt may bear on one of these four questions : 1. *Does the thing exist?* 2. *What is its essence?* 3. *What are its accidents?* 4. *Why does it exist?* The question regarding the existence of the thing presupposes at least its nominal definition ; the question regarding its essence supposes that of its existence already solved ; the question concerning its attribute presupposes at least the notion of the attribute ; finally, the question of the wherefore of a thing can find its solution only in the principles or reasons of the thing ; hence it is this last question that properly comes under the head of science.

89. *All demonstration presupposes three notions :* 1. *That of the subject ;* 2. *That of the predicate ;* 3. *That of the middle term.*—For all demonstration has for its end to show that a certain predicate agrees or disagrees with a certain subject by comparing

both with a third term ; hence it is clear that, prior to all reasoning, we must have the notion of these three terms.

90. *The middle term of a demonstration must fulfil three conditions : 1. It must contain the reason of the thing ; 2. It must be known as the reason ; 3. This reason must be certain.*—For demonstration produces scientific knowledge by means of a middle term ; but to know a thing scientifically, we must know the reason of the thing, know that we know it, and know it as certain ; hence the middle term must comply with these three conditions of science.

91. *Demonstration is divided into : A priori and a posteriori ; Direct and indirect, or ad absurdum.*—*A priori* demonstration is that which descends from cause to effect, as when *from the existence of Providence we infer the order of the universe ; a posteriori* demonstration ascends from effects to their cause, as when *from the order of the universe we infer the existence of Providence.* *Direct* demonstration proves not only that a thing is, but, moreover, why it is ; as, *The soul is immortal, because it is a spirit.* *Indirect* demonstration simply shows that we must admit the thing on account of the absurdities which would flow from its denial ; as, *If the soul is not immortal, evil triumphs.* This kind of demonstration serves to prepare the way for science and to defend it, but it does not constitute science. To indirect demonstration may be referred the argumentation called *ex datis*, so designated because from the concessions of an adversary we draw conclusions which are evidently against him ; as, *You grant that the world could not make itself ; then God must have created it.* The demonstration called *circular* or *regressive* is at the

same time *a priori* and *a posteriori*; *a posteriori*, since it ascends from effect to cause; *a priori*, since, from the cause better known, it returns to the effect for a better knowledge of it; as, *The order we behold in the world proves the existence of Providence; and as there is a Providence, we are certain that even events unknown to us are ordained by it.*

CHAPTER III.

Science.—Divisions of Science.—Co-ordination of the Sciences.

92. *Science considered subjectively is the certain and evident cognition of the ultimate reasons of things, obtained by means of reasoning; considered objectively, it is a complete system of demonstrated truths dependent on one principle.*—Science considered as existing in our mind, that is, *subjectively*, must be *certain cognition*, otherwise it would not be perfect; it must be *evident cognition*, otherwise it would not account to the mind for the subordinate truths contained in the principles which constitute the object of science. Finally, it must be the cognition of the *ultimate reasons of things*, for the mind knows things perfectly only when it knows them in their first principles. Science considered *objectively* is a body of co-ordinated truths dependent on one and the same principle and constituting what is called a scientific system. It is in this latter sense that the word science is usually understood.

93. *Science must be both one and multiple: one in respect to the principle whence flow the truths embraced*

under the science ; multiple in respect to the deductions made from the principle.—That first principle, from which the mind develops the truths contained therein, is the proper object of science and constitutes its unity. This unity is formal and not material ; for, though a science treats of objects materially multiple, yet these objects are considered under an aspect by which they are referred to one and the same principle, and hence the science is one.

94. *A science is specified by its object.*—The object of a science constitutes its unity and makes it this or that science ; hence the sciences are distinguished from one another by the diversity of their objects. Thus, science is *natural* or *supernatural*, according as its object is a natural or supernatural truth ; it is *speculative* or *practical*, according as its object is a purely speculative truth or a truth the knowledge of which may serve as a rule of action. Two sciences are said to be *distinct*, when the object of the one has certain relations to that of the other ; as, *Geometry and Astronomy*. They are said to be *separate*, when their objects have no relation to each other ; as, *Algebra and Morals*.

95. *Philosophy is the science that governs all the others. They may be divided and co-ordinated according to the divisions instituted in philosophy.*—Philosophy is the supreme and fundamental science. For it treats of being in itself and in general ; but as every other science treats of being under some particular aspect, it follows that each has its foundation in philosophy, and that philosophy lays down its first principles. The general division of the sciences may be made to correspond to the divisions of philosophy by taking care to co-ordinate them and establish their dignity

on the greater or less degree of abstraction of their object from matter. Thus, to the philosophy of real being the *physical* or *natural* sciences and *mathematics* are related; to the philosophy of rational being, the *philological* sciences; to *moral* philosophy, *jurisprudence*, *æsthetics*, and the *political* sciences. But if philosophy may justly claim superiority over all other human sciences, it depends itself on the divine science of *theology*, which is as far above philosophy as the divine intelligence is above human reason.

LOGIC.

PART THIRD.

Methodology.

96. *The third part of logic, which has for its object the collection of the processes by which the human mind arrives at knowledge by reasoning, treats : 1. Of method in general and its general laws ; 2. Of the different kinds of method and their laws ; 3. Of the processes peculiar to certain methods.*

CHAPTER I.

Method in General and its Laws.

ART I.—METHOD.

97. *Method is the direction given to the cognoscitive faculties, according to their nature, that they may readily and surely arrive at knowledge.—It does not suffice for the acquisition of knowledge that we know the laws governing our mind, and what constitutes science in itself ; we must also know the way by which science is acquired, the particular path by which we may readily and surely attain to this or that science. This way or path which leads to science is method.*

98. *Both reason and experience prove the great*

importance of method.—As we speedily and surely reach the end of a journey when we know the road, in like manner we readily and surely arrive at the knowledge of a science, when we know the process which the mind should pursue. Ignorance of method necessarily causes much loss of time and often leads into error, a truth which experience likewise confirms. To good method is due the rapid progress of the natural sciences for the past three centuries; to a faulty method followed in philosophy in our own day, we owe the false systems which retard its progress.

99. *Method should not be artificial or arbitrary, but should be founded on the nature of our mind and of the object which it studies.*—As method has for its aim the directing of the mind in the acquisition of knowledge, it must be based upon the very nature of the mind and of the object which the mind proposes to itself to know. This is the fundamental law of all method. It gives rise to several others, which may be reduced to the two following: 1. *We must in every method proceed from the known to the less known;* 2. *We must proceed with order from one cognition to another.*

ART II.—ANALYSIS AND SYNTHESIS WITH RESPECT
TO METHOD.

100. *Two processes are common to all method: 1. Analysis, which resolves a whole into its parts; and 2. Synthesis, which reconstructs the whole from the parts.*—The mind must perform two processes in order to arrive at knowledge. For either it seeks the nature of the whole by studying its parts, and thus proceeds from effect to cause, from the concrete to the abstract, from the multiple to the simple; or it studies the parts in the whole, proceeding from the cause to the

effect, from the abstract to the concrete, from the simple to the multiple. The first process is *analysis*; the second is *synthesis*. But a method can be neither purely analytical, as the Experimental and Sensualistic school pretends, nor purely synthetical, as the Idealistic school holds. It cannot be purely analytical, since, to constitute science, it does not suffice that we know by analysis the whole through its parts, or the cause through its effects; we must, moreover, know by synthesis how the whole contains the parts, how the cause produces the effect. On the other hand, method cannot be purely synthetical, since it belongs to the nature of our mind to know the whole in its parts and the cause in its effects. We must, therefore, conclude that all method, to be good, ought to be *analytico-synthetical*.

101. *The rules for analysis are: 1. It should be complete; 2. It should be as extensive as possible.—The rules for synthesis are: 1. It should omit nothing in the consideration of the whole; 2. It should add nothing.—Analysis makes known the whole in the parts, the simple in the multiple, the cause in the effect only in so far as it investigates each of the parts and each of the effects. If it neglect to consider any one, it is liable to overlook one of the essential elements of the whole. In the second place, it must divide and subdivide the whole into as many parts as possible, since the less complex a thing is, the better our mind knows it. Synthesis should neither omit nor add anything; for then it would either give only a partial or incomplete view of the object, or introduce foreign elements, which would alter our notion of that object.*

CHAPTER II.

Different Kinds of Methods and their Laws.

ART. I.—DIFFERENT KINDS OF METHOD.

102. *There are two kinds of method, the Inventive and the Didactic.*—The mind first endeavors to find the truth, and afterwards to demonstrate it or communicate it to others. There must, therefore, be two methods: the one, of *invention*, which guides the mind in its search after truth; the other, of *demonstration* or instruction, which enables it to impart to others the truth found.

103. *The method of invention is of three kinds: 1. Rational or a priori 2. Experimental or a posteriori; 3. Mixed.*—The *a priori* method seeks to discover truth by the sole light of reason, to the exclusion of experience; this is the method of German Idealism, which shapes facts to ideas and transforms the most absurd conceptions of the mind into realities. The *a posteriori* method is the reverse of the foregoing; it is exclusively adopted by the Sensist school and ends in materialism. The *mixed* method is a combination of the other two; it is the only sound philosophic method, as it brings to the aid of science all the means of acquiring knowledge. Although this is the only legitimate method, it is none the less true that the *a priori* method ought to predominate in mathematics, and the *a posteriori* method in the natural sciences.

104. *The method of instruction is of three kinds: 1. Deductive; 2. Inductive; 3. Mixed.*—The *deductive* method descends from axioms or principles to their

consequences, from laws to phenomena. The *inductive* method is the reverse of the preceding and makes the mind of the learner pass through the same process as is followed in arriving at truth. The *mixed* method is a union of these two. The deductive method is the easiest, the inductive the most effectual; the mixed method, being adapted to the ordinary requirements of students, is the one most frequently followed.

ART. II.—SPECIAL LAWS OF EACH METHOD.

105. *The laws of the inventive method require :* 1. *The determination, at least vaguely, of the end in view ;* 2. *The attentive examination of known truths ;* 3. *The co-ordination of these known truths ;* 4. *A careful use of definitions and divisions ;* 5. *The elimination of whatever is useless or foreign to the end in view ;* 6. *The affirmation of things as certain or doubtful, according as they are really certain or doubtful ;* 7. *Care to avoid all rash induction ;* 8. *Prudence to advance nothing resting on what is only doubtful or on inconsistent hypotheses.*

106. *The laws of the didactic method require :* 1. *The use of clear terms fully explained and defined ;* 2. *Care to take as a starting point only clear and evident principles ;* 3. *A gradual advancement from one conclusion to another ;* 4. *Care to avoid digressions which make us lose the concatenation of ideas.*

CHAPTER III.

Processes Proper to Certain Methods.

ART. I.—HYPOTHESIS.

107. *Hypothesis is a probable principle which is intended to explain the cause and nature of a fact, but which is not as yet verified by experience or demonstrated by reason.*—The mind often cannot ascertain with certainty the reason of facts; it then finds it necessary to adopt a principle provisorily, but only as probable. If experience and reason afterwards verify this principle, it ceases to be a supposition or hypothesis, and becomes a thesis.

108. *In all the sciences hypotheses are necessary.*—Some philosophers maintain, with Reid, that hypotheses must necessarily be detrimental to science. This is an assertion contradicted by good sense and experience. Others, like Condillac, admit the use of hypotheses in the mathematical sciences only. But it is evident that, with the greatest philosophers and naturalists, we ought to admit them in all the sciences, since in all there are facts not yet explained and for the explanation of which we may very conveniently resort to hypotheses, which subsequent observation will often transform into certain and scientific principles. But hypotheses are useful only in so far as they conform to certain laws; otherwise they are hurtful, and, by originating false systems, are fruitful sources of error.

109. *Hypotheses are subject to two classes of rule, one regarding the formation of the hypothesis, the other referring to its verification.*—The rules to be observed

in the formation of a hypothesis are three : 1. It must rest on the knowledge of a great number of facts ; 2. From among the circumstances which accompany a fact we should select one or more, and see if they do not suffice for the explanation of the fact ; 3. The circumstances selected ought to be such as to account for all the others.—There are four rules to be observed in verifying a hypothesis : 1. No fact must be opposed to the hypothesis intended to explain it ; 2. The hypothesis should be such as to explain all the facts for which it has been made ; 3. A hypothesis supported by certain facts should be preferred to one not verified by any fact ; 4. From among the hypotheses presented we should choose the simplest. It is evident that if a hypothesis conflicts with a truth known as certain, it is, by the fact, proved false.

ART. II.—EXPERIMENTATION.

110. *Experimentation is the art of producing or modifying at will the phenomena of nature in order to study them.*—In all the sciences, and especially in the physical or natural sciences, it becomes necessary to make an attentive study of the phenomena of nature. The more easily to account for these phenomena, we modify or produce them at pleasure ; this process is called *experimentation*. If we confine ourselves to studying a phenomenon as presented in nature, we simply make an *observation*.

111. *Some of the conditions of good experimentation relate to what is produced in the phenomenon, others to the person who experiments.*—In regard to the phenomenon, it is necessary to keep an exact record of all the accompanying circumstances, however minute ;

and when it can be done, these circumstances should be represented by figures and exact quantities. The person who is experimenting should: 1. Vary the experiment; 2. Extend it; 3. Reverse it. Above all, he should guard in experimentation against the spirit of system, which would make him see not what is, but what he wishes should be.

112. *As experimentation is made use of to determine the cause of a phenomenon, we must carefully search for indications which may point out the cause.*—These indications are four in number: 1. When one event invariably precedes another, except when the latter is counteracted or prevented by some circumstance; 2. When, one event undergoing a modification, another event undergoes an analogous modification; 3. When, one fact being absent, another fact is also absent, unless the latter may also be produced by a different fact; 4. When, one fact disappearing, the other also disappears, unless the latter can exist without the continued action of the former.

Compare these indications with the following experimental methods of John Stuart Mill:

(a) *Method of Agreement.*—“If two or more instances of the phenomenon under investigation have one circumstance in common, the circumstance in which alone all the instances agree is the cause (or effect) of the given phenomenon.”

(b) *Method of Difference.*—“If an instance in which the phenomenon under investigation occurs and another in which it does not occur have every circumstance in common save one, that one occurring only in the former, the circumstance in which alone the instances differ is the effect, or the cause, or an indispensable part of the cause of the phenomenon.”

(c) *Method of Concomitant Variation.*—“Whatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon, or is connected with it through some fact of causation.”

(d) *Method of Residues.*—“Subduct from any phenomenon such part as is known by previous induction to be the effect of certain antecedents, and the residue of the phenomenon is the effect of the remaining antecedent.”¹

113. *Experimentation of itself does not constitute science; it only enables us to establish principles of experience.*—As experimentation does not go outside the order of facts, it cannot of itself constitute science; but when well conducted, it enables us to establish *principles of experience*, as, *Water slakes thirst*. These principles, to be such, must fulfil two conditions: 1. The fact which we wish to transform into an experimental principle must have been found the same in many cases; 2. This fact must be not an accidental, but a necessary physical effect.

114. *Having by experimentation discovered points of agreement among several objects, we are enabled by the principle of analogy to infer other points of agreement; experimentation thus abridges scientific investigations and even makes up for impossible investigations.*—When several objects are known to agree in certain points, the *principle of analogy* enables us to conclude other points of agreement. This conclusion may be based either upon the simple relation of *qualities*, or the relation of *means to an end*, or the relation of *cause to effect* or *effect to cause*. But it can be considered legitimate only inasmuch as it rests not upon fortui-

¹ See Comments upon these Methods, Clarke's *Logic*, pp. 389-397.

tous or accidental resemblances, but upon *important* resemblances, or, in the absence of these, upon *many* resemblances.

ART. III.—CLASSIFICATION.

115. *Classifications are the distribution of beings in nature into genera and species.*—In every science it is necessary to proceed with order both in the discovery and in the communication of truth; in this sense, then, classifications are requisite in every science. But the term is especially applied to the distribution into genera and species made use of in natural history.

116. *The advantages of classification are: 1. It aids the memory and facilitates the knowledge of the objects classified; 2. It in a way initiates us into the divine plan, by showing us the admirable order which reigns among the beings of nature.*—Classifications, by the fact that they put order into the objects which we study, enable us to know them better and to apprehend their relations; but, above all, they elevate our mind, by enabling it to penetrate the admirable harmony of the divine plan. This last result can be obtained only in so far as the classification is based upon nature itself. An artificial classification serves only to put a certain order into our knowledge, and is not in itself of any scientific value.

117. *The laws of classification are: 1. It must be complete; 2. It must be based on the law of the subordination of characteristics.*—Evidently the first condition requisite for a good classification is that it comprise all the objects for which it is made. But it is also necessary, if we desire a natural or scientific classification, to base it on *the law of the*

subordination of characteristics. In virtue of this law objects in nature have each a primary characteristic, to which other secondary characteristics are subordinate; to these latter still others are subordinate, until we finally reach the least important characteristic. We classify according to this law when we establish the principal divisions according to the principal characteristics, then subdivide according to subordination of characteristics. It is easily seen that such a classification is nothing other than the science of the objects classified. Hence, if we know to what division an object belongs, we immediately know its nature and characteristics.

The great progress made in the natural sciences since the Reformation by the application of the experimental or *a posteriori* method has led many of its advocates to bring the same method into the field of philosophy in its different divisions and of theology. But such a proceeding has invariably been followed by results not only most disastrous to all positive religion, but even suicidal to human thought. The Church is the "pillar and ground of truth" and has nothing to fear and much to gain from the daily advances of scientific research. "Grammar, philology, archæology, history, ethnography, erudition, topography, æsthetics, all that makes up the long line of rationalistic criticism, have in turn paid her a forced homage."¹ The well ascertained results of science, the well founded hypotheses, are all in harmony with her teaching. But when any rash conclusion is foisted on the public, the divine guardian of the truth sounds the alarm.

"This is why in the philosophy of the Church there can be no new discoveries, but only developments of truth already possessed. For fresh discovery means a setting aside of what exists already, and if what exists already is the perfect truth, to set it aside is but to introduce the destructive poison of error. We cannot, therefore, be surprised if the method of discovery did not flourish among the scholastic philosophers. Nor can it ever be the adopted method of the Catholic Church,"² since she is not in search of Truth, but is its guardian and possessor.

¹ *Apologie Scientifique de la Foi Chrétienne*, by Canon Duilhé de Saint-Projet, p. 105.

² Clarke's *Logic*, p. 483.

IDEOLOGY.

1. *Ideology is the science which treats of ideas.*—As philosophy of rational being treats of beings known by reason, it must treat also of that in which and by which they are known, viz., *ideas*. This constitutes the object of *Ideology*.

2. *Ideology may be divided into General Ideology and Special Ideology.*—Ideology may be concerned simply with the nature and origin of ideas in general; then it is *General Ideology*; or it may treat of the special nature of certain fundamental ideas and the manner in which our mind acquires them; then it is *Special Ideology*.

GENERAL IDEOLOGY.

CHAPTER I.

The Idea in General.

ART. I.—NATURE OF THE IDEA.

3. *In every being we must distinguish the essence from the particular conditions which individualize the essence.*—God has given being to every creature according to an eternal type existing in his infinite mind, a type according to which he can create an unlimited

number of similar beings. But each being, in realizing by its existence the divine type, is thereby invested with particular conditions which make it that being and not another. But that which reproduces the divine type in a being and constitutes *that by which it is being*, that which makes it *what it is*, is called the *essence* of the being. This essence cannot really exist without being individualized; but it is, nevertheless, distinguishable from the conditions which individualize it. These conditions are seven in number: *Form, figure, place, time, name, family, and country.*

4. *The idea is the mental and formal representation which our intellect naturally makes to itself of the essence of a being.*—We not only know the concrete individuality of sensible beings, but we may also know their essence. Our intellect naturally perceives this essence abstracted from its particular conditions, and forms in itself an image or similitude which mentally reproduces the essence. This image formed *in and by* the intellect is called the *idea*.

5. *The idea is not that which the intellect immediately knows, but that by which it knows the object.*—As the image of an object formed in the eye is not that which the eye perceives, but that by which the visible object becomes known, so that which the intellect immediately knows by the idea is the objective essence. But as the intellect is capable of reflecting upon itself, it may, in the second place, perceive the idea or mental representation by which it knows the essence.

ART. II.—CHARACTERISTICS OF THE IDEA.

6. *The idea is subjective inasmuch as it resides in*

the subject knowing.—The formation of the idea is a vital and intimate act which not only proceeds from the intellect, but is accomplished and exists in the intellect itself. Now the idea considered as residing in the subject knowing, is said to be *subjective*.

7. *The idea is objective inasmuch as that which it immediately makes known to us is the object.*—That which the idea immediately manifests to the subject knowing, is not the idea itself, but the object perceived. Hence the idea considered as the representation of the object, a representation by which the object is immediately known, is said to be *objective*.

8. *The characteristics of the idea vary according as we consider it subjectively or objectively.*—The idea considered *subjectively* participates in the conditions of the intellect that has the idea. Thus, if the intellect is infinite and uncreated, the idea considered *subjectively* is infinite and uncreated; it is finite and created, if the intellect is finite and created. In the same way, our idea, considered *subjectively*, is singular like our intellectual act itself; but, considered *objectively*, it is universal like the essence which it represents.

CHAPTER II.

Systems concerning the Origin of Ideas.

ART. I.—PRINCIPAL SYSTEMS CONCERNING THE ORIGIN OF IDEAS.

9. *The principal systems concerning the origin of ideas are the following :* 1. *Sensism* ; 2. *Criticism* ; 3.

The System of Innate Ideas ; 4. The System of Impersonal Reason ; 5. Ontologism ; 6. The Scholastic System.—All other systems may easily be reduced to one or other of these six ; because the formation of ideas is explained either by the senses or by the intellect. If explained by the intellect, only one of the following hypotheses can be made : either the soul draws ideas from within itself, or God, in creating it, has engraven them on it, or God communicates them to it directly, or a substance intermediate between it and God communicates them to it, or, finally, God gives it the power to form them itself in giving it the faculty of abstracting the essence of sensible objects from the conditions which individualize that essence.

ART. II.—SENSISM.

10. *Sensism is the system which affirms sensation to be the only origin of ideas.*—According to this system, all knowledge is merely a modification or transformation of sensation.

11. *Sensism is Atomic or Dynamic.* *The principal representatives of the former are Leucippus, Democritus, Epicurus ; of the latter, Locke, Condillac, Laromiguière.*—*Atomic* sensism teaches that all bodies throw off subtle particles analogous to the exhalations of odoriferous bodies ; these particles, scattered through space, faithfully represent the objects from which they have been detached ; by means of the senses they find an entrance to the soul, and by their impressions produce sensation, memory, and thought. This system was taught by *Leucippus, Democritus,* and *Epicurus.* *Dynamic* sensism holds sensation to be the only primitive act of the soul, an act which by successive transformation produces all the other acts

of the soul and of all its faculties, the sensitive faculty included. This system, taught in ancient times by *Protagoras*, was renewed in the seventeenth century by *Locke*, and received its last complement from *Condillac*. Besides sensation, *Locke* admits reflection in the soul ; but, according to him, reflection is simply an observer of sensitive facts and is in no way active. *Condillac* denies that reflection or attention is distinct from sensation, and regards it simply as a more lively sensation than the others. He considers memory as a twofold attention,—on the one hand, to a past sensation, on the other, to a present sensation. Finally, he asserts that judgment is nothing more than the comparison between two sensations. *Laromiguière* maintains the sense origin of ideas ; but he considers as necessary for their formation an activity distinct from sensation.

12. *Sensism, under whatever form it is considered, is false, both because it destroys intellectual facts and because it renders even the fact of sensation inexplicable.*—The operation and the object of the intellect cannot be reduced to the operation and the object of the senses. For the intellect reflects on its acts, judges, and reasons, which the senses cannot do. The object of the intellect is the immaterial, the universal ; the object of the senses is the material, the particular. Now, Sensism, by identifying the intellect with sensation, destroys the true notion of the intellect and of intellectual acts. It is to no purpose that *Locke* admits reflection in addition to sensation ; for he limits reflection to the perceiving of sensation, and hence it does not essentially differ from sensation itself.

Sensism, moreover, renders the fact of sensation inexplicable, as is evident in the *Atomic* system. It

is also manifest in the *Dynamic* system, which by asserting that sensation is the principle of the sensitive faculty, becomes essentially contradictory. Sensism is also sufficiently refuted by its consequences: experience shows that it leads directly to the negation of all science and of all morality.

ART III.—CRITICISM, OR TRANSCENDENTAL RATIONALISM.

13. *Transcendental Rationalism makes ideas the product of the mere activity of the thinking subject.*—In this system, which is the opposite of Sensism, thought does not demand for its exercise an object outside itself.

14. *Transcendental Rationalism was represented first by Kant, whose principal disciples are Fichte, Schelling, and Hegel.*—Kant teaches that we have within us *a priori* forms or concepts, and sensations; all our cognitions result from the application of these concepts to the sensations. But as, according to the German philosopher, the *a priori* forms and the sensations are purely subjective, it follows that the object of knowledge, as it is in itself, remains unknown to us. *Fichte* allows only one principle of knowledge, the *pure Ego*, from which he evolves all things,—God, the world, and the human mind,—all which he considers as only conceptions of the *Ego*. *Schelling* maintains very nearly the same system; instead of the *pure Ego*, however, he substitutes an abstraction, *the absolute*, from which everything, both mind and matter, emanates ideally. Finally, *Hegel* regards as the principle of all things the *pure idea*, in which the subject thinking and the object thought, the ideal and the real, are identified, and from which all proceeds,—God, the world, and the human mind.

15. *Transcendental Idealism, or Criticism, is absurd ; because, if ideas are purely subjective, it follows either that the objects known do not exist, or that we can affirm nothing concerning their reality.*—In fact, if ideas are pure modifications of the *Ego*, produced by the mind itself, we must hold either that nothing exists outside the *Ego*, which is *Nihilism*, or at least that we know nothing about it, which is *Scepticism*. These consequences were vainly repudiated by *Kant* ; his disciples glory in them, and with *Fichte*, *Schelling*, and *Hegel*, regard all existing things, even God himself, as a pure creation of the human mind, or of the idea.

ART. IV.—THE SYSTEM OF INNATE IDEAS.

16. *The system of Innate Ideas considers ideas as infused by God into the soul from the moment of its creation.*—This system, regarding thought as constituting the essence of the soul, supposes that the soul must always have been engaged in thought, even from the first instant of its creation ; and as the soul cannot think without ideas, it also holds that ideas are innate in the soul.

17. *The representatives of the system of Innate Ideas are Plato among the ancient logicians ; Descartes, Leibnitz, and Rosmini, among the modern logicians.*—In *Plato's* system ideas are eternal types according to which God has ordained all things ; they reside not only in the divine mind, but also in the human mind, in which they are innate. The human intellect, *Plato* teaches, exists before the body and recalls these ideas according as it perceives copies made in their likeness, that is, according as it perceives sensible things. *Descartes* holds that innate ideas are

perfect in the soul; but besides these ideas he admits *factitious* ideas, or those formed by an effort of the imagination, as the idea of a *gold mountain*; and *adventitious* ideas, or those which come from without, as the idea of the *sun*. *Leibnitz* teaches that all these ideas are innate, but are in our mind in their germ; and as, according to *Descartes*, innate ideas become present to the soul only through sensations, so, according to *Leibnitz*, the germs of ideas become perfect ideas only by occasion of sensation. *Rosmini*, laying it down as a principle that we ought to suppose as innate in the soul only that which is requisite to explain the fact of consciousness, believed that he had found this sufficient element in the idea of being; he admits, therefore, no other innate idea than that of *possible being*. In his system, all ideas represent nothing but being with different determinations. Hence it follows that all our ideas are formed from the idea of being by the same means by which we are enabled to perceive the different determinations that beings can receive, that is, by sensation.

18. *The system of Innate Ideas, besides not accounting for the fact of human knowledge, is absurd in its principles and leads to the same conclusions as the system of Transcendental Rationalism.* — In this system the close dependence which is shown by experience to exist between the senses and the intellect becomes inexplicable, and man appears no longer to act in the order of knowledge according to the laws of his nature, which is both spiritual and corporeal, but rather in accordance with the laws of angelic nature. Hence all those who advocate the doctrine of Innate Ideas err regarding the human

soul and its relations with the body. Moreover, the principle of their theory is that the essence of the human soul consists in thought. But if thought constitutes the essence of the soul, the act of the intellect is confounded with the essence of the human soul; but in God alone is essence identical with intelligence. Hence there is no further need of adding to the essence of the soul ideas infused by God. Finally, the system of Innate Ideas, in admitting fundamentally the same principle as Transcendental Rationalism, viz., *a priori* subjective forms, leads to the same consequence; that is, it renders all knowledge purely subjective and thus ends naturally in Idealism.

ART V.—ONTOLOGISM.

19. *Ontologism regards ideas as views of God by direct and immediate vision.*—This system loses sight of the subjective character of ideas; it considers them as the object of knowledge and as direct manifestations of God himself to our intellect.

20. *The chief exponents of Ontologism are Malebranche and Gioberti.*—According to *Malebranche* man perceives nothing by his ideas, which are only the idea of God viewed under different aspects. Even this idea we know only in so far as God directly manifests himself to our mind. By our ideas we apprehend the contingent, the imperfect, the finite, which are conceived only as the privation of the necessary, the perfect, the infinite. Hence our soul sees all in God, even the material world. *Gioberti* departs from the principle of *Malebranche*, that ideas, being universal and absolute, must be a direct, though partial, view of absolute being, that is, of God

himself; he regards ideas, not as the means, but as the very object of knowledge. He teaches that what we see are the divine ideas themselves, that we have permanent intuition of God, but that we are conscious of this intuition only by reflection, which he calls *ontological reflection*.

21. *Ontologism is false in its principles, contradicted by experience, and fatal in its consequences.*--Ontologists teach that the intellect has a direct view of God; but to see the being of God is to see his essence. We must then admit that in perceiving ideas our intellect is in a state similar to that of the blessed, who see the divine essence directly, a conclusion which is absurd and contrary to faith. In the second place, Ontologism renders the operation of the intellect independent of that of the senses. Such a supposition is opposed to the nature of man and is contradicted by experience, which sufficiently proves that the idea is formed in us and by us and does not constitute a vision of God. Finally, if we must admit that ideas are not the means, but the objects of knowledge, it follows that the ideal order is not distinct from the real, and as the real order alone exists, we must conclude that knowledge is impossible. Again, if our soul does not form ideas, but sees them in God, it is, by the very fact, deprived of all activity of its own. Hence Ontologism leads directly to Fatalism and Pantheism.

ART. VI.—THE INTERMEDIATE SYSTEM.

22. *The Intermediate system or system of Impersonal Reason supposes between God and man an impersonal reason, by which our intellect acquires universal ideas.*--According to this system, ideas are not innate in the

intellect, they are not acquired of themselves, they are not visions of God ; but they are views in an *impersonal* reason intermediate between God and man.

23. *The principal defender of the Intermediate system is Cousin, who has done nothing more than renew an error of Averroës.*—The reason of man, says Cousin, is individual and variable, and therefore cannot acquire of itself universal and immutable ideas. Hence man can form his ideas only in so far as they are revealed to him by a reason which, not being personal to him, is called *impersonal*. This reason is revealed to him from the very beginning, and the knowledge which the mind then has is said to be spontaneous. In this state, man knows, but does not know that he knows ; when he begins to reflect on his spontaneous knowledge, he acquires reflex knowledge. The former knowledge is always true ; not so the latter, for in it man may fix his attention exclusively on one part of the truth, and thus confound the part with the whole ; thence arises error, which, however, Cousin asserts to be only incomplete truth. An almost analogous system was taught by Averroës, in the middle ages.

24. *The system of Impersonal Reason is false in its principle, in its nature, and in its consequences.*—This system starts with the principle that our intellect, being individual, cannot form a universal idea ; but this is to lose sight of the twofold aspect, subjective and objective, under which we may consider the idea. Again, if Impersonal Reason is anything, it must be individual, and hence it is incapable, according to Cousin himself, of forming a universal idea. Finally, this system easily generates Pantheism, since it destroys all activity proper to the intellect of man.

ART. VII.—TRADITIONALISM.

25. *Traditionalism explains the formation of ideas by speech.*—This system, devised to combat that of the philosophers who hold that the reason of man is sufficient for itself, exaggerates the impotency of reason and its dependence on speech and tradition.

26. *The principal representatives of Traditionalism are De Bonald, Bonnetty, and Ventura.*—*De Bonald* teaches the absolute necessity of speech for the existence of thought, so that without speech man can have no idea, no general notion, but only sensible perceptions. *Bonnetty* and *Ventura* concede the power of forming ideas of sensible things, without the help of speech, but maintain that, independently of social teaching, man cannot acquire notions of the spiritual and moral order, as those of God, of the soul, of duty, etc. Other philosophers admit that man may think without speech, but they deny that without it he can form clear and distinct ideas and that he can reflect on his thoughts.

27. *It is false that speech is absolutely necessary, either for the formation of ideas of sensible things, or for the formation of ideas of spiritual things, or for reflecting on ideas already formed.*—Speech, being simply a sign, can make known an object to the intellect only through the idea which the intellect already has of the object; therefore, before the intellect is fixed on the essence of a thing by the word, it has already the idea of it. The idea of sensible things being formed, we cannot, without contradiction, deny to reason the power to attain to ideas of spiritual things; for, granting that reason can form ideas of sensible things in virtue of the abstractive power natural to it, we cannot deny it the power to ascend from these

ideas to those of spiritual things, since the power of deduction is not less natural to reason than that of abstraction. Yet it is true that, owing to the feebleness of man's reason and the difficulties that beset his actual condition, but few men could, without the aid of speech, attain to those truths which regard God and his attributes, and even then only after much time and labor, with an admixture of many errors and great uncertainty. Besides, it is certain that, without speech, man would never arrive at complete intellectual and moral development. But, if the intellect has the power of forming its ideas without the aid of speech, evidently it may reflect on its ideas without speech, for the intellect is essentially a reflective faculty, and requires for the exercise of its power of reflection only the idea, the object of reflection. It will not do to cite in proof of the necessity of speech for the formation of ideas instances of deaf-mutes and savages abandoned in forests. A more attentive examination has shown that these facts have been imperfectly observed or have never existed.

ART. VIII.—THE SCHOLASTIC SYSTEM.

28. *The Scholastic system explains the origin of ideas by the power which the intellect has of abstracting from the sensible images.*—The Scholastic philosophers teach that sensible objects first affect the external senses. The impression, passing from the external senses to the imagination, gives rise to a more perfect image of the object, an immaterial image, doubtless, but yet individual and representing the object with the sensible and concrete conditions which make it that object and no other. As soon as this image is formed, the intellect becomes conscious of it, and calling into exer-

cise its abstractive power, which constitutes the faculty called the *acting intellect*, it illumines this sensible image, strips it of its sensible and individual conditions, and separates from it the intelligible. The *acting intellect* having thus separated the intelligible, that is, the proper object of the intellect, the other intellectual faculty, called the *possible intellect*, perceives the intelligible, and thus the idea is formed. These operations, though distinct, are accomplished at the same time in virtue of the unity of the soul, and one cannot take place without the other. As we shall see later, this system of the origin of ideas is very closely connected with the Scholastic system concerning the nature of the human soul, and follows from it as a consequence.

29. *The Scholastic system has recourse to fewer a priori principles than any other system.*—It is an axiom among philosophers that nature is as fruitful in effects as she is sparing in causes ; hence the simplicity of a system is a strong argument in its favor. But while the other systems concerning ideas assume gratuitously one or many *a priori* elements which may easily be dispensed with, the Scholastic system requires for the formation of the idea only that which is absolutely indispensable, viz., the abstractive power of the acting intellect. This abstractive power cannot be dispensed with, and it alone suffices for the solution of the problem.

30. *The Scholastic system is true, because it is in perfect harmony with the essential laws of human nature.*—Since the formation of ideas is an effect whose cause is the nature of our soul, a system concerning the formation of ideas is true, if it is in perfect harmony with the nature of the soul, if it places the effect in

perfect relation with the cause. But while the other systems do not take into account the nature of the human soul, which is both sensitive and intellectual, the Scholastic system does explain the concurrence of sensible images in the formation of ideas. It is also in accord with experience, which shows that we do not possess innate ideas, that we do not see ideas in God, but that we form the idea of a thing from its sensible perception. Thus the Scholastic system follows as a simple consequence from the true theory of the nature of man. According to that theory, man is neither a mere animal nor an angel, but stands, so to say, midway between them; for if, on the one hand, his intellect, like that of the angel, does not depend on an organ, on the other, being the faculty of a soul substantially united to a body, it can form the idea only after the senses have presented the matter for its operations. Hence the Scholastic system preserves the unity of man's being and yet maintains the distinction between the soul and the body; the other systems, on the contrary, either make the soul and the body two distinct beings, or destroy one of these two elements of man.

31. *The Scholastic system rests on the authority of the greatest philosophers.*--This system, first taught, though with a mixture of error, by *Aristotle*, was held by all the great philosophers of the middle ages, and especially by St. Thomas, who developed it to its full perfection. Up to the seventeenth century, it alone was admitted by all the great Catholic universities, and after being for two centuries almost universally rejected, to the great detriment of philosophy, it has been accepted by the most distinguished philosophers of the present day without restriction or modification.

32. *The Scholastic system gives a satisfactory solution to all the difficulties connected with the problem of the origin of ideas, and in no way contradicts the facts of common sense.*—The principal difficulty connected with the problem of the origin of ideas is the necessity of reconciling elements apparently contradictory and yet evidently attested by experience, in the formation of ideas. On the one hand, there is the sensible, particular, contingent element; on the other, the intelligible, universal, absolute element. These contradictory elements cannot be united. But, while other systems avoid the difficulty by denying one of the two elements, and thus disregard both the nature of man and facts of experience, the Scholastic system shows how the two elements co-exist without being confounded; how the sensible image furnishes the intellect with the matter of its operation; and how the idea, while excluding the sensible image, cannot be formed without its concurrence. This system, explaining what is immutable and absolute in the idea by the nature of the essence perceived and not by the nature of the perception itself, accounts for the divine element in the idea without deifying the idea itself; finally, by attributing to man the power of forming his own ideas, it makes them dependent on him both for their causality and their very existence. At the same time, it enables us to comprehend the grandeur of the intellect, by making its intelligible light, its abstractive power, a sort of participation in the light of God himself. Thus, everything finds its proper place in this system, and far from excluding a single act of experience or of common sense, it admits them all, reconciles, and explains them.

33. *The Scholastic system entails none of the consequences with which its adversaries reproach it; the objections raised against it rest on false explanations.*—By recognizing the reality of the essence perceived, the Scholastic system avoids Subjectivism and Idealism, and it avoids Pantheism by making the idea a contingent production of our intellect. Those who object that it borders on Sensism in admitting a sensible element in the formation of the idea, forget that this element does not make part of the idea, but is simply the matter on which the intellect operates in forming the idea. The reproach that this system is contradictory in making the universal proceed from the particular, can be uttered by those only who do not observe that particular beings have each a proper essence, which, abstracted by the intellect, is capable of being considered, by another operation of the intellect, under the relation of universality.

CHAPTER III.

Universals.

ART. II.—NATURE OF UNIVERSALS.

34. *The universal is that which may be found in many or affirmed of many; it is nothing more than the essence of a being or the intelligible element perceived by the intellect.*

35. *The question of the nature of universals is closely connected with that of the origin and nature of ideas.*—Ideas are universal; by them we apprehend the universal. The solution of the problem of ideas is,

therefore, closely connected with that of the problem of universals, nor is the latter problem less important than the former. As universals are the proper object of our intellectual knowledge, we can easily understand the lively controversy to which the question of universals has given rise in the history of philosophy.

36. *To account for the true nature of universals, we must distinguish: 1. The direct universal, which is the essence considered merely in itself, by a direct act of the intellect; 2. The reflex universal, which is the essence considered by a reflex act of the intellect, as common to many individuals.*—The essence of a being abstracted from the conditions which make it an individual, is the proper object of the intellect. But the intellect may perceive the essence by a *direct* act or it may return to consider the idea of this essence by a *reflex* act. In the first case, the intellect merely perceives the essence with its intrinsic characteristics, without adverting to the fact as to whether it is single or multiple, real or ideal. Thus, the intellect by a direct act, represents to itself the essence of man, conceives him as a rational animal, but does not examine whether this essence is found in a single individual or in many individuals, whether it exists really or ideally. Evidently the direct universal is not, strictly speaking, a universal; it is said to be so as opposed to individuals, and also as being the basis of the reflex universal, which is the universal, strictly speaking. In order to form this universal, the intellect reflects upon the essence which it has apprehended directly; it views the idea as representing an essence common to many individuals. Thus, after the perception of the essence of man as a rational

animal, the intellect reflects upon the idea of this essence, and recognizes that it expresses the human nature by which all human beings resemble one another. This distinction arms us with a ready answer to the objection that the universal cannot be drawn from the particular, since the greater cannot proceed from the less. If the reflex universal is meant, evidently it is not found in the particular; but if it be the direct universal, the answer is that this universal, though as such not actually in the particular, is at least virtually in it, inasmuch as the essence of the particular may be considered in itself and abstractly. But, once the direct universal is grasped, nothing prevents the mind from adding to it the consideration of its relation to individuals, and thus arriving at the reflex universal.

37. *To perceive the direct universal, mere abstraction by the mind is sufficient; to form the reflex universal, the intellect must establish a relation between the essence and the individuals.*—The consideration of the essence in itself involves no scrutiny as to whether it exists in one individual or in many individuals, whether it is real or ideal; for its perception, the intellect needs only abstract it from the individual characteristics. But the reflex universal contains a relation to individuals, and hence supposes a comparison by the intellect as well as abstraction.

38. *The direct universal has a real existence in the thing perceived, but not in the manner in which the thing is perceived; the reflex universal has only an ideal existence.*—The essence apprehended by the intellect in the direct act exists really in the individuals, but not in the manner in which it is apprehended, that is, as abstracted from individual characteristics; evident-

ly this abstraction is the work of the intellect. In the same way, the color of fruit is really in the fruit, but any consideration of it apart from the taste is due to the sight, which perceives color, and not taste. The reflex universal exists solely in the mind, since it is universal only in virtue of the reflection of the mind, and this mental operation can be exercised on the ideas of things, but not on the things themselves.

ART II.—DIFFERENT OPINIONS ON THE NATURE OF
UNIVERSALS.

39. *The different opinions on the nature of universals may be reduced to three principal systems: Nominalism, Conceptualism, and Realism.*—It may be said that there have been as many opinions on the nature of universals as there have been diverse systems on the origin and nature of ideas. All, however, may be reduced to the three opinions which gave rise to so much controversy in the middle ages. The *Nominalists*, headed by *Roscelin*, and later by *Ockham*, maintained that universals were mere words; the *Conceptualists*, represented by *Abélard*, made universals merely conceptions; finally, the *Realists* gave to universals a real existence outside the mind. But of this last class some confined themselves to attributing reality to the essence perceived in so far only as it is individual and concrete; these are the *orthodox Realists* and have St. Thomas of Aquin at their head. Others attribute reality to the essence as qualified by the very abstraction and universality under which it is regarded; these are the *heterodox Realists*, such as *William of Champeaux* and *Scotus Erigena*. Thus, according to the orthodox Realists, the essence *man* really exists outside the mind in individual men, but

not with that abstraction and universality under which the mind considers it, according to the heterodox Realists, the essence *man* really exists in an abstract and universal manner. *Nominalism* is manifestly the negation of all knowledge and the fruitful parent of *Scepticism*: *Conceptualism*, being nothing more than disguised *Nominalism*, leads to the same consequence; *heterodox Realism* directly produces Pantheism. With *Nominalism* are connected the systems of *Epicurus*, *Locke*, *Condillac*, *Hume*, in a word, of the *Materialists*, the *Sensists*, and the *Empiricists* of the Scotch school. With *Conceptualism* the systems of *Descartes*, *Berkeley*, *Kant*, and of all the *Idealists*, stand in close relation. Finally, to heterodox Realism belong the systems of *Plato*, *Averroës*, *Malebranche*, *Hegel*, and *Gioberti*, that is, the systems of the *Ontologists* and *Pantheists*.

The chief exponents of *Nominalism* and *Conceptualism* in our day are respectively *John S. Mill* and *Sir W. Hamilton*. The latter explains apprehension or the formation of ideas as a bundling together of attributes not the same, but called similar, because, though observed in different individuals of the same class, they produce in us the same effect as when first observed in a particular individual of that class. From this it follows in the teaching of *Sir W. Hamilton*, 1. That ideas convey not absolute but relative truth, relative, namely, to the object first perceived; 2. Ideas are merely subjective. Here the door is opened to *Scepticism*.

John Stuart Mill holds that the ideas of individuals belonging to the same class have nothing in common but the name. When the mind perceives an object, in virtue of its power of abstraction, it fixes its atten-

tion on certain qualities to the exclusion of others, the qualities selected being those that are recalled to us whenever we perceive another object belonging to the same class. Hence it follows, 1. That the idea has no foundation in reality, and all positive belief in the most fundamental truths of religion is undermined; 2. That the common name is merely a convenience, and does not express any corresponding idea. Hence this system is even more radically sceptical than the other.

From these principles it is easy to gather the doctrine of Modern Conceptualists and Nominalist with regard to Universals.

SPECIAL IDEOLOGY.

CHAPTER I.

How Human Knowledge is Acquired.

ART I.—THE FIRST OPERATION OF THE MIND AND THE PERCEPTION OF ESSENCES.

40. *In the first development of knowledge analysis precedes synthesis, that is, the first operation of the mind is not judgment, but the simple perception of an essence.*

—Some philosophers, as *Reid, Kant, and Cousin*, teach that the intellect first pronounces instinctive judgments, and afterwards arrives at ideas, by abstracting the elements contained in these judgments. But this is an error. For any power which, by its nature, is only gradually developed, does not acquire its full perfection in its first act; but judgment is an act of perfect knowledge, whereas apprehension is merely an act of initial knowledge; therefore, simple apprehension precedes judgment. In the second place, a judgment presupposes the knowledge of the relation existing between two terms; but, in order to perceive this relation, evidently we must first know the two terms. It is also a mistake to assert that the intellect by one and the same act perceives the two terms and the connection existing between them; for, in order to perceive the connection existing between two things, we must first have an idea of them, and then compare these ideas by a reflex act. Hence one and the same act would be both direct and reflex, which is contradictory. We must, therefore, conclude

that the mind begins by *analysis*, and that it first seizes the essence, separating it by abstraction from the conditions by which it is affected in nature ; then follows *synthesis*, which is constructed by the judgment, when it establishes the union between the terms perceived.

41. *The first object of the intellect in our present life is the essence of material things.*—As the intellect, in our present life, can form an idea only when the imagination has presented it a sensible image, and as this image must have for its object something material, the first object of the intellect, in our mortal life, must be the essence of material things.

42. *Among the essences of material things, some are immediately known, while others are known mediately, or by means of deduction.*—Certain essences, as those of *rest*, *motion*, etc., are self-evident ; this must be the case, otherwise human knowledge would be impossible. But, on the other hand, many essences, even of sensible things, are known to us only by means of reasoning ; for example, the essence of *life*.

43. *Essences, whether perceived immediately or mediately in sensible objects, are of three kinds : some cannot be conceived apart from matter ; others may be conceived apart from matter, but cannot really exist apart from it ; others, in fine, may be conceived and may exist apart from matter.*—Among the essences which we recognize in sensible objects, some are of such a nature that they cannot be conceived as separated from matter viewed abstractly ; such an essence is that of *body*. Others may be conceived apart from matter, but cannot really exist apart from it ; such are the essences of *figure* and *number*. Finally, some essences may not only be conceived apart from

matter, but may also really exist apart from it such as the essence of *being*, *substance*, *accident*, etc. It is evident that essences of the last class, even though realized in sensible things, may be abstracted from them. These are distinguished from other essences in this, that they can be affirmed of incorporeal beings. Of these three kinds of essence, the first is the object of the physical sciences, the second of mathematics, the third of metaphysics.

44. *In the immediate perception of essences, the mind begins with the most universal concepts.*—Although adapted by nature to acquire knowledge, the intellect at first knows nothing. It proceeds gradually in the act of cognition, and does not, by its first effort, attain to perfect knowledge. Thus, before possessing a determinate and distinct cognition, it begins with a very universal notion. It is the same with the intellect as with the senses, which, in apprehending an animal, for example, first perceive it as a body, then as an animal, and afterwards as a particular animal. Experience also confirms this truth: for the less perfect the language of a people, the more is it wanting in precise and definite terms; the more perfect the language and the more civilized the people who speak it, the richer is it in exact and well defined expressions.

45. *The first idea formed by the intellect is that of being.*—The intellect first perceives that which is most universal; but since the most universal idea is that of *being*, the first thing perceived by the intellect is the essence of being; other things are known only as some determination of being. It must not, however, be supposed that, when the intellect is once developed, it must begin by perceiving the idea of

being before any other essence whatever, for this occurs only in the first development of our mind ; eventually, it first perceives some determinate essence, and afterwards attains to more universal ideas by an analysis of its reflections.

ART. II.—HOW THE SOUL KNOWS PARTICULAR BODIES.

46. *The intellect perceives particular bodies by reflection upon the act of the imagination and of the senses.*—The intellect judges and reasons about particular bodies ; it must, therefore, know them. But, as the universal alone can be the object of the intellect, the knowledge which it has of the individual is not direct, but indirect, that is, it does not know the individual as its proper object, but only through the act of the faculty which has the individual as its proper object. The intellect thus apprehends the act of an inferior power or faculty perceived on account of the unity of the soul, in virtue of which one faculty cannot act without all the others being apprised of its action. Hence particular bodies are known by the soul in two ways : directly, through the senses and the imagination ; indirectly, by the intellect, which reflects upon the representations of the imagination.

47. *The reflection of the intellect upon the act of the imagination and of the senses is both consciousness of that act and the perception of the particular object apprehended by the act.*—The intellect in reflecting on the act of sensation must know both the act and the object perceived by the act. Thus, when the senses perceive a flower, at the same time that the intellect knows that the senses perceive, it knows that the object perceived is the flower. This reflex act of the intellect receives the name of consciousness when it

bears on the sensation as a modification of the soul, but when it is extended to the object perceived by the senses, it is called the intellective perception of the material and individual.

48. *Our intellect cognizes the material and individual through the senses; but it adds something to the sensitive impression, since it regards the individual not merely as a fact, but as the concrete realization of the essence which it has abstracted from the individual.*—When the intellect is directed to the consideration of the individual, it is already in possession of the idea which it has abstracted from it; hence it cannot prevent the light of this idea from being reflected upon the individual object, nor the individual from being presented to the mind as the concrete realization of the essence perceived by the idea.

The reason of this fact is not only subjective, inasmuch as the senses and imagination have their seat in the same soul as the intellect; but also objective, since the individual perceived by the senses is truly the same as that from which the intellect has abstracted the universal.

ART. III —THE KNOWLEDGE WHICH THE SOUL ACQUIRES REGARDING ITSELF.

49. *The soul does not know itself immediately by its essence, but only by its operations.*—The soul has no innate idea; it does not, therefore, know itself from its very origin, through its essence. But since its essence is present to it, the soul is capable of perceiving its own existence immediately and readily. And it attains to this perception as soon as it becomes conscious of any one of its operations.

50. *The soul does not know the nature of its essence*

immediately; it knows its essence only by means of reasoning.—In order that the soul may perceive its own existence, it suffices that it be present to itself and perceive an act of which it is the principle. This is not the case with the knowledge which the soul acquires of its essence, for it attains this by means of deduction. For in perceiving another being, the soul perceives that the idea by which it apprehends the being is immaterial. The idea being immaterial, it is evident that the principle whence the idea proceeds is also immaterial. From this property of immateriality the soul afterwards deduces the other properties which it possesses.

ART. IV.—WHETHER THE HUMAN SOUL CAN KNOW PURE
SPIRITS.

51. *In our present life, the soul cannot, of itself, know the existence of pure spirits; but it may conceive their existence as possible and even as very probable.*—The intellect of itself cannot here below know pure spirits directly, since they are not present to it by any relation of which it can have consciousness, and since their existence cannot be deduced with certainty from the existence of the objects which we know. We can, however, conceive the possibility of the existence of pure spirits, by the fact that we perceive essences which may exist without matter. Moreover, the intellect can prove the existence of pure spirits to be very probable, from the harmony existing throughout the universe, a harmony which would be imperfect, if, besides beings purely material and those both material and spiritual, there did not also exist purely spiritual beings.

ART. V.—HOW THE HUMAN SOUL KNOWS GOD.

52. *The soul does not know God immediately, but it rises from created things to a knowledge of his existence.*—The intellect perceives directly the abstract essence of sensible things. From the perception of these essences follow immediately the judgments called first principles of reason. By reflection on these acts of the intellect and on those of the senses, we immediately perceive our existence and that of corporeal individuals distinct from us. In this all other knowledge, including that of God, has its source, and is, consequently, only mediate knowledge.

53. *The first notion which we acquire of God is that of his existence, under the relation of first cause.*—Creatures present themselves to us as contingent beings, which, consequently, must have a cause; thus, by the principle of causality we are led to assign them a first uncreated cause.

54. *The knowledge of God as first cause of all created beings contains in germ all the other notions which we can acquire of him.*—A cause must contain the perfections which it communicates to the effect, and it must exclude the imperfections of the effect as such. But the First Cause, being the creator of all things, and, consequently, extending its power to all possible beings, immeasurably surpasses all the perfections of the creature. There are, however, three ways by which we may know the divine attributes: by the relation of cause to effect, by the exclusion of the imperfections of creatures, by pre-eminent possession of every perfection. By the first, that of *causality*, we know that God is the efficient, final, and exemplary cause of all things. that he is their preserver

and ordainer; by the second, that of *exclusion*, we deny of God whatever in the creature implies some defect as *limitation, dependence, mutability*; by the third, that of *pre-eminence*, we attribute to God in an infinite degree all perfections, such as *goodness, wisdom, beauty*. The union of these two ways of pre-eminence and exclusion enables us to form the most exalted idea that we can have of God, by conceiving him as the absolutely pure Being, that is, as the Being that simply is, without any augmentation or super-added determination to the simple and pure characteristic of existence.

55. *The idea of the finite is formed by the union of being with that of privation.*—The finite is that which exists, but with limits, that is, it is affected by a privation of being. When the intellect “looks out upon an object external to itself,” it forms the idea of being. On instituting a comparison between this object and objects which it knows already, it observes what is wanting in each, and thus conceives the idea of privation. The union of these two ideas gives the concept of the finite. From this explanation we see the error of *Descartes* and *Malebranche*, who assert that the idea of the finite is deduced from that of the infinite.

56. *The idea of the infinite is formed as a consequence from the idea of first cause.*—The intellect, when in possession of the idea of the finite and the idea of God as first cause, easily perceives that the first cause cannot be limited by itself or by any other cause, and thus conceives it without limits, that is, as infinite. *Locke* and *Condillac*, confounding the idea of the infinite with that of the indefinite, assert that the idea of the infinite is obtained by constantly

adding to a given perfection yet another perfection. But since the infinite is not susceptible of increase or diminution, this hypothesis would necessitate the intellect to know all the possible perfections contained in the infinite ; and this is absolutely impossible.

57. *From the idea of the finite is derived that of the conditional or contingent, that is, of being which does not contain in itself the reason of its existence.*—By the finite we mean limited being ; but that which is ever tending to being and not to absence of being, cannot limit itself ; it must, therefore, be limited by an external agent. But the external agent which gives it limits must also give it its existence, in which those limits are found. In other words, the being is contingent, since the contingency of a being consists precisely in this, that it receives existence from another, as from its cause. As the opposite of the finite is the infinite, so the opposite of the contingent is the necessary and absolute, or that which exists in virtue of its own essence, and in which all is pure act.

ART. VI.—NECESSITY OF SENSIBLE IMAGES, IN OUR LIFE UPON EARTH, FOR THE ACT OF THE HUMAN INTELLECT.

58. *The human mind, in its present state of union with the body, can perceive no object without the aid of a sensible representation apprehended by the imagination.*—Experience teaches us that when the imagination is disturbed or incapable of acting, as in sickness or lethargy, the intellect is likewise troubled or powerless to produce any idea. It further shows us that when we wish to think of anything, even if it be spiritual, we always form a sensible represen-

tation ; and likewise, when we communicate our ideas to another, we make use of figures and sensible images. Besides this proof from experience, an *a priori* reason demonstrates that, in the present life, we cannot, without the concurrence of sensible images, either form ideas or even make use of the ideas which we already possess. For action follows being, that is, the action is always conformed to the essence and mode of existence of the being that acts. But the essence of man is a soul substantially united to a body, and the actual mode in which his intellect exists is in union with the sensitive faculty. In order, then, that man may act as man, he must do so with the concurrence of the two principles of which he is composed ; moreover, the action of his intellect naturally requires the co-operation of the senses. We thus see the admirable harmony existing between the subject that acts, the active faculty, and the object of the action. The subject is a composite of mind and body ; the active faculty is the intellect united to the sensitive faculty ; the object is an essence realized in individual and sensible conditions.

59. *It is in one sense more perfect for the intellect of man to acquire knowledge of things by means of a sensible representation.*—There are two kinds of created intelligence, that of the angel and that of man. That of the angel knows from the first instant of its creation by means of ideas infused into it by God ; that of man is much less elevated and knows nothing at first, but is simply adapted to know. But, owing to its inferior nature, it is more perfect for the mind to have the concurrence of sensible images, than to receive ideas from God by infusion, for then

it would know things, at least naturally, in a more confused and obscure manner. This principle may be rendered clearer by comparing the intellect to the eye of a near-sighted person, which is inferior by nature to an eye without any defect, but which for that very reason acts with greater perfection when the vision is strengthened or enlarged by the use of spectacles.

ART. VII.—THE MODE OF COGNITION ¹ IN THE DIS-
EMBODIED SOUL.

60. *The disembodied soul retains the knowledge acquired during life.*—Though the soul separated from the body loses the faculties which reside in a corporeal organ, yet it retains, along with its being and its purely spiritual faculties, the knowledge which resides in those faculties as in its proper subject. Although the soul, so long as it is united to the body, cannot acquire knowledge without the help of sensible images, yet once separated from the body, it has no further need of those images.

61. *The disembodied soul has, besides the ideas which it retains when quitting this life, others which God is pleased to communicate to it.*—While the soul is in the body, it receives images through the senses, and from these images it abstracts its ideas. But once separated from the body, it can no longer be directed towards sensible objects; hence it must receive through species infused by God the new ideas which it possesses.

¹ Cognition is "sometimes used to express any kind of idea or concept; but it is properly applied exclusively to judicial concepts, or judgments of the mind as distinguished from simple apprehension." Father Harper's *Metaphysics of the School*, vol. i., p. 578.

62. *The ideas infused by God complete and perfect those which the soul has retained from this life. Both together constitute the means by which the soul will know all that it has known in its former state ; and in addition, the order of the universe of which it forms a part, the angels, and other souls ; but of the things of this world it will remain ignorant except in so far as God may be pleased to manifest them to it.*—When the soul is separated from the body, it is united to superior intelligible species ;² and, consequently, its former ideas are raised to the grade of its new acquisitions, are perfected and completed. Thus, the soul will have the representation of all that it should be acquainted with according to its state ; it will know all that relates to its former life, the order of the universe of which it forms a part, all that belongs to its new state, as the angels and other souls. But as it has departed from this life, it will have no knowledge of what pertains to our world save that which God will be pleased to impart.¹

CHAPTER II.

Knowledge of First Principles.

ART. I.—WHAT IS MEANT BY PRINCIPLES OF KNOWLEDGE.

63. *A principle of knowledge is that by which something is known.*—A principle, in general, is that from

¹ “The intelligible species is that character or abstracted essence of the thing which is imprinted on the mind, and by which it produces in itself an intellectual likeness of the thing known or expresses the word (judgment) of the mind ; and by this word is placed in the state of actually knowing.” Transl. Jouin’s *Compendium Logicæ et Metaphysicæ*, editio quarta, p. 198.

which something proceeds. Principles are of three kinds, metaphysical principles, physical principles, and principles of knowledge. The last named include all those principles which when known lead to the knowledge of something else. In a more restricted sense, principles of knowledge, or simply principles, are those propositions which are so clear and evident, that they do not require proof. Hence they are also called *axioms* or self-evident truths.

64. *After the perception of essences, the intellect immediately perceives first principles.*—The intellect proceeding gradually in the act of knowledge, first perceives what is most elementary, viz., essences. This imperfect knowledge it immediately develops in observing the relations, properties, and accidents of essences, thus calling into action the judgment and the reasoning. Of the judgments which it pronounces, some are formed immediately and others mediately. The former are called *first principles*.

ART. II.—THE PRINCIPLE OF CONTRADICTION.

65. *The first principle affirmed by the intellect is: It is impossible for the same thing to be and not be at the same time. This is called the principle of contradiction.*—As in the simple perception of essences there exists a first universal idea, which precedes all others and serves as their basis; so there must be a first judgment, on which all others rest, and to which the mind must assent under penalty of being unable to accept any other truth whatever. This first truth is the principle of contradiction, and is formulated thus: *It is impossible for the same thing to be and not to be at the same time and under the same conditions; or, in a more didactic form, Being is incompatible with non-*

being. Evidently this judgment is the first which the mind pronounces. For, in looking at being, it cannot but perceive the negation of being, or non-being. In comparing these two concepts, therefore, it compares its two primary concepts; and in discovering and affirming their absolute incompatibility, it affirms the principle which precedes all others. This principle is so evident that it is immediately known by every intellect, and cannot rationally be denied. ¹

66. *The principle of contradiction is implicitly contained in all other principles, even in those which are self-evident; it may be used to demonstrate them or, at least, to render them more evident, but can itself be proved by no other principle.*—Besides the principle of contradiction, there are many other self-evident principles; but, though the mind arrives at these by the simple perception of essence, and is not obliged to recur to a higher principle, yet in formulating them it must adhere, at least implicitly, to the principle of contradiction. Thus it is with the principle, *Every being has its own essence*, which is called the principle of *identity*; with the principle, *A thing either is or is not*, which is known as the principle of *excluded middle*; with the principle, *There is no effect without a cause*, which is styled the principle of *causality*; with the principle, *Every accident supposes a substance*, which is the principle of *substance*. So, too, is it with all the axioms; as, *The whole is greater than the part*,

¹ Kant denies to the principle of contradiction all objective reality and puts forth his doctrine of Antinomies, or the principle that contradictories may exist side by side. The repugnance of the mind to assent to such a principle is due, he asserts, to the limited circle of our experience, within which contradictories exclude each other. But in the nature of things, he maintains, there is no reason why two and two should not make five.

Two things equal to a third are equal to each other, etc. Although these principles do not require demonstration, still they are made more evident by means of the principle of contradiction. Thus, for example, we demonstrate that the whole is greater than its part, from the fact that otherwise the whole would and would not be the whole. ¹

ART. III.—THE PRINCIPLE OF CAUSALITY.

67. *The intellect has the idea of cause when it ascends by abstraction from the knowledge of a particular effect and a particular cause to the pure idea of effect and cause.*—In the act of sensation, in the act of intellection, and in that of volition, we necessarily distinguish two things: the sensitive, intellective, or volitive act, and the agent which produces the act as the term of its action; this is nothing but the cognition of a particular effect produced by a particular cause. But from this particular cognition the intellect can by abstraction form the pure idea of effect and of cause, that is, the idea, first, of something which exists only in virtue of the action of an agent, and the idea, secondly, of an agent which by its action produces a term distinct from itself. Hence the idea of cause comprehends two elements: the perception of an agent as producing an effect by its action, and the perception of this agent as distinct from the effect produced by its action.

¹ Sir Wm. Hamilton denies that the principle of contradiction is the first of all principles, and intrudes into its place the principle of identity. But this intruder is not the true principle of identity, *Every being is its own nature*, in which the two ideas are seen to be objectively identical, but a mere *tautological* proposition, *A is A*. This radical error in the principle of identity arises from Sir Wm. Hamilton's view of the idea as a mere bundle of qualities.

68. *When the intellect has the idea of cause and effect, it immediately perceives the principle of causality, which is expressed in the formula, There is no effect without a cause.*—This principle expresses nothing more than the essential dependence of the effect on its cause. But this dependence is known from the very idea of effect, since, when we speak of effect, we mean a being dependent on a cause. The mind, therefore, analyzing the idea of effect, immediately perceives its dependence on a cause; it expresses this dependence in the judgment: *There is no effect without a cause.*¹

69. *To the principle of causality is referred the principle of sufficient reason, which is formulated in these terms: Whatever is, is conceived, or is made, must have a sufficient reason, either in itself, or in that which produces it, conceives it, or causes it to exist.*—This principle is only an extension of the principle of causality, but it has a more general application; while the principle of causality properly applies only to things which constitute the real order, that of sufficient reason is applied also to things of the ideal order.²

¹ The word *cause* here means *efficient* cause, and is marked by two characteristics, "*immediate* influence and *active* influence." Mr. Mill ignores these marks when he defines cause as an *invariable, unconditional* antecedent. When, too, he tries to establish, by means of the principle of causality, the *Uniformity of Nature* as the fundamental principle of his Experimental school, he implies the existence of this very uniformity and thus falls into a vicious circle.

² "After proving that all things save God have a sufficient reason in the efficient cause outside of themselves, and that God as the first cause has a sufficient reason of existence in Himself, we combine the Creator and his creatures under the universal Proposition, *All things that exist have a sufficient reason.* But this Proposition is no axiom or First Principle. It is a complex Proposition, which unites in itself the axiom, *Every effect has a cause,* with the derivative Proposition, *The first cause is its own effect.*" Clarke's *Logic*, p. 78.

70. *The principle of causality is analytic, and not synthetic as Kant maintains.*—A judgment is synthetic when the idea of the predicate is not contained in that of the subject; as, *This wood is green.* A judgment is analytic, when the analysis of the subject enables us to find the predicate in it; thus, the mere analysis of the idea of effect suffices to give the idea of dependence on a cause.

71. *The principle of causality has an objective value, notwithstanding the assertion of the contrary by many philosophers, among others Kant and Hume.*—Many philosophers, recognizing that the destruction of the objective or real value of the principle of causality is the destruction of all science, profess the principle, but give it only a subjective or ideal value. It is evident, however, that the quality of depending on its cause, which the effect possesses, results from its nature as effect, and, consequently, is as real as the effect itself.

ART. IV.—THE PRINCIPLE OF SUBSTANCE.

72. *The idea of substance is formed from a sensible concrete object by abstraction, by which the mind perceives in the concrete object that by which it is real.*—When the mind perceives a sensible concrete object as existing, it has the power of abstracting from it existence in itself. But this perception of existence in itself includes that of substance, viz., of that by which a thing is in itself, without requiring anything else as its subject; and it is obtained by abstracting from all the particular characteristics which accompany the substance in the order of reality. For, when the intellect has formed the idea of substance by abstraction from a sensible concrete object, it contemplates this idea as it is in itself, and perceives that it is ap-

plicable not only to corporeal beings, but also to spiritual beings.

73. *When the intellect has the idea of substance and of accident, it immediately perceives the principle of substance, which is formulated thus: Every accident supposes a substance.*—With the idea of substance, the intellect possesses implicitly that of accident. The comparison of these two ideas results in the immediate perception that accident cannot exist without substance, since that which does not exist in itself can exist only in another being which has existence in itself. Hence the principle of substance is an analytic judgment.

74. *The Phenomenalism of Hume, which denies the principle of substance, is absurd; because, by denying the principle of substance, it makes the idea of accident contradictory.*—Locke, by admitting no other source of ideas than that of the senses, was led to deny the idea of substance, and held that what is called substance is in reality only a number of qualities held together by a common bond. But this is an absurd hypothesis; for, if the bond is not substance, it must be accident, and hence in its turn requires a substance to support it. The principle of Locke led Berkeley to deny all corporeal substance, and Hume to deny all substance, corporeal and spiritual, and to assert that only qualities exist and are known to us. The phenomenalism of Hume, which rejects the very idea of substance, is absurd. For the accident exists either in itself or in another thing; it cannot exist in itself, for it would then be no longer an accident; therefore, it exists in something else. But this latter cannot itself be an accident, for we should then have to proceed from one accident to another *ad infinitum*, thus

postulating an infinite series of accidents resting on nothing; which is absurd. Therefore, the accident must be supported by something which is not an accident, that is, by substance.

CHAPTER III.

Language in Relation to the Development of Knowledge.

ART. I.—UTILITY OF LANGUAGE IN DEVELOPING THE MIND.

75. *As men are composed of body and soul, they require an exterior sign to communicate their thoughts to one another; the most perfect sign is that of speech.*—Man is made to live in society; but, since his intellect is joined to a body, he must make use of a sensible sign to communicate his thoughts. This sign may be of several kinds; of these the easiest and most perfect is speech; by it he can communicate the greatest number of things with the greatest clearness.

76. *Language is not absolutely necessary either for the spontaneous or the reflex development of the intellect.*—The intellect has in itself the power, by abstracting ideas from sensible images, of immediately perceiving first principles and of deducing the consequences of its first cognitions; therefore, it is not absolutely necessary that these cognitions and their consequences should be communicated to the mind by language.

77. *Language is very useful, and even morally necessary, for the development of the intellect and for the acquisition of the greater part of our knowledge, especially of that which relates to spiritual beings and to moral*

truths.—If we consider the intellect in itself, we see that it requires a sensible image for the formation of the idea. But, as experience proves, this image formed by the imagination may also be an obstacle in speculative operations. But speech performs the essential function of the sensible image without having its inconveniences ; for it furnishes an image the most simple and the least material possible, an image not susceptible of being confounded with the idea, and easily concentrating the attention, since the words of a language are uniform and constant. Hence speech is very useful in the development of the intellect viewed in itself. But if we study it in its relations to other intellects we must allow that speech is the principal means by which the greater part of our knowledge is communicated to us in a prompt and easy manner, especially that knowledge which relates to spiritual beings and to moral truths. Besides, every science requires the efforts and labors of many ages for its formation. How, then, could its discoveries be transmitted or developed, if language were not at the service of the scientist to enable him to communicate to others the results of his labors ?

ART. II.—THE ORIGIN OF LANGUAGE.

78. *Language is of divine institution*. — This is proved : 1. By Holy Scripture and the traditions of nations ; 2. By the silence of profane history about the invention of language and the epoch of its invention ; 3. By facts of philological science. The fact of the origin of language being then established, several hypotheses are offered to explain how man received the gift of speech. Among these hypotheses, the simplest and most rational is, that man was created

with the faculty of speaking a language already formed.

79. *The invention of speech would not have been absolutely impossible to man.*—The rationalistic philosophers, especially the Sensist school, maintain the possibility of the invention of language, but in the sense which they explain it, it is an absurdity. Other philosophers, as *J. J. Rousseau*, *De Bonald*, and *Ventura*, have maintained the absolute impossibility of the invention of language. But some of the reasons which they give are false, and others are not wholly conclusive. Hence many eminent philosophers see no metaphysical impossibility in the human invention of language.

CRITERIOLOGY;

OR,

A Treatise on Certitude.

1. *Criteriaology, or a treatise on certitude, investigates the value of our faculties as means of acquiring knowledge and determines the ultimate criterion of certitude.*

—It would be of little use to the mind to form cognitions if it were not certain that these cognitions had an objective reality. Hence, after ideology has determined how the soul forms its ideas and acquires its cognitions, criteriaology shows: 1. That the faculties by which we know afford us certain knowledge; 2. That there is an ultimate principle, which constitutes a solid foundation of the certitude of our knowledge.

CHAPTER I.

Our Faculties as Means of Arriving at Truth.

ART I.—OUR COGNOSCITIVE FACULTIES.

2. *Our cognoscitive faculties are: 1. The senses; 2. The intellect, including consciousness and reason.*—We know two kinds of objects, viz., sensible and intelligible. The *senses* perceive the sensible; the *intellect*, the intelligible. When the intellect is considered as having for its object the soul and the internal facts of the soul, it is called *consciousness*; when it is con-

sidered as inferring one truth from another, it is called *reason*.

ART. II.—THE VERACITY OF THE SENSES.

3. *Sensation, considered as a modification of the sentient subject, is not an illusion but a reality.*—This is a primary fact which cannot reasonably be called in question. To say that the soul is in a state of illusion as to its own sensation is equivalent to asserting that it feels a sensation when there is no sensation, or that it feels when there is nothing to feel, which is a contradiction in terms.

4. *The senses, when in their normal state and exercised upon their proper sensible object, cannot deceive us.*—No cognoscitive faculty can be deceived in regard to its proper object, when the conditions required for the exercise of the power are fulfilled; otherwise, it would be a power that could effect nothing, which implies a contradiction.

5. *The errors arising from the senses are not properly attributable to the senses, but to the intellect.*—Error is found only in the judgment; but the senses do not judge; therefore, the senses, properly speaking, do not deceive us. When they are diseased, or when any cause modifies or impairs the sensation, the senses cannot but receive the sensation so modified or impaired, and transmit it as they receive it to the intellect. Hence the intellect should not be precipitate in judging, and should take into account any abnormal conditions under which the sensation may be produced.

6. *The Idealism of Berkeley is absurd; it admits no reality but that of spirits.*—The senses operating under fixed conditions cannot deceive us; but the senses

attest the existence of bodies ; therefore, bodies really exist.¹

ART. III.—THE VERACITY OF CONSCIOUSNESS.

7. *The veracity of consciousness is a primary fact, which is affirmed even when it is doubted or denied.*—He who doubts or denies the veracity of consciousness either does not know that he doubts or denies it, and therefore cannot say that it deceives him ; or else he does know that he doubts or denies the veracity of consciousness. But then, by what other faculty does he know this than by consciousness, the only witness of the internal facts of the soul? Therefore, he makes use of consciousness to deny consciousness, and is guilty of evident contradiction.

8. *It is absurd to hold with Transcendental philosophers, that the testimony of consciousness is a mere illusion.*—The ancient Sceptics never questioned the veracity of consciousness ; the German Transcendental philosophy alone has dared to do so, and it has thus arrived at absolute scepticism. According to *Fichte*, our life is a dream, and the existence of a real *Ego* is a mere illusion. But if our life is a dream, if the existence of a real *Ego* is an illusion, there must be a subject which dreams or which is under illusion. And this subject must, by the very consciousness by which it knows that it dreams, know also a real *Ego*, by means of which it is enabled to pronounce as an illusion the knowledge of the *Ego* which dreams. Thus the contradiction of the system is evident.

¹ Among the modern philosophers who deny, more or less, the trustworthiness of the senses, are Mill, Bain, Clifford, Green, and Caird. See *Manuals of Catholic Philosophy, First Principles of Knowledge*, by John Rickaby, S. J., Part ii., chap. ii.

ART. IV.—THE VERACITY OF THE INTELLECT AND THE REASON.

9. *The intellect cannot deceive us in immediate judgments which relate either to the rational or to the experimental order.*—The intellect cannot be deceived in regard to its proper object, when this object is presented to it in such a way as to necessitate its assent; otherwise, it could not know anything with truth, and thus it would be a faculty unable to effect anything. Hence the intellect cannot be deceived in the perception of essences; nor can it be deceived in the formation either of rational or of experimental first judgments. For these judgments are accompanied with the character of evidence: the former, because the attribute which is affirmed of the subject is found in the very idea of the subject; the latter, because they are only the complex perception of a fact, a perception which is transformed by judgment into a distinct and explicit cognition. Therefore, it is impossible for the intellect to be deceived in regard to immediate first principles, whether rational or experimental.

10. *Reason cannot deceive us in regard to conclusions readily deduced from first principles.*—The whole art of reasoning consists in deducing from two given judgments a third judgment, which is found to be contained in them. Hence there is identity and, consequently, necessary connection between the conclusion and the premises. But if the truth of the conclusion is based on the identity of the premises, reasoning evidently cannot deceive us, since a thing cannot both be and not be identical with itself. Hence arises the repugnance which the intellect experiences to dissent from the conclusions which fol-

low from a principle ; also that secret displeasure which we feel when an adversary, having accepted certain principles, is unwilling to allow the conclusions which are logically drawn from them. But, on the other hand, when the conclusions are derived from a first principle only by long and intricate argumentations, the reason may be deceived, not because the reasoning in this case deceives, but because the natural weakness of the mind is such that it easily allows the attention to wander and thus overlooks some of the laws of reasoning.

11. *The objection raised against the veracity of reason on account of the errors of philosophers only proves that they made a bad use of it.*—From the fact that the abuse of reason gives rise to error, we must not infer that reason cannot in any case apprehend truth with certainty. This affirmation of *La Mennais* is contrary to good sense and sound logic.

CHAPTER II.

Scepticism.

ART I.—NATURE OF SCEPTICISM.—DIFFERENT KINDS OF SCEPTICISM.

12. *Scepticism is a denial of the existence of truth or of the possibility of knowing it with certainty.*

13. *Scepticism is partial or complete, modified or absolute.*—Partial scepticism rejects the truth or certitude of only a certain class of cognitions. Thus, Idealists, such as *Berkeley*, reject the truth of sensible cognitions, while Materialists or Empiricists, with *Locke* and *Condillac*, admit as certain only facts per-

ceived by the senses. Rationalists, like *Descartes*, accept as certain only what appears evident to reason; the Sentimentalists, with *Reid*, consider as certain only what is not repugnant to instinct, to natural sentiment; the Traditionalists and Fideists, represented by *La Mennais* and *Huet* respectively, regard as certain only traditional or revealed truths. Partial scepticism, as experience shows, leads logically to complete scepticism. Complete scepticism rejects the truth or certitude of all knowledge, and is either absolute or modified. It is absolute, when it denies the existence of objective or ontological truth, admits that contraries may both exist, and regards all things as phenomena or illusions. This kind of scepticism was taught in ancient times chiefly by *Gorgias* and *Protagoras*; in modern times it has been disseminated by *Kant*, *Fichte*, *Schelling*, and *Hegel*. Scepticism is modified when it admits the existence of truth, but rejects the veracity of the means at our disposal to apprehend truth. The principal representatives of this phase of scepticism in ancient times were *Pyrrhus* and *Sextus Empiricus*; in modern times, *Bayle* and *Hume* are the most noted.¹

ART. II.—REFUTATION OF SCEPTICISM.

14. *Scepticism is contradictory; it is logically and practically impossible.*—The consistent sceptic ought not to reason nor even to think; for, in thinking of his

¹ "Unfortunately, though not going under the name of sceptics, but rather of agnostics, there is a large party of our philosophers in this country who are pledged to the fundamental principles of scepticism in accepting substantially the doctrine of Hume." *First Principles of Knowledge*, by John Rickaby, S. J. pp. 143, 144. Among these are Mill, Hamilton, Spencer, Ban, and Green.

doubt, he affirms his doubt, and consequently is no longer a sceptic. Above all, a sceptic should not attempt to propagate his scepticism, for in doing so he simply uses reason against itself. The consistent sceptic should no longer act, for all action proceeds from an affirmation of the mind, and thus involves the sceptic in self-contradiction. ¹

15. *Scepticism is absurd, since its consequence is the negation of all science and of all virtue.*—Scepticism denies truth or the possibility of attaining truth with certitude, and thereby renders science impossible, for science is nothing more than the certain knowledge of truth. Scepticism subverts all morality, for it is a truth that every action is either good or bad; but if we must deny or doubt all truth, evidently it is a matter of indifference whether we do this or that act. History, moreover, shows that the ages of scepticism have always been ages of intellectual and moral decay.

16. *Scepticism is contrary to the nature of man.*—Certitude is the life of the intellect, as air is the life of the body; thus, scepticism is a state contrary to nature, an abnormal, exceptional state, in which the mind can be placed only by an abuse of reason.

17. *The facts brought forward by scepticism against certitude prove nothing.*—Sceptics bring forward in support of their system the great variety of human opinions and the errors into which our faculties lead us. But if men differ in opinion on certain truths, they all agree on fundamental truths, and our facul-

¹ "The position of the dogmatic sceptics, when they have done and said all, remains worse than that of the dumb man who tries to speak out and declare his own condition; or that of those who had to solve the old puzzle, how to believe, on a man's own testimony, that he is an unmitigated liar." *First Principles of Knowledge*, p. 137.

ties do not deceive us, when we apply them to their proper object and they act under the requisite conditions.

CHAPTER III.

The Ultimate Foundation of Certitude.

ART. I.—WHAT IS MEANT BY THE ULTIMATE FOUNDATION OF CERTITUDE.

18. *The principle of certitude is the motive which produces the adhesion of the mind to some truth.*—Every cognoscitive faculty makes known the truth in regard to its proper object. But truth, properly speaking, resides solely in the intellect, which adheres firmly to a truth only when prompted by some motive. This motive is called the principle, or ultimate foundation, of certitude.

19. *The principle of certitude is twofold, intrinsic and extrinsic.*—The intellect adheres to a proposition either because the proposition itself manifests its intrinsic truth to the mind, or because an extrinsic motive produces conviction in the intellect, though the mind does not perceive the truth of the proposition by an analysis of the proposition itself. In the former case, the principle of certitude is intrinsic; in the latter, it is extrinsic.

ART. II.—THE INTRINSIC PRINCIPLE OF CERTITUDE.

20. *The intrinsic principle of certitude is the objective and ontological evidence of the thing.*—That which causes the intellect to know the intrinsic truth of a thing is that the entity of the thing manifests itself

to the mind. But that which produces in us the knowledge of truth also produces certitude, since certitude is only the state of the mind consequent on the possession of its proper object ; in other words, it is the repose of the mind in the possession of truth. The intrinsic principle of certitude, therefore, is the entity of the thing manifesting itself to the mind and determining its adhesion. This manifestation of the entity of the thing is what is called *the objective and ontological evidence of the thing*. This evidence is immediate, or evidence of intuition, when the thing becomes manifest to the mind immediately and by its own light ; as, *The whole is greater than the part* ; it is mediate, or evidence of deduction, when it becomes manifest only after some mental process, and by means of a second object.

21. *Huet bases all certitude on revelation ; La Menais on the authority of common sentiment ; Reid and the Sentimentalist school, on instinct and internal sentiment ; Descartes, on the clear and distinct idea of the thing ; Leibnitz and Arnauld, on the principle of contradiction ; Cousin, on the impersonality of reason ; Galluppi, on the testimony of consciousness ; Kant, on practical reason ; Rosmini, on the idea of possible being ; Gioberti and the Ontologists, on the vision of the divine essence, or on the vision of the divine ideas. All these systems must be rejected as erroneons.*—If, with *Huet*, we doubt that which we know by the senses, by consciousness, or by the intellect, and of which we are certain only by the intrinsic evidence of the thing, it is manifest that we must also doubt that which is known to us by divine revelation itself, since we can know what divine revelation teaches only by means of our senses and our intellect.

Our knowledge of the consent of mankind to a truth is obtained through the senses and the intellect; therefore, according to the very principles of *La Mennais*, we are necessitated to doubt our knowledge of this consent. Besides, mankind is made up of individuals; but, if certitude is impossible to the individual as such, the mere assemblage of the uncertain cognitions of individuals can never produce certain cognition.

The adhesion of the mind, being the act of a rational being, cannot be determined without a motive. But the instinct and internal sentiment of *Reid* are blind causes which do not make known the motive of adhesion; therefore, they cannot be the principle of human certitude. Instinct is peculiar to the animal and not to the intelligent being; far from explaining anything, it requires explanation itself.

Descartes regards evidence as the foundation of certitude; but, according to him, evidence consists in the clear idea of the thing, and is purely subjective; that is, it is merely an act of the mind, and not the manifestation of the object to the mind. It is, consequently, variable and changing. But the certitude which puts us in possession of truth must proceed from an immutable and objective principle, like truth itself. The clear idea of *Descartes*, being a pure modification of the cognoscitive act, cannot be the principle of certitude.

We cannot, with *Leibnitz* and *Arnauld*, base certitude on the principle of contradiction; for our assent to this principle must be determined by a motive, and this motive is its intrinsic evidence.

Besides the manifest absurdity that would result from admitting the Impersonal Reason of *Cousin*

and his school, we must remark that this reason, even if supposed to be real, could not produce certitude, unless there were also a different motive present.

We cannot agree with *Galluppi* in founding certitude on the testimony of consciousness. For consciousness testifies only to facts of the internal sense, and is a purely subjective witness ; hence it cannot produce objective certitude.

The practical reason of *Kant* must necessarily have speculative reason for its basis ; therefore, if the speculative order is destroyed, the practical order will share the same fate.

Rosmini errs in placing the principle of certitude in the idea of possible being ; for, aside from the falsity of the innateness of this idea, it cannot produce objective certitude, since it is purely subjective.

According to *Ontologism*, the intellect does not form to itself representations of the object known ; hence the ideal order is destroyed, and consequently, that of knowledge also. Thus, direct vision of the divine essence or of the divine ideas, far from being the principle of certitude, is the negation of all knowledge and of all certitude.

ART. III.—THE EXTRINSIC PRINCIPLE OF CERTITUDE.

22. *The extrinsic principle of certitude is the authority of him who affirms the fact.*

23. *The extrinsic principle of the certitude of anything is either divine or human authority : the latter is the authority of mere human testimony, if there be question of fact ; or the authority of the testimony of scientists, if there be question of scientific truths ; or the authority of the testimony of common sentiment, if there be question*

of the principal truths necessary to our intellectual or moral life.

24. *The authority of divine testimony, or revelation, is a principle producing a certitude which is superior to all others and perfect.*—God neither wishes to deceive us nor can be deceived himself. His infallibility gives us the most perfect certitude regarding the truths which he reveals to us.

25. *Human testimony produces certitude in us when we know that the witnesses cannot be deceived and do not wish to deceive.*—The knowledge and veracity of the witnesses are, therefore, the two essential conditions on which the authority of human testimony is based.

26. *The absolute impossibility of the facts testified to, and in certain cases, the improbability of the facts, argue against the acceptance of the testimony.*—If a fact is absolutely impossible, evidently the testimony borne to it is false. If the fact is improbable, the testimony requires more careful examination. But it is sometimes difficult to determine whether the fact is impossible ; hence we should rely mainly on the positive sign afforded us in the knowledge and veracity of the witnesses.

27. *We have a certain indication of the knowledge and veracity of witnesses, when they agree in reporting a fact in the same way.*—The testimony of a single witness does not, of itself, afford a guarantee of truth ; but if the witnesses are numerous and if they agree in their testimony, we cannot call their testimony in question ; for then we must suppose either that all are deceived in the observation of the same fact, or that they all agree to deceive in reporting the fact. But, on the one hand, it cannot happen that many men should at the same time be subject to the same

defect in the organs of sense-perception ; and on the other hand, many men cannot maintain the same error in the same way. since a lie is produced by the passions, and the passions vary with individuals.

But if the witnesses report facts humiliating to themselves ; if they are very numerous, of different ages and conditions ; if they endure torments and even death in support of their testimony ; if they report public facts of great importance, which are not contradicted, but rather confirmed by the very persons whom these facts condemn, then their testimony produces perfect certitude. Such is the testimony in support of the truths on which Christianity rests.

ART IV.—THE MEANS BY WHICH TESTIMONY IS TRANSMITTED.

28. *The three means by which human testimony is transmitted are : tradition, history, and monuments.*—*Tradition* is an oral account transmitted from mouth to mouth. *History* is a written record of past events. *Monuments* are all the works of men which may serve as signs of accomplished facts ; they comprise pillars, inscriptions, medals, charters, etc. Their testimony is indirect, if they afford knowledge which they were not intended to convey ; thus, the magnitude of the pyramids indirectly testifies to the power of the Egyptian kings. It is direct, when they make known the fact which they were designed to transmit ; thus, the medal commemorative of a victory bears direct testimony to that event.

29. *When tradition is constant and relates to a public and important fact, it is a source of certitude.*—Contemporaneous witnesses of an event give certain informa-

tion of it to those who come after them. The latter may weigh the value of the testimony, but they will find deception and error impossible, if the witnesses to the fact are numerous. Hence, they can, in their turn, produce in those who succeed them a certitude equal to their own, and so the knowledge of the events may be carried down to the most remote ages. We thus see the falsity of the opinion of *Locke*, who holds that a tradition gradually loses its value by the lapse of time.

30. *It is absurd to object against the value of tradition the fables current during many ages among different nations.*—The account of these fables has come down to us devoid of consistency and universality, and the fact that it has at all times been easy to show their falsity is a proof that they cannot be confounded with true tradition.

31. *Monuments are a source of certitude when we can establish their authenticity.*—At the time when a monument is erected, it testifies that the fact the remembrance of which it is intended to perpetuate is certain and universally believed. It is impossible for a counterfeit fact to be generally believed by those who are its contemporaries. But if it is to make known the truth, evidently the monument must really belong to the epoch to which it is referred; a monument erected subsequent to the event is simply a false witness. Doubt as to the authenticity of a monument produces doubt concerning the fact which it attests.

33. *History is a source of certitude when it is authentic and uncorrupted.*—When a historical narrative is published, it is equivalent to a public testimony by its contemporaries to its authenticity. If they receive

such a work as truthful, and if it has undergone no alterations in the lapse of ages, it merits equal credence in all times.

33. *We are certain that a writing is authentic :* 1. *When, by an unbroken tradition, it is recognized as such ;* 2. *When it is in harmony with the manners and customs of the time to which it is referred, and with the character and the genius of the author to whom it is ascribed ;* 3. *When by its nature it makes imposition impossible.*—If from the epoch to which it is referred a writing has always been recognized by the tradition of the common people or of the learned as the production of a particular author, if the contents of the writing be in harmony with the known customs of the age, and with the life and genius of the author, its authenticity cannot be disputed. For this is especially guaranteed by the moral impossibility of publishing the writing without the immediate discovery of imposture.

34. *We are certain that a writing is uncorrupted :* 1. *When its component parts agree both in matter and in form ;* 2. *When the copies which have been made of it in different times and places are identical ;* 3. *When, on account of its importance and the great number of persons interested in it, alteration becomes impossible.*—The intrinsic proof of the integrity of a writing is found in the perfect harmony of the different parts which compose it : the extrinsic proof consists in the identity of the extant codices of the writing. Finally, if the writing interests a great number of persons, and if they have never protested against any alteration, the integrity of the work reaches its highest degree of certainty.

35. *The veracity of a writing is established from the*

very nature of the writing and from the knowledge and veracity of the writers.—The intrinsic indications of the veracity of a writing are the notoriety of the facts recorded, their importance, and their relation to other facts which occurred at the same time. The knowledge and veracity of the writers are established in accordance with the rules of ordinary testimony. We should examine whether they are unbiassed by passions or prejudices, whether they could easily have ascertained the facts, and especially, whether they agree with other writers recording the same facts. To some extent, these rules apply in the examination of the veracity of a monument.

36. *The objections of scepticism against the value of historic testimony serve only to establish it the more firmly.*—It is objected that many books, once received as authentic, have proved later to be forgeries. But if we have the means of establishing the spuriousness of certain writings, evidently the authenticity of other works only remains the more firmly established. Again, it is true that many copies of ancient works have come down to us with alterations. But if the parts in which these copies do not agree prove that alteration has taken place, other parts, in which they do agree, prove that the original text has been preserved intact.

ART. V.—AUTHENTICITY OF THE TESTIMONY OF COMMON
SENTIMENT AND OF SCIENTISTS.

37. *By the testimony of common sentiment is meant the general and constant assent of mankind to some truth.*—To know this general assent, it is not necessary to question all men; it suffices to know the views of enlightened men and the opinion of nations in general.

38. *Common sentiment is a source of certitude in regard to the truths to which it bears testimony.*—That men in different times and in different places may be unanimous in affirming a thing, it is necessary that this affirmation be produced in them by their very nature. But that which is the effect of nature cannot deceive; we must, therefore, admit the testimony of common sentiment.

39. *The truths affirmed by common sentiment are:*
1. *Principles which are readily known by the natural use of reason;* 2. *Those moral and religious truths the knowledge of which is necessary to the moral life of man.*—There are both immediate and mediate principles the cognition of which is easy and requires only the natural development of reason: as, *The whole is greater than the part.* These principles, therefore, are known to all men. The principal moral and religious truths, however, the knowledge of which is indispensable to man, are not readily known. But few minds could have attained to them, and even then only after much time, with an intermixture of error, and in an uncertain manner. Consequently, if they are known and accepted by all men, it is in virtue of a primitive revelation made by God to the first man, and handed down to his descendants by unbroken tradition.

40. *It is vain to object against the authority of common sentiment the corruption of primitive traditions among nations and the almost universal diffusion of certain errors.*—The alterations produced in primitive traditions are neither constant nor universal; they are then without value. Thus, polytheism was professed only during a certain period among different nations, and it was not universal. While admit-

ting the reality of certain errors, like that of the revolution of the sun around the earth, we must also observe that they are rather the result of ignorance; but ignorance should not be confounded with error.

41. *Prudence warns us to yield to the authority of scientists in matters relating to the science which they teach.*—The authority of the scientist in his science should be respected by the unlearned, since he who by the culture of his mind is fitted to apprehend a truth may impose it on him who could not of himself attain to its knowledge. But as scientists themselves are competent to examine the particular truths in question, they should judge the authority of other scientists by their own reason. Hence we may formulate the following three rules: 1. The authority of scientists should be accepted so long as there is no reasonable ground to believe it false or to suspect it; it should be rejected, if it is known to be false; 2. Every scientist is a competent judge only in the science of which he is master; 3. One scientist should accept as authoritative the affirmations of another, when he cannot himself ascertain their truth or demonstrate their falsity.¹

ART. VI.—IMPORTANCE TO OUR COGNITIONS OF THE AUTHORITY OF TESTIMONY AS A PRINCIPLE OF CERTITUDE.

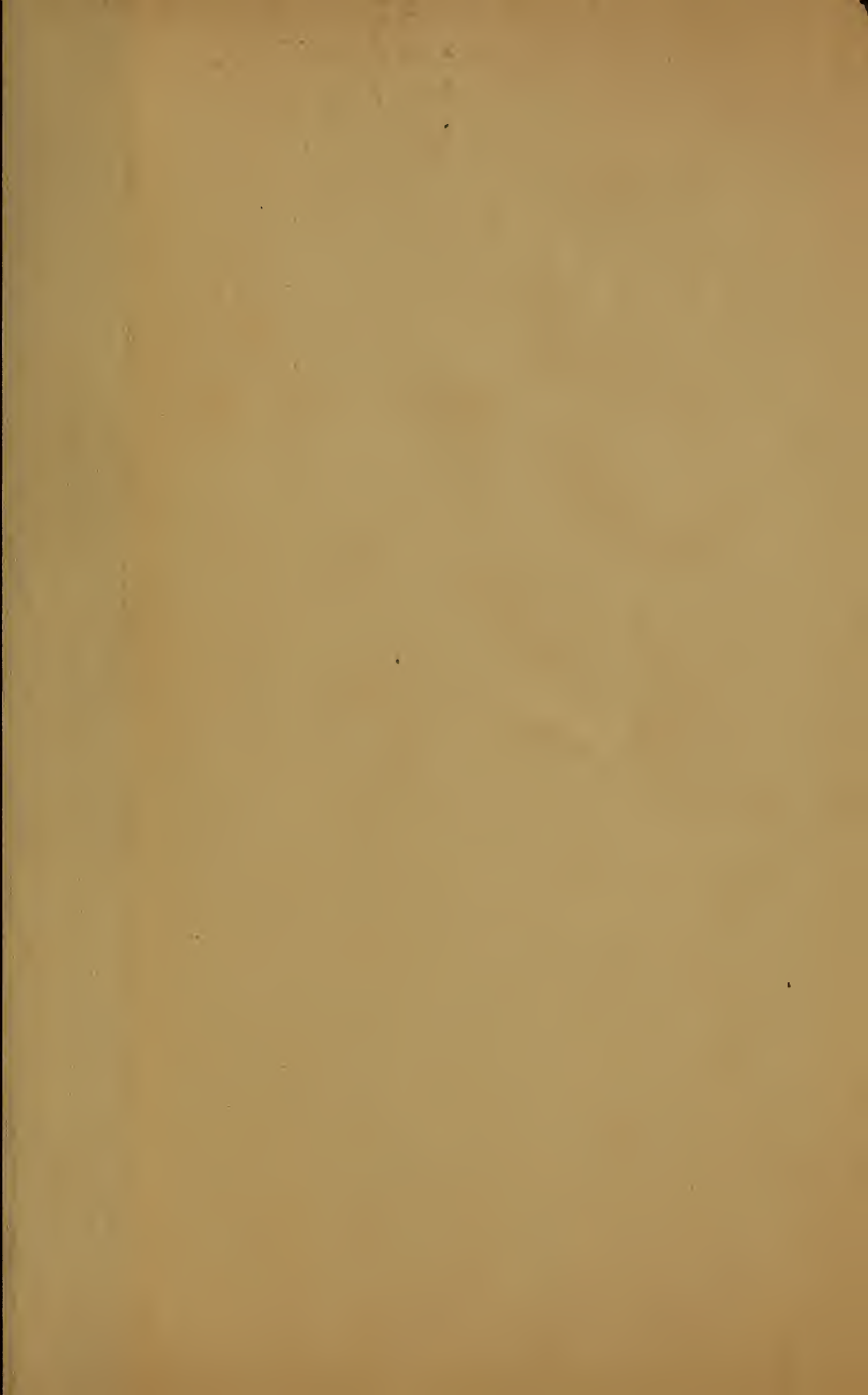
42. *Testimony is the condition of the complete development of our mind and the source of the greater part of our knowledge.*—Without the aid of testimony, man could, indeed, acquire the knowledge of some truths;

¹ For a clear exposition of the harmony between the positive results of science and the truths of faith, consult *Apologie de la Foi Chrétienne*. See also Jouin's *Evidences of Religion*, pp. 300, 301.

but, if we except those which are sensible and elementary, they would be very limited and bound up with many errors. Testimony develops his mind promptly and without fatigue, enriches it with a store of cognitions which it could never acquire by itself, either on account of their elevation or of the time required for their acquisition or of insurmountable material difficulties. It is because testimony is the condition of the normal and complete development of the intellect, that the mind is naturally inclined to accept authority, especially during the early years of life.







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