

A P P E N D I X .

NOTE I., page 6.

NATURAL AND REVEALED RELIGION.

THE Hindus regard the Vedas, the Parsees the Zend-Avesta, and the Mohammedans the Koran, as having been immediately and specially inspired. This means that they believe the spiritual truth contained in these books to belong to revealed religion, although it, in reality, is merely a portion of natural religion. The Greeks and Romans could not distinguish between nature and revelation, reason and faith, because ignorant of what we call revelation and faith. Without special revelation or inspiration the oriental and classical mind attained, however, to the possession of a very considerable amount of most precious religious truth. In all ages of the Christian Church there have been theologians who have traced at least the germinal principles of such truth to written or unwritten revelation; and probably few patristic or scholastic divines would have admitted that there was a knowledge of God and of His attributes and of His relations to the world which

might be the object of a science distinct from, and independent of, revelation. This is quite consistent with what is also a fact—namely, that the vast majority of Christian writers have always acknowledged that “the light of nature and the works of creation and providence manifest the goodness, wisdom, and power of God,” and that this general revelation is implied in the special revelation made at sundry times and divers manners and recorded in the Scriptures. The ‘*Theologia naturalis sive liber creaturum*’ of the Spanish physician, Raymond de Sebonde, who taught theology in the University of Toulouse during the earlier part of the fifteenth century, was, so far as I know, the first work which, proceeding on the principle that God has given us two books, the book of nature and the book of Scripture, confined itself to the interpretation of the former, merely indicating the mutual relations of natural and revealed religion. Faustus Socinus was one of the first distinctly to maintain that there was no such thing as natural religion—no knowledge of God attainable except from Scripture: see his ‘*De Auctoritate Scripturæ Sacræ.*’ A conviction of the importance of natural theology spread very rapidly in the seventeenth century. This contributed to awaken an interest in the various religions of the world, and thus led to the rise of what may be called Comparative Theology, although more generally designated the Philosophy of Religion. Its origin is to be sought in the attempts made to prove that the principles of natural theology were to be found in all religions. Lord Herbert of Cherbury’s ‘*De Religione Gentilium,*’ published in 1663, was one of the earliest and most characteristic attempts of the kind. From that time to the present the study of religions has proceeded at varying rates of

progress, but without interruption, and has at length begun to be prosecuted according to the rules of that comparative method which has, in the words of Mr Freeman, "carried light and order into whole branches of human knowledge which before were shrouded in darkness and confusion."

The eighteenth century was the golden age of natural theology. The deists both of England and France endeavoured to exalt natural theology at the expense of positive theology by representing the former as the truth of which the latter was the perversion. "All religions in the world," said Diderot, "are merely sects of natural religion." The prevalent opinion of the freethinkers of his time could not have been more accurately expressed. It was just what his predecessors in England meant by describing Christianity as "a republication of natural religion," and by maintaining that it was "as old as the creation." The wisest opponents of the deists, and thoughtful Christian writers in general—the adherents of the moderate and rational theology of the seventeenth and eighteenth centuries—strove, on the other hand, to show that natural theology was in reality presupposed by revelation, and that it should carry the mind onwards to the acceptance of revelation. But there were some who undertook to maintain that there was no such thing as natural theology; that reason of itself can teach us absolutely nothing about God or our duties towards Him. The Hutchinsonians, for example, whose best representatives, besides the founder, were Bishop Horne of Norwich, and William Jones, curate of Nayland, believed that all knowledge of religion and morals, and even the chief truths of physical science, ought to be drawn from the Bible. Dr Ellis, in his treatise entitled

'The Knowledge of Divine Things from Revelation, not from Reason or Nature' (1743), laboured to prove that neither the being of a God nor any other principle of religion could be legitimately deduced from the study of the phenomena of the universe. He argued on the assumption that the senses are the only natural inlets to knowledge. The late Archbishop Magee adopted his views on this subject. One of the most widely known expositions and defences of the theory is that contained in the 'Theological Institutes' (1823) of the eminent Wesleyan divine, Richard Watson. In order to establish that all our religious knowledge is derived from special revelation, he employs all the usual arguments of scepticism against the proofs of theism and the principles of reason on which they rest. In the Roman Catholic Church, scepticism as to reason and the light of nature has been often combined with dogmatism as to the authority of revelation and the Church. In the system of what is called the theocratic school may be seen the result to which attempts to establish the certitude of authority by destroying the credit of human reason naturally lead. It is a system of which I have endeavoured to give some account in my 'Historical Philosophy in France,' pp. 366-380.

The fact on which I have insisted in the latter part of the lecture—the fact that theism has come to mankind in and through revelation—has caused some altogether to discard the division of religion into natural and revealed. They pronounce it to be a distinction without a difference, and attribute it to sundry evil consequences. It has led, they think, on the one hand, to depreciation of revelation—and, on the other, to jealousy of reason: some minds looking upon Christianity as at best a repub-

lication of the religion of nature, in which all that is most essential and valuable is "as old as the creation ;" while others see in natural religion a rival of revealed religion, and would exclude reason from the religious sphere as much as possible. The distinction is, however, real, and the errors indicated are not its legitimate consequences. If there be a certain amount of knowledge about God and spiritual things to be derived from nature—from data furnished by perception and consciousness, and accessible to the whole human race,—while there is also a certain knowledge about Him which can only have been communicated through a special illumination or manifestation — through prophecy, or miracle, or incarnation,—the distinction must be retained. It is no real objection to it to urge that in a sense even natural religion may be regarded as revealed religion, since in a sense the whole universe is a revelation of God, a manifestation of His name, a declaration of His glory. That is a truth, and, in its proper place, a very important truth, but it is not relevant here : it is perfectly consistent with the belief that God has not manifested Himself merely in nature, but also in ways which require to be carefully distinguished from the manifestation in nature. In like manner, the distinction is not really touched by showing that revealed religion has embodied and endorsed the truths of natural religion, or by proving that even what is most special in revelation is in a sense natural. These are both impregnable positions. The Bible is, to a large extent, an inspired republication of the spiritual truths which are contained in the physical creation, and in the reason, conscience, and history of man. But this does not disprove that it is something more. The highest

and most special revelation of God—His revelation in Jesus Christ—was also the fullest realisation of the true nature of man. But this is no reason why we should not distinguish between the general and the special in that revelation. We can only efface the distinction by reducing Christ to a mere man, or confounding God with man in a pantheistic manner.

It has been further objected to the division of religion into natural and revealed that it is unhistorical, that natural religion is only revealed religion disguised and diluted—Christianity without Christ. It never existed, we are told, apart from revelation, and never would have existed but for revelation. But this very objection, it will be observed, implies that natural religion is not identical with revealed religion—is not revealed religion pure and simple—is not Christianity with Christ. Why is this? Is it not because revealed religion contains more than natural religion—what reason cannot read in the physical universe or human soul? Besides, while the principles of natural religion were presented in revelation in a much clearer form than in any merely human systems, and while there can be no reasonable doubt that but for revelation our knowledge of them would be greatly more defective than it is, to maintain that they had no existence or were unknown apart from revelation, is manifestly to set history at defiance. Were there no truths of natural religion in the works of Plato, Cicero, and Seneca? Is there any heathen religion or heathen philosophy in which there are not truths of natural religion?

The belief in a natural religion which is independent alike of special revelation and of positive or historical religions has been argued to have originated in the same

condition of mind as the belief in a "state of nature" entertained by a few political theorists in the seventeenth and eighteenth centuries. This can only be done by confounding natural religion with an imaginary patriarchal religion, which is, of course, inexcusable. Natural religion is analogous, not to the state of nature, but to the law of nature of the jurists. Natural religion is the foundation of all theology, as the law of nature is the foundation of all ethical and political science; and just as belief in the law of nature is perfectly independent of the theory of a state of nature, so the belief in natural religion has no connection whatever with any theory of patriarchal or primitive religion.

There is a well-known essay by Professor Jowett on the subject of this note in the second volume of his 'St Paul's Epistles,' &c.

NOTE II., page 9.

INFLUENCE OF RELIGION ON MORALITY.

The assertion of Mr Bentham and of Mr J. S. Mill that much has been written on the truth but little on the usefulness of religion, is quite inaccurate. Most of the apologists of religion have set forth the proof that it serves to sustain and develop personal and social morality; and, from the time of Bayle downwards, not a few of its assailants have undertaken to show that it is practically useless or even hurtful. But Bentham may have been the first who proposed to estimate the utility of religion apart from the consideration of its truth. The notion

was characteristically Benthamite. It was likewise far too irrational to be capable of being consistently carried out or applied. The work compiled by Mr Grote from the papers of Mr Bentham, and published under the name of Philip Beauchamp—‘Analysis of the Influence of Natural Religion on the Temporal Happiness of Mankind’—and Mr Mill’s ‘Essay on the Utility of Religion,’ are, in almost every second page, as well as in their general tenor, attacks not merely on the utility but on the truth of religion.

The former of these works is an attempt to show that natural religion has done scarcely any good, and produced no end of evils—inflicting, so runs the indictment, unprofitable suffering, imposing useless privations, impressing undefined terrors, taxing pleasure by the infusion of preliminary scruples and subsequent remorse, creating factitious antipathies, perverting the popular opinion, corrupting moral sentiment, producing aversion to improvement, disqualifying the intellectual faculties for purposes useful in this life, suborning unwarranted belief, depraving the temper, and, finally, creating a particular class of persons incurably opposed to the interests of humanity. The author makes out that religion is responsible for this catalogue of mischiefs, by two simple devices. First, he defines religion as “the belief in the existence of an almighty Being, by whom pains and pleasures will be dispensed to mankind during an infinite and future state of existence,” or, in other words, he so defines religion as to exclude from the idea of God the thought of moral goodness, righteousness, and holiness. He even insists that the God of natural religion can only be conceived of as “a capricious and insane despot,” and bases his argumentation on this assumption. Dr Caselles,

who has translated the treatise into French, and prefaced it by an interesting introduction, informs us that the argumentation is not applicable to the new, but only to the old theism. It is historically certain, however, that the "old" theism of Jeremy Bentham and his friends never existed outside of their own imaginations. It is likewise certain that a lamb would acquire a very bad character if it were by definition identified with a wolf, and credited with all that creature's doings. The second device is "a declaration of open war against the principle of separating the abuses of a thing from its uses." The only excuse which can be given for this declaration of a most unjust war is, that Mr Bentham was able completely to misunderstand the obvious meaning of the principle which he assailed. That a book so unfair and worthless should have produced on the mind of Mr J. S. Mill, even when a boy of sixteen, the impression which he describes in his Autobiography would have been inexplicable, had we not known the character of his education.

Mr Mill's own essay is rather strange. It begins with six pages of general observations, which are meant to show that it is a necessary and very laudable undertaking to attempt to prove that the belief in religion, considered as a mere persuasion apart from the question of its truth, may be advantageously dispensed with, any benefits which flow from the belief being local, temporary, and such as may be otherwise obtained, without the very large amount of alloy always contained in religion. Yet we are told that "an argument for the utility of religion is an appeal to unbelievers to induce them to practise a well-meant hypocrisy; or to semi-believers to make them avert their eyes from what might possibly shake their

unstable belief ; or, finally, to persons in general to abstain from expressing any doubts they may feel, since a fabric of immense importance to mankind is so insecure at its foundations, that men must hold their breath in its neighbourhood for fear of blowing it down." An argument for the utility of religion is "moral bribery." An argument for its uselessness is highly to be commended. Mr Mill further tells us that "little has been written, at least in the way of discussion or controversy, concerning the usefulness of religion ;" and likewise, that "religious writers have not neglected to celebrate to the utmost the advantage both of religion in general and of their own religious faith in particular." The inference must be, that what religious writers urge for the utility of religion is not to be reckoned as reasoning ; that only what writers like Mr Bentham and Mr Mill urge against its utility is to be thus regarded. The charity of this view is capped by the assertion that "the whole of the prevalent metaphysics of the present century is one tissue of suborned evidence in favour of religion ;" an assertion which is made amusing by following a sentence in which Mr Mill speaks of "the intolerant zeal" of intuitionists. After his general considerations, he professes to inquire what religion does for society, but in reality never enters on the investigation. He devotes two pages to insisting on "the enormous influence of authority on the human mind ;" three to emphasising "the tremendous power of education ;" and ten to enlarging on "the power of public opinion." He might as relevantly have dwelt on the influence of reason, speech, the press, machinery, clothes, marriage, and thousands of other things which undoubtedly affect the intellectual and moral condition of society. It is as unreasonable to infer that religion is useless

because authority, education, and public opinion are powerful, as it would be to infer that the fire in a steam-engine might be dispensed with because water is necessary. Any person who assumes, as Mr Mill assumed, that authority, education, or public opinion may be contrasted with religion—who does not see, as Mr Mill did not see, that all these powers are correlatives, which necessarily intermingle with, imply, and supplement one another—is, *ipso facto*, unable intelligently to discuss the question, What does religion do for society? In the second part of his essay, Mr Mill ought, in order to have kept his promise, to have considered what influence religion in the sense of belief in and love of God is naturally calculated to exert on the character and conduct of the individual; but instead of this he applies himself to the very different task of attempting to prove that “the idealisation of our earthly life, the cultivation of a high conception of what it may be made, is capable of supplying a poetry, and, in the best sense of the word, a religion, equally fitted to exalt the feelings, and (with the same aid from education) still better calculated to ennoble the conduct, than any belief respecting the unseen powers.” He forgets to inquire whether there is any opposition between “the idealisation of our earthly life” and “belief respecting the unseen powers,” or whether, on the contrary, religious belief is not the chief source of the idealisation of our earthly life. That this logical error is as serious as it is obvious, appears from the fact that ten years later Mr Mill himself confessed that “it cannot be questioned that the undoubting belief of the real existence of a Being who realises our own best ideas of perfection, and of our being in the hands of that Being as the ruler of the universe, gives an in-

crease of force to our aspirations after goodness beyond what they can receive from reference to a merely ideal conception" (Theism, p. 252). His proof that the worship of God is inferior to the religion of humanity rests mainly on these three assertions: (1) That the former, "what now goes by the name of religion," "operates merely through the feeling of self-interest;" (2) That "it is impossible that any one who habitually thinks, and who is unable to blunt his inquiring intellect by sophistry, should be able without misgiving to go on ascribing absolute perfection to the author and ruler of so clumsily made and capriciously governed a creation as this planet and the life of its inhabitants;" and (3), That "mankind can perfectly well do without the belief in a heaven." "It seems to me not only possible, but probable, that in a higher, and, above all, a happier condition of human life, not annihilation but immortality may be the burdensome idea; and that human nature, though pleased with the present, and by no means impatient to quit it, would find comfort and not sadness in the thought that it is not chained through eternity to a conscious existence which it cannot be assured that it will always wish to preserve." On this last point more mature reflection brought him to a different and wiser conclusion (see Theism, pp. 249, 250).

Those who wish to study the important subject of the relations of religion and morality will find the following references useful: the last chapter of M. Janet's 'La Morale;' the *étude* on "La Morale indépendante" in M. Caro's 'Problèmes de Morale Sociale;' many articles and reviews in M. Renouvier's 'Critique Philosophique;' Martensen's 'Christian Ethics,' §§ 5-14; O. Pfleiderer's 'Moral und Religion;' Luthardt's 'Apologetic Lectures

on the Moral Truths of Christianity ;' Bradley's 'Ethical Studies,' pp. 279-305 ; and Caird's 'Introduction to the Philosophy of Religion,' ch. ix.

NOTE III., page 18.

ETHICS OF RELIGIOUS INQUIRY.

Much has been written regarding the spirit and temper in which religious truth should be pursued and defended. In a large number of the general treatises both of apologetic and systematic theology, the subject is considered, and not a few essays, lectures, &c., have been specially devoted to it. The greater portion of this literature may, I believe, be forgotten without loss, but there is a part of it which will well repay perusal. The "Oratio de recto Theologi zelo" in the first volume of the 'Opuscula' of Werenfels, is worthy of that tolerant and philosophical divine. Archbishop Leighton's 'Exhortations to Students' exhale from every line a heavenly ether and fragrance. It will be long before Herder's 'Letters on the Study of Theology' are out of date.

Dr Chalmers attached high value to the distinction between the ethics of theology and the objects of theology, and expatiated with great eloquence on the duty which is laid upon men by the probability or even the imagination of a God (Nat. Theol., B. i. ch. i. ii.) "Man is not to blame, if an atheist, because of the want of proof. But he is to blame, if an atheist, because he has shut his eyes. He is not to blame that the evidence for a God has not been seen by him, if no such evidence there were within the field of his observation.

But he is to blame if the evidence have not been seen, because he turned away his attention from it. That the question of a God may be unresolved in his mind, all he has to do is to refuse a hearing to the question. He may abide without the conviction of a God, if he so choose. But this his choice is matter of condemnation. To resist God after that He is known, is criminality towards Him; but to be satisfied that He should remain unknown, is like criminality towards Him. There is a moral perversity of spirit with him who is willing, in the midst of many objects of gratification, that there should not be one object of gratitude. It is thus that, even in the ignorance of God, there may be a responsibility towards God. The Discerner of the heart sees whether, for the blessings innumerable wherewith He has strewed the path of every man, He be treated like the unknown benefactor who was diligently sought, or like the unknown benefactor who was never cared for. In respect at least of desire after God, the same distinction of character may be observed between one man and another—whether God be wrapt in mystery, or stand forth in full development to our world. Even though a mantle of deepest obscurity lay over the question of His existence, this would not efface the distinction between the piety on the one hand which laboured and aspired after Him, and the impiety upon the other which never missed the evidence that it did not care for, and so grovelled in the midst of its own sensuality and selfishness. The eye of a heavenly witness is upon all these varieties; and thus, whether it be darkness or whether it be dislike which hath caused a people to be ignorant of God, there is with Him a clear principle of judgment that He can extend even to the outfields of atheism.”—(Pp. 72-73.)

The Rev. Alexander Leitch, in the First Part of his 'Ethics of Theism' (1868), discusses in a thoughtful and suggestive manner the following subjects: the reality and universality of the antithesis between truth and error, the legitimate dependence in all cases of belief on knowledge, the responsibility of man for his whole system of belief, the distinction between mystery and contradiction, the distinction between speculative and practical knowledge, the distinction between certainty and probability, the standard of morality, and the claims of reason and faith.

Mr Venn's 'Hulsean Lectures' for 1869 "are intended to illustrate, explain, and work out into some of their consequences, certain characteristics by which the attainment of religious belief is prominently distinguished from the attainment of belief upon most other subjects. These characteristics consist in the multiplicity of the sources from which the evidence for religious belief is derived, and the fact that our emotions contribute their share towards producing conviction."

What I have said in the text ought not to be understood as implying any doubt that men are largely responsible for their beliefs. This I accept as an indubitable truth, although there is great room for difference of opinion as to the limits of the responsibility; but it is a truth which no one party in a discussion has a right to urge as against another party. It is a law over all disputants, and is abused when severed from tolerance and charity. Perhaps it has never been better expounded and enforced than in Dr Pusey's 'Responsibility of the Intellect in Matters of Faith' (1873).

That religious belief is in a great measure conditioned and determined by character is implied in the whole

argument of my third lecture. In this fact lies the main reason why the highest evidence may not produce belief even where there is no conscious dishonesty in those who reject it. A person desirous of working himself fully into the truth in this matter, will find excellent thoughts and suggestions in Dr Newman's 'Fifteen Sermons preached before the University of Oxford, between A.D. 1826 and 1843,' and in Principal Shairp's 'Culture and Religion.'

NOTE IV., page 23.

TRADITIVE THEORY OF RELIGION.

Principal Fairbairn makes the following remarks on the theory which traces religion to a primitive revelation: "Although often advanced in the supposed interests of religion, the principle it assumes is most irreligious. If man is dependent on an outer revelation for his idea of God, then he must have what Schelling happily termed 'an original atheism of consciousness.' Religion cannot, in that case, be rooted in the nature of man—must be implanted from without. The theory that would derive man's religion from a revelation is as bad as the theory that would derive it from distempered dreams. Revelation may satisfy or rectify, but cannot create, a religious capacity or instinct; and we have the highest authority for thinking that man was created 'to seek the Lord, if haply he might feel after and find Him'—the finding being by no means dependent on a written or traditional word. If there was a primitive revelation, it must have been—unless the word is used in an unusual and misleading sense—either written or oral. If written, it

could hardly be primitive, for writing is an art, a not very early acquired art, and one which does not allow documents of exceptional value to be easily lost. If it was oral, then either the language for it was created, or it was no more primitive than the written. Then an oral revelation becomes a tradition, and a tradition requires either a special caste for its transmission, becomes therefore its property, or must be subjected to multitudinous changes and additions from the popular imagination—becomes, therefore, a wild commingling of broken and bewildering lights. But neither as documentary nor traditional can any traces of a primitive revelation be discovered, and to assume it is only to burden the question with a thesis which renders a critical and philosophic discussion alike impossible.”—*Studies in the Philosophy of Religion and History*, pp. 14, 15.

There is an examination of the same theory in the learned and able work of Professor Cocker of Michigan on ‘Christianity and Greek Philosophy’ (1875). He argues: 1. “That it is highly improbable that truths so important and vital to man, so essential to the wellbeing of the human race, so necessary to the perfect development of humanity as are the ideas of God, duty, and immortality, should rest on so precarious and uncertain a basis as tradition.” 2. “That the theory is altogether incompetent to explain the *universality* of religious rites, and especially of religious ideas.” 3. “That a verbal revelation would be inadequate to convey the knowledge of God to an intelligence purely passive and utterly unfurnished with any *a priori* ideas or necessary laws of thought.”—Pp. 86-96.

A good history of the traditive theory of the diffusion of religion is a desideratum in theological literature.

NOTE V., page 29.

NORMAL DEVELOPMENT OF SOCIETY.

The truth that social development ought to combine and harmonise permanence and progress, liberty and authority, the rights of the individual and of the community, has been often enforced and illustrated. The earnestness with which Comte did so in both of his chief works is well known. A philosopher of a very different stamp, F. v. Baader, has in various of his writings given expression to profound thoughts on the subject. His essay entitled 'Evolutionismus und Revolutionismus des gesellschaftlichen Lebens' merits to be specially mentioned. Alexander Vinet has often been charged with a one-sided individualism, and perhaps not altogether without justice; but he always maintained that he was merely the advocate of individuality. "Individualism and individuality are two sworn enemies; the first being the obstacle and negation of all society—the second, that to which society owes all it possesses of savour, life, and reality. Nowhere does individualism prosper more easily than where there is an absence of individuality; and there is no more atomistic policy than that of despotism." Vinet has probably not held the balance exactly poised between the individual and society; but his dissertations, 'Sur l'individualité et l'individualisme' and 'Du rôle de l'individualité dans une réforme sociale,' would have been far less valuable than they are if he had forgotten that, although it is the individual who thinks, the thought of the individual cannot form itself outside of society nor without its aid. But he did not, as words like the following sufficiently prove:—

“It is better to connect ourselves with society than to learn to dispense with it, or rather to persuade ourselves that we are able to dispense with it. It is only given to the brute to suffice to itself. Man has been chained to man. We hardly give more credit to spontaneous generation in the intellectual sphere than in the physical world; the most individual work is to a certain point the work of all the world; everywhere *solidarity* reappears, without, however, any prejudice to liberty: God has willed it so.” “It is with the soul engaged in the life of religion, or that of thought, as with the vessel launched upon the waters, and seeking beyond the ocean for the shores of a new world. This ocean is society, religious or civil. It bears us just as the ocean does—fluid mass, on which the vessel can indeed trace furrows, but may nowhere halt. The ocean bears the ship, but the ocean may swallow it up, and sometimes does so; society swallows us up still more often, but yet it is what upbears us; nor can we arrive without being upborne by it, for it is like the sea, which, less fluid than the air, and less dense than the earth, just yields to and resists us enough to sustain without impeding our progress towards the desired goal.” There are no finer pages in Martensen’s ‘Christian Ethics’ than those in which he treats of “individualism and socialism,” “liberty and authority in the development of society,” and “conservatism and progress.” The most adequate historical proof and illustration of the truth in question as to the nature of social evolution will be found in the Earl of Crawford’s ‘Progression by Antagonism’ and ‘Scepticism and the Church of England.’

NOTE VI., page 32.

DEFINITION AND CLASSIFICATION BY THE
HIGHEST TYPE.

Dr Whewell maintained that in natural history groups are fixed not by definition, but by type. "The class," he wrote, "is steadily fixed, though not precisely limited; it is given, though not circumscribed; it is determined not by a boundary-line without, but by a central point within; not by what it strictly excludes, but by what it eminently includes; by an example, not by a precept; in short, instead of Definition we have a Type for our director. A type is an example of any class—for instance, a species of a genus—which is considered as eminently possessing the characters of the class. All the species which have a greater affinity with this type-species than with any others form the genus, and are ranged about it, deviating from it in various directions and different degrees."—*Philosophy of the Inductive Sciences*, vol. i. pp. 476, 477. Dr Whewell, it will be observed, was more cautious in his language than the theologians to whom I have referred. He did not speak of defining by type, but only of classifying, not by definition, but by type. His motive, however, for entertaining the view he laid down, was obviously the same which has led so many theologians to give definitions of religion which are only applicable to its highest forms. Probably it was insufficient. Prof. Huxley (*Lay Sermons*, pp. 90-92) very justly, it seems to me, argues that classification by type is caused by ignorance, and that as soon as the mind gets a scientific knowledge of a class it defines. Nothing which is not precisely limited

is steadily fixed ; nothing which is not circumscribed is exactly given : if the boundary-line is not determined, the central point cannot be accurately ascertained ; what is eminently included cannot be known so long as what is strictly excluded is unknown. While assenting to the view of Prof. Huxley in the passage indicated, I may remark that he falls into one error which rather forcibly illustrates what is said in the page to which this note refers regarding the necessary poverty of the significance of a strictly scientific definition of an extensive class. He instances as a definition which is of a truly scientific kind and "rigorous enough for a geometrician," the following : "Mammalia are all animals which have a vertebrated skeleton and suckle their young." But clearly this definition says too much if we are to criticise it rigorously. Were it true, there would be no males among mammalia. The definition is in strictness applicable to females only.

NOTE VII., page 38.

PSYCHOLOGICAL NATURE OF RELIGION.

In this note I shall briefly summarise three class lectures on the psychological nature of religion.

1. Investigations into the psychological nature of religion date only from about the end of last century.

For ages previously men sought to know what religion was ; but they attempted to find an answer merely by reflection on positive or objective religion. Kant opened up to them a new path—that of investigation into the nature of religion as an internal or mental fact. O. Pfleiderer's account (*Religionsphilosophie*, pp. 3-311)

of the researches thus started characterised, and criticised.

2. The testimony of consciousness is sufficient to establish the existence of religion as a subjective or mental state, but cannot certify whether, as such, it be simple or complex, primary or derivative, coextensive with human consciousness, or wider or narrower, or whether there be anything objectively corresponding to it.

3. In order to analyse religion, the ultimate genera of consciousness must be ascertained, which has only been slowly done. History of the process: Plato, Aristotle, their followers, Descartes, Spinoza, the English philosophers from Bacon to Dugald Stewart, Kant and the German psychologists, Brown, Hamilton, and Bain. Establishment of the threefold division of mental phenomena into cognitions, emotions, and volitions. Difficulties of the division shown by the author in 'Mind,' No. V.

Religion must be a state of intellect, sensibility, or will, or some combination of two or all of these factors.

4. Religion may be held to consist essentially and exclusively of knowledge; but this mistake is too gross to have been frequently committed.

The Gnostics, the earlier and scholastic theologians, the rationalists, Schelling and Cousin, have been charged with this error. The grounds of the charge indicated. Shown to be in all these cases exaggerated.

5. Schleiermacher refutes the theory by the consideration that the measure of our knowledge is not the measure of our religion.

Vindication and illustration of his argument. Service rendered by Schleiermacher to religion and theology in this connection.

6. Hegel came nearest to the identification of religion and thought, maintaining that sentiment was the lowest manifestation of religion, while the comprehension of the absolute, the highest knowledge, was its complete realisation, as also that religion was the self-consciousness of God through the mediation of the finite spirit.

Exposition and criticism of this theory. Examination of Vera's defence of it. Worship supposes two persons morally and spiritually as well as intellectually related.

7. While no mere intellectual act constitutes religion, the exercise of reason is an essential part of religion.

The denial of this an error prevalent among the modern theologians of Germany, owing to their accepting Kant's argumentation against the possibility of apprehending God by the speculative or pure reason as conclusive. If religion have no rational foundation, it has no real foundation. Reason does not apprehend merely what is finite. True place of reason in religion.

8. Religion has often been resolved into feeling or sentiment, but erroneously, since whatever feeling is fixed on requires some explanation of its existence, and this can only be found in some act or exercise of intellect.

9. Epicurus, Lucretius, and Hume have traced religion to fear.

10. Fear explains atheism better than it explains religion, and in order even to be feared God must be believed in.

Men fear a great many things. Mere fear founds nothing, but only causes efforts to avoid the presence or thought of its object. Fear enters into religion, and is filial in the higher, and servile in the lower, forms of religion.

11. Feuerbach resolves religion into desire—into an

ignorant and illusive personification of man's own nature as he would wish it to be.

12. This view presupposes the truth of atheism, does not explain why man should refer to supramundane ends or objects, and is contradicted by the historical facts, which show that reason and conscience have at least co-operated with desire in the origination and development of religion.

13. Schleiermacher resolves religion into a feeling of absolute dependence—of pure and complete passiveness.

Statement of his theory. Shown to rest on a pantheistic conception of the Divine Being. His reduction of the Divine attributes into *power*.

14. No such feeling can exist, the mind being incapable of experiencing a feeling of nothingness—a consciousness of unconsciousness.

15. Could it be supposed to exist, it would have no religious character, because wholly blind and irrational.

16. The theory of Schleiermacher makes the moral and religious consciousness subversive of each other, the former affirming and the latter denying our freedom and responsibility.

17. Mansel supposes the religious consciousness to be traceable to the feeling of dependence and the conviction of moral obligation; but the latter feeling implies the perception of moral law, and is not religious unless there be also belief in a moral lawgiver.

18. Schenkel represents conscience as 'the religious organ of the soul,' but this is not consistent with the fact that conscience is the faculty which distinguishes right from wrong.

Schenkel's view of conscience shown to make its religious testimony contradict its ethical testimony.

19. Strauss combines the views of Epicurus, Feuerbach, and Schleiermacher; but three errors do not make a truth.

Account of the criticism to which the Straussian theory of religion has been subjected by Vera, Ulrici, and Professor H. B. Smith.

20. Although there can be no true religion without love, and although to love the true God with the whole heart is the ideal of religion, religion cannot be resolved exclusively into love; since love presupposes knowledge, and is not the predominant feeling, if present at all, in the lower forms of religion.

21. Religion includes will, implying the free and deliberate surrender of the soul to God,—the making self an instrument where it might, although wrongfully, have been made an end,—but it is not merely will, since all volition, properly so called, presupposes reason and feeling.

22. Kant made religion merely a sanction for duty, and duty the expression of a will which is its own law, and which is unaffected by feeling; but this view rested on erroneous conceptions as to (1) the relation of religion and morality, (2) the nature of the will, and (3) the place of feeling in the mental economy.

Religion and morality inseparable in their normal conditions; but not to be identified, religion being communion with God, while morality is conformity to a law which is God's will but which may not be acknowledged to be His will, so that they may and do exist in abnormal forms apart from each other.

The will has not its law in itself. Kant's errors on this subject.

Feeling is the natural and universal antecedent of action. Kant's errors on this subject.

23. Dr Brinton (*Religious Sentiment, &c.*, 1876) analyses religion into emotion and idea—an affective and intellectual element—the latter of which arises necessarily from the law of contradiction and excluded middle.

Merits and defects of his theory.

24. The religious process is at once rational, emotional, and volitional.

Its unity, and the co-operation of knowing, feeling, and willing.

25. Description of (1) its essential contents, (2) its chief forms, (3) its principal moments or stages, and (4) its manifestations in spiritual worship and work.

NOTE VIII., page 58.

ARGUMENT E CONSENSU GENTIUM.

The fact that religion is a natural and universal phenomenon, as widespread as humanity and as old as its history, and the fact insisted on in the lecture, that religion can only realise its proper nature in a theistic form, give us, when adequately established, the modern and scientific statement of the old argument—*e consensu gentium*. This argument, which we already meet with in Cicero (*De Nat. Deor.*, i. 17; *Tusc. Ques.*, i. 13; *De Leg.*, i. 8) and Seneca (*Epist.* 117), in Clement of Alexandria (*Strom.*, v. 14) and Lactantius (*Div. Inst.*, i. 2), has gradually grown into the science of comparative theology. An instructive essay might be written on its development.

Mr J. S. Mill, who had obviously no suspicion that

there had been any development of the kind, criticised the argument in his essay on Theism, pp. 154-160. He was entirely mistaken in representing it as an appeal to authority—"to the opinions of mankind generally, and especially of some of its wisest men." It has certainly very rarely—probably never—been advanced in a form which could justify such an account of it. He was also mistaken in supposing that it had any necessary connection with the view which ascribes to men "an intuitive perception, or an instinctive sense, of Deity." I agree with his objections to that view; but the argument does not imply it. If it prove that man's mental constitution is such that, in the presence of the facts of nature and life, religion necessarily arises, and that the demands of reason, heart, and conscience, in which it originates, can only be satisfied by the worship and service of one God, with the attributes which theism assigns to Him, it has accomplished all that can reasonably be expected from it.

Mr Mill was, however, it seems to me, perfectly correct in holding that the mere prevalence of the belief in Deity afforded no ground for inferring that the belief was native to the mind in the sense of independent evidence. In no form ought the argument from general consent to be regarded as a primary argument. It is an evidence that there are direct evidences—and when kept in this its proper place it has no inconsiderable value—but it cannot be urged as a direct and independent argument. This is a most important consideration, which is in danger of being overlooked in the present day. Some authors would actually contrast the argument for theism or Christianity derivable from the comparative study of religion with the ordinary or formal proofs, and would sub-

stitute it for them, not seeing that, although powerful in connection with, and dependence on, these proofs, it has little relevancy or weight when dissociated from them.

The two recent writers who have made most use of the argument are, perhaps, Ebrard, who has devoted to it the whole of the second volume of his *Apologetics*, and Baumstark, whose 'Christian Apologetics on an Anthropological Basis' has for its exclusive aim to prove that man has been made for religion, and that the non-Christian religions do not, while Christianity does, satisfy his religious cravings and needs. In this country we ought not to forget the service which Mr Maurice rendered by his 'Religions of the World,' and Mr Hardwicke by his 'Christ and other Masters.' The general relation of the philosophy to the history of religion is ably exhibited by Principal Caird in his 'Croall Lecture,' ch. x.

The position maintained by Sir John Lubbock, that religion is not a universal phenomenon, and that advocated by Comte, that it is a temporary and transitional phenomenon, are examined in the volume on *Anti-Theistic Theories*.

NOTE IX., page 75.

THE THEISTIC EVIDENCE COMPLEX AND
COMPREHENSIVE.

Cousin has said, "There are different proofs of the existence of God. The consoling result of my studies is, that these different proofs are more or less strict in form, but they have all a depth of truth which needs only to

be disengaged and put in a clear light, in order to give incontestable authority. Everything leads to God. There is no bad way of arriving at Him, but we go to Him by different paths."

The truth, that all the faculties of man's being must co-operate in the formation of the idea of God, is well enforced and illustrated in an article on "The Origin of the Concept of God," by the Rev. George T. Ladd, in the 'Bibliotheca Sacra,' vol. xxxiv.; also in Principal M'Cosh's 'Method of the Divine Government,' B. i., c. i., sec. 1, and 'Intuitions of the Mind,' Pt. iii., B. ii., c. v., sec. 2. The following quotation from Mr Ladd's article is a statement of its central idea: "Nothing is more necessary, in the endeavour to understand how the concept under consideration originates, than to hold correct views of the entire relation of man to truth. The view which, if not held as a theory, is quite too frequently carried out in the practical search after knowledge, seems to be this one—that truth is a product of mind wrought out by the skilful use of the ratiocinative faculties. It follows, then, that the correct working of these faculties is almost the only important or necessary guarantee of truth. But it is not any lone faculty or set of faculties which is concerned in man's reception of truth. The truth becomes ours only as a gift from without. All truth is of the nature of a revelation, and demands that the organ through which the revelation is made should be properly adjusted. The organ for the reception of truth is symmetrically cultured manhood, rightly correlated action, and balanced capabilities of man's different powers. The attitude of him who would attain to truth is one of docility, of receptiveness, of control exercised upon all the powers of the soul,—so that none of them,

by abnormal development or activity, interfere with the action of all the rest. . . . If the statements just made are true with regard to human knowledge in general, they are pre-eminently true with regard to such knowledge as is presented to the soul in the form of the concept of God. The pure in heart shall see God; they that obey shall know of the doctrine; the things of the spirit are spiritually judged of. These statements are as profound in their philosophic import as they are quickening in their practical tendencies. This concept comes as God's revelation of Himself within all the complex activities of the human soul. It is adapted to man as man in the totality of his being and energies. And the whole being of man must be co-operative in the reception of this self-revelation of God, as well as met and filled by the form which the revelation takes, in order that the highest truth concerning God may become known. . . . In his work on Mental Physiology, Dr Carpenter speaks of certain departments of science 'in which our conclusions rest, not on any one set of experiences, but upon our *unconscious co-ordination of the whole aggregate of our experience*; not on the conclusions of any one train of reasoning, but on *the convergence of all our lines of thought toward one centre*.' These words, italicised by that author himself, well represent the form in which the knowledge of God is given to the human soul. It is the convergence of these lines of thought that run together from so many quarters which makes a web of argument far stronger to bind men than any single thread could be. This is a form of proof which, while it is, when understood aright, overwhelmingly convincing, gives also to all the elements of our complex manhood their proper work to do in its reception. In its reception it makes far greater differ-

ence, whether the moral and religious sections of the whole channel through which the truth flows are open or not, than whether the faculty of the syllogism is comparatively large or not. Nor is there any effort to disparage any intellectual processes involved, in thus insisting upon the complete and co-ordinated activity of the soul, as furnishing the organon for the knowledge of God. All the strings of the harp must be in tune, or there will be discord, not harmony, when the breath of the Lord blows upon it."

That the power of apprehending God is conditioned by the character of man's nature as a whole, was clearly seen and beautifully expressed by the ancient Christian apologist, Theophilus. "If thou sayest, show me thy God, I answer, show me first thy man, and I will show thee my God. Show me first whether the eyes of thy soul see, and the ears of thy heart hear. For as the eyes of the body perceive earthly things, light and darkness, white and black, beauty and deformity, &c., so the ears of the heart and the eyes of the soul can perceive divine things. God is seen by those who can see Him, when they open the eyes of their soul. All men have eyes, but the eyes of some are blinded that they cannot see the light of the sun. But the sun does not cease to shine because they are blind; they must ascribe it to their blindness that they cannot see. This is thy case, O man! The eyes of thy soul are darkened by sin, even by thy sinful actions. Like a bright mirror, man must have a pure soul. If there be any rust on the mirror, man cannot see the reflection of his countenance in it; likewise if there be any sin in man, he cannot see God."—*Ad Autolyicum*, i. c. 2.

There is an improper use of the fact that the emotional

capacities as well as the intellectual faculties are concerned in the apprehension of God. Some persons express themselves as if there were an evidence for God in the feelings not only as well as in the intellect, but distinct from, and independent of, the evidence on which the intellect has to decide. They reason as if although the latter were necessarily and in its own nature inconclusive, the former might still warrant belief, or as if at least feelings might so supplement weak arguments as to allow of their conclusions being firmly held. They virtually acknowledge that, although it were incontestably proved that the theistic inference was such as could not reasonably be deemed trustworthy or sufficient by the intellect, they would believe in the existence of God all the same in reliance on their feelings, because the heart is as trustworthy as the head and as well entitled to be heard. This is a very different doctrine from what I regard to be the true one—namely, that neither the head nor the heart is a competent witness in the case under consideration when the one is dissociated from the other. Purity of heart and obedience to the will of God enable us to see God and to know His character and doctrine, but they do not dispense with vision and knowledge, nor do they create a vision and knowledge which are distinct from, and independent of, reason. The heart must be appealed to and satisfied as well as the head, but not apart from or otherwise than through the head, or the appeal is sophistical and the satisfaction illegitimate. Our feelings largely determine whether we recognise and assent to reasons or not, but they ought not to be substituted for reasons, or even used to supplement reasons. The sentimentalism which pleads feelings in deprecation of the rigid criticism of

reasons, or in order to retain a conviction which it cannot logically justify, necessarily tends to scepticism, and, indeed, is a kind of scepticism.

NOTE X., page 86.

INTUITION, FEELING, BELIEF, AND KNOWLEDGE
IN RELIGION.

There are few who hold in a consistent manner that God is known by immediate intuition. The great majority of those who profess to believe this, so explain it as to show that they believe nothing of the kind. Dr Charles Hodge (Systematic Theology, pt. i. ch. i.) may be indicated as an example. Professing to hold that the knowledge of God is innate and intuitive, he so explains and restricts these terms as would make our knowledge of our fellow-men as much innate and intuitive as our knowledge of God, or even more so; and even after all these qualifications finds that nothing more can be maintained than "that a sense of dependence and accountability to a being higher than themselves exists in all minds" — which is far from being equivalent to the conclusion that God is intuitively known. Cousin is sometimes represented as an advocate of the view in question, but erroneously. Discounting a few inaccurate phrases, his theory as to the nature of the theistic process is substantially identical with that expounded in the lecture. Its purport is not that reason directly and immediately contemplates the Absolute Being, but that it is enabled and necessitated by the essential conditions of cognition, the *a priori* ideas of causality, infinity, &c., to apprehend

Him in His manifestations. To find intuitionists who in this connection really mean what they say, we must go to Hindu Yogi, Plotinus and the Alexandrian Mystics, Schelling, and a few of his followers—or, in other words, to those who have thought of God as a pantheistic unity or a Being without attributes.

Many German theologians, unduly influenced by the authority of Schleiermacher, and destitute of a sound knowledge of psychology, have rested religion on feeling—mere or pure feeling. Hegel opposed the attempt to do this, with considerable effect, although on erroneous principles. Krause exposed it, however, with far more thoroughness in his ‘Absolute Religionsphilosophie.’ It is on feeling that belief is rested by most of the advocates of what is called “the faith philosophy.” With thinkers of this class a man like Cousin must not be confounded, although he maintained that religion begins with faith and not with reflection; or like Hamilton, although he denied that the infinite can be *known* while affirming that it “is, must, and ought to be, *believed*.” Cousin meant by faith “nothing else than the consent of reason,” and Hamilton meant by belief “assent to the original data of reason.”

The words faith and belief are used in a bewildering variety of senses. A few remarks will make this apparent.

(a) By belief or faith is sometimes meant *reason* as distinguished from *understanding*, and sometimes *reason* as distinguished from *reasoning*. These two senses are so very closely allied that we may allow them to count as but a single signification. It is extraordinary that in either sense belief should be contrasted with reason, as it is by those who tell us that the infinite is an object only of faith, and that reason has to do

exclusively with the finite, or that first principles are inaccessible to reason but revealed to faith. To create an appearance of conflict between reason and faith by identifying faith with reason in a special sense, and reason with understanding or reasoning, is unwarranted, if not puerile. What use can there be in telling us that God cannot be known—cannot be apprehended by reason—but is only an object of faith, a Being merely to be believed in, when what is meant is that we have the same immediate certainty of His existence as of the truth of an axiom of geometry?

(b) Belief may be limited to apprehension, and knowledge to comprehension. It may be said that “we have but faith, we cannot know” the unseen and infinite, just as it is said that we believe that the grass grows but do not know how it grows. It is obvious, however, that if apprehension be knowledge, as it surely is, we believe only what we know. We know—*i.e.*, apprehend—the existence of God and the growth of the grass, and we believe what we thus know. We do not know—*i.e.*, comprehend—the nature of God or the nature of growth, and what we do not thus know neither do we believe.

(c) At other times faith or belief relates to probable, as opposed to certain, knowledge. “We do not know this, but we believe it,” often means “We are not sure of this, but we think it likely.” It is not in this sense, of course, that any one except a religious sceptic will allow that the existence of God is a matter of faith. A man may admit that religion and science differ as faith and knowledge, but if he is willing to understand this as signifying that while science is certain, religion is at the most merely probable, he must necessarily be a doubter or an unbeliever.

(*d*) Faith or belief sometimes refers to the knowledge which rests on personal testimony, Divine or human. Such faith may be more certain than assent given to the evidence furnished by science. It ought to be precisely proportioned to the evidence that there is such and such testimony, and that the testimony is trustworthy.

(*e*) By faith or belief is sometimes meant trust in a person or fidelity to a truth; the yielding up of the heart and life to the object of faith. Faith or belief of this kind always involves "preparedness to act upon what we affirm." It does not appear to me that such preparedness is, as Professor Bain maintains, "the genuine, unmistakable criterion of belief" in general. This kind of faith, like all other faith, ought to rest on the assent of the intellect to evidence, although what is characteristic of it is to be found not in the intellect but in the emotions and will. Since it constitutes and produces, however, spiritual experience, it is a condition and source as well as a consequence of knowledge. There can be, in fact, no profound religious knowledge, because there can be no vital religion, without it.

In religion, as in every other department of thought and life, man is bound to regulate his belief by the simple but comprehensive principle that evidence is the measure of assent. Disbelief ought to be regulated by the same principle, for disbelief is belief; not the opposite of belief, but belief of the opposite. Unbelief is the opposite both of belief and disbelief. Ignorance is to unbelief what knowledge is to belief or disbelief. The whole duty of man as to belief is to believe and disbelieve according to evidence, and neither to believe nor disbelieve when evidence fails him.

NOTE XI., page 118.

THE THEOLOGICAL INFERENCE FROM THE THEORY
OF ENERGY.

A remarkably clear account of the chief theories as to the nature of matter will be found in Professor Tait's 'Lectures on some Recent Advances in Physical Science,' Lect. XII. In Thomson and Tait's 'Natural Philosophy,' Thomson's article on "The Age of the Sun's Heat" ('Macmillan's Magazine,' March 1862), Tait's 'Thermodynamics,' Helmholtz's 'Correlation and Conservation of Forces,' Balfour Stewart's 'Treatise on Heat,' &c., the facts and theorems which seem to establish that the material universe is a temporary system will be found fully expounded.

I am not acquainted with any more effective criticism of the argumentation by which the eminent physicists mentioned support their conclusion than that of the Rev. Stanley Gibson; and, although it seems to me not to come to very much, I feel bound in fairness to give it entire. After an exposition of the theory of energy, and of the reasoning founded on it by which we seem necessitated to infer that the universe tends at last to be a scene of rest, coldness, darkness, and death, he thus writes: "Is this reasoning, I ask, open to any objection? and if not, does it bear out the theological conclusion here sought to be rested upon it? In attempting to pass a verdict upon the question here raised, we cannot but feel, not only the grandeur of the subject before us, but also the imminent risk of its being affected by considerations unknown to us. We certainly need to judge with diffidence. Perhaps the first question which

arises is, Are we to take the material universe to be infinite? If it be, and if its stores of energy, potential and kinetic, have no limit, then it is no longer clear that the final stage of accumulation need have been reached, however long its past history may have been; nor yet, I may add, that it would ever be reached in the future. I may be reminded that at present, at all events, only finite accumulations have arisen, and that this is not consistent with an accumulation through a past eternity. But this objection assumes that there never could have been more than some assignable degree of diffusion of matter. Why should this be? If at any past period there was a certain degree of diffusion, why may there not have been a greater degree at an earlier period? And if so, why may not this integrating, as I should propose to call it, have been going on for ever?

“If, on the other hand, the universe be finite, then, according to the principle of the conservation of energy, reflection of heat must take place from its boundaries, and there may be reconcentration of energy on certain points, according to the form of the bounding surface.

“A second inquiry arises thus. If it be impossible to imagine the present history of the universe continued backward indefinitely under its present code of laws, are we therefore obliged to assume some anomalous interference? We speak, of course, of these laws as they are known to us. Might there not be others, yet unknown, that would solve the difficulty?

“The history of the universe, as immediately known to us, offers as its leading feature the falling together of small discrete bodies in enormous numbers and with great velocities, or the condensation of very rare and diffused gases. Hence the formation of bodies, some of

vast size, others smaller, but all originally greatly heated. This process seems to point to an earlier state of things, in which such accumulations of matter, though sparse even now, were far less common—a state in which, to use the expression which I have proposed, matter was far less integrated. It is quite true that the great change of which we thus obtain a glimpse is not a recurring process. It is not therefore fitted for eternal repetition and continuance. But it is a bold thing to say that this earlier state of things may not have followed from one still older by a natural process, and this again from one before, and so on through an indefinite regression. We have seen what an important part the ether plays in the present process of the dissipation of energy. The existence of that ether, the separation of matter into two main forms, may have sprung out of some previous condition of things wholly unknown to us. And so also there may be forms and stores of energy as yet unknown.

“Mr Proctor, in his work on the sun, has cautioned us how we speculate on the physical constitution of that body, whilst we must feel uncertain how far the physical laws, which we observe here, will hold under the vastly different conditions obtaining there. He supports his caution by referring to cases in which what had been confidently thought by many to be safe generalisations have been shown to fail in novel circumstances. Thus it was thought that the passage of a gas from the gaseous into the liquid form was always an abrupt change. But it has been found that carbonic acid gas can be made to pass into the liquid state by insensible gradations. Again, it had been thought that gas, when incandescent, always gave light whose spectrum was broken into thin lines; but it has been shown that hydrogen, under high pres-

sure, may be made to give forth light with a continuous spectrum. Now surely this caution, which Mr Proctor enters in the case of which he speaks, might still more wisely be entered when we come to consider a state of things so novel, so remote from our experience as that which attended the origin of the universe, or rather of that state of the universe with which we are acquainted. We certainly must not be in haste to conclude that because the laws of nature, as they are known to us, will not explain what must have taken place at some very remote period, therefore those events must have been altogether anomalous." — Religion and Science, pp. 71-74.

It is here virtually—perhaps I may say expressly—conceded that if the matter and energy of the universe be finite and located in infinite space, the reasoning by which the theorists of thermodynamics maintain that perpetual motion is incompatible with the transformation and dissipation of energy, cannot be resisted. Unless matter and energy be infinite or space finite, the known laws of nature must eventually abolish all differences of temperature and destroy all life—this is what is admitted. To me it seems to amount to yielding all that is demanded; because whoever seriously considers the difficulties involved in believing either matter infinite or space finite must, I am persuaded, come to regard it as equivalent to an acknowledgment that the world will have an end and must have had a beginning.

Zoellner, in his ingenious work on the nature of comets, endeavours to avoid this inference by recourse to the hypotheses of Riemann and others as to a space of n dimensions. In such a space the shortest line would be a circle, and a body might move for ever, yet de-

scribe a limited course. Matter, space, and inferentially time, would, in fact, according to this hypothesis, be both finite and infinite. It is to be hoped that few persons in the full possession of their intellects will ever accept a view like this. The imaginary geometry may be thoroughly sound reasoning, but it is reasoning from erroneous premises, and it can only be useful so long as it is remembered that its premises are erroneous. They have only to be assumed to be true to experience and reality, and all science must be set aside in favour of nonsense. Logic ought not, however, to be confounded with truth.

Caspari fancies that by representing the universe as not a mechanism but an organism, he preserves the right to believe it eternal. But surely the laws of heat apply to organisms no less than to mechanisms.

In an article concerning the cosmological problem, published in the first number of the '*Vierteljahrsschrift f. Wissenschaftliche Philosophie*,' Professor Wundt rejects the theory in question on extremely weak grounds. "It is easy to see," he says, "that, in the case of the English physicists at least, the desire of harmonising the data of the exact sciences with theological conceptions has not been without influence on this limitation of the universe." The rashness displayed by such a statement, and the utter want of evidence or probability for it, as regards men like Thomson or Tait, need not be pointed out. Besides, Clausius and Helmholtz are neither English physicists nor likely to be influenced by theological conceptions. Will it be believed that, notwithstanding this charge against others, Professor Wundt's own reasoning is not scientific, but merely anti-theological? Such is the case. If the Thomsonian theory be admitted, a place is left for creative action, for miracle; and this,

he argues, is a contradiction of the principle of causality. Therefore the theory must be rejected. It is to be regretted that so eminent a man of science should employ so unscientific an argument.

There is obviously a very widespread unwillingness to accept the Thomsonian theory; but, so far as I am aware, good reasons have not yet been given for its rejection. The contrast between the reception which it has received and that which has been accorded to the Darwinian theory is certainly curious, and probably instructive.

NOTE XII., page 130.

THE HISTORY OF THE ÆTIOLOGICAL ARGUMENT.

The argument for the Divine existence which proceeds on the principle of causality is generally called the cosmological argument, but sometimes, and perhaps more accurately, the ætiological argument. The proof from order is not unfrequently termed cosmological. It is impossible to keep the ætiological argument entirely separate either from the ontological or cosmological argument. Ætiological reasoning may be detected as a creative factor in the rudest religious creeds. The search for causes began not with the origin of philosophy but with the origin of religion. Passages like Ps. xc. 1, 2, cii. 26-28; Rom. i. 19, 20; Heb. i. 10-12—have been referred to as anticipations of the argument. Wherever nature is spoken of in Scripture, it is as the work of an uncreated being, of a free and sovereign mind. Aristotle gave a formal expression to the ætiological argument

by inferring from the motion of the universe the existence of a first unmoved mover—Phys., vii. 1, 2, viii. 7, 9, 15. Cicero repeated his reasoning, and tells us it had been also employed by Carneades, *De Nat. Deor.*, ii. 9, iii. 12, 13. Well known is St Augustine's "Interrogavi terram, et dixit: non sum. Interrogavi mare et abyssos—et responderunt: non sumus deus tuus, quære super nos. Interrogavi cœlum, solem, lunam, stellas: neque nos sumus deus, quem quæris, inquiunt. Et dixi omnibus iis—dicite mihi de illo aliquid. Et exclamaverunt voce magna: ipse fecit nos. Interrogavi mundi molem de Deo meo et respondit mihi: non ego sum, sed ipse me fecit."—*Conf.*, x. 6. Diodorus of Tarsus (*Phot. Bid. Cod.*, 223, p. 209 Bekk.), and John of Damascus (*De Fid. Orth.*, i. 3), inferred the necessity of a creative unity from the mutability and corruptibility of worldly things. Thomas Aquinas argued on the principle of causality in three ways—viz.: 1. From motion to a first moving principle, which is not moved by any other principle; 2. From effects to a first efficient cause; and 3. From the possible and contingent to what is in itself necessary.—*Summa. P. i.*, Qu. 2, 3. Most of the theologians of the sixteenth, seventeenth, and eighteenth centuries who treat of the proofs of the Divine existence, employ in some form the argument from causation. Thus, in Pearson 'On the Creed' and Charnock's 'Discourses on the Existence and Attributes of God' will be found good examples of how it was presented in this country in the seventeenth century. Hume's speculations on causation attracted attention to it. The philosophers of the Scottish school and their adherents among the theologians laboured to present it in a favourable light. In Germany, Leibnitz (*Théodicée*, I. c. 7) and Wolff

(Rational Thoughts of God, § 928) laid stress on the accidental contingent character of the world and its contents, and, relying on the principle of the sufficient reason, concluded that there must be a universal and permanent cause of all that is changing and transitory, an absolute ground of all that is relative and derivative. Further, Wolff and his followers raised on this reasoning a large amount of metaphysical speculation as to the nature of a necessary cause, the properties of an absolute Being, which was of a very questionable sort in itself, and had no proper connection with the so-called cosmological argument. To this argument, as stated by Wolff, Kant applied his transcendental criticism, and proved, as he thought, that it was "a perfect nest of dialectical assumptions." His argumentation may be allowed to have had force against Wolff, but it is weak wherever it is relevant to the ætiological proof rightly understood. In fact, his objections openly proceed on the assumption that the principle of causality is only applicable within the sphere of sense experience. If this be true, no objections, of course, are necessary. As a rule, the ætiological argument is not skilfully or even carefully treated in the works of recent German theologians. It has been expounded, however, with great philosophical ability and with a rare wealth of scientific knowledge, by Professor Ulrici of Halle, in the work entitled 'Gott und die Natur.'

NOTE XIII., page 137.

MATHEMATICS AND THE DESIGN ARGUMENT.

“Another science regarded as barren of religious applications, and even as sometimes positively injurious, is mathematics. Its principles are, indeed, of so abstruse a nature, that it is not easy to frame out of them a religious argument that is capable of popular illustration. But, in fact, mathematical laws form the basis of nearly all the operations of nature. They constitute, as it were, the very framework of the material world. . . . It seems, then, that this science forms the very foundation of all arguments for theism, from the arrangements and operations of the material universe. We do, indeed, neglect the foundation, and point only to the superstructure, when we state these arguments. But suppose mathematical laws to be at once struck from existence, and what a hideous case would the universe present! What then would become of the marks of design and unity in nature, and of the theist’s argument for the being of a God? . . . It is said, however, that mathematicians have been unusually prone to scepticism concerning religious truth. If it be so, it probably originates from the absurd attempt to apply mathematical reasoning to moral subjects; or rather, the devotees of this science often become so attached to its demonstrations, that they will not admit any evidence of a less certain character. They do not realise the total difference between moral and mathematical reasonings, and absurdly endeavour to stretch religion on the Procrustean bed of mathematics. No wonder they become sceptics. But the fault is in themselves, not in this

science, whose natural tendencies, upon a pure and exalted mind, are favourable to religion."—Hitchcock's *Religion of Geology*, pp. 387-389.

“Nor can we fail to notice how frequently the law which men have invented proves to have been already known and used in nature. The mathematician devises a geometric locus or an algebraic formula from *a priori* considerations, and afterward discovers that he has been unwittingly solving a mechanical problem, or explaining the form of a real phenomenon. Thus, for example, in Peirce's ‘Integral Calculus,’ published in 1843, is a problem invented and solved purely in the enthusiasm of following the analytic symbols ; but in 1863 it proved to be a complete prophetic discussion and solution of the problem of two pendulums suspended from one horizontal cord. Thus also Galileo's discussion of the cycloid proved, long afterward, to be a key to problems concerning the pendulum, falling bodies, and resistance to transverse pressure. Four centuries before Christ, Plato and his scholars were occupied upon the ellipse as a purely geometric speculation, and Socrates seemed inclined to reprove them for their waste of time. But in the seventeenth century after Christ, Kepler discovers that the Architect of the heavens had given us magnificent diagrams of the ellipse in the starry heavens ; and, since that time, all the navigation and architecture and engineering of the nineteenth century have been built on these speculations of Plato. Equally remarkable is the history of the idea of extreme and mean ratio. Before the Christian era geometers had invented a process for dividing a line in this ratio, that they might use it in an equally abstract and useless problem—the inscribing a regular pentagon in a circle. But it was not until the

middle of the present century that it was discovered that this idea is embodied in nature. It is hinted at in some animal forms, it is very thoroughly and accurately expressed in the angles at which the leaves of plants diverge as they grow from the stem, and it is embodied approximately in the revolutions of the planets about the sun. . . . Now, in all these cases of the embodiment in nature of an idea which men have developed, not by a study of the embodiment, but by an *a priori* speculation, there seems to us demonstrative evidence that man is made in the image of his Creator; that the thoughts and knowledge of God contain and embrace all possible *a priori* speculations of men. It is true that God's knowledge is infinite, and beyond our utmost power of conception. But how can we compare the reasonings of Euclid upon extreme and mean ratio with the arrangement of leaves about the stem, and the revolutions of planets around the sun, and not feel that these phenomena of creation express Euclid's idea as exactly as diagrams or Arabic digits could do; and that this idea was, in some form, present in the creation?"—The Natural Foundations of Theology. By T. Hill, D.D., LL.D.

There is an ingenious and judicious little work by Charles Girdlestone, M.A., published in 1875, and entitled 'Number : a Link between Divine Intelligence and Human. An Argument.'

NOTE XIV., page 140.

ASTRONOMY AND THE DESIGN ARGUMENT.

The design argument has always drawn some of its data from astronomy. The order and beauty of the

heavenly bodies, the alternation of day and night, the succession of the seasons, and the dependence of living creatures on these changes, are referred to as indications of God's character and agency in many passages of Scripture. Thus, to select only from the Psalms: "When I consider Thy heavens, the work of Thy fingers, the moon and the stars, which Thou hast ordained; what is man, that Thou art mindful of him? and the son of man, that Thou visitest him?"—viii. 3, 4. "The heavens declare the glory of God; and the firmament showeth His handiwork. Day unto day uttereth speech, and night unto night showeth knowledge."—xix. 1, 2. "He appointed the moon for seasons; the sun knoweth his going down. Thou makest darkness, and it is night: wherein all the beasts of the forest do creep forth. . . . The sun ariseth, they gather themselves together, and lay them down in their dens. Man goeth forth unto his work and to his labour until the evening. O Lord, how manifold are Thy works! in wisdom hast Thou made them all."—civ. 19-24. Among classical writers, Cicero has presented the design argument as founded on the arrangements and movements of the heavenly bodies in a very striking manner, when, referring to the instrument by which Posidonius had ingeniously represented them, he asks whether, if that instrument were carried into Scythia or Britain, any even of the barbarians of these lands would doubt that it was the product of reason, and rebukes those who would regard the wondrous system of which it was a feeble copy as the effect of chance. "Quod si in Scythiam aut in Britanniam, sphæram aliquis tulerit hanc, quam nuper familiaris noster effecit Posidonius, cujus singulæ conversiones idem efficiunt in sole, et in lunâ, et in quinque stellis erranti-

bus, quod efficitur in cœlo singulis diebus et noctibus : quis in illâ barbarie dubitet, quin ea sphæra sit perfecta ratione? Hi autem dubitant de mundo, ex quo et oriuntur et fiunt omnia, casune ipse sit effectus, aut necessitate aliquâ, an ratione ac mente divinâ : et Archimedes arbitrantur plus valuisse in imitandis sphæræ conversionibus, quam naturam in efficiendis, præsertim cum multis partibus sint illa perfecta, quam hæc simulata, sollertius.”—De Nat. Deorum, ii. 34, 35. The ‘Astro-Theology’ of Wm. Derham, published in 1714, was perhaps the first work entirely devoted to the illustration of the design argument from astronomical facts and theories. Among comparatively recent works of a similar kind I may mention Vince’s ‘Confutation of Atheism from the Laws and Constitution of the Heavenly Bodies,’ Whewell’s ‘Bridgewater Treatise,’ Dick’s ‘Celestial Scenery,’ Mitchell’s ‘Planetary and Stellar Worlds,’ and Leitch’s ‘God’s Glory in the Heavens.’ They afford ample evidence of the erroneousness of Comte’s assertion that “the opposition of science to theology is more obvious in astronomy than anywhere else, and that no other science has given more terrible shocks to the doctrine of final causes.” Kepler did not think so, for he concludes his work on the ‘Harmony of Worlds’ with these devout words : “I thank Thee, my Creator and Lord, that Thou hast given me this joy in Thy creation, this delight in the works of Thy hands. I have shown the excellency of Thy work unto men, so far as my finite mind was able to comprehend Thine infinity. If I have said aught unworthy of Thee, or aught in which I may have sought my own glory, graciously forgive it.” Nor did Newton, for he wrote : “Elegantissima hæcce compages solis, planetarum, et comet-

arum (et stellarum), non nisi consilio et dominio Entis cujusdam potentis et intelligentis oriri potuit." And in our own times such men as Herschel, Brewster, Mädler, &c., have protested against the notion that astronomy tends to atheism.

The late Professor De Morgan demonstrated in his 'Essay on Probability,' when only eleven planets were known, that the odds against chance, to which in such a case intelligence is the only alternative, being the cause of all these bodies moving in one direction round the sun, with an inconsiderable inclination of the planes of their orbits, were twenty thousand millions to one. "What prospect," are his own words, "would there have been of such a concurrence of circumstances, if a state of chance had been the only antecedent? With regard to the sameness of the directions, either of which might have been from west to east, or from east to west, the case is precisely similar to the following: There is a lottery containing black and white balls, from each drawing of which it is as likely a black ball shall arise as a white one: what is the chance of drawing eleven balls all white?—answer 2047 to one against it. With regard to the other question, our position is this: There is a lottery containing an infinite number of counters, marked with all possible different angles less than a right angle, in such a manner that any angle is as likely to be drawn as another, so that in ten drawings the sum of the angles drawn may be anything under ten right angles: now, what is the chance of ten drawings giving collectively less than one right angle?—answer 10,000,000 to one against it. Now, what is the chance of both these events coming together?—answer, more than 20,000,000,000 to one against it. It is consequently of the same degree

of probability that there has been something at work which is not chance in the formation of the solar system."

There are several departments of science as much, or even more, adapted than astronomy, to furnish proofs of the wisdom of God ; but there is none which affords us such evidence of His power, or so helps us to realise His omnipresence, our own nothingness before Him, and the littleness of our earth in the system of His creation. Those who wish to have impressions of this kind deepened may be recommended to read the works of Proctor and Flammarion.

What is said in the paragraph to which this note refers must not be so understood as to be inconsistent with the possibility or probability, if not demonstrated certainty, that the universe is not a perfectly conservative system, but one which is tending surely although slowly to the destruction of the present condition of things. This fact, if it be a fact, can no more affect the design argument in its relation to astronomy, than the decay of plants and the death of animals can affect it in relation to vegetable and animal physiology.

NOTE XV., page 143.

CHEMISTRY AND THE DESIGN ARGUMENT.

The history of chemistry is of itself sufficient to disprove the view of Comte that the initial and conjectural stages of a science are those in which it affords most support to theology. It was only after the definitive constitution of chemistry as a science, only after the discovery of positive and precise chemical laws, that the teleologi-

cal argument for the Divine existence began to be rested to a certain extent upon it.

The Honourable Robert Boyle, the founder of the Boyle Lectureship, was one of the most distinguished chemists of his age, a zealous defender of final causes, and the author of several treatises intended to diffuse worthy views and sentiments as to the character and operations of the Creator.

Probably the two best English treatises on the relationship of chemistry to theism are the Bridgewater Treatise of Dr Prout, 'Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology' (3d ed., 1845), and the Actonian Prize Essay of Professor Fownes, 'Chemistry as exemplifying the Wisdom and Beneficence of God' (1844). Both writers were chemists of high reputation, but they were not very conversant with theology or philosophy, and have, in consequence, by no means fully utilised the excellent scientific materials which they collected.

This makes it all the more to be regretted that the late Professor George Wilson was not permitted to accomplish his design of writing "a book corresponding to the 'Religio Medici' of Sir Thomas Browne, with the title 'Religio Chemicæ.'" Among the fragments comprised in the work published under that title after his death, three essays—"Chemistry and Natural Theology," "The Chemistry of the Stars," and "Chemical Final Causes"—are most interesting and suggestive.

The attempts of writers like Moleschott and Büchner to draw atheistic inferences from the theories or hypotheses of modern chemistry have given rise to a multitude of answers, but it may be sufficient to refer to the 'Antimaterialismus' of Dr L. Weiss. Liebig in his

'Chemical Letters' manifests profound contempt for the materialistic and anti-theistic speculations attempted to be based on the science of which he was so illustrious a master.

NOTE XVI., page 145.

GEOLOGY, GEOGRAPHY, ETC., AND THE DESIGN
ARGUMENT.

The single fact that geology proves that every genus and species of organic forms which exist or have existed on the earth had a definite beginning in time, gives to this science great importance in reference to theism. It decides at once and conclusively what metaphysics might have discussed without result for ages. Its religious bearings are exhibited in Buckland's 'Geology and Mineralogy considered in reference to Natural Theology,' Hugh Miller's 'Footprints of the Creator,' Hitchcock's 'Religion of Geology,' and many other works. Lyell concludes both his 'Elements of Geology' and 'Principles of Geology' by affirming that geological research finds in all directions the clearest indications of creative intelligence; that "as we increase our knowledge of the inexhaustible variety displayed in nature, and admire the infinite wisdom and power which it manifests, our admiration is multiplied by the reflection, that it is only the last of a great series of pre-existing creations, of which we cannot estimate the number or limit in times past.¹

¹ I regret to find that Sir Charles Lyell omitted from the last edition of his 'Elements' the passage to which reference is made above. I have considered it better thus to note this fact than simply to expunge the lines regarding his testimony. (1880.)

The numerous adaptations which exist between the terrestrial and celestial economies are dwelt on in detail by M'Culloch in the second volume of his 'Proofs and Illustrations of the Attributes of God from the Facts and Laws of the Physical Universe,' and by Buchanan in 'Faith in God and Modern Atheism,' vol. i. pp. 132-156. These two authors have also treated of the adaptations subsisting between the organic and inorganic worlds. The Bridgewater Treatise of Chalmers was on 'The Adaptation of External Nature to the Moral and Intellectual Constitution of Man;' and that of Kidd on 'The Adaptation of External Nature to the Physical Constitution of Man.'

In Ritter's 'Geographical Studies,' Guyot's 'Earth and Man,' Kapp's 'Allgemeine Erdkunde,' Lotze's 'Mikrokosmos,' B. vi. c. 1, Duval's 'Des Rappports entre la Géographie et l'Economie Politique,' Cocker's 'Theistic Conception of the World,' ch. vii., &c., will be found a rich store of teleological data as to the fitness of the earth to be the dwelling-place and the schoolhouse of human beings. Of course, those who attempt to prove this thesis require carefully to resist the temptation to conceive of the relation of nature to man as not one of cause and effect, of action and reaction, of mutual influence, but as an immediate and inexplicable pre-established harmony like that which Leibnitz supposed to exist between the body and the soul. This was the theory which Cousin set forth in a celebrated lecture on the part of geography in history. Regarding it I may quote the words which I have used elsewhere: "This notion is not only purely conjectural, but inconsistent with the innumerable facts which manifest that nature does influence man, and that man does modify nature.

It is impossible to hold, either in regard to the body and soul, or in regard to nature and man, *both* the theory of mutual influence and of pre-established harmony. All that, in either case, proves the former, disproves the latter. The belief in a pre-established harmony between man and nature is, indeed, considerably more absurd than in a pre-established harmony between the body and soul; for when a body is born, a soul is in it, which remains in it till death, and is never known to leave it in order to take possession of some other body: but every country is not created with a people in it, nor is every people permanently fixed to a particular country. Imagination may be deceived for a moment by an obvious process of association into this belief of certain peoples being suited for certain lands, independently of the action of natural causes—the Greeks, let us say, for Greece, the Indian for the prairies and forests of America, the Malayan for the islands of the Indian Archipelago; but a moment's thought on the fact that the Turk has settled down where the Greeks used to be—that mighty nations of English-speaking men are rising up where the Indian roamed, and that Dutchmen are thriving in the lands of the Malayan, should suffice to disabuse us. Besides, just as the dictum, 'Marriages are made in heaven,' is seriously discredited by the great number that are badly made, so the kindred opinion that every country gets the people which suits it, and every people the country, as a direct and immediate consequence of their pre-established harmony, is equally discredited by the prevalence of ill-assorted unions, a great many worthless peoples living in magnificent lands, while far better peoples have much worse ones."—*Philosophy of History in France and Germany*, pp. 191, 192.

NOTE XVII., page 146.

THE ORGANIC KINGDOM AND DESIGN.

The order and system in the vegetable and animal kingdoms are undeniable general facts, whatever may have been the secondary agencies by which they have been produced; and the inference of design from these facts is valid, whatever may have been the mode of their production. The characters and relationships of organic forms constitute a proof of intelligence, whether their genera and species be the immediate and immutable expressions of the ideas of the Divine Mind, or the slowly-reached results of evolution. Of course, if there has been a process of evolution, it must have been one exactly fitted to attain the result. But the discovery or exhibition of such a process will be sufficient to cause a certain class of minds to believe that there has been no cause but the process—that the process completely explains both itself and the result, and leaves no room for intelligence.

The character of the order and system in the organic world is so extremely abstruse, subtle, and comprehensive, that all the attempts at classification in botany prior to De Candolle, and in zoology prior to Cuvier, were failures. The labours of the great naturalists and biologists of the present century have, doubtless, accomplished much; but the light reached is still but the feeble light of an early dawn. Yet that light is most pleasant and satisfying to the eye of the mind. The reason sees in it a profound significance and a wonderful beauty. How, it may well be asked, can a scheme of order which tasks to such an extent the powers of comprehension possessed

by the human mind, and yet which is perceived, when discovered, to be admirably rational, be supposed to have originated elsewhere than in a Mind?

I can only mention a few out of the multitude of books which treat of design in the organic world. Among general works on natural theology it may be sufficient to refer to those of Paley, Buchanan, and Tulloch; and among special works, to Professor Balfour's 'Phyto-Theology; or, Botanical Sketches, intended to illustrate the Works of God in the Structure, Functions, and General Distribution of Plants;' M'Cosh's 'Typical Forms and Special Ends in Creation;' Agassiz's 'Structure of Animal Life; being Six Lectures on the Power, Wisdom, and Goodness of God, as manifested in His Works;' Kirby's 'Power, Wisdom, and Goodness of God, as manifested in the Creation of Animals;' R. Owen's 'Instances of the Power of God, manifested in His Animal Creation;' Roget's 'Animal and Vegetable Physiology, considered in reference to Natural Theology;' and Sir Charles Bell's 'The Hand, its Mechanism and Vital Endowments, as evincing Design.' The three last-mentioned works are Bridgewater Treatises.

It is a duty to call particular attention to the work of M. Janet, 'Les Causes Finales.' Although M. Janet concedes, perhaps, too much to the opponents of finality, his treatise contains the ablest and most adequate discussion of the various problems suggested by the indications which organic nature gives of design that has yet appeared. It is eminently worthy of a careful study. There is an excellent English translation of it by W. Affleck, B.D.

Among the masters of biological science, Cuvier, V. Baer, Agassiz, and R. Owen may be named, as among

those who have set the highest value on the principle of finality. The essay on Classification of Agassiz, and the various essays which Von Baer has published at different times, on what he calls "Zielstrebigkeit," are specially important.

NOTE XVIII., page 148.

EVIDENCES OF DESIGN IN ORGANISMS.

"The *savants* are generally too much disposed to confound the doctrine of final cause with the hypotheses of an invisible force acting without physical means, as a *deus ex machinâ*. These two hypotheses, far from reducing themselves the one to the other, are in explicit contradiction; for he who says *design* says at the same time *means*, and, consequently, causes adapted to produce a certain effect. To discover this cause is by no means to destroy the idea of design; it is, on the contrary, to bring to light the condition, *sine quâ non*, of the production of the end. To make clear this distinction we cite a beautiful example, borrowed from M. Claude Bernard. How does it happen, says this eminent physiologist, that the gastric juice, which dissolves all aliments, does not dissolve the stomach itself, which is of precisely the same nature as the aliments with which it is nourished? For a long time the vital force was supposed to intervene—that is to say, an invisible cause, which, in some way, suspended the properties of the natural agents, to prevent their producing their necessary effects. The vital force would, by a sort of moral *veto*, forbid the gastric

juice to touch the stomach. We see that this would be a real miracle. Everything is explained when we know that the stomach is lined with a coating or varnish which is not attacked by the gastric juice, and which protects the walls which it covers. Who does not see that in refuting the omnipotence of the vital force, very far from having weakened the principle of finality, we have given to it a wonderful support? What could the most perfect art have done to protect the walls of the stomach, but invent a precaution similar to that which exists in reality? And how surprising it is that an organ destined to secrete and use an agent most destructive to itself, is found armed with a protective tunic, which must have always coexisted with it, since otherwise it would have been destroyed before having had time to procure for itself this defence—which excludes the hypothesis of long gropings and happy occurrences.”—Janet, “Final Causes and Contemporaneous Physiology,” *Presb. Quart. Rev.*, April 1876.

Professor Tyndall gives a very graphic description of the combination of remarkable arrangements by which the human ear is fitted to be an organ of hearing. I quote from it the following words, and connect with them some striking observations of Max Müller. “Finally, there is in the labyrinth a wonderful organ, discovered by the Marchese Corti, which is to all appearance a musical instrument, with its chords so stretched as to accept vibrations of different periods, and transmit them to the nerve-filaments which traverse the organ. Within the ears of men, and without their knowledge or contrivance, this lute of 3000 strings has existed for ages, accepting the music of the outer world, and rendering it fit for reception by the brain. Each musical tremor which falls

upon this organ selects from its tensioned fibres the one appropriate to its own pitch, and throws that fibre into unisonant vibration. And thus, no matter how complicated the motion of the external air may be, those microscopic strings can analyse it and reveal the constituents of which it is composed.”—On Sound, p. 325. “What we hear when listening to a chorus or a symphony is a commotion of elastic air, of which the wildest sea would give a very inadequate image. The lowest tone which the ear perceives is due to about 30 vibrations in one second, the highest to about 4000. Consider, then, what happens in a *presto*, when thousands of voices and instruments are simultaneously producing waves of air, each wave crossing the other, not only like the surface waves of the water, but like spherical bodies, and, as it would seem, without any perceptible disturbance; consider that each tone is accompanied by secondary notes, that each instrument has its peculiar *timbre*, due to secondary vibrations; and, lastly, let us remember that all this cross-fire of waves, all this whirlpool of sound, is moderated by laws which determine what we call harmony, and by certain traditions or habits which determine what we call melody—both these elements being absent in the songs of birds—that all this must be reflected like a microscopic photograph on the two small organs of hearing, and there excite not only perception, but perception followed by a new feeling even more mysterious, which we call either pleasure or pain;—and it will be clear that we are surrounded on all sides by miracles transcending all we are accustomed to call miraculous.”—Science of Language, second series, p. 115.

The structure of the eye has often been described as an evidence of design. There is an extremely interest-

ing comparison of it with the photographic camera in Le Conte's 'Religion and Science,' pp. 20-33.

The whole reading public knows the masterly chapter on "The Machinery of Flight," in the late Duke of Argyll's 'Reign of Law.'

NOTE XIX., page 149.

PSYCHOLOGY AND DESIGN.

The following writers treat at considerable length of the evidences of design to be traced in the constitution of the mind: Sir Matthew Hale in his 'Primitive Origination of Mankind;' Barrow in the seventh of his 'Sermons on the Creed;' Bentley in the second sermon of his 'Boyle Lecture;' Crombie in the second volume of his 'Natural Theology;' Lord Brougham in his 'Discourse on Natural Theology,' sect. iii. pp. 52-80; Turton's 'Natural Theology Considered,' pp. 65-160; Chalmers's 'Natural Theology,' Book III.; Buchanan's 'Faith in God,' pp. 213-231; Tulloch's 'Theism,' pp. 182-247; and Ulrici's 'Gott und Mensch.'

The phenomena of animal instinct are of themselves an inexhaustible source of instruction as to the Divine wisdom and goodness. "The spinning machinery which is provided in the body of a spider is not more accurately adjusted to the viscid secretion which is provided for it, than the instinct of the spider is adjusted both to the construction of its web and also to the selection of likely places for the capture of its prey. Those birds and insects whose young are hatched by the heat of fer-

mentation, have an intuitive impulse to select the proper materials, and to gather them for the purpose. All creatures, guided sometimes apparently by senses of which we know nothing, are under like impulses to provide effectually for the nourishing of their young; and it is most curious and instructive to observe that the extent of provision which is involved in the process, and in the securing of the result, seems very often to be greater as we descend in the scale of nature, and in proportion as the parents are dissociated from the actual feeding or personal care of their offspring. The mammalia have nothing to provide except food for themselves, and have at first, and for a long time, no duty to perform beyond the discharge of a purely physical function. Birds have more to do—in the building of nests, in the choice of sites for these, and after incubation in the choice of food adapted to the period of growth. Insects, much lower in the scale of organisation, and subject to the wonderful processes of metamorphosis, have to provide very often for a distant future, and for successive stages of development not only in the young but in the *nidus* which surrounds them. Bees, if we are to believe the evidence of observers, have an intuitive guidance in the selection of food which has the power of producing organic changes in the bodies of the young, even to the determination and development of sex, so that, by the administration of it, under what may be called artificial conditions, certain selected individuals can be made the mothers and queens of future hives. These are but a few examples of facts of which the whole animal world is full, presenting, as it does, one vast series of adjustments between bodily organs and corresponding instincts. But this adjustment would be useless unless it were part of

another adjustment—between the instincts and perceptions of animals and those facts and forces of surrounding nature which are related to them, and to the whole cycle of things of which they form a part. In those instinctive actions of the lower animals which involve the most distant and the most complicated anticipations, it is certain that the prevision involved is a prevision which is not in the animals themselves. They appear to be, and beyond all doubt really are, guided by some simple appetite, by an odour or a taste, and, in all probability, they have generally as little consciousness of the ends to be subserved as the suckling has of the processes of nutrition. The path along which they walk is a path which they did not engineer. It is a path made for them, and they simply follow it. But the propensities and tastes and feelings which make them follow it, and the rightness of its direction towards the ends to be attained, do constitute an adjustment which may correctly be called mechanical, and is part of a unity which binds together the whole world of life, and the whole inorganic world on which living things depend.”—Duke of Argyll on Animal Instinct (Cont. Rev., July 1875).

Instinctive actions will not be shown to be less evidences of Divine purpose by its being proved that intelligence, at least in the higher animals, probably always co-operates in some degree with instinct, or that much which is referred to instinct may be traced either directly to experience or to the hereditary transmission of qualities originally generated by experience.

NOTE XX., page 152.

HISTORY AND DESIGN.

The quotation is from the eighteenth—the concluding—volume of the ‘*Etudes sur l’Histoire de l’Humanité*,’ by Professor Laurent of Ghent. I have given some account of his historical doctrine, and endeavoured to defend the theistic inference which he has drawn from his laborious survey of historical facts against the objections of Professor J. B. Meyer, in my ‘*Historical Philosophy in France*,’ pp. 683-689. Bunsen, in the work entitled ‘*God in History*,’ seeks to establish the same great thesis.

“History,” says Niebuhr, “shows, on a hundred occasions, an intelligence distinct from nature, which conducts and determines those things which may seem to us accidental; and it is not true that history weakens our belief in Divine Providence. History is, of all kinds of knowledge, the one which tends most decidedly to that belief.”—*Lectures on the History of Rome*, vol. ii. p. 59.

Süssmilch’s celebrated treatise, ‘*Göttliche Ordnung in der Veränderung des menschlichen Geschlechtes, &c.* ;’ M’Cosh’s ‘*Method of the Divine Government* ;’ and Gillett’s ‘*God in Human Thought*,’ vol. ii. pp. 724-792, may be consulted as regards the evidences of Divine purpose to be found in the constitution of society.

NOTE XXI., page 168.

HISTORY OF THE TELEOLOGICAL ARGUMENT.

The proof of the Divine existence from the order and adaptations of the universe is known as the physico-theological or teleological argument. It has also been sometimes called the cosmological argument ; the very word *cosmos*, like the Latin *mundus* and our own universe, implying order. It is so obvious and direct that it has presented itself to the mind from very ancient times. It is implied in such passages of Scripture as Job xxxvii.-xli. ; Ps. viii., xix., civ. ; Isa. xl. 21-26 ; Matt. vi. 25-32 ; Acts xiv. 15-17, xvii. 24-28. Pythagoras laid great stress on the order of the world ; and it was mainly on that order that Anaxagoras rested his belief in a Supreme Intelligence. Socrates developed the argument from the adaptation of the parts of the body to one another, and to the external world, with a skill which has never been surpassed. His conversation with Aristodemus, as recorded in the 'Memorabilia' of Xenophon, is of wonderful interest and beauty. Few will follow it even now without feeling constrained to join Aristodemus in acknowledging that "man must be the masterpiece of some great Artificer, carrying along with it infinite marks of the love and favour of Him who thus formed it." Plato presents the argument specially in the 'Timæus,' and his whole philosophy is pervaded by the thought that God is the primary source and perfect ideal of all order and harmony. Aristotle expressly maintains that "the appearance of ends and means is a proof of design," and conceives of God as the ultimate Final Cause. Cicero (De Nat. Deor., ii. c. 37) puts into the

mouth of Balbus an elaborate exposition of the design argument. The 'De Usu Partium' of Galen is a treatise on natural theology, teaching design in the structure of the body.

This proof is found more frequently than any other in the writings of the fathers and scholastics. "When we see a vessel," says Theophilus, "spreading her canvas, and majestically riding on the billows of the stormy sea, we conclude that she has a pilot on board; thus, from the regular course of the planets, the rich variety of creatures, we infer the existence of the Creator."—Ad Autol., 5. Minucius Felix (c. 18) compares the universe to a house, and Gregory of Nazianzum (Orat., xxviii. 6) compares it to a lyre, in illustrating the same argument. Ambrose, Athanasius, Augustine, Basil the Greek, Chrysostom, &c., employ it. So do Albertus Magnus, Thomas Aquinas, &c.

The opposition of Bacon and Descartes to final causes had no influence in preventing theologians from insisting on their existence. From Boyle and Derham to Paley and the Bridgewater Treatises, an enormous literature appeared in England devoted to this end. Germany, also, in the second half of the eighteenth century, was almost as much overflowed with Lithotheologies, Hydrotheologies, Phytotheologies, Insectotheologies, &c., as it at present is with works on Darwinism. In France, Fénelon in his 'Démonstration de l'Existence de Dieu,' and Bernardin de Saint Pierre in his 'Etudes' and 'Harmonies de la Nature,' eloquently, although not perhaps very solidly or cautiously, reasoned from the wonders of nature to the wisdom of God.

Hume and Kant, by their criticisms of the design argument, rendered to it the great service of directing

attention to the principles on which it proceeds. Theologians had previously gone on merely accumulating illustrative instances and instituting minute investigations into the constitutions of the complex objects which they selected with this view. Attention was thus distracted from what really needed argument. Hume and Kant showed men the real point at issue.

Although Kant rejected the argument, he speaks of it in these terms: "This proof deserves to be mentioned at all times with respect. It is the oldest, the clearest, and the most suited to the ordinary understanding. It animates the study of nature, because it owes its existence to thought, and ever receives from it fresh force. It brings out reality and purpose where our observation would not of itself have discovered them, and extends our knowledge of nature by exhibiting indications of a special unity whose principle is beyond nature. This knowledge, moreover, directs us to its cause—namely, the inducing idea, and increases our faith in a supreme originator to an almost irresistible conviction."

I must refer to the Notes from XIII. to XX. inclusive, for the titles of recent works on the design argument.

"The assertion appears to be quite unfounded that, as science advances from point to point, final causes recede before it, and disappear one after the other. The principle of design changes its mode of application, indeed, but it loses none of its force. We no longer consider particular facts as produced by special interpositions, but we consider design as exhibited in the establishment and adjustment of the laws by which particular facts are produced. We do not look upon each particular cloud as brought near to us that it may drop fatness on our fields; but the general adaptation of the laws of heat and

air and moisture to the promotion of vegetation does not become doubtful. We do not consider the sun as less intended to warm and vivify the tribes of plants and animals because we find that, instead of revolving round the earth as an attendant, the earth, along with other planets, revolves round him. We are rather, by the discovery of the general laws of nature, led into a scene of wider design, of deeper contrivance, of more comprehensive adjustments. Final causes, if they appear driven farther from us by such extension of our views, embrace us only with a vaster and more majestic circuit. Instead of a few threads connecting some detached objects, they become a stupendous network, which is wound round and round the universal frame of things."—Whewell, 'History of Scientific Ideas,' vol. ii. pp. 253, 254.

NOTE XXII., page 182.

CREATION AND EVOLUTION.

Creation is the *only* theory of the *origin* of the universe. Evolution assumes either the creation or the self-existence of the universe. The evolutionist must choose between creation and non-creation. They are opposites. There is no intermediate term. The attempt to introduce one—the Unknowable—can lead to no result; for unless the Unknowable is capable of creating, it can account for the origin of nothing. All attempts to explain even the formation of the universe, either by the evolution of the Unknowable or by evolution out of the Unknowable, must be of a thoroughly delusive character. The evolution of what is known can alone have

significance either to the ordinary or scientific mind. Nothing can be conceived of as subject to evolution which is not of a finite and composite nature. Nothing can be evolved out of a finite and composite existence which was not previously involved in it. And what gives to anything its limits and constitution must be more perfect than itself. *Τὸ πρῶτον, οὐ σπέρμα ἐστίν, ἀλλὰ τὸ τέλειον.*

“As many philosophers as adopt the supposition—such as the Pythagoreans and Spensippus—that what is best and most fair is not to be found in the principle of things, from the fact that though the first principles both of plants and animals are causes, yet what is fair and perfect resides in created things as results from these,—persons, I say, who entertain these sentiments, do not form their opinions correctly. For seed arises from other natures that are antecedent and perfect, and seed is not the first thing, whereas that which is perfect is.”—Aristotle, ‘*Metaphysics*,’ xi. 7.

“It is manifest by the light of nature that there must at least be as much reality in the efficient and entire cause as in its effect; for whence can the effect draw its reality if not from its cause? And how could the cause communicate to it this reality unless it possessed it in itself? And hence it follows, not only that what is cannot be produced by what is not, but likewise that the more perfect—in other words, that which contains in itself more reality—cannot be the effect of the less perfect.”—Descartes, ‘*Meditations*,’ iii.

“In not a few of the progressionists the weak illusion is unmistakable, that, with time enough, you may get everything out of next-to-nothing. Grant us, they seem to say, any tiniest granule of power, so close upon zero

that it is not worth begrudging—allow it some trifling tendency to infinitesimal increment—and we will show you how this little stock became the kosmos, without ever taking a step worth thinking of, much less constituting a case for design. The argument is a mere appeal to an incompetency in the human imagination, in virtue of which, magnitudes evading conception are treated as out of existence; and an aggregate of inappreciable increments is simultaneously equated,—in its cause to *nothing*, in its effect to *the whole of things*. You manifestly want the same causality, whether concentrated on a moment or distributed through incalculable ages; only, in drawing upon it, a logical theft is more easily committed piecemeal than wholesale. Surely it is a mean device for a philosopher thus to crib causation by hair's-breadths, to put it out at compound interest through all time, and then disown the debt."—Martineau, 'Essays Philosophical and Theological,' pp. 141, 142.

"Think of it! An endless evolution, an eternal working, an infinite causation, and yet an effect so finite. Nature has been working upward from eternity, and has just passed the long-armed ape who begat prognathus, as prognathus begat the troglodyte homo. What becomes of our doctrine of progress? As sure as mathematics, it should have been all evolved, all that we now have, over and over again—all *out*, or far more *out* than has come out, incalculable ages ago. An eternal antepast of progressive working. To what a height should it have arisen! It should have transcended all our ideals. The most exalted finite being should have been reached, the most exalted that our minds can conceive, instead of this creature man, so poor, so low; for you will bear in mind that I am speaking of him as measured by no

higher scale of value than that afforded by this physical hypothesis—man evolved from nebular gas—man just coming out of darkness, and so soon to return to darkness again—*e tenebris in tenebras*. This all comes from that hideous *ὑστέρων πρότερον*, that inversion of all necessary thinking. Nature first, it says—matter first, an impalpable nebulous nihilism first, the lowest and most imperfect first ; life, thought, reason, idea, their junior products, and God, therefore, the last product, if there be a God at all, or anything to which such a name can possibly be given. And we are asked to adopt this, and call it grand, whilst rejecting as narrow and soul-contracting the revelation which makes God first, reason first, idea first, the perfect first,—as has been said before—the imperfect and the finite ever a departure from it, whether in the scale of order or of time, whether as exhibited in processes of lapse and deterioration or the contrary seeming of recovery and restoration in cyclical rounds. The two schemes have two entirely different modes of speech. Says the mere physical hypothesis: In the beginning was the nebula, and all things were in the nebula, and all things were self-evolved from the nebula—even life, thought, consciousness, idea, reason itself, having no other source. The other speaks to us in language like this: *Ἐν ἀρχῇ ἦν ὁ Λόγος*, “In the beginning was the Word,” the *Λόγος*, the Reason, “and the Word was with God, and the Word was God. All things came into being by Him. In Him was life,” *ζωή*, and “from this life”—not from motions, or molecules, or correlated forces, or the vibration of fibres, or the arrangements of nebular atoms, but from this life of the Logos, the eternal Reason—“came the light of men”—the mind, reason, conscience of humanity—even “the

light that lighteth" every rational being "coming into the cosmos."—Prof. Lewis, 'The Kingdom of God' (Dickinson's Theological Quarterly, No. 6).

NOTE XXIII., page 195.

THEOLOGICAL INFERENCES FROM THE DOCTRINE
OF SPONTANEOUS GENERATION.

An eloquent preacher exclaims, "Great ought to be our compassion for the weak brother whose faith in God would be shaken because a chemist should succeed next year in producing vital cells out of a hermetically-sealed vessel containing only the elements of protoplasm."—Rev. E. A. Abbott, D.D., 'Cambridge Sermons,' p. 33. It must be admitted, however, that many who certainly cannot be fairly described as "weak brethren," entertain very strongly that fear of the doctrine of spontaneous generation which Dr Abbott deprecates. I quote, from the 'Presbyterian Quarterly' of January 1874, the words of President Barnard of Columbia College, New York, expressing an entirely opposite sentiment. I do so without criticism or comment, as I shall have to consider the relation of materialistic theories of the origin of life to theism in next volume.

"To the philosopher, the demonstration of the theory of spontaneous generation, should it ever be demonstrated beyond all possibility of doubt or cavil, cannot but be a matter of the deepest interest. But to the man who finds himself compelled to receive it, this interest, it seems to me, must be no less painful than it is deep. Nor is this the only theory which the investigators of our time are urging upon our attention, of which I feel compelled to make

the same remark. There are, at least, two besides which impress me with a similar feeling ; and the three together constitute a group which, though to a certain extent independent of each other, are likely in the end to stand or fall together. These are, the doctrine of spontaneous generation, the doctrine of organic evolution, and the doctrine of the correlation of mental and physical forces. If these doctrines are true, the existence of an intelligence separate from organised matter is impossible, and the death of the human body is the death of the human soul. If these doctrines are true, the world becomes an enigma, no less to the theist than it has always been to the atheist. We are told, indeed, that the acceptance of these views need not shake our faith in the existence of an almighty Creator. It is beautifully explained to us how they ought to give us more elevated and more worthy conceptions of the modes by which He works His will in the visible creation. We learn that our complex organisms are none the less the work of His hands because they have been evolved by an infinite series of changes from microscopic gemmules, and that these gemmules themselves have taken on their forms under the influence of the physical forces of light and heat and attraction acting on brute mineral matter. Rather, it should seem, we are a good deal more so. This kind of teaching is heard in our day even from the theologians. Those sentinels on the watch-towers of the faith, whose wont it has been for so many centuries to stand sturdily up in opposition to the science which was not, in any proper sense, at war with them, now, by a sudden and almost miraculous conversion, accept with cheerful countenances, and become in their turn the expounders and champions of the science which is. But while they

find the mystery of the original creation thus satisfactorily cleared up in their minds, they seem to have taken very little thought as to what is going to come of the rest of their theology. It is, indeed, a grand conception which regards the Deity as conducting the work of His creation by means of those all-pervading influences which we call the forces of nature ; but it leaves us profoundly at a loss to explain the wisdom or the benevolence which brings every day into life such myriads of sentient and intelligent beings only that they may perish on the morrow of their birth. But this is not all. If these doctrines are true, all talk of creation or methods of creation becomes absurdity ; for just as certainly as they are true, God Himself is impossible. If intelligence presupposes a material organism, of which it is a mode of action, then God must be a material organism or there is no God. But it is the law of all living organisms that they grow, mature, and perish ; and since God cannot perish, He cannot be an organism.”

NOTE XXIV., page 208.

DARWIN AND PALEY.

To the two treatises of Mr Darwin mentioned in the lecture, there must now be added another equally rich in fact suggesting theological inferences—‘The Different Forms of Flowers *on* Plants of the same Species.’

A multitude of books have been written on Darwinism and Teleology. Most of those published between 1859 and 1875 will be found named in the list of works on Darwinism appended to Seidlitz’s ‘Darwin’sche Theorie.’ There are two good popular accounts of the controversy :

‘What is Darwinism?’ by Dr Charles Hodge of Princeton, and ‘Die Darwin’schen Theorien’ of Rudolf Schmid.

As to Paley, it gives one pleasure to quote the following passage from Lord Kelvin’s address to the British Association in 1871; because the foolish writing which is so frequently met with in books and journals about “the mechanical God of Paley,” about Paley representing Deity as “outside of the universe,” or as “a God who makes the world after the manner that a watchman manufactures a watch,” &c., can only be explained by utter ignorance of Paley’s views: “I feel profoundly convinced that the argument of design has been greatly too much lost sight of in recent zoological speculations. Reaction against the frivolities of teleology, such as are to be found, not rarely, in the notes of the learned commentators on Paley’s ‘Natural Theology,’ has, I believe, had a temporary effect of turning attention from the solid irrefragable argument so well put forward in that excellent old book. But overpowering proof of intelligence and benevolent design lies all around us; and if ever perplexities, whether metaphysical or scientific, turn us away from them for a time, they come back upon us with irresistible force, showing to us through nature the influence of a free will, and teaching us that all living beings depend upon one ever-acting Creator and Ruler.”

NOTE XXV., page 214.

KANT’S MORAL ARGUMENT.

The unsatisfactoriness of the position that conscience can supply the place of reason, and can do without its help, in the search after God, is clearly seen in the case

of the thinker who undertook with most deliberation to maintain that position. When Kant said,—Although all other arguments for the existence of God are delusive, still conscience gives us a feeling of responsibility and a sense of freedom which compel us to believe in One through whom virtue and fortune, duty and inclination, will be reconciled, and in whom the will will be free to do all that it ought,—he saw that he would be met with the retort and reproach that the same process by which he pretended to have demolished the other arguments was just as applicable to this new one; that the ideas of freedom and responsibility might be as delusive when supposed to assure us of reality, as those of causation and design; that if the latter were mere forms of human thought, the former might be held to be so likewise with equal reason, and to be equally incapable of affording a warrant to belief in God Himself; and consequently, that the final religious result of his philosophy was, not that there is a God, but that there is an idea of God, which, although we cannot get rid of it, is full of contradictions, and wholly incapable of justification or verification. He saw all this as clearly as man could do, and it is marvellous that so many authors should have written as if he had not seen it; but certainly he might as well not have seen it, for all that he was able to do in the way of repelling the objection. His reply amounted merely to reaffirming that we are under the necessity of associating the idea of a Supreme Being with the moral law, and then qualifying the statement by the admission that we can know, however, nothing about that Being; that as soon as we try to know anything about Him we make a speculative, not a practical, use of reason, and fall back into the realm of sophistry and illusion from

which the Critical Philosophy was designed to deliver us. In other words, what he tells us is, that the argument is good, but only on the conditions that it is not to be subjected to rational scrutiny, and that no attempt is to be made to determine what its conclusion signifies. It seems to me that, on these conditions, he might have found any argument good. Such conditions are inconsistent with the whole spirit and very existence of a critical philosophy. And it is not really God that Kant reaches by his argument: it is a mere moral ideal—a dead, empty, abstract assumption, which is regarded as practically useful, although rationally baseless—a necessary presupposition of moral action, but one which tells us nothing about the nature of its object. Fichte was only consistent when he refused to speak of that object as a Will or Person, and affirmed that God exists only as the Moral Order of the universe, and that we can neither know nor conceive of any other God. He was also only following out the principles of his master when he represented that order as the creation of the individual mind, the form of the individual conscience, a mode of mental action.

Kant has expounded his argument, and discussed its bearings fully and minutely, in his 'Kritik der Urtheilskraft,' sec. 86-90, and 'Kritik der Praktischen Vernunft, Zweites Buch, Zweites Hauptstück,' v.-viii. M. Renouvier, in an article entitled "De la Contradiction reprochée à la doctrine de Kant" (*La Critique Philosophique*, 3^{ième} Année, No. 29), has exposed some errors on the subject which are common in France, and equally common in England.

NOTE XXVI., page 217.

DR SCHENKEL'S VIEW OF CONSCIENCE AS THE
ORGAN OF RELIGION.

Dr Schenkel has fully set forth his reasons for holding that conscience is the religious organ of the soul, in the ninth chapter of the first volume of his 'Christliche Dogmatik.' He endeavours to meet the objection urged in the text by representing what is truly the primary and distinctive function of conscience as a secondary and derivative function. Its primary activity is, according to him, religious; it unites with God—it is conscious communion with Him. Its ethical activity is only elicited when this communion is disturbed and broken; its source is the religious want occasioned by the rupture of communion. That is felt to be a something abnormal and unsatisfactory, and awakens a desire after the restoration of the lost communion with God. The conscience is cognisant of a moral law only when, its communion with God being disturbed, it seeks its re-establishment. Dr Schenkel thus, as he thinks, accounts for conscience having an ethical function as well as a religious function. But clearly the result at which he arrives is in direct contradiction to the position from which he starts. The affirmation of conscience as religious is represented as being that man is in direct communion with God; and the affirmation of conscience as ethical is represented as being that man is not in direct communion with God, but desires to be so. These are, however, contrary declarations; and to describe conscience in the way Schenkel does, as "a synthesis of the ethical and religious factor," is to represent it as a synthesis of self-contradictory elements—a com-

pound of yes and no. We cannot be conscious both of communion with God and of non-communion with Him. And, on Dr Schenkel's own showing, the evidence for immediate communion with Him is but small. The consciousness of moral law he affirms to be consciousness of the want or need of communion with God, not the consciousness of enjoying it. But is conscience ever independent of the consciousness of moral law? If not, it can never, according to the hypothesis, be a consciousness of God. If it be independent thereof, the fact would require to be better proved than by the misinterpretation of a few texts of Scripture. Solidly proved it never, I believe, can be. A conscience not conscious of a moral law is simply no conscience at all.

NOTE XXVII., page 221.

CHALMERS AND ERSKINE ON THE ARGUMENT
FROM CONSCIENCE.

The moral argument was, as was to be expected, a very favourite one with Dr Chalmers, and his way of stating it was as remarkable for its simplicity and directness as for its eloquence. "Had God," he asks, "been an unrighteous Being Himself, would He have given to the obviously superior faculty in man so distinct and authoritative a voice on the side of righteousness? Would He have so constructed the creatures of our species as to have planted in every breast a reclaiming witness against Himself? Would He have thus inscribed on the tablet of every heart the sentence of His own condemnation; and is this not just as likely, as that

He should have inscribed it in written characters on the forehead of each individual? Would He so have fashioned the workmanship of His own hands; or, if a God of cruelty, injustice, and falsehood, would He have placed in the station of master and judge that faculty which, felt to be the highest in our nature, would prompt a generous and high-minded revolt of all our sentiments against the Being who formed us? From a God possessed of such characteristics, we should surely have expected a differently-moulded humanity; or, in other words, from the actual constitution of man, from the testimonies on the side of all righteousness, given by the vicegerent within the heart, do we infer the righteousness of the Sovereign who placed it there.”—‘*Natural Theology*,’ vol. i. pp. 323, 324. This argument of Dr Chalmers, like all other arguments from conscience, implies the soundness of the reasoning by which God has been attempted to be shown to be the intelligent cause or author of the universe; and, on that perfectly legitimate presupposition, it seems to me as irresistible as it is simple. An intelligent but unrighteous God would never have made a creature better than himself and endowed with admiration of what is most opposite to himself, the reverse and counterpart of his own character.

The argument as stated by the late Mr Thomas Erskine of Linlathen, is no less simple and direct: “When I attentively consider what is going on in my conscience, the chief thing forced on my notice is, that I find myself face to face with a purpose—not my own, for I am often conscious of resisting it—but which dominates me and makes itself felt as ever present, as the very root and reason of my being. . . . This consciousness of a purpose concerning me that I should

be a good man—right, true, and unselfish—is the first firm footing I have in the region of religious thought: for I cannot dissociate the idea of a purpose from that of a Purposer, and I cannot but identify this Purposer with the Author of my being and the Being of all beings; and further, I cannot but regard His purpose towards me as the unmistakable indication of His own character.”—‘*The Spiritual Order, and other Papers,*’ pp. 47, 48.

NOTE XXVIII., page 225.

ASSOCIATIONIST THEORY OF THE ORIGIN OF
CONSCIENCE.

I have indicated to some extent my reasons for regarding this theory as unsatisfactory in an article entitled “Associationism and the Origin of Moral Ideas,” in ‘*Mind,*’ No. III. (July 1876). In the treatise of M. Carrau, ‘*La Morale Utilitaire,*’ and in that of M. Guyau, ‘*La Morale Anglaise,*’ the various forms of the theory are examined with fairness and penetration.

NOTE XXIX., page 229.

CHALMERS AND BAIN ON THE PLEASURE OF
MALEVOLENCE.

Dr Chalmers devotes a chapter of his ‘*Natural Theology*’ to the illustration of “the inherent pleasure of the virtuous, and misery of the vicious affections.” I do not think the psychological doctrine of that chapter unexcep-

tionable ; but, at the same time, I cannot understand on what ground Prof. Bain imagines that it “implies doubts as to the genuineness of the pleasures of malevolence,” and virtually denies that “the feeling of gratified vengeance is a real and indisputable pleasure.”—See ‘Emotions and the Will,’ pp. 187-189. The very passage which Prof. Bain quotes is quite inconsistent with this view. It is as follows : “The most ordinary observer of his own feelings, however incapable of analysis, must be sensible, even at the moment of wreaking the full indulgence of his resentment on the man who has provoked or injured him, that all is not perfect within ; but that in this, and indeed in every other malignant feeling, there is a sore burden of disquietude, an unhappiness tumultuating in the heart, and visibly pictured in the countenance. The ferocious tyrant who has only to issue forth his mandate, and strike dead at pleasure the victim of his wrath, with any circumstance too of barbaric caprice and cruelty which his fancy, in the very waywardness of passion unrestrained and power unbounded, might suggest to him—he may be said through life to have experienced a thousand gratifications, in the solaced rage and revenge which, though ever breaking forth on some new subject, he can appease again every day of his life by some new execution. But we mistake it if we think otherwise than that, in spite of these distinct and very numerous, nay, daily gratifications, if he so choose, it is not a life of fierce internal agony notwithstanding.”

The sentence which precedes these words leaves no doubt that Prof. Bain’s interpretation of them is incorrect. “True, it is inseparable from the very nature of a desire, that there must be some enjoyment or other at the time of its gratification ; but, in the case of these

evil affections, it is not unmixed enjoyment." The following passage is, however, still more explicit: "There is a certain species of enjoyment common to all our affections. It were a contradiction in terms to affirm otherwise; for it were tantamount to saying, that an affection may be gratified without the actual experience of a gratification. There must be some sensation or other of happiness at the time when a man attains that which he is seeking for; and if it be not a positive sensation of pleasure, it will at least be the sensation of a relief from pain, as when one meets with the opportunity of wreaking upon its object that indignation which had long kept his heart in a tumult of disquietude. We therefore would mistake the matter if we thought that a state even of thorough and unqualified wickedness was exclusive of all enjoyment, for even the vicious affections must share in that enjoyment which inseparably attaches to every affection at the moment of its indulgence. And thus it is that even in the veriest Pandemonium might there be lurid gleams of ecstasy and shouts of fiendish exultation—the merriment of desperadoes in crime, who send forth the outcries of their spiteful and savage delight when some deep-laid villany has triumphed, or when, in some dire perpetration of revenge, they have given full satisfaction and discharge to the malignity of their accursed nature. The assertion, therefore, may be taken too generally, when it is stated that there is no enjoyment whatever in the veriest hell of assembled outcasts; for even there, might there be many separate and specific gratifications. And we must abstract the pleasure essentially involved in every affection at the instant of its indulgence, and which cannot possibly be disjoined from it, ere we see clearly and dis-

tinctively wherein it is that, in respect of enjoyment, the virtuous and vicious affections differ from each other. For it is true that there is a common resemblance between them ; and that, by the universal law and nature of affection, there must be some sort of agreeable sensation in the act of their obtaining that which they are seeking after. Yet it is no less true that, did the former affections bear supreme rule in the heart, they would brighten and tranquillise the whole of human existence ; whereas, had the latter the entire and practical ascendancy, they would distemper the whole man, and make him as completely wretched as he was completely worthless." Dr Chalmers, then, did not call in question the pleasures of malevolence.

NOTE XXX., page 232.

HISTORY OF THE MORAL PROOF.

Conscience has from the earliest times and among the rudest peoples exercised great influence in the formation of religious belief. Moral reasons weighed with men in their origination and elaboration of religion long before they expressed them in abstract propositions and logical forms. The historical proof of this truth is so ample that it would require a volume to do it justice : all literatures might be made to yield contributions to it.

The simplest form of the moral argument, and the one which has been most generally employed, is that of an inference from the moral law to a moral lawgiver. Closely associated with it are those forms which rest on the emotions involved in or accompanying virtue and

guilt. These are the directest modes of exhibiting what Chalmers calls "the theology of conscience, which is not only of wider diffusion but of far more practical influence than the theology of academic demonstration."

Raymond of Sebonde, in a work which I have previously had occasion to mention, was perhaps the first to present it in a more artificial form. He argues thus: Man is a responsible being who can neither reward nor punish himself, and who must consequently be under a superior being who will reward and punish him, unless his life is to be regarded as vain and purposeless—unless even the whole of external nature, which is subject to man and exists for his sake, is to be pronounced aimless and useless. External nature, however, is seen to be throughout orderly and harmonious; how can we suppose the moral world to be disorderly and chaotic? As the eye corresponds to things visible, the ear to things audible, the reason to things intelligible, so conscience must correspond to a judgment which implies some one to pronounce it, and to a retribution which implies some one to inflict it. But this some one must be absolutely just; he must be omniscient, as possessing a perfect knowledge of all human actions, and a thorough insight into their moral character; omnipotent, to execute his judgments; and, in a word, must be the most perfect of all beings—*i.e.*, God.

Kant's argument is thus summarised by the Archbishop of York: "The highest good of man consists of two parts, the greatest possible morality and happiness. The former is the demand of his spiritual, the latter of his animal nature. The former only, his morality, is within his own power; and while, by persevering virtue, he makes this his personal character, he is often com-

pelled to sacrifice his happiness. But since the desire of happiness is neither irrational nor unnatural, he justly concludes either that there is a Supreme Being who will so guide the course of things (the natural world, not of itself subject to moral laws) as to render his holiness and happiness equal, or that the dictates of his conscience are unjust and irrational. But the latter supposition is morally impossible; and he is compelled, therefore, to receive the former as true."

Akin to this argument are those which are based on man's desire of good. Proclus, in his 'Theology of Plato,' argues to the following effect: All beings desire the good; but this good cannot be identical with the beings which desire it, for then these beings would be themselves the good, and would not desire what they already possessed. The good is antecedent, therefore, to all the beings who desire it. Since the time of Proclus to the present many have argued that there must be a God because the heart demands one to satisfy its desire of love, or holiness, or happiness; few, perhaps, have done so with more ingenuity of logic or fervour of belief than John Norris in "Contemplation and Love, or the Methodical Ascent of the Soul to God by Steps of Meditation," and in "An Idea of Happiness" ('Collection of Miscellanies').

The late Principal Pirie of Aberdeen has laid great stress on an argument which we may assign to this class. "No argument," he says, "can be valid which founds on innate ideas, or which embraces considerations so entirely beyond the range of human apprehension that we cannot positively be assured whether they be true or false. Yet we have no hesitation in saying that there is an argument *a priori* for the exist-

ence and attributes of a God, which is involved in the very nature of our feelings, and which therefore tells upon the faith of the whole human race, even when they are altogether ignorant of it logically, as existing in the form of a proposition. It makes no appeal, however, to profound metaphysical speculations, and is consequently plain and intelligible to any one capable of exercising reason at all. It rests on the principle which both our feelings and our experience demonstrate to be true, that every primary and essential desire of the human mind has a co-relative—or, in other words, a something to gratify it—existing in the nature of things. The mode in which the development of this principle constitutes an argument *a priori* for the existence and attributes of a God we now proceed to explain. Every human being feels from the moment in which he comes into existence, and through his whole subsequent history, that he is in himself a weak, helpless creature. As we have said, this feeling begins from the very beginning of our conscious existence. The appeals of the infant for aid are made continually. . . . As we advance to childhood, youth, and manhood, our sense of power gradually increases. We are conscious that under certain circumstances we can do something for ourselves. Yet this capability, we are also conscious in its very exercise, does not depend on us for its continuance. We cannot preserve to ourselves fortune, health, or even life, for *a single moment*. Yet all these things we desire, and desire with the utmost earnestness, and desire as a primary tendency of our minds. We may not indeed always clothe such desire in words—we may not put it into the form of a proposition ; but that it exists in every mind as a feeling, and practically operates upon every individual,

is as certain as our existence itself, and is indeed manifest every moment in the efforts which we make to preserve these and all other forms of what we believe to involve happiness. In this desire, consequently, we have the voice of nature speaking, and commanding us to use such efforts. Of ourselves we know that they would be insufficient. The results depend upon causes over which we have no control. Our own efforts, we are conscious, are only means which nature has appointed us to employ, but their success depends on circumstances altogether beyond our power. It is, as has been said, the voice of nature telling us that each of our desires has a co-relative, through which it may be fully gratified by the use of the proper means. This co-relative, in the case of intense and permanent happiness, can only be found in the existence of a God, omnipotent, omniscient, true, just, benevolent, and eternal, *in whom we repose entire confidence*. No other assumption could by possibility satisfy our desire for the highest and permanent happiness now and for ever. For to realise thoroughly the argument, it is to be observed that our desire is for the highest and permanent happiness. It is not imperfect or temporary happiness merely which we desire; though we may be compelled to be content with this, if we cannot procure more. It is the highest happiness possible for our natures, and that without end. Now, if such happiness is to be attained at all, it can only be obtained through a God possessed of the attributes which we have enumerated."—'Natural Theology,' pp. 71-74.

Prof. Wace, in the second course of his Boyle Lectures—'Christianity and Morality' (1876)—has exhibited, with considerable detail, and in an ingenious and eloquent manner, the testimony which conscience bears to a per-

sonal God, a moral Creator, and a moral Governor. A glimpse of his general idea may be obtained from the following words: "In our endeavour to trace in the conscience, and in the personal experience of individuals, the roots of our faith in a God of infinite power, wisdom, and goodness, we have now advanced two considerable steps beyond our first and simplest sense of right and wrong. We have seen that this sense, when allowed to speak with its full imperative and personal force, arouses in us, as it aroused in the Psalmist, a sense of our being in contact with a personal and righteous Will. This conviction necessarily involves, as it involved in the writer of the 139th Psalm, the further belief that an authority which has this claim upon our obedience in every particular of our conduct, in all our thoughts and acts, must at the same time be the author and source of our whole constitution; that the righteous eyes which now penetrate, whether through darkness or through light, to the very depths of our souls, must also have seen our 'substance, yet being unperfect,' and that in their book must all our members have been written. If it be the imperative and paramount law of our nature to obey our conscience, and to make moral perfection, or spiritual excellence, our ultimate aim, we cannot but conclude that our whole nature, and the whole order of things in which we are placed, is in the hands of a moral power; and that, as we are fearfully and wonderfully made for righteous and reasonable ends, it must be by a righteous and reasonable Will that we are made. The conscience of man must never be omitted from our view of the design of man; and it is only when we contemplate the adjustment of his whole nature to the purposes of the loftiest

moral development, that the argument from design acquires its full strength. . . . The apprehension of a Power which establishes righteousness as the law of life, involves also the conviction that it is able to enforce that law, and to render it finally and everywhere supreme. The conviction, indeed, is one of faith and not of demonstration ; and the Scriptures, no less than life, are full of instances in which this faith is tried by the bitterest experience. Even prophets, as I have before observed, are at times driven to the cry that 'the law is slacked, and that judgment doth never go forth.' But the deepest instincts and necessities of conscience forbid the toleration of any such instinct of despair. If right were not essentially and ultimately might, I do not say—God forbid—that it would not still claim the supreme allegiance of the soul ; but life would be a bitter mockery and an inexplicable cruelty. Not merely to be under an imperative law to pursue that which cannot be realised, but to be bound to such a fruitless pursuit by every noble and lovely influence—to be condemned in moral and spiritual realities to the torments of a Tantalus—this is a conception of human life against which the whole soul rebels. Accordingly, a God of all righteousness must of necessity be regarded as a God of all power. . . . That 'categorical imperative' of the conscience, on which the German philosopher insisted, is imperative in demanding not only a God, but an Almighty God."

The position to be assigned to Kant in the history of the moral proof has been indicated in Note XXV.

Hegel ignores the moral argument as one of the stages of proof which raise the mind to the knowledge of God, but he conceives of religion as presupposing morality,

inasmuch as it is the realisation of what morality merely seeks,—the identification of the human with the Divine Will.

There is a very full and suggestive exposition of the Ethical Argument in Dr J. A. Dorner's 'Christliche Glaubenslehre,' Bd. I. 263-310.

NOTE XXXI., page 235.

DEFECTS IN THE PHYSICAL WORLD.

Lucretius (ii. 177—v. 196) has dwelt on the arrangements which render one zone of the earth torrid and others frigid—on the extent of barren heaths and rocks, of sands and seas—on the prevalence of unseasonable weather, storms, and tempests—and on the abundance of noxious herbs and destructive animals, &c.—as evidences that the earth was faulty and ill made, and could not be the work of a Divine Intelligence. Whether it was well or ill made appears to have been a favourite subject of dispute between the Epicureans and Stoics. Lactantius (*De Ira Dei*, c. xiii.) reports, and attempts to answer, the objections which the Epicureans and Academics were accustomed to urge against the constitution of the physical world. In Cudworth's '*Intellectual System*,' vol. iii. pp. 464-8, Bentley's '*Folly of Atheism*,' pt. i., Serm. 8; Derham's '*Astro-Theology*,' book vii., c. 2, &c., such objections are discussed. In the remarks which I made on the subject in the lecture, I have had chiefly in view the opinions of Comte, J. S. Mill, and J. J. Murphy ('*Scientific Bases of Faith*,' c. xv.)

Mr Mill's charges against nature are very vigorously and graphically expressed. "Next to the greatness of

these cosmic forces, the quality which most forcibly strikes every one who does not avert his eyes from it, is their perfect and absolute recklessness. They go straight to their end, without regarding what or whom they crush on the road. Optimists, in their attempts to prove that 'whatever is, is right,' are obliged to maintain, not that Nature ever turns one step from her path to avoid trampling us into destruction, but that it would be very unreasonable in us to expect that she should. Pope's 'Shall gravitation cease when you go by?' may be a just rebuke to any one who should be so silly as to expect common human morality from Nature. But if the question were between two men, instead of between a man and a natural phenomenon, that triumphant apostrophe would be thought a rare piece of impudence. A man who should persist in hurling stones or firing cannon when another man 'goes by,' and, having killed him, should urge a similar plea in exculpation, would very deservedly be found guilty of murder. In sober truth, nearly all the things which men are hanged or imprisoned for doing to one another, are Nature's everyday performances. Killing, the most criminal act recognised by human laws, Nature does once to every being that lives, and in a large proportion of cases after protracted tortures, such as only the greatest monsters whom we read of ever purposely inflicted on their living fellow-creatures. If, by an arbitrary reservation, we refuse to account anything murder but what abridges to a certain term supposed to be allotted to human life, Nature also does this to all but a small percentage of lives, and does it in all the modes, violent or insidious, in which the worst human beings take the lives of one another. Nature impales men, breaks them as if on the wheel, casts them

to be devoured by wild beasts, burns them to death, crushes them with stones like the first Christian martyr, starves them with hunger, freezes them with cold, poisons them by the quick or slow venom of her exhalations, and has hundreds of other hideous deaths in reserve, such as the ingenious cruelty of a Nabis or a Domitian never surpassed. All this Nature does with the most supercilious disregard both of mercy and of justice, emptying her shafts upon the best and noblest indifferently with the meanest and worst—upon those who are engaged in the highest and worthiest enterprises, and often as the direct consequence of the noblest acts,—and it might almost be imagined as a punishment for them. She mows down those on whose existence hangs the wellbeing of a whole people, perhaps the prospects of the human race for generations to come, with as little compunction as those whose death is a relief to themselves, or a blessing to those under their noxious influence. Such are Nature's dealings with life. Even when she does not intend to kill, she inflicts the same tortures in apparent wantonness. In the clumsy provision which she has made for that perpetual renewal of animal life, rendered necessary by the prompt termination she puts to it in every individual case, no human being ever comes into the world but another human being is literally stretched on the rack for hours or days, not unfrequently issuing in death. Next to taking life (equal to it, according to a high authority) is taking the means by which we live; and Nature does this, too, on the largest scale and with the most callous indifference. A single hurricane destroys the hopes of a season; a flight of locusts or an inundation desolates a district; a trifling chemical change in an edible root starves a million of people. The waves

of the sea, like banditti, seize and appropriate the wealth of the rich and the little all of the poor with the same accompaniments of stripping, wounding, and killing, as their human antitypes. Everything, in short, which the worst men commit either against life or property, is perpetrated on a larger scale by natural agents. Nature has *noyades* more fatal than those of Carrier; her explosions of fire-damp are as destructive as human artillery; her plague and cholera far surpass the poison-cups of the Borgias. Even the love of 'order,' which is thought to be a following of the ways of Nature, is, in fact, a contradiction of them. All which people are accustomed to deprecate as 'disorder' and its consequences, is precisely a counterpart of Nature's ways. Anarchy and the Reign of Terror are overmatched in injustice, ruin, and death, by a hurricane and a pestilence."—Three Essays, pp. 28-31.

The opinion that the world would be either physically or morally improved were gravitation to cease when men went by, were fire not always to burn and were water occasionally to refuse to drown, were laws few and miracles numerous, may safely be left to refute itself. Therefore, let me simply set over against Mr Mill's censure of Nature Wordsworth's praise:—

" Nature never did betray
 The heart that loved her; 'tis her privilege,
 Through all the years of this our life, to lead
 From joy to joy; for she can so inform
 The mind that is within us, so impress
 With quietness and beauty, and so feed
 With lofty thoughts, that neither evil tongues,
 Rash judgments, nor the sneers of selfish men,
 Nor greetings where no kindness is, nor all
 The dreary intercourse of daily life,
 Shall e'er prevail against us, or disturb
 Our cheerful faith, that all which we behold

Is full of blessings. Therefore, let the moon
Shine on thee in thy solitary walk;
And let the misty mountain winds be free
To blow against thee : and, in after years,
When these wild ecstasies shall be matured
Into a sober pleasure, when thy mind
Shall be a mansion for all lovely forms,
Thy memory be as a dwelling-place
For all sweet sounds and harmonies ; oh then,
If solitude, or fear, or pain, or grief,
Should be thy portion, with what healing thoughts
Of tender joy wilt thou remember me
And these my exhortations ! ”

NOTE XXXII., page 241.

NO BEST POSSIBLE CREATED SYSTEM.

Dante has given magnificent expression to the truth
that no created system can be absolutely perfect :—

“ Colui che volse il sesto
Allo stremo del mondo, e dentro ad esso
Distinse tanto occulto e manifesto,
Non poteo suo valor sì fare impresso
In tutto l’universo, che il suo verbo
Non rimanesse in infinito eccesso.
E ciò fa certo, che il primo Superbo,
Che fu la somma d’ ogni creatura,
Per non aspettar lume, cadde acerbo :
E quinci appar ch’ ogni minor natura
È corto recettacolo a quel bene
Che non ha fine, e se in se misura.
Dunque nostra veduta, che conviene
Essere alcun de’ raggi della mente
Di che tutte le cose son ripiene,
Non può di sua natura esser possente
Tanto, che suo principio non discerna
Molto di là, da quel ch’ egli è, parvente.

Però nella giustizia sempiterna

La vista che riceve il vostro mondo,
Com' occhio per lo mare, entro s' interna;
Che, benchè dalla proda veggia il fondo,
In pelago nol vede; e nondimeno
Egli è; ma cela lui l'esser profondo."

—*Del Paradiso*, cant. xix. 40-63

“ He his compasses who placed
At the world's limit, and within the line
Drew beauties, dimly or distinctly traced—
Could not upon the universe so write
The impress of his power, but that His Word
Must still be left in distance infinite:
And hence 'tis evident that he in heaven
Created loftiest his fate incurred
Because he would not wait till light was given.
And hence are all inferior creatures shown
Scant vessels of that Goodness unconfined
Which nought can measure save Itself alone.
Therefore our intellect—a feeble beam,
Struck from the light of the Eternal Mind,
With which all things throughout creation teem,—
Must by its nature be incapable,
Save in a low and most remote degree,
Of viewing its exalted principle.
Wherefore the heavenly Justice can no more
By mortal ken be fathomed than the sea:
For though the eye of one upon the shore
May pierce its shallows, waves unfathomed bound
His further sight, yet under them is laid
A bottom, viewless through the deep profound.”

—WRIGHT.

NOTE XXXIII., page 245.

DEFECTS IN THE ORGANIC WORLD.

The objections to final causes from alleged defects in the organic world have been answered with wisdom and success by M. Janet, in his ‘*Causes Finales*,’ pp. 313-348.

The views of Professor Helmholtz as to the defects of the eye will be found stated at length in his popular lectures on scientific subjects. The chief defects enumerated are: 1. Chromatic aberration, connected with 2. Spherical aberration and defective centring of the cornea and lens, together producing the imperfection known as astigmatism; 3. Irregular radiation round the images of illuminated points; 4. Defective transparency; 5. Floating corpuscles, and 6. The "blind spot" with other gaps in the field of vision. "The eye has every possible defect that can be found in an optical instrument, and even some which are peculiar to itself." "It is not too much to say that if an optician wanted to sell me an instrument which had all these defects, I should think myself quite justified in blaming his carelessness in the strongest terms, and giving him back his instrument. Of course I shall not do this with my eyes, and shall be only too glad to keep them as long as I can—defects and all. Still, the fact that, however bad they may be, I can get no others, does not at all diminish their defects, so long as I maintain the narrow but indisputable position of a critic on purely optical grounds."

Helmholtz himself, however, points out that the defects of the eye are "all so counteracted, that the inexactness of the image which results from their presence very little exceeds, under ordinary conditions of illumination, the limits which are set to the delicacy of sensation by the dimensions of the retinal cones;" that "the adaptation of the eye to its function is most complete, and is seen in the very limits which are set to its defects." In fact, were the eye more perfect as an instrument of optical precision, it would be less perfect as an eye. Its absolute defects are practical merits. To be a useful eye

it must be neither a perfect telescope nor a perfect microscope, but a something which can readily serve many purposes, and which can be supplemented by many instruments. The delicate finish of a razor renders it unfit for cutting wood. All man's senses and organs are inferior to those possessed by some of the lower animals, but the inferiority is of a kind which is a real and vast advantage. It is of a kind which allows them to be put to a greater variety of uses than could more perfect senses and organs. It is the very condition of their capacity to be utilised in manifold directions by an inventive and progressive reason. Further, no man can see at all merely with a so-called perfect optical instrument. He must have in addition the imperfect instrument, composed of a soft, watery, animal substance, and designated the eye. There is that in the eye which immeasurably transcends all mere physics and chemistry, all human mechanism and contrivance; there is life; there is vision.

NOTE XXXIV., page 252.

EPICUREAN DILEMMA.

The Epicurean dilemma has been often dealt with. I shall content myself with quoting Mr Bowen's remarks on the subject: "*Omnipotence* and *benevolence* are apparently very simple and very comprehensive terms, though few are more vaguely used. The former means a power to do everything; but this does not include the ability to do two contradictory things at the same moment, or to accomplish any metaphysical impossibility. Thus, the Deity cannot cause two and two to

make five, nor place two hills near each other without leaving a valley between them. The impossibility in such cases does not argue a defect of power, but an absurdity in the statement of the case to which the power is to be applied. A statement which involves a contradiction in terms does not express a limitation of ability, because in truth it expresses nothing at all ; the affirmation and the denial, uttered in the same breath, cancel each other, and no meaning remains. All metaphysical impossibilities can be reduced to the formula, that it is impossible for the same thing to be and not to be at the same moment, as this would be an absurdity—that is, an absurd or meaningless statement. Thus, virtue cannot exist without free agency, because a free choice between good and evil is involved in the idea of *virtue*, so that the proposition means no more than this—that what contains freedom cannot be without freedom. We cannot choose between good and evil, unless good and evil are both placed before us—that is, unless we know what these words mean ; and we cannot express our choice in action, unless we are able to act—that is, unless we have the power of doing either good or evil. In the dilemma quoted from Epicurus, a contradiction in terms is held to prove a defect of power, or to disprove omnipotence ; the dilemma, therefore, is a mere logical puzzle, like the celebrated one of Achilles and the tortoise.

“The meaning of *benevolence* appears simple enough ; but it is often difficult to tell whether a certain act was or was not prompted by kind intentions. Strictly speaking, of course, benevolence is a quality of mind—that is, of will (*bene volo*) or intention, not of outward conduct. An *action* is said to be benevolent only by metaphor ; it is so called, because we infer from it, with great

positiveness, that the agent must have had benevolent intentions. We think that the motives are indicated by the act; but we may be mistaken. He who gives food to the hungry poor would be esteemed benevolent; but he may do it with a view to poison them. To strike for the avowed purpose of causing pain usually argues ill-will or a malignant design; but the blow may come from the kindest heart in the world, for the express purpose of benefiting him who receives it. In the present argument, Epicurus assumes that the presence of evil—that is, the outward fact—is enough to prove a want of benevolence, or even a malignant design, on the part of him who might have prevented it. But if by evil is here meant mere pain or suffering, whether proceeding from bodily or mental causes, we may boldly deny the inference. If pleasure or mere enjoyment is not the greatest good, if sometimes it is even inconsistent with the possession of a higher blessing, then a denial of it may be a proof of goodness instead of malice.”—‘*Metaphysical and Ethical Science,*’ pp. 362, 363.

NOTE XXXV., page 263.

GOD AND DUTY.

“To such readers as have reflected on man’s life; who understand that for man’s wellbeing Faith is properly the one thing needful; how with it martyrs, otherwise weak, can cheerfully endure the shame and the cross—and without, worldlings puke up their sick existence by suicide in the midst of luxury: to such it will be clear that for a pure moral nature the loss of religious belief is the loss of everything.

“All wounds, the crush of long-continued destitution, the stab of false friendship and of false love, all wounds in thy so genial heart, would have healed again had not its life-warmth been withdrawn.

“Well mayest thou exclaim, ‘Is there no God, then; but at best an absentee God, sitting idle, ever since the first Sabbath, at the outside of His universe and *seeing* it go?’ ‘Has the word Duty no meaning? is what we call Duty no Divine messenger and guide, but a false earthly phantasm made up of desire and fear?’ ‘Is the heroic inspiration we name Virtue but some passion; some bubble of the blood, bubbling in the direction others profit by?’ I know not; only this I know, if what thou namest Happiness be our true aim, then are we all astray. ‘Behold, thou art fatherless, outcast, and the universe is—the Devil’s.’”—Carlyle.

NOTE XXXVI., page 268.

HISTORIES OF THE THEISTIC PROOFS.

There are several histories of the proofs for the Divine existence. One of the earliest is Ziegler’s ‘*Beiträge zur Geschichte des Glaubens an das Dasein Gottes*’ (1792). The best known, and perhaps the most interesting, is Bouchitté’s ‘*Histoire des Preuves de l’Existence de Dieu*’ (*Mémoires de l’Académie, Savants Étrangers*, i.), written from the Krausean point of view. The ‘*Geschichte der Beweise für das Dasein Gottes bis zum 14 Jahrhundert*’ (1875), by Alfred Tyszka, and the ‘*Geschichte der Beweise für das Dasein Gottes von Cartesius bis Kant*’ (1876), by Albert Krebs, supplement each other. There are two very able articles—partly histori-

cal, but chiefly critical—on these proofs by Professor Köstlin in the ‘Theol. Studien und Kritiken,’ H. 4, 1875, and H. 1, 1876. The most conscientious, useful, and learned history of speculation regarding Deity is, so far as is known to me, the four-volumed work of Signor Bobba, ‘Storia della Filosofia rispetto alla conoscenza di Dio.’

On the history of the *a priori* proofs there may be consulted the treatise of Fischer, ‘Der ontologische Beweis f. d. Dasein Gottes, u. s. Geschichte,’ 1852; an article of Seydel, “Der gesch. Eintritt ontologischer Beweisführung,” &c. (Tr. f. Ph. H. i. 1858); ‘Der ontologische Gottesbeweis’: Kritische Darstellung seiner Geschichte seit Anselm bis auf die Gegenwart von Dr George Runze, 1882; and ‘Historic Aspects of the *A Priori* Argument concerning the Being and Attributes of God,’ by J. G. Cazenove, D.D., 1886. In Hase’s ‘Life of Anselm’ (of which there is an English translation) there is a good account of Anselm’s argument. There is also a translation of the ‘Proslogion,’ with Gaunilo’s objections and Anselm’s reply, in the ‘Bibliotheca Sacra,’ 1851. On the Cartesian proofs there is a special work by Huber, ‘Die cartes. Beweise v. Dasein Gottes’ (1854).

Hegel’s ‘Vorlesungen über d. Beweise f. d. Dasein Gottes’ are of great interest and value in various respects; but his view of the historical succession of the proofs does not appear to me to be tenable.

NOTE XXXVII., page 269.

A PRIORI PROOF NOT PROOF FROM A CAUSE.

The philosophers and theologians who have supposed *a priori* proof to be proof from a cause or antecedent existence, have, of course, denied that there can be any

a priori proof of the Divine existence. Aristotle laid down as a rule that demonstration must proceed from things prior to and the causes of the things to be demonstrated, and those who assented to this rule necessarily denied the possibility of demonstrating the existence of God. The assertion of Clemens of Alexandria that "God cannot be apprehended by any demonstrative science" is indubitable, if the view of demonstration on which he rests it be correct; "for such science is from things prior and more knowable, whereas nothing can precede that which is uncreated." It is a manifest contradiction to imagine that an eternal being is subsequent to any other being, or a perfect being dependent on any other being. Even mathematical demonstration, however, is not from causes; nor is there any reason for supposing that the order of knowledge is necessarily and universally the same as the order of existence.

It is by confounding demonstration erroneously understood in the manner indicated with proof in general that not a few persons have arrived at the conclusion that the existence of God cannot be proved at all, and have deemed preposterous assertions like that of Jacobi, "A God who can be proved is no God, for the ground of proof is necessarily above the thing proved by it," both profound and pious.

NOTE XXXVIII., page 285.

SOME *A PRIORI* ARGUMENTS.

I have treated of Clarke's argument in the 'Encyc. Brit.,' art. "Samuel Clarke."

The demonstration of Dr Fiddes is contained in his 'Theologia Speculativa, or a Body of Divinity,' 2 vols., 1718-20. It consists of six propositions: 1. Something

does now exist; 2. Something has existed eternally; 3. Something has been eternally self-existent; 4. What is self-existent must have all the perfections that exist anywhere or in any subject; 5. What is self-existent must have all possible perfections, and every perfection, in an infinite measure; 6. What has all possible perfections in an infinite measure is God. He proves his fourth proposition thus: "Since nothing can arise out of nothing, and since there can be no perfection but what has some subject of inherence, every perfection must have been eternally somewhere or other, or in one subject or other, into which it must be ultimately resolved, or else it could never have been at all; without admitting, what of all things we are the best able to conceive, an infinite progression of efficient causes—that is, an infinite series of beings derived one from another, without a beginning or any original cause at the head of the series. So that whatever perfections we observe in any being must have been originally and eternally in the self-existent being." On behalf of his fifth proposition he advances two arguments: 1. "All properties essentially follow the nature and condition of the subject, and must be commensurate to it. For this reason we say that wisdom, power, and goodness being attributes of an infinite subject, or one which is the substratum of one *infinite* attribute, these and all the other perfections belonging to it must be infinite also. Otherwise the same subject, considered as a subject, would be infinite in one respect, and yet finite in another; which, if it be not a contradiction, seems to border so near upon one that we cannot comprehend the possibility of it." 2. "A self-existent being as the subject of any perfection cannot limit itself; because it must necessarily have existed

from all eternity what it is, and have been the same in all properties essentially inherent in it, antecedently to any act or volition of its own. Nor can such a being be limited by anything external to it; for, besides that self-existence necessarily implies independence, properties which are essential to any subject can admit of no increase or diminution or the least imaginable change, without destroying the essence itself of the subject. Nor yet can it be said that there is any impossibility in the nature of the thing that the perfections inhering in an *infinite* subject should be in the highest or even in an infinite degree. Indeed it is scarce possible for us (for the reasons already assigned) to conceive how they should be otherwise. Neither can any such impossibility arise from the nature of the perfections themselves. If, then, the perfections of a self-existent being cannot be limited by itself, nor by anything external to it, nor from any invincible repugnancy in the nature of the perfections themselves, I conclude that the self-existent being must not only have all possible perfections, but every perfection in an *infinite* degree."

The 'Demonstration of the Existence of God against Atheists,' by the Rev. Colin Campbell, Minister of the Parish of Ardchattan, 1667-1726, has been recently printed for private circulation from a MS. now deposited in the library of Edinburgh University. The editor has added to it a learned and admirable appendix. Mr Campbell's manner of proving that there is one, and but one, infinite Being, is as follows: "As everything which hath a beginning forces confession of one who hath none—because to produce is an action, and must presuppose an actor,—by the same force of reason, we must confess that whatever is limited, or made of such and such a

limited nature, is limited by something which did limit it to be such a thing, and no other. For limit is an action, and confesseth an actor. So that there must be a being anterior to all limited beings, and, consequently, some being that is not at all limited, to evite the absurd progress of running infinitely upwards unlimited beings, without a single limiter. Now, an unlimited being is the same as to say an infinite being. And so, by the force of reason, we have a being which is eternal, which is infinite. There can be but one infinite, because, were there two or more, the one would limit the other; and so the infinite would be finite, the unlimited would be limited. Therefore the unlimited, or infinite, must be one only; and that one purely single and uncompound-ed, else every part of the compound would limit the other parts, so that all the parts would be limited. And a whole whose parts are limited must be limited in the whole, it being impossible that a compound or conjunction of finites can, by addition, produce an infinite, unless you imagine this complex whole to consist partly of finites, and also of some infinite. But the one infinite part, if infinite, cannot leave place for any other finite to make it up, it being itself unlimited and infinite; and such an addition would speak it limited by the part which was added. And a thousand like absurdities would follow."

Wollaston's attempted demonstration is contained in the fifth section of his 'Religion of Nature Delineated' (1725). This is a common book, and the mere reference to it must suffice.

Moses Lowman's 'Argument to prove the Unity and Perfection of God *a priori*' was published in 1735, and reprinted, with a preface by Dr Pye Smith, containing

an account of the author and his works, in the Cabinet Library of Scarce and Celebrated Tracts (1836). I reproduce the abstract which Dr Smith gave of this ingenious argument in his 'First Lines of Christian Theology :' " 1. Positive existence is possible, for it involves no contradiction. 2. All possible existence is either *necessary*, which must be, and in its own nature cannot but be ; or *contingent*, which may be or not be, for in neither case is a contradiction involved. 3. *Some* existence is *necessary* : for, if all existence were contingent, all existence might not be as well as might be ; and that thing which might not be never could be without some other thing as the prior cause of its existence, since every effect must have a cause. If, therefore, all possible existence were contingent, all existence would be impossible ; because the idea or conception of it would be that of an effect without a cause, which involves a contradiction. 4. Necessary existence must be *actual* existence : for necessary existence is that which must be and cannot but be—that is, it is such existence as arises from the nature of the thing in itself ; and it is an evident contradiction to affirm that necessary existence might not be. 5. Necessary existence being such as must be and cannot but be, it must be *always* and cannot but be always ; for to suppose that necessary existence could begin to be, or could cease to be—that is, that a time might be in which necessary existence would not be—involves a contradiction. Therefore, necessary existence is without beginning and without end—that is, it is eternal. 6. Necessary existence must be *wherever* any existence is possible : for all existence is either contingent or necessary ; all contingent existence is impossible without necessary existence being previously as its

cause, and wherever existence is possible it must be either of a necessary or a contingent being. Therefore, necessary existence must be wherever existence is possible—that is, it must be *infinite*. 7. There can be but *one* necessarily existent being; for two necessarily existent beings could in no respect whatever differ from each other—that is, they would be one and the same being. 8. The one necessarily existent being must have *all possible perfections*: for all possible perfections must be the perfections of some existence; all existence is either necessary or contingent; all contingent existence is dependent upon necessary existence; consequently, all possible perfections must belong either to necessary existence or to contingent existence—that is, to contingent beings, which are caused by and are dependent upon necessary being. Therefore, since there can be but one necessarily existent being, that being must have all possible perfections. 9. The one necessarily existent being must be a *free agent*: for contingent existence is possible, as the conception of it involves no contradiction; but necessary existence must be the cause or producing agent of contingent existence, otherwise contingent existence would be impossible, as an effect without a cause; and necessary existence as the cause of contingent existence does not act necessarily, for then contingent existence would itself be necessary, which is absurd as involving a contradiction. Therefore necessary existence, as the cause of contingent existence, acts *not necessarily* but *freely*—that is, is a free agent, which is the same thing as being an *intelligent agent*. 10. Therefore, there is one necessarily existent being, the cause of all contingent existence—that is, of all other existences besides himself; and this being is eternal, infinite,

possessed of all possible perfections, and is an intelligent free agent—that is, *this Being is God.*”

The demonstration of the Divine existence given by the Chevalier Ramsay is contained in the First Book of his ‘Philosophical Principles of Natural and Revealed Religion’ (1748). It is as elaborately mathematical in form as the reasoning in Spinoza’s ‘Ethics,’ and has continuous reference to that reasoning. It is impossible to give any distinct conception of its nature by a brief description.

The argument of Dr Hamilton, Dean of Armagh, is fully set forth in his ‘Attempt to prove the Existence and Absolute Perfection of the Supreme Unoriginated Being, in a Demonstrative Manner’ (1785). It assumes the “axiom” that “whatever is contingent, or might possibly have been otherwise than it is, had some cause which determined it to be what it is. Or in other words: if two different or contrary things were each of them possible, whichever of them took place, or came to pass, it must have done so in consequence of some cause which determined that *it*, and not *the other*, should take the place.” The propositions which he endeavours to demonstrate are these: I. There must be in the universe some one being, at least, whose non-existence is impossible—whose existence had no cause, no beginning, and can have no end. II. The whole nature of the unoriginated being, or the aggregate of his attribute, is uncaused, and must be necessarily and immutably what it is; so that he cannot have any attribute or modification of his attributes but such as were the eternal and necessary concomitants of his existence. III. Whatever are the attributes of the unoriginated being, he must possess each of them unlimitedly, or in its whole extent, such as

it is when considered in the abstract. IV. In whatever *manner* the unoriginated being exists or is present anywhere, he must in the *like manner* exist or be present everywhere. V. The unoriginated being is one individual uncompounded substance identically the same everywhere, and to which our ideas of *whole* and *parts*, *magnitude* or *quantity*, are not applicable. VI. The unoriginated being must necessarily possess intelligence and power unlimited, and all other natural attributes that are in themselves absolute perfections. VII. There is in the universe but one unoriginated being, who must therefore be the original fountain of all existence, and the first cause of all things. VIII. All things owe their existence ultimately to the power of the first cause operating according to his free will. IX. Almighty God, the first cause and author of all things, must be a Being of infinite goodness, wisdom, mercy, justice, and truth, and all other moral perfections, such as become the supreme author and governor of the universe.

The most remarkable recent attempt of a similar kind is, perhaps, that of the late Mr W. H. Gillespie of Torbanehill. The bases on which he rests his reasoning are that infinity of extension and infinity of duration are necessarily existing, and imply the necessary existence of an infinite and eternal Being. The argument was first presented in 1833, and, notwithstanding its abstruse character, has attracted considerable attention. It is only to be found in a complete form in the fifth edition of 'The Argument, *A Priori*, for the Being and the Attributes of the Absolute One' (1871). See also Mr Gillespie's 'Necessary Existence of Deity. An Examination of Antitheos's "Refutation"' (1840). There is an interesting review of the argument in its earliest form

in the 'Papers on Literary and Philosophical Subjects' of Professor P. C. Macdougall.

NOTE XXXIX., page 301.

RECENT SPECULATIVE THOUGHT AND THEISTIC PROOF.

Kant supposed that his critical researches into the nature and limits of knowledge would deter reason from speculative adventures. They had just the opposite effect; they excited it to an extraordinary activity, and even audacity. Nowhere and never have attempts speculatively to construe and explain the universe of existence and thought been more prevalent than in Germany in the nineteenth century. Hence it would require at least a volume to trace in an adequate manner how the speculative philosophy and speculative theology of Germany dealt, during the period specified, with the idea of God. The philosophies of Schelling and Hegel, of Baader and Krause, had their whole characters determined by this idea. It is the central thought in these systems, and the key to the right understanding of them. Among those who have laboured most earnestly to elucidate this greatest of all ideas, J. H. Fichte, K. P. Fischer, Weisse, Sengler, Wirth, Hanne, Ulrici, Rothe, and Dorner may be named. In the present work I have not found that I could judiciously make much use of the profound theories of these authors. It must be otherwise if I am ever permitted to attempt a general positive exposition of the doctrine of the Divine nature and attributes.

The main current of speculative thought in Italy

during the nineteenth century has been, like that of Germany, of an idealistic or ontological and theological character. In the systems of Rosmini, Gioberti, and Mamiani, the idea of God is central and vital, and the confirmation of it is sought in the nature and validity of speculative reason. See the 'Teodicea' and 'Teosofia' of Rosmini, the 'Teoria del Sopranaturale' and the 'Filosofia della Rivelazione' of Gioberti, and the 'Confessioni di un Metafisico' and the 'Religione dell'Avvenire' of Mamiani.

Among the recent philosophies of our own land, there is at least one which professes to be at once strictly demonstrative and an ontological proof of Deity. The final proposition of Professor Ferrier's 'Institutes of Metaphysic' is thus enunciated: "All absolute existences are contingent *except one*: in other words, there is One, but only one, Absolute Existence which is strictly *necessary*; and that existence is a supreme, and infinite, and everlasting Mind in synthesis with all things." "Speculation," says this most subtle thinker and most graceful writer, "shows us that the universe, by itself, is the contradictory; that it is incapable of self-subsistency, that it can exist only *cum alio*, that all true and cogitable and non-contradictory existence is a synthesis of the subjective and the objective; and *then* we are compelled, by the most stringent necessity of thinking, to conceive a supreme intelligence as the ground and essence of the Universal Whole. Thus the postulation of the Deity is not only permissible, it is unavoidable. Every mind thinks, and *must* think, of God (however little conscious it may be of the operation which it is performing), whenever it thinks of anything as lying beyond all human observation, or as subsisting in the absence or annihilation of all finite intelli-

gences. To this conclusion, which is the crowning truth of the ontology, the research has been led, not by any purpose aforethought, but simply by the winding current of the speculative reason, to whose guidance it had implicitly surrendered itself. That current has carried the system, *volens volens*, to the issue which it has reached. It started with no intention of establishing this conclusion, or any conclusion which was not *forced* upon it by the insuperable necessities of thought. It has found what it did not seek; and it is conceived that this theistic conclusion is all the more to be depended upon on that very account, inasmuch as the desire or intention to reach a particular inference is almost sure to warp in favour of that inference the reasoning by which it is supported. Here metaphysics stop; here ontology is merged in theology. Philosophy has accomplished her final work; she has reached by strict demonstration the central law of all reason (the necessity, namely, of thinking an infinite and eternal Ego in synthesis with all things); and that law she lays down as the basis of all religion."

Principal Caird, in his remarkable work, 'Introduction to the Philosophy of Religion,' has sought to popularise the Hegelian view of religion and its "speculative idea" of God. "The real presupposition of all knowledge, or the thought which is the *prius* of all things, is not the individual's consciousness of himself as individual, but a thought or self-consciousness which is beyond all individual selves, which is the unity of all individual selves and their objects, of all thinkers and all objects of thought." Although Dr Caird's 'Introduction' shows an ingenuity and force of thought as rare as its beauty of style, it seems to me to be in various respects incon-

clusive, and to leave the "speculative idea" even at the close in need of much more support and elucidation. The special criticisms and disquisitions contained in it are often decisive, and always suggestive.

The idea of God stands in a very different relation to the categories of thought than the Hegelian view implies. Perhaps the following propositions may suggest what the true relation is, although no elucidation of them can now be given.

1°, The principles which underlie the proofs of the Divine existence, and our whole knowledge of God, are the categories or conditions of thought which render experience possible.

2°, These categories, often called forms of thought, are more manifestly objectively valid than what is contingent in experience and called matter of thought; and the objective worth of experience can only be maintained by the defence of the objective validity of the categories.

3°, Religious experience—knowledge of God—is only valid if the categories are objectively valid.

4°, The characteristic of scepticism or agnosticism is denial of the objective validity of the categories, and it can only be set aside by an exhibition of their true character and of their function in cognition.

5°, In the idea of God all the categories of thought are comprehended and realised in their perfection.

6°, They constitute a complete system; and the whole system issues into, and is rendered organic by, the idea of God.

7°, The idea of God is necessarily the most comprehensive thought in metaphysics, and also that to which all experience and all science lead up, the whole worlds

of experience and of science being only possible and intelligible through the categories.

8°, The growth of reason in the knowledge of God is determined by its ever-widening application of the categories, and consequently, its ever-increasing recognition of the manifestation of the Divine attributes.

9°, The whole history of religion is the process of such growth, and is throughout a homogeneous process determined by the same principles from first to last,—viz., those principles which are necessarily involved in the recognition of the Divine.

10°, Fetichism, animism, &c., involve no distinctive or peculiar principle, but are simply erroneous or defective applications of the principles of causality, teleology, &c.: the contrary view, which regards them as embodying an ultimate, unanalysable principle, is prevalent among ethnologists and comparative theologians merely because many of them are not psychologists.

11°, The religious process is from beginning to end one which is essentially true, even the lowest forms of religion containing more truth than the highest developments of science which reject the religious application of the categories.

NOTE XL., page 321.

ON SOME OBJECTIONS.

The author of this work has had certainly no reason to complain of its reviewers. They have been numerous and generous. As they have belonged, however, to many schools, both of theistic and anti-theistic belief, not a few of them have, of course, had objections to urge either

against the general thesis of the volume or against particular positions maintained in it.

Reviewers who accept theism but reject Christianity have, as a matter of course, objected to the last lecture, even while approving of the previous nine. They could not in consistency have done otherwise, any more than a writer who believes in Christianity could have consistently left on the minds of his readers the impression that he thought mere theism sufficient to satisfy the spiritual wants of human nature, and a special revelation unnecessary. That the lecture is different in purpose from the others is conceded ; nor is it denied that it is an inadequate treatment of its theme. The proper subject of the present treatise is the exposition of the evidence for theism, and the exposition closes with the ninth lecture. The tenth lecture is a new departure, but on that very account aims merely at opening up a glimpse of the great subject to which it refers—one which falls to be fully discussed, not within the sphere of natural theology, but of Christian apologetics.

Other reviewers, looking at the work from a very different point of view,—namely, from that of implicit trust in special revelation and of little confidence in general revelation,—have deemed it a defect that an argument for theism has not been drawn from the nature of Christianity, and from the superiority of the Bible to all productions of mere human minds. Now it would, perhaps, be possible to construct an argument of this kind which would not be justly censurable as reasoning in a circle. Such an argument would require, however, so much preliminary explanation, and would be received by so many persons with suspicion and aversion, that it is to be feared it would be rather a weakness than a strength

in a vindication of theism. It can hardly be necessary to say that no doubt or disparagement is cast by this statement on the self-evidencing character of Scripture and of Christianity to those who already believe in God, or to those whose religious susceptibilities are vivid.

According to several critics of the work, the treatment of the so-called *a priori* argument should have been more elaborate. Perhaps they are right ; but the author has a decided conviction that what is true of the other arguments is very specially true of the *a priori* proof,—namely, that the more simply and the less formally it can be presented, the more convincing, and the more justly convincing, is it likely to be. A lengthened and complicated formal demonstration—like, *e.g.*, that of Mr Gillespie—displays, no doubt, remarkable ingenuity, but whom does it satisfy? The most direct applications of the fundamental necessities of speculative thought to the relevant problem are those which will most probably be successful. The transition from these necessities to the attributes of the Divine Being is no lengthened logical process, nor one which demands much speculative toil, although it may call for some speculative insight. What tests power of speculation is not the apprehension of the Divine, but the determination of the character of the metaphysical attributes, and their relationship to the properties of finite existences.

The exposition of the moral argument, or rather the discussion of the difficulties in the way of its acceptance suggested by the contemplation of suffering and of sin, is the part of the work as to the conclusiveness of which most doubt has been expressed. This was anticipated. Evidence cannot be manufactured. Only what evidence there is, and is to be seen, can be indicated. But it

merits to be observed that not one of the critics who pronounce this part of the work insufficient has suggested any other grounds for belief in the goodness and justice of God than those which he would set aside. Does this not imply a failure of duty in those of them who are theists? They must have some grounds for their belief that God is a moral Being; and if they have other grounds than the common ones, surely, in pity to their fellow-men, they ought to make them known. To tell us, because we are unable completely to reconcile the existence of the vast amount of physical and moral evil around us with the perfection, and especially with the benevolence of God, that we should cease to look in His works for any manifestations of His moral character, and take our stand instead on the "faith" which is "a frank and full recognition of our intellectual disability with reference to divine things," can only mean that we should abandon ourselves to blind and irrational belief, and then proclaim that this foolish procedure is the true "vindication of the ways of God to men"—is "starting from the most advanced point that the greatest of human speculations must in our day be held to have reached."

Professor Bruce, in the 'Brit. and For. Ev. Review' for July 1879, urges two objections. The first is, that the finality of the world is not proved not to be "immanent." No; but it is proved to be derived and dependent. If Professor Bruce had sufficiently studied the intricacies and ambiguities of the "immanence-transcendence" controversy, he would probably not have penned his remarks on "immanent finality," and could hardly have failed to perceive that all the theistic arguments brought forward in this volume were so stated

as to be utterly incompatible with belief in the only sort of immanence which the theist need deny. The second objection is, that an exaggerated confidence is shown in the force and value of the proofs by which it is sought to justify belief in God. Of this no evidence is produced; and all the remarks made in connection with the charge, tending to show that the will and the heart have fully as much to do with faith in God as the logical faculty, and that many persons have better reasons for their faith than those which they adduce when called upon to defend it, are substantially identical with the more explicit statements of these truths in the volume in which it is represented that they are ignored.

Objection has been taken to the parallelism between the way in which we know God and the way in which we know a fellow-man indicated in Lecture III. It has been said that, "if instead of appealing to the analogy of our knowledge of each other's existence, the author had appealed to either or both of two other analogies,—our knowledge of our own existence, and our knowledge of the existence of the material world,—and if he had shown in these cases that they are inferential, he would have brought forward what lay at first sight at least closer as an analogy to the case in hand than does our knowledge of each other's existence." This cannot be admitted. The analogy indicated is much closer than those suggested. The analogy between our knowledge of God and of the world obviously fails. Certain properties of matter are known by distinct primitive acts of perception. The eye, for example, sees colour. But surely the knowledge of God is not a primitive perception, like the vision of colour. Then, as to self, in every act of consciousness self is not merely implied but

directly and immediately apprehended. Is God thus apprehended in every act, or any act, of consciousness? Take away the universe, and we should no more know God than we could know a man who had no body. That just as between our fellow-men and us, so between God and us, there are media, while between certain properties of matter and our senses, and between ourselves and states of ourselves, there are no media, is a fact, and it is a fact which justifies the analogy employed, while it vitiates those suggested. At the same time, the knowledge of the world and of self is far more like the knowledge of God—*i.e.*, is to a far greater extent mediate, and to a far less extent immediate (intuitive), than the critic seems to imagine. It is a violation of the rudimentary principles of psychology to hold that either the "world" or "self" are directly known as wholes, as complete existences. Only certain general properties of matter and the self in its individual acts are immediately known. Our knowledge both of the world and of self is mainly secondary knowledge, slowly acquired by experience, reflection, and the researches of science. It has been denied that our knowledge of our fellow-men is mediate. Says the zealous intuitionist last quoted: "Another man's mental existence is to me as immediate a perception as his bodily existence. I know my fellow as a whole directly as I know myself." If so, he may well be congratulated on his power of sight and of insight. Since Berkeley wrote his 'Theory of Vision,' few educated people have imagined that they had an immediate perception even of the bodily existence of their fellow-men. Physiology and psychology combine to disprove that there is any perception. Yet here is an acute metaphysician who apparently claims to see right into

a man's body, and to take in by one intuition mind and body alike, so as to "know his fellow as a whole directly."

One thing, however, even this critic has not seen,—namely, the true character of the argumentation employed in the present volume. He writes regarding it thus: "What does it pretend to do but this: to find the fact of the existence of God in one class of phenomena by one process of knowledge—an inference; and the attributes of God in another class of phenomena, through a totally different process of knowledge—an intuition? Look at that process. In the former part of the argument, you have the Being inferred without the distinctive attributes that qualify Him; in the latter part, the attributes given without the Being whom they qualify. That is the essence of the argument; and doubtless it is its condemnation. Is such a process a psychological, or is it a logical, or is it any possible account of the genesis of the notion of God?"

Certainly not; but the essence of the argument controverted is just the very opposite of what its critic represents it as being. The argumentation in 'Theism' proceeds throughout on the conviction that God is only to be known through the knowledge of His attributes. No object is known by us otherwise than through its qualities. No object is known by us as a bare existence. Pure Being has been said to be identical with pure nothing. It may, perhaps, be more correctly said to be a self-contradiction; it is Being which is devoid of everything that belongs to Being. It is only as possessed of qualities that any Being exists or acts. A nature or essence without qualities is no nature or essence at all; it is a fiction and absurdity. To say of God that we do

not know what He is in Himself apart from His attributes, is merely to say of Him what we must say of everything else. No man has the slightest knowledge even of his own nature apart from its powers and affections,—apart from its qualities; nay, more, take these away, and you take away at the same time his nature and leave nothing. In the sense in which many speak of knowing “God in Himself” there is no God to know. There is no God without powers, affections, attributes. Those who believe that there is, mistake for God a nonsensical abstraction of philosophers who have gone beyond their depth. What ought always to be meant by the phrase “God in Himself” is God as distinct, not from His own attributes, but from other beings. God is viewed in Himself when viewed in His omnipotence and omniscience, His holiness and love. The essence of God is simply the nature of God as inclusive, not exclusive, of all the perfections which belong to God and which distinguish Him from His creatures. Now, if this view be correct, we cannot possibly attain to a knowledge of the existence of God except through a knowledge of His attributes and their manifestations. We cannot know that He is, except through knowing what He is. And so one of the proofs of His existence, the etiological, leads us to apprehend His power; another, the teleological, His intelligence; another, the deontological, His goodness and righteousness; another, the metaphysical, His infinity, eternity, &c. Hence the Divine attributes may be classed, according to the processes by which they are apprehended, which are also precisely what are represented in this volume as the proofs by which the Divine existence is confirmed, into (1) attributes of power, (2) attributes of intelligence, (3) moral attributes, and (4) metaphysical attributes.

Dorner, in his recently published and valuable 'Christliche Glaubenslehre,' Bd. I., presents the doctrine of the Divine attributes as intimately related to the natural evolution of the apprehension of the Divine idea, and as throughout corresponding to its moments or stages. It was the method followed by the author of this volume before he knew it was that of Dorner.

The critic referred to above, Dr Wardrop, has made a vigorous and elaborate defence of the hypothesis that the knowledge of God is intuitive. (See 'United Presbyterian Magazine,' Nos. 1, 2, 3, and 4, for 1878.) An examination of it would unfortunately occupy more space than can be afforded. He has not successfully met any of the objections which forbid acceptance of the hypothesis. These may here be summarised.

1°, The strongest lies in the fact that the idea of God is a particular complex idea, resolvable into a number of constituent ideas, not one of which exclusively applies to God. No intuition can be analysed at all; no intuitive idea has constituent ideas. Intuition may be the condition of unifying various ideas, but an intuition cannot be the result of the unification of various ideas. Power, intelligence, righteousness, infinity, eternity, &c., are all predicable of God, but they are also predicable of existences which are not God, and consequently any intuitions which may be involved in their apprehension are not to be confounded with an intuition of God.

2°, The process by which the idea of God is reached is, like the idea itself, complex, and capable of being analysed. It supposes distinct applications of the principles of causality, teleology, conscience, and speculative reason, as well as their combination and co-operation. It implies, in order to be complete, all the essential

principles of human nature. It, therefore, cannot be intuitive.

3°, The hypothesis that God is known by intuition is also difficult to reconcile with the fact that He is known through Nature and Scripture. Nature and Scripture are media. In so far as God is known by means of them He is not known by intuition. In so far as He is known by intuition there is no need for a revelation of Him in Nature and Scripture. Those who argue that intuition is the only trustworthy mode of knowing God, virtually argue that Nature and Scripture are not means of knowing Him.

4°, A subsidiary but strong proof that God is not known by intuition is that afforded by the history of religion. If all men had an intuition of God, whole nations would not worship the monstrous gods of their actual adoration. Intuitions are very definite operations; and no intuition can be shown to vary as the alleged intuition of God must be supposed to vary.

Almost all relevant objections from anti-theistic points of view appear to the author to have been sufficiently answered by anticipation in the work itself. Some have since been dealt with in the volume on 'Anti-Theistic Theories.'

A considerable number of criticisms have not been relevant, because without reference to what was alone undertaken in this work. In order to form a system of natural theology, these four great problems would require to be dealt with:—

1°, To indicate what evidence there is for belief in the existence of God.

2°, To refute anti-theistic theories,—atheism, mate

rialism, positivism, secularism, pessimism, pantheism, agnosticism, &c.

3°, To delineate the character of God as disclosed by nature, mind, and history, and to show what light the truth thus ascertained casts upon man's duty and destiny.

4°, To trace the rise and development of the idea of God and the history of theistic speculation.

The first theme is the subject of the present work. The second theme is so far discussed in its companion volume. The other two themes have not been touched, except at points where slightly doing so could not be avoided.

NOTE XLI.

SOME RECENT WORKS ON THEISM.

Since the publication of the last edition of 'Theism'—the edition of 1893—some works on the same theme have appeared to which it seems desirable to refer.

The late Professor Samuel Harris of Yale College, in his two-volumed treatise, 'God the Creator and Lord of All,' 1897, completed the scheme which he had begun in 'The Philosophical Basis of Theism,' 1884, and continued in 'The Self-Revelation of God,' 1887. Probably no theologian of his generation has left a larger or more valuable contribution to theistic doctrine. He has done far fuller justice to the intuitional elements implied in the theistic process than even any of the writers who have represented the process as an exclusively intuitional activity.

The late Duke of Argyll published, in 1896, 'The Phil-

osophy of Belief.' It had been preceded by 'The Unity of Nature,' 1884, and 'The Reign of Law,' 1886. The three works are closely connected, and give an able and interesting exposition of various aspects of the teleological argument.

In 1893 two Scottish philosophers—Dr Davidson and Professor Knight—published works on Theism which have been deservedly well received. Both adversely criticised the chief theistic arguments, and their criticisms were substantially identical, owing to being essentially repetitions of those of Kant. Neither made any attempt to deal with the very effective refutation of the Kantian arguments published two years previously in the 'Gifford Lectures,' 1889-1890, of the eminent metaphysician and logician, Dr Hutcheson Stirling. Perhaps the most distinctive feature in Professor Davidson's own method of proof as set forth in 'Theism as grounded in Human Nature' is the stress laid on an argument greatly valued by the late Principal Pirie of Aberdeen (see his 'Natural Theology,' 1867, pp. 69-78)—the argument that God must be believed in because the necessary correlative of our essential wants and desires. That there is a considerable amount of very valuable truth in it if placed in its right relationship to other proofs in the theistic process I readily admit. It seems to me very obvious, however, that, if separated from the actiological, the teleological, and ethical arguments, it must be weak indeed.

Professor Knight's 'Aspects of Theism' is a most pleasant book to read. It may in some places be rather vague, but it is throughout interesting and suggestive. It is more because of what seems to me vagueness than erroneusness that I cannot agree with all

that he says about intuition, although I perhaps attach almost as much importance to intuition as he does. In fact, all that he calls intuition seems to me never to be dissociated from inference, while all that I call "theistic proof" certainly presupposes "intuition" in the definite sense of direct cognition of a primary law of thought or fundamental category of reason. The "intuition" regarded by him as "intellectual and moral second sight" is an apprehension of the Divine reached by at least two stages of inference. In Professor Knight's book there is an admirable chapter on "The Beautiful in relation to Theism." As there is no corresponding chapter in the present work I refer my readers to it, as also to Dr J. Houghton Kennedy's 'Natural Theology and Modern Thought,' Lect. IV., "The Beautiful and Sublime in relation to Theism"; Mosley's discourse on "Nature" (in 'University Sermons'); St John Tyrwhitt's 'Natural Theology of Natural Beauty;' and Bishop Dowden's 'The Beauty of Nature a Revelation of God.' If I refer to what I have myself said on the subject in 'Anti-Theistic Theories,' p. 405 *seq.*, and in the sermon "On the Good and Perfect Gift of Art," in 'Sermons and Addresses,' it is merely to indicate that my not having treated of the argument in 'Theism' was not due to any want of appreciation of it.

The 'Hibbert Lectures' (1893) of Mr Upton, and Mr Richard A. Armstrong's 'God and the Soul, an Essay towards Fundamental Religion' (1896), are both characterised by a freshness and breadth of thought and an ease and eloquence of exposition which make them most persuasive pleas for theistic faith.

The Edinburgh 'Gifford Lectures' of Professor Fraser ('Philosophy of Theism,' 2nd ed., 1889); the Glasgow

'Gifford Lectures' of the late Professor Bruce ('The Providential Order of the World,' 1897, and 'The Moral Order of the World,' 1899); and the Aberdeen 'Gifford Lectures' of Professor Royce ('The World and the Individual,' 1900, 1902), are important additions to theistic literature.

The very learned and able work of Professor Orr, 'The Christian View of God and the World,' is in its third edition (1897). The brief treatise of Dr W. W. Clarke well deserves its wide popularity.

The treatment of the doctrine *de Deo* in Macpherson's 'Christian Dogmatics,' 1898, may be commended, as also Iverach's 'Theism in the Light of Present Science and Philosophy,' 1900. Lindsay's 'Recent Advances in Theistic Philosophy of Religion,' 1897, shows very extensive reading, and contains not only many good criticisms but also many apt suggestions of a constructive kind.

I regret to have to refer to the work of Professor Caldecott entitled 'The Philosophy of Religion in England and America,' 1901. It is advertised as "a complete history and description of the various philosophies of religion which have been formulated during the last few centuries in England and America." In reality, it is neither a history nor description of "philosophies of religion," but a series or collection of notes and criticisms on English works on Theism. The number of American works referred to are so few that one wonders why America should be on the title-page at all. The works noticed are classified according to a most misleading "scheme of types." The author must have spent much time in the elaboration of his scheme, yet it obviously leads to injustice all round. There are

few, if any, writers on Theism whose works do not belong to what Dr Caldecott calls "a composite type."

I am sorry to be forced to add that his statements as to facts are not always to be depended on, and certainly not in my own case. On p. 126 he writes: "The weakness of the book" ('Theism') "as a statement of the whole case for Theism was sadly brought out when Romanes turned to it, and, after reading it, wrote his 'Candid Examination,' and fell into atheism." Again, on p. 333, he says: "Commencing his published work with a Cambridge Prize Essay on 'Prayer,' Romanes became immersed in the eager work of the Darwinians, and was closely associated with both Darwin himself and Huxley. He felt called upon to examine Theism, and for that purpose took up Dr Flint's book; his results he published in his 'Candid Examination of Theism,' and acknowledged that he was led to agnosticism of an extreme type. But as time went on other influences operated upon him, among which he himself enumerates the following: A diminution of confidence in abstract reasoning; a rejection of Mr Spencer's Persistence of Force; adoption of Will as the source of our idea of Causation; the formulation of the source of Causality as self-conscious and intelligent."

What are the facts? My 'Theism' was published in 1877, and Mr Romanes' 'Candid Examination of Theism' in 1878.¹ Mr Romanes there distinctly stated that 'The Candid Examination' (the main essay in the book, and that in which his agnosticism was fully avowed) had been "written several years ago"—years

¹ Not in "1876," as stated in 'The Life and Letters of George John Romanes,' p. 85—an admirable and most interesting biography.

consequently before the publication or existence of 'Theism.' It was in the interval between the publication of my work and his, between 1877 and 1878, that he wrote the "Supplementary Essay in Reply to a Recent Work on Theism," published in the same volume as 'The Candid Examination.' That essay begins thus : "On perusing my main essay several years after its completion, it occurred to me that another very effectual way of demonstrating the immense difference between the nature of all previous attacks upon the teleological argument and the nature of the present attack would be briefly to review the reasonable objections to which all the attacks were open. Very opportunely a work on Theism has just been published which states these objections with great lucidity, and answers them with much ability. The work to which I allude is by the Rev. Professor Flint ; and as it is characterised by temperate candour in tone and logical care in exposition, I felt on reading it that the work was particularly well suited for displaying the enormous change in the speculative standing of Theism which the foregoing considerations must be rationally deemed to have effected." Those sentences cannot fail to be admitted by every one as proof positive that, whoever may have led Mr Romanes into agnosticism either of an extreme or any other type, it cannot have been the present writer. Did Dr Caldecott read them? I do not know, as there is nothing in his account of Romanes' views to show that he had. It looks as if it were drawn entirely from the 'Thoughts on Religion,' edited by Canon Gore.

In 'Anti-Theistic Theories,' published some months later than 'The Candid Examination,' I took notice of the criticisms of Mr Romanes ("Physicus") on the argu-

mentation in 'Theism.' (See 'Anti-Theistic Theories,' Note III., pp. 450-456.) The note was brief, because I considered myself to have anticipated and refuted in the first four lectures of my second book, or in the notes connected with them, all the objections urged by "Physicus" against the first, the one which he had criticised. Brief, however, as the note referred to was, I distinctly indicated in it how he had, as it seemed to me, misunderstood the nature and bearing of the reasoning which I had employed, and also that there was nothing new in his own explanation of the order of the universe; that he had not done justice to the moral argument; that alike the 'Candid Examination' and the "Supplementary Essay" were vitiated by the anti-scientific notion of "force" and "the persistence of force" which pervaded them; and that, consequently, in adopting the agnosticism which he felt to have robbed him of so much and could promise him so little, he had "become a martyr by mistake." Mr Romanes himself gradually came to the same conclusions.

It is necessary to add that I make no claim to having changed in any degree the views of Mr Romanes. That claim was made for me by an eminent Australian theologian in a Melbourne journal shortly after the publication of "'Thoughts on Religion,' by the late George John Romanes, edited by Charles Gore, Canon of Westminster." The editor was sharply animadverted on for not having recognised what his critic regarded as the real relationship between the present writer's books and that of Romanes. I attach no blame to Dr Gore, and make no claim for myself. I am not even certain that Mr Romanes read 'Anti-Theistic Theories,' although, in the circumstances, it seems likely that he would. I

did not know that "Physicus" was Romanes until a considerable time after the publication of his work. To my great regret I never made his acquaintance. It is a significant fact, however, that before the close even of 1878 he had ceased to be as confident as he was when he published the 'Candid Examination' and "Supplementary Essay" in the leading idea of both. His friend Darwin avowed that he could not see how the idea was to be defended against theological objection, and Romanes replied by acknowledging the mysteriousness of the subject, and saying that he intended to drop it and take the advice of the poet, "Believe it not, reject it not, but wait it out, O Man."¹ He could have taken no wiser resolution at the time. It allowed him to work his way back into the light mainly, as I believe he did, through his own efforts and acquiescence in the divine guidance, although doubtless Aubrey Moore, Charles Gore, and others aided. All that I ask for myself is not to be misrepresented in the way Professor Caldecott has done.

¹ Life and Letters, pp. 88-90.

THE END.