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## ARTICLE II.

## THE CONCEPT OF GOD AS THE GROUND OF PROGRESS.

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ANY wise man, when about to take a journey through remote and obscure regions, will be inclined diligently to consider his preparations, his proposed route, and his desired end in making such a journey. To inquire as to the ground of the world's progress, is to attempt a journey through remote and obscure regions of thought. But the views and reflections already given to the readers of the *Bibliotheca Sacra* will help us to answer the questions, With what preparation, by what route, and with what final purpose the journey is undertaken.

The discussion in the number for January 1877 led us to this conclusion regarding the Origin of the Concept of God : It is the resultant of God's revelation of himself along many lines of his self-revealing force, and within that organon of the self-revelation which is the entire human soul. The reception of truth in general does not depend upon the quality and activities of the intellect alone ; its reception is dependent upon symmetrically cultured manhood, rightly correlated action and balanced capabilities of man's different powers. But in the case of this peculiar and comprehensive concept that is pre-eminently true which Dr. Carpenter avers of certain departments of science : " 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 conclusiveness of any one train of reasoning, but on the convergence of all our lines of thought toward one centre." In proof of this view of the origin of the concept of God, the concept and the soul regarded as its organ of reception were compared. Analysis was made to show how

the various elements of the concept arise in various activities of our complex manhood, and, under the pressure of strong constitutional instinct, desire, and bias, coalesce in the incomparable whole. Thus the whole soul, in all its activities of thought, feeling, and volition, when these activities are rightly correlated and symmetrically cultured, stands pledged to the idea of a self-revealing God.

In a subsequent Article the attempt was made to classify, set forth, and in some slight degree soften, the stern difficulties which attach themselves, as to every concept worthy of the name idea, so also pre-eminently to this pre-eminently great idea of God. Among these were considered the ontological difficulties, which are such as concern the objective validity of the idea. The view was maintained that the prime and indestructible postulates of all human thought—viz. the universe is thinkable, and my thought corresponds to the reality of the thinkable universe—guarantee the objective validity of the idea of God. The claim was set up, that with “the fullest strength of conviction do we reach the objective validity of the concept of God as the conclusion of an indirect proof, when we consider God as the postulate of the world’s evolution.” “The real being of God is required by thought to serve not only as the ground of all phenomena, but as the ground for the orders of phenomena, and for all forms of human science which deal with the various orders. The being of God is the one rational explanation of nature, history, art, and politics; of the unfolding ethical and religious life of man; and of the relations which maintain themselves amongst all these complex interests and forms of growth.” How we do find this idea of God underlying all forms of progress, it was promised should perhaps occupy our thought at another time. To the attempt at redemption of this promise we are come in the present Article.

And now this brief review of thoughts already dwelt upon enables us to answer the three inquiries just proposed. We are setting out upon a brief journey by thought around the rational universe. We wish to consider the phenomena

with a view to discover not what they are of themselves, but what they teach as to the being of their common ground. We start equipped with certain knowledge, fairly won, as to the idea of God and the reality corresponding to the idea. We are ready to inquire whether it be not true, as Trendelenburg declares, that "this unconditioned which supports the verity of the whole, philosophical abstraction calls the Absolute, but faith, more lively, calls it God."

And as to what shall be the route of our journey in thought we can now easily determine. The concept of God is a concept worthy to be called an idea. It is fitted to take up into itself, harmonize, and explain a vast aggregate of otherwise disparate and conflicting phenomena. The modern conception of progress is also one of sufficiently large proportions and promising construction. Our course of thought will lead us to inquire whether the latter must not find in the former its only possible ground and guarantee. The idea of progress must be analyzed, in order that it may be seen whether it do not necessarily break up into elements, every one of which requires for its rational explanation some corresponding element in the idea of a self-revealing God. The facts of progress must be examined, to see whether they do not imperatively demand, as their sole ground in reality, that real One whose reality is postulated in this same idea of God. Moreover, the idea and facts of progress are given to us under several different, but correlated types. We shall do well to see whether we are not warranted in saying that each form of science and life shows its own special progress as somehow grounded in the same idea and reality of God.

But what ends are to be served in following such a course of thought? We strive to serve at least two. We hope to understand the idea and facts of progress better after attempting to understand them as resting upon their ground. We expect, also, to obtain proof, additional to that already offered, for the validity and comprehensiveness of the true idea of God. We start upon our journey already persuaded that God is the ground of the world's progress. We expect

to reach its end with a clearer view of progress. We expect, also, to derive a stronger proof of the being and attributes of God from our consideration of him as the sole rational ground of this progress. Nor is this a vicious circle, in either definition or argument.

That profoundest of all historians of the church, the beloved Neander, begins his great work by placing in its candlestick the idea in the light of which he will read the history. "Our knowledge here," says he, "falls into a necessary circle. To understand history it is supposed that we have some understanding of that which constitutes its working principle; but it is also history which furnishes us the proper test by which to ascertain whether its principle has been rightly apprehended." So when "we read the great world-poem in the idea of God," our knowledge falls into this necessary, but legitimate circle. For, as says Trendelenburg, "Experience and idea demand each the other; and the greatness of the cognition lies in this, that both are mutually interpenetrating."<sup>1</sup> The effort to ground the idea and facts of progress in the idea and reality of God brings us new proof of the truth of the old impression — what a focus for all converging beams of light, what a hearth of all diverging rays of heat, is this same concept of a self-revealing God! We claim the right to use this "necessary circle," over whose whole circumference "experience and idea demand each other." One other right we claim as legitimate and necessary to our argument. This is the right to approach the subject with that "good faith" which, as says a writer on logic, "is the parent of the grand truth of the reason that the world is a systematic whole, — nay, that the universe is such a whole."

Suppose that we analyze this comprehensive idea called progress, and find that its elements are all grounded in the idea of God; it is still possible for scepticism to inquire, What then? and to say, You have resolved one idea into another without showing that either corresponds to any

<sup>1</sup> Untersuchungen, ii. p. 494.

reality. To scepticism the reply must be, that idea corresponds to reality in the case of the present argument, is one of the grandest and most conclusive applications of those same postulates of all observation and reasoning, to which attention has already so frequently been called. We postulate that the universe is thinkable, and that our thought corresponds to the reality of things,—in this, as in every argument. We start out with “good faith” when we go forth to read the great poem of the universe in the idea of God. He who is unsound in his philosophy, and at the same time logical in his deductions from that philosophy, cannot be otherwise than hopelessly sceptical concerning the proofs, cosmological and teleological, which theology has to educe. He only who is enough of a philosopher to avoid the gross credulity of relying upon his intellect for the rejection of intuitions and postulates which lie at the foundation of all its work, is able in appropriate good faith to start upon our journey.

As truly as the idea of progress is grounded in the idea of God, so truly are the facts of progress grounded in the reality of God. For, the orderly movement of the universe forward toward a goal is not merely the subjective scheme or framework in which we, through being deluded, set all the varied phenomena of history and present life; it is a great objective reality as well. The self-revelation of God in the universe involves both subjective process and objective fact. It is not made once for all; it is being made through all time; it is not, and cannot be conceived as being, statical; it is dynamical. So man conceives it; so it really is. That is indeed true of this all-embracing divine institution of the cosmos, which Schmidt has declared true of the believer's holy supper; “divine institutions are not to be conceived as somewhat once for all time made ready.” Legitimate “good faith” in the postulates of all thinking and being enables our observation of phenomena to reach the conclusions that the universe is really moving forward toward a lofty goal, and that God is the one who gives the force, thought, and final

purpose of its movement. The good faith of the sound philosopher, if not the religious faith of the theist, is needed to reach these conclusions.

The progress of the universe is grounded in God. This statement appears true whether we consider the idea and facts in general of progress, or consider the separate special forms into which the universal movement divides itself. The idea of all progress is grounded in the concept of God. The sciences are grounded in the same concept. So that not only is the modern conception of evolution, so far as it has proved itself true, to be considered as a partial expression to the perfected idea of God, but also all the sciences, which are being so diligently cultivated and evolved, are to be looked upon as fragmentary, but correlated, forms of expression to the thought and will of God.

We shall consider, then, first, the idea and fact of progress in general as grounded in the idea and reality of God; and afterward illustrate and enforce what shall have been said, by considering, second, the sciences as grounded in the same idea.

There is no conceivable idea of progress which is not grounded in the idea of God, and there is no reality of progress which is not grounded in the reality of God. For what is this so much discussed idea of progress?

Profound logicians and students of the history of thought lay down the law that all progress in thought consists in a continuous process of synthesis, opposition, and new synthesis. This is the Hegelian process of absolute negativity; somewhat similar is Dr. Newman's principle of the survival of the stronger; both, as Mr. C. E. Appleton assures us are "worthy of attentive and respectful consideration."<sup>1</sup> Men think and affirm; they think farther and deny their first affirmation; they think still farther and, discovering the "soul of truth" in both the former affirmation and its denial, they deny the denial in its first form, and make a new and still higher affirmation.

At this point we might press the inquiry, what one force,

<sup>1</sup> Contemporary Review for Nov. 1876, p. 946.

containing and realizing the guarantee of progress, pushes forward this movement of human thought, this process of reciprocal induction and deduction, this constant synthesis and negation and higher synthesis? But for the present we drop the inquiry, and pass on to ask, what is that special form of affirmation which best sums up the present status of human thought? As nearly all agree, it is the doctrine of evolution. Indeed, this law of progress in thought is itself a fragment of the general doctrine of evolution. In the light of this idea of evolution, the scientists and the thinkers of the world generally are trying to read all the phenomena before them. Even fiction and poetry are illuminated with rays from this great synthesis of the present age. But do the idea of the scientists and the idea of the theists contradict each other? Or must not rather the idea of the former receive its rational explanation and guarantee in the idea of the latter?

Now it is plain to theists that if, in trying to read the world-poem in the idea of evolution, we must, with Mr. Tyndall, discern in atoms, "self-moved" and "self-positing," "the promise and potency of all terrestrial life," or, with Mr. Spencer, must declare, in despair, "the Power which the universe manifests to us is utterly inscrutable," or, with Mr. Arnold, must see in the "not-ourselves which makes for righteousness" only a blind, unconscious drift or tendency; then we cannot make the idea of evolution coalesce in any way with the idea of a self-revealing God. In none of these forms, however, is the doctrine of evolution proved true. It is only in so far as it is not proved true, that the notion of evolution contradicts the concept of God. In so far as it is proved true, it not only illustrates and proves, but is also grounded in, the concept.

Nor have we to inquire whether that very special and restricted form of the general doctrine of evolution, which Mr. Darwin advocates, is compatible with theism or not. For it is not proved true.<sup>1</sup> We have, indeed, the declaration,

<sup>1</sup> We wish to propose with becoming modesty a question concerning Darwin—  
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approaching very near to the fraud of enthusiasm, from Mr. Huxley, that evolution — meaning, I suppose, Darwinism — which was once “a matter of speculation and argument,” has now “become a matter of fact and history.” But on the other hand we have the declaration of Mr. Mivart, that this form of evolution is “a puerile hypothesis,” and also the conclusion which Dr. Elam reaches, that it “has no scientific basis.” We have the confident assertion of some scientists ; we have the cautious dissent or open denial of others. While Darwinism is winning or losing its way, theology is not bound to show its consistency with her tenet of a personal God. But theology is encouraged to find that the very things, known to be true in the general doctrine of evolution, are well adapted to prove God as the ground of all evolution.

In all the universe, so far as it comes under human research, there are abundant evidences of certain lines and kinds of progress. All the phenomena of the physical universe, the higher and yet higher collocation of atoms and forces, the ascending types, genera, and species of animals, the advancing history of the race at large, and the growing kingdom of God on earth, tell us the same wonderful story. They do not tell of evolution without God, but of that progress which has its explanation and ground in God.

And now laying one side the unessentials, and as well all the unproved elements, of this great synthesis of modern

ism which we have seen nowhere satisfactorily handled. Some one of high authority as both physicist and mathematician should attempt the complete treatment of this question. We wish to see the doctrine of chances thoroughly applied to the phenomena of “missing links” and intermediate forms. Darwinism professes to give laws which apply to and explain all the phenomena of life, in the past and in the present. The record of the phenomena is broken. Perhaps in some rough way the proportion which the remaining fragments bear to the whole can be estimated. What is the probability, antecedent to research, that these remaining fragments would show no more of the intermediate forms, which at some time of course existed, than they actually do? The lack of such forms is one which Darwinism sorely feels. What are the chances that the theory can be true and yet feel this lack without some other law or laws needed to account for the very lack itself? In other words, can it be even roughly stated, *what is the antecedent probability that there would be so many missing links?*

thought, let us examine it under the title, Progress of the Universe.

What are the real elements of this idea and its corresponding reality, called Progress of the Universe ?

One element of the idea and fact of progress is the cognition of motion. This is the most patent and superficial element. In the world of material things there must be movement of matter, in masses or in atoms, through space ; there must be new collocations of material substances, in order to any progress. Even the shallowest, rankest materialism, even the thinnest, flimsiest doctrine of evolution, must assume not only "self-positing," but "self-moved" atoms. To inquire what proof for any being beyond and underneath itself would be given in the mere existence, without change, of matter, is to go outside the present inquiry. The cosmological argument which denies the possibility of "self-positing atoms," and asserts the necessity of God as a ground for atoms themselves, is surely not more barren without union with the teleological, than the doctrine of evolution when it postulates matter without also the motion of matter. Nor can we speak of progress in culture, politics, or religion without implying some change in quality of those beings in whose varying culture, politics, and religion the progress consists. The appearance of new qualities and activities, or of new forms to old qualities and activities, we also, by a figure of speech, call motion.

Now, were the mind of man constituted differently, it is conceivable that it should receive without further inquiry the fact of these manifold motions. But thus constituted it could have no sense of the fact or doctrine of progress, could in truth scarcely be called *mind* at all. In contemplating all changes, whether of matter in space or of the manifestations of mind in time, the very nature of thought compels us at once to assert there *is* some cause, at once to inquire, *What is the cause ?* "Self-moved" atoms and a "self-moved" universe are an absurdity to all human thought. For motion and change of every kind, says thought, must have a cause ;

some cause atheistic evolution and theistic philosophy must alike assume or prove. What we reach, however, claims Strauss,<sup>1</sup> is not the conception of a cause of which the cosmos is the effect, but of a substance of which individual cosmical phenomena are but the accidents. We reach, not a deity, but a "self-centred cosmos, unchangeable amidst the eternal change." What is all this but to say that the substance is the cause of the individual phenomena, the self-centred cosmos the cause of all eternal change? But the idea of substance, like that of cause, is an ideal element of evolution. When once an ideal element of whatever sort is introduced to account for the phenomena of change, it is legitimate for us, with Strauss, to inquire, what and of what sort it is. This inquiry cannot be pushed aside by speaking of "self-moved atoms" and a "self-centred cosmos." We still have the two conceptions on our hands: there are the phenomena of motion, and there is the ideal element of their cause. To divide the universe into two parts, one of which is the self-centred cosmos and the other the series of phenomena which constitutes all eternal change, and then posit the former as the cause of the latter under the new relation of substance and accidents, is to make a more rash and illegitimate use of the cosmological argument than theology has been wont to attempt. "Self-moved atoms" are an audacious assumption; so also is a "self-centred cosmos." For even if the universe could be considered at all thus statically, so to speak, in adopting Strauss' view and all similar views, we should only be in reality admitting the same underlying cause in which the universe is grounded, while apparently denying our own admission by an unphilosophical substitution of the word "substance" for the word "cause." And we are sure that the cause of the universe, if by universe we mean the aggregate of all finite substances and all phenomena, cannot be the universe itself, unless in the universe we include something more than finite substance, and all phenomena. For as Ulrici has said,<sup>2</sup> "a universe abiding in its uniformity

<sup>1</sup> The Old Faith and the New, p. 132.

<sup>2</sup> Review of Strauss, p. 89.

amid the eternal shifting of phenomena is a contradiction in the adjective, because that which changes does not remain uniform"; unless, we will add, it is a contradiction in the noun, because the same word universe cannot properly be made to stand both for all the varied effects and for the one cause of them all. To talk of "self-moved atoms" is also but thinly to paste together the two separate conceptions of phenomena of motion and underlying ground or cause of those phenomena.

With the cognition of motion and changes of phenomena there necessarily arises, then, the idea of a ground of the changes of phenomena. This idea of the unchanging cause of all changes, of the abiding ground of shifting phenomena, is one necessary element in the rational conception of God. This idea of "the conditioning, in and of itself, purely as conditioning" (Ulrici), of the "one ultimate cause," of the ground of phenomena, is that which "philosophical abstraction calls the absolute, but faith, more lively, calls it God." Neither philosophy nor faith can escape the necessary idea of the absolute.

We advance, now, another step. The universe, it has already been said, cannot be considered merely as a problem in statics: the universe is a problem in dynamics. The cause which we see manifested in the movements of matter, and in the appearance of new qualities and activities of living and rational beings, must be force. It is not cosmical substance expressing itself in cosmical accidents, but force expressing itself in results.

That force is one element in the idea of evolution need not be proved. It is force alone that evolves, force that causes the motions from inspection of which we reason back to itself. But what shall we say of this new element which the complex idea of modern evolution holds so prominently before us? Is it, or is it not, like the element of cause, one element of the same concept of God? We must certainly say of it that it is an ideal element. It therefore flatly rebukes that "downright repudiation of all the ideal ele-

ments" which atheism and materialism seem so anxious to bring about. Force, as an ideal element, is not to be got out of any mere inspection of material atoms, whether in motion or at rest. Force is got out of the self-conscious and free personality of the inspectors themselves, and is put not *into*, but *behind*, these atoms by the instinctive philosophy of the human soul. Instead of saying, My personality has no freedom, because atoms have force, we say, rather, There is force behind the atoms, because my free personality posits it there. The admission, both intelligent and unintentional, that this element of the idea of evolution is derived from man's own self-conscious use of force is not infrequent, even among the advocates of modern evolution. The admissions in this direction of Du Bois Reymond are quoted by Ulrici against Strauss, by Martineau and Dr. Elam against Tyndall. The latter himself quotes with approbation the same admissions.

It seems that "it is absolutely and forever inconceivable" — even for the fertile brain of the modern scientist — that a number of carbon, hydrogen, nitrogen, and oxygen atoms should be otherwise than indifferent as to their own position and motion, past, present, or future." The force, then, which determines the position of these indifferent atoms cannot be in any case other "self-moved atoms," but must be something unlike atoms. To determine the origin and nature of this idea of a force behind the atoms, we have to go to self-consciousness. We might watch the silent swing of the celestial bodies or the minute and mysterious changes of protoplasmic matter, to all eternity, and never get beyond motion to force, were it not for the self-consciousness of a soul which is itself forced to believe in causation, and which itself exercises, and so demonstrates the existence of, force. While, then, the physicist can only define force superficially, as that something which produces or tends to produce motion, the psychologist looks within himself, and discovers straightway what this something is. It is I who produce or tend to produce the motions of my physical organism; and while

the atoms are utterly indifferent themselves to their position, I, who move them, am not indifferent. I find force in me. I find it nowhere else, except so far as I carry it over from the sphere of my self-conscious being, and place it behind those phenomena which I know I do not produce, those motions for which I know my willing is not the cause.

It is this truth which gives Schopenhauer his ground for affirming will to be the reality of all things. For since we find an unconditioned, in the form of our own free-will, lying underneath, and, in a real, though limited way, giving conditions to the phenomena of the self-conscious life, therefore do we infer that the Unconditioned, in the form of Absolute Will, underlies and gives conditions to all the phenomena of the universe. The man of low culture places a will behind each one or each separate order of the phenomena. He sees proof of gods many and lords many in the experiences of life which he has so loosely concatenated, so little harmonized. The superior culture of science goes forward to the theory of correlated forces. It thinks all the various causes of motion as various forms of that one force which utters itself through them all. Having measured the relations amongst certain of the forces called physical, and having found them constant, it rises upon the wings of faith to the conclusion that they are all so. It lays down, as its great law of forces, the law of conservation and correlation of forces; although, as says Lange, the historian of materialism, in its "strictest and most consequent meaning, it is anything but proved; it is only an ideal of the reason; perhaps, however, indispensable as a goal for all empirical research." But this "ideal of the reason," required by the modern scientific doctrine of evolution, is the very ideal hailed by rational theology in all the ages. We are quite ready to agree with Mr. Spencer in thinking that the force which the universe manifests to us is one. We are also ready to spell it with a capital. And whereas he, under the influence of the modern doctrine of science, writes these many forces into one word,—“Power,”—we, under the influence of the old doctrine of theology,

and in accordance not only with the same doctrine of science, but also with the true philosophy of mind, write the same forces into one word—Will. We thus ground another element of the idea of evolution in the idea of God.

At this point many of those who do not believe in a Personal Absolute begin to draw backward. To speak of Will, instead of Power, is quite too much for them. Spencer and Tyndall and Huxley remain, we conclude, somewhat behind even this point. They occupy themselves with an "inscrutable Power," or with "self-moved and self-positing atoms," or with "subtile influences," or with "that mysterious thing by which all this has been accomplished." We may be certain, then, that they will go no farther on. The German pessimist comes fairly up to this point, but refuses to take the next step. Strauss, however, after reproaching Schopenhauer for his inconsistency, joins hands with Plato and Hegel, and pushes boldly forward. This power, which these other advocates of evolution are willing to leave inscrutable, Strauss declares "is by no means merely a rude power to which we bow in mute resignation, but is at the same time both order and law, reason and goodness, to which we surrender ourselves in loving trust."<sup>1</sup> There is, then, also thought manifested in evolution, according to Strauss's view of the universe. But the admissions of Strauss are by no means such as the advocates of scientific evolution wish to abide by. For who does not see that the strong ethical nature and crude materialism and shallow philosophy of this author make his attempt to account for the universe but an unmixed mess of pottage, alike bitter for all palates. Yet we should be glad to be informed by those who best understand the modern doctrine of scientific evolution, how they are going to eliminate the element of thought from the idea and facts of progress. For surely the movements of these atoms and living souls which make up the universe are such as to involve very complicated relations. Evolution implies not force alone, but force rationally used; with what amazing rationality we understand all the better, the better we understand the doctrine of evolution.

<sup>1</sup> The Old Faith and the New, p. 164.

Place a thinking being like man in the midst of the homogeneous cosmic vapor with which evolution begins ; and on the first appearance of change in his surroundings, that thinking being would postulate a cause. But let appearances of changes continue, and so correlate themselves before him as to become orderly changes, and then the thinking being would postulate thought beside his former postulate of a cause. Neither extension of the time nor of the space occupied by the universe will relieve the mind from the pressure of this problem of universal thought.

But, not to go back to cosmic gas and inquire how an original or acquired difference in the qualities of the sixty-three simples of chemistry could exist without thought, we may begin much nearer ourselves. For, if we examine that restricted form of evolution known as Darwinism, — which surely has a minimum of rationality admitted into itself, — how, nevertheless, without implying thought as an element, shall we analyze even it? The laws of heredity and specific variation and survival of the fittest — all imply thought. They imply an orderly interaction of forces, a concatenation of causes, which speaks to our reason, and speaks of a reason not ourselves.

Indeed, we start with thought, we use thought in research, we find thought, we come back to thought, everywhere. Were not the universe cast, as to every lineament of it, in the mould of thought, we could not speak of a universe at all. It is the reason stamped everywhere which makes men reason back to the universal Thinker. It is the cosmos which is to blame, if blame there be, for these so numerous arguments of natural theology. To refuse to ride upon them as “poor old dead horses” is altogether to refuse to go toward the solution of the problem of the universe. Upon what shall we ride out into the universe, if not upon the wings of the rational absolute? The conception of an orderly whole (*raisonnée*) underlies all rational knowledge, and especially, therefore, that great conclusion upon which all the modern forms of knowledge are supposed to bring to a



focus their special rays of light. Atoms "self-moved and self-positèd" require to be supplemented with a something else which moves them and marshals them into rational shapes and along rational lines of direction.

Shall we, however, place this something else, as the materialist places all original position and subsequent motion of atoms, in the atom itself? This will only be to attribute co-operative thought to each atom. In consideration of that love of unity which dominates the modern idea of evolution, it would seem scientifically preferable to have one Thinking Absolute, rather than countless co-ordinate thinking atoms. We need not, however, fall back upon the absurdity of thinking atoms. Science assures us that it is forever inconceivable that these atoms should be otherwise than indifferent to their own motions. That something else, then, which is of the nature of thought, must be placed elsewhere than in the atoms. Where shall we place it?

When man builds his temple or theatre or ship, we place the thought which we see rendered objective in temple, theatre, or ship within the thinking man. When the bee builds the cell, we are perhaps doubtful whether we shall place the thought which becomes objective in the cell within the bee or not; whether, also, we shall call the bee gifted with thought or instinct. When we see the crystal shaping itself mathematically, and so putting thought into objective expression, within what or whom shall we place the thought thus expressed? And when we press on to inquire whose thought correlates bee to cell, and both to the human mind, man to his edifice, and both to the thought of his fellow-man; and correlates all men and all animals and all crystals into one grand progressive scheme of materials, forces, and laws — what answer shall philosophy bring back? Shall she remain dumb? Shall she be ashamed at being deemed overmuch pious? Can she bring back a better answer than to place this thought in one thinking being, and so join thought to will as another element of the idea of evolution, found by analysis to have its ground in the idea of God?

Thought is as surely a necessary element of progress as is force ; for progress implies not mere motion, but co-ordinated and rational motion. In the progress of the universe we are compelled to see thought giving conditions to the process of evolution. Thought as an element of the idea of progress is therefore grounded in thought as an element of the idea of God ; for it is just such thought as gives conditions to all this process which we call evolution, that theology and philosophy know under the name of the Thinking Absolute, who is God. He, then, who talks of evolution, and recognizes in it no Universal Reason does but overlook the very source "from which he derives the spark of reason which he misuses."

And to thought let us add final purpose, as another element in regard to which the idea of progress grounds itself in the idea of God. At this point even the accommodating Strauss begs leave to separate from us. And Matthew Arnold, although he makes his contribution to the great modern idea of evolution under the term of a "not-ourselves which makes for righteousness," shrinks back from the personality of final purpose. The German would have us think of a universe which is planned "not by a Supreme Reason, but planned [by whom?] on supreme reason"; the Englishman would have us think of a blind drift or tendency, which, nevertheless, makes for the noble goal of righteousness. But is not this only to talk of the reality under other and misleading terms? After all explanations as to how the universe can be "planned on reason" without a rational final purpose, and how a Power can be said to "make for righteousness," without the assumption of a self-consciously followed goal — we are still in the dark. We still cannot see how there can be any evolution, either in idea or in fact, without the idea and the fact of a goal and a final purpose. Should this our inability be charged to weakness or ignorance, we are desirous of good company. We, therefore, return the charge in words partly borrowed from Ulrici.<sup>1</sup> The fact that

<sup>1</sup> Review of Strauss, p. 101 f.

such thinkers do not see their self-contradiction in imposing on blind, unconscious, unthinking necessity, the adjustment of a development of a higher something out of a lower, is due to the superficiality and lack of thought which seem to cleave inevitably to every form of materialism. But how shall we apply such language to Mr. Arnold who has so nobly espoused the cause of that Zeit-Geist which plays so important a part in Literature and Dogma? Only because he will not allow his Geist to remain spirit; only because he will try to do with blind unconscious necessity the work which must be attributed to the Spirit of all times, to the Personal Absolute.

But Strauss and Matthew Arnold are not scientists. Will not, then, some one of the clearest and most learned writers on scientific evolution tell us how even the idea of evolution can be entertained without implying a final purpose and a goal? To make merry over special mistakes of theologians in inferring this or that special purpose, is the easy, but quite unsatisfactory reply. Teleological instinct and work may go awry, as every other instinct and work, with scientists as well as theologians. But what sort of development is that which expresses no idea of final purpose and moves forward toward no goal? Evolution, as we have already seen, necessarily implies not only motion, but orderly motion, not only force and cause, but correlated forces and co-ordinated causes. It implies, however, more than this. It implies movement forward from that which is comparatively crude to that which is comparatively perfect, from the inferior to that which is regarded as better. For even if we hold the view that each stage of the process is equally good in its place, and try to confine our thought to the nature of the process itself, we have not escaped the ideas of a goal and a final purpose. The words higher and lower, progress and retrogradation, fit and unfit, will inevitably creep into any discussion of the doctrine of evolution. These words all imply a goal to be reached, a final purpose to be attained.

Let us consider that questions after the final purpose of the whole, and of each part of the whole, are questions which

the mind must keep asking until it receives an answer. The philosophic instinct and habit of man requires him to ask for what, as surely and persistently as he asks whence and how. No amount of mistaking and of rebuffs for mistaking can repress this inquiry.

Let us consider, also, that the existence of final purpose in the universe is a fact than which no other is more patent and convincing. It is the fact implied in all forms of research. For whatever new views of efficient causes may be given us by the discoveries of modern science, they only open manifold new and more remarkable relations of the same ancient question: To what final purpose do the efficient causes thus combine? If the continuous adjustment of organism and environment tells us how the preservation of life is secured, we have still to ask, For what end is the preservation of life thus secured? If the theory of the survival of the fittest proves itself true, we still inquire, Fittest for what? And if the reply be made, Fittest to survive, of course; we inquire again, Is it meant simply to affirm that what survives does survive, or rather that what is adapted to survive does survive? If the former, the great theory furnishes no information; if the latter, the questions still presses upon us, What is meant by adapted? For what end is the existing adaptation? For what end the survival of some rather than others?

When, however, these efficient causes of modern science are regarded not simply as combining in certain proportions to fashion certain fragments of being, but as combining all of them in all their scope to produce that total scheme of a progressive universe which evolution teaches, then the inquiry into final cause reaches its grandest possible proportions. The doctrine of evolution introduces us in each of its minutest problems to the doctrine of final causes; but in its total compass it brings before us that final cause which dominates all the others, and which furnishes no less than the goal of the universe itself. "The teleological proof," says Trendelenburg," shows the harmony of the conditioned through the purpose which rules the world." This purpose which

rules the world, and which is admitted, though often so tardily, by all theories of evolution, is another element in which the great modern synthesis grounds itself in the concept of God.

And having once admitted the idea of a final purpose which rules the world, we are helped in the effort to read all the steps of the progress in the light of their goal. The various instances of final cause which we find in these steps we must account for by placing them in some being who is capable of acting as final cause. With much of the development of man we seem to have no difficulty. It is man's final purpose which makes him serve to furnish, not only the efficient, but also the final, cause of so much of his own development. But when Galvani discovers galvanism, and Columbus discovers America, each without having the end attained in view, we question further as to whose final purpose is served in such discoveries. And when we see what we are pleased to call instinct, working such wonders, so as to spin the spider's web and build the cell of the bee and paint the shell of the mollusk, we are invited to put the final cause of all these activities in the same place of rest where we find the goal of the universe. Indeed the only satisfying answer to teleological inquiry in the case of these fragments of the whole comes from considering them as accounted for in their relations as fragments to the whole. The greatest uncertainty attaches itself to the most special of the final causes when we attempt to interpret them away from the light of the plan of the whole.

We find, then, that final causes ground themselves where efficient causes do, and that the point of union for both is in the thought and will of God.

And we are warranted in going beyond the bare assertion of the fact of all-prevalent final cause amidst efficient causes. Says a writer on logic, "Wherever it exists the final cause is the real cause. In nature, in life, and in history, this is the working power; this sums up all parts of the process in itself, and the beginning finds its real existence in the end

or in the process which leads to the end." It is the idea of the goal which dominates the entire view of the journey. If the end of progress, judged by ethical and spiritual standards, is a lofty one, then ethical and spiritual forces will be paramount in the account rendered of the process. There is no element, then, in the idea of development, upon which theism seizes with more eagerness, and which it grounds with more confidence in the idea of God, than this element which is contributed by viewing the world as a whole moving forward to a grand and lofty goal.

After we have once seen how the idea of the progress of the universe discloses itself as grounded in the idea of a will guided by thought and final purpose, it is in vain for the advocates of evolution to try to draw us back into uncertain talk about "drifts" and "tendencies" and "unconscious" or "subtile influences" and "inscrutable power" and the "mysterious something by which all this has been accomplished." We have found the something by which all this has been and is accomplished, in the will and thought and final purpose of an absolute being not ourselves.

It remains only to ask whether the accepted idea of evolution has any element in it which can answer the question, What is this dominating final purpose which the thought and will found in the universe are carrying out? To this question scientific evolution is nearly dumb,—nearly, but not quite; for materialistic scientists, like Christians, walk largely by faith, rather than by sight. They, too, feel "urged to cross the boundary," and lay down postulates as to the remote past and the remote future. For after thinking man has done the utmost that lies in him to put out of sight the ideal elements of his being, he will still of necessity look both before and behind. Looking both ways, the disciple of evolution without God discerns that there has been movement from what is worse to what is better, and believes that this movement will continue in time to come. How such discernment and belief are to be justified when once the ideal elements are left out of the problem, it is vain to inquire.

Without these, homogeneous cosmic gas must be judged to be as worthy of admiration as the perfected kingdom of God, and the movements of the protogenes of Haeckel as the holiness of Christ. Still, however illogically, the faith in a progressive conquest of the world by whatever is noblest, purest, and best, is apt to maintain its place even in the most rankly materialistic scheme of evolution. Modern evolution, then, in the most restricted and low-lived form, is not quite dumb as to the goal of the universe.

But when we take this modern synthesis, and examine by it the sciences of history, ethics, aesthetics, politics, and comparative religion, we hear voices more clear and consensaneous. They speak to a faith that is in man before the proofs of evolution come, and they bring back from all the phenomena new increments of proof to the faith. Theology uses this faith and accepts these proofs to make and to maintain its fundamental thesis, viz. that absolute goodness must be. It says to the other sciences, as you have both postulated and proved absolute will, absolute thought, absolute final purpose, so now I, with your help, and yet in no servile dependence upon you, make and prove my postulate. To be sure I have difficulties with this postulate, just as you have with yours. But without it I can neither read the universe nor satisfy the soul of man.

Ultimate cause, which is absolute will, thought, and final purpose,— absolute because conditioning all the phenomena ; perfect love,—if only the word be understood loftily and comprehensively enough,— these are the ideas of a personal God ; and in them we find grounded all the ideal elements of the doctrine of a progress of the universe.

Nor, to come back to the postulate of "good faith" with which we started out, does this analysis lead us only to an ideal scheme or form of thought, according to which, hedged in by illusions, man is forced to construct the phantom of a universe. We speak of things, as well as thoughts, when we speak of evolution ; we argue back not to an idea simply, but also to a reality, when we ground evolution in God.

For the validity of the argument and for the objective reality corresponding to its terms we have pledged those same postulates which accompany all human thought—the universe is thinkable, and my thought corresponds to the reality of things. All the facts and phenomena and laws of the universe are seen, the scientists claim, in their reality and true connection when seen by the synthesis of evolution; they are seen, then, in their truest connection, in their deepest reality of meaning, when seen as parts contributing to the complete idea of God.

For the phenomena of the universe some idea, some systematizing conception, is needed; such an idea is that of God. We must ground the doctrine which offers itself as the best synthesis of the phenomena in some reality; such a reality is the Divine Being. Progress, then, is not merely human and subjective; it is the objective fact of universal history, the divine law of self-revelation. “The unfought is the unfelt”: God makes himself felt by revealing himself as in a struggle toward a purpose, as in a race toward a goal. These are conclusions from our consideration of the idea of progress as grounded in the idea of God.

Our plan leads us, in the second place, to enforce and illustrate what has already been said, by considering some of the sciences as grounded in the same idea. All the sciences of man are fragmentary, but correlated, forms of the self-revelation of God. In each of them, when discovering, or otherwise receiving truth, the wise man is bound to cry out, “I read thy thoughts, O God.” With each one of them we do not doubt that thorough analysis is competent to show how the elements of the basis upon which each rests have to be considered as themselves resting upon the idea of a thinking, willing, loving Absolute, whom faith calls God. This work of analysis belongs to those writers who undertake to treat of the philosophy of all the sciences, and of those special forms of philosophic laws, ideas, and truths which underlie each special science. Such analysis teaches us to see in the divine One not only the “great geometer,” but



also the great chemist, botanist, biologist, statesman, poet, and inspirer of morals and religion. All human knowledge and all human life are painted into the great chiaro-oscuro, in which blend the light and shadow of that natural which is grounded in the supernatural, of that supernatural which is revealed in the natural. "My Father worketh hitherto"; "In him we live and move and have our being." All the unwitting wisdom of those who recognize not God goes to proclaim these truths, and all their attempted contradiction of these truths is patent folly.

To understand and set forth this universal interpenetration of being and thought, of natural and supernatural, no other one is so well fitted as he who takes high rank both as physicist and metaphysician. To go to those who have substituted "metempryrics" for metaphysics, or have resolved the universe into intelligible phenomena and unknowable something else, for the true meaning and scope of even their own sciences, is to go sadly astray. It is to thinkers like Trendelenburg and Lotze and Ulrici, who find the absolute in the phenomena, and read the phenomena in the light of the absolute, that we are to go for the truest views of even the so-called physical sciences. All the forms of human science — the ologies of men — exhibit themselves as correlated phases in revelation of the one Thinker whose thought expressed (*λόγος*) is the underlying basis of them all. All the sciences, in so far as they are themselves progressive, and give us knowledge of the various lines along which the total progress of the universe has been made, have their explanation in God, the one patron, teacher, and inspirer of human thought.

These statements are, of course, quite the opposite of the view which many scientists are wont to take of the material and mission of their special sciences. Their view, however, is what we have to expect from the attempt to get rid of metaphysics by substituting, under the term science, a bad for a trustworthy metaphysics. For it is in that basis of their special sciences with which metaphysics deals, that the truth I am advocating is clearly discernable.

It is the philosophy of science, and it is the philosophical elements of each of the special sciences, which introduce us to the idea of God. The relation of the special sciences to each other and to their common ground is admirably, yet briefly, given by Trendelenburg in the first chapter of his *Logische Untersuchungen*. "The special sciences conduct beyond themselves. In their effort to attain self-sufficiency they seek to confine themselves to an independent domain, but they are compelled once more to open their barriers, because it becomes evident that they contain within themselves blind presuppositions, unexamined fundamental concepts, assumed principles, unexplained elements. . . . The sciences include the thought of a whole of which they themselves are only a part, and they are desirous of forming themselves into a unity of thought as this whole. . . . Out of this necessary striving and counter-striving springs philosophy, which . . . may be called the science of the idea." Philosophy divides itself into metaphysics and logic, according as the universal object or the universal method is made the subject of philosophical research. But "every science has its own metaphysical problem, and it is the business of its metaphysics to exhibit the particular connection of its object (as a special science) with being as such." "The metaphysics of mathematics, the metaphysics of the sciences of nature, the metaphysics of ethics, exhibit different sides, or different ramifications of that one form of reflection which is directed to ultimate principles." So also "every science contains a special procedure through which it brings its subject, and finally, the ground of its subject, into the possession of the soul." We can speak, therefore, of the "particular methods of special sciences, of the logic of mathematics, the logic of the sciences of nature, the logic of jurisprudence."

From this view of the connection of the sciences with philosophy in its two forms of metaphysics and logic, we derive the following considerations appropriate to our theme.

We see over what ground the strife between atheistic science and theology must inevitably be waged. So long as

the special sciences confine themselves to the phenomena which they have fenced off from the universe of phenomena, no valid conflict with theology arises ; nor further, so long as they confine themselves to the inter-relations of the phenomena of the different sciences. But when they undertake to lay hands — as the philosophic impulse urges them to do — upon the problems of metaphysics and logic which underlie them all, they find that they have grasped at the same object with which theology undertakes to deal. The problem is, in some form or other, the problem of the absolute, that is, of the necessary ground which underlies the phenomena ; the object is some side of that many-sided “Absolute, which faith calls God.”

In some appreciation of this truth must we place the effort of Herbert Spencer in his *First Principles* to reconcile science and religion upon the basis of an abstract proposition. Upon that basis where being and thought meet in the necessary of both, the reconciliation of the sciences with theology must indeed be found ; for in the region of that basis originates the strife to be reconciled. No proposition, however, of an “inscrutable power” can be the desired reconciliation. For theology is bound by its primal obligation of fidelity to its mission, to investigate and exhibit to thought the various forms in which, besides that of one force, the underlying ground of the universe becomes scrutable. The proposed reconciliation is an attempt to annihilate theology.

We derive proof of this truth, that the philosophical basis of the sciences is also the sphere in which theology is obliged to move, from the close relations in which philosophy and religion have always stood. The oldest philosophies are either avowedly or unwittingly religious ; the thinkers on religion are never able to keep out of the sphere of philosophy. It is not without significance that Comte ushers in his age of positivism after having banished both the age theological and the age metaphysical. But science, in the sense in which positivism is fond of using the word, is about as sure to be always at war with speculative theology, as avowed philoso-

phy is sure to be its professed friend. For, this sort of science begins by denying to both philosophy and theology a valid existence; it then proceeds to substitute for such philosophy and theology as have been tested and cultivated by minds trained to their work, a certain novel something under the name of science, which, however, is neither science, philosophy, nor theology. Genuine science, however, can never begin to seek about for her own ground of standing, her rights and significance, without becoming both philosophical and theological. With true science, true theology can have no quarrel; with science falsely so-called, and usurping jurisdiction without payment of the price of possession, she can have no truce. Were man only a scientific animal, — if, indeed, we can restrict the adjective enough to make it comport with the noun, — the case might be different. But as the case is, formal and polemical theology may accept the invitation, or insulting demand, to withdraw itself from considering the ground of necessary being and thought which underlies the sciences; theology true to her mission — NEVER. *Theology will never cease the attempt to be completely rational.* She will have more to feed her devotees upon than the few crumbs of knowledge floating about in the thin soup of sentiment, which atheistic science, with disdainful courtesy, hands over to her. She will have all that the sciences have, and also dominate and mould it all. *In all the widest possible growth of the special sciences she will be scientia scientiarum still.*

This view of the connection of the sciences with philosophy also shows us what is the legitimate ground for the scepticism of science. Each science is bound by the law of its own being to inquire not only into the phenomena and concatenations of phenomena which constitute its own facts and laws, and into its own phenomenal relations with the other sciences, but also to inquire into the special metaphysical ground and logical method which belong to itself. In making the former inquiry the scientist remains a scientist; and the inquiry remains scientific inquiry, in the restricted

meaning of these words. In making the latter inquiry the investigator ceases to be a scientist, and becomes a would-be philosopher, and the inquiry becomes a philosophical inquiry. But when the same investigator presses on to inquire into the nature of that common ground which underlies, and of that common thought which gives method to, all the sciences, he treads at once upon the special domain of the student of philosophy and philosophical theology. He is not to be warned off or shot for poaching. He is to be reminded that he is now become a professed philosopher and philosophical theologian. Sceptical theology and shallow metaphysics from a mind untrained in theology and metaphysics is not necessarily the highest form of human knowledge, though it bear the pseudonym of science. Mr. Tyndall, this side the boundary, is, doubtless, a good scientist; let him be as sceptical as he will in regard to the subjects and method of his own science. But we almost always have trouble with Mr. Tyndall when he "crosses the boundary." Mr. Tyndall across the boundary is a very indifferent philosopher and theologian.

Philosophy, in its two forms of metaphysics and logic, seeks out the necessary in being and thought, and finds the source and explanation of this interpenetration of being and thought in the great idea of God. God is the Personal Absolute; inasmuch as he is the Absolute, he is the ground and explanation of all being, for such is the very conception introduced by philosophical theology under the term absolute; inasmuch as he is also a Person, he is the ground and explanation of all thought; inasmuch, finally, as he is the Personal Absolute, all interpenetrating thought and being find in him their common explanation and ground.

Let us consider in a more special manner how logic, looked upon as disclosing the method of universal thought, is grounded in the idea of God. Logic deals with that form in manifestation of the one Absolute which is given to us in the unity of thought. Neither a merely formal logic, — like so much of Sir William Hamilton's Lectures, — nor the best

work of positivism — as for instance, the last edition of John Stuart Mill, — exhibits clearly the real grounds and process of thought. Thought, considered as the weaving of syllogisms, the correspondence of whose contents to the reality of the universe is a matter of indifference, or the reality of whose correspondence to the universe is merely phenomenal, does not disclose its own foundation. It would be difficult, indeed, to treat philosophically such systems of logic. But the claims of realistic logic are of remote antiquity and well sustained. It is not without significance that the six alleged systems of Hindoo logic all contain something of both metaphysics and ethics, and all have for their highest object the solution of the problem of existence. To the philosophy of Hegel the process of thought and the universe of real being are identical.

For, logic postulates a universe which is fashioned in the forms of thought, and which therefore, bears in itself the proof of thought in the absolute which is its ground. Its very existence is based upon its good faith in the universality and unity of this expression to the thought of God, which is made to us in the works of his hands. Logic does not deal with any of the phenomena merely as isolated phenomena afloat and groundless amidst countless millions of unrelated phenomena; it deals with them as really related, and so capable of being joined into concepts of individuals, genera, classes, and orders; all of which, in its good faith it assumes, correspond to the reality of things. It seeks, and finds, and contemplates, in the universe a real unity of thought; because it goes forth in the faith that this unity is there. Thus does its postulate teach us to discern

“ A motion and a spirit that impels  
All thinking things, all objects of all thought,  
And rolls through all things.”

Thus is a universal reason expressing itself in the universal order brought before the soul.

This universal reason logic also reaches in its criticism of the necessary forms of all human thought. For it postulates

not only a universe which may be thought, but also the validity of human thought. Our reason is thus seen to be, not a somewhat which we have given ourselves or hold by personal and exclusive ownership, but the image and revelation within us of this universal reason. It is not strange that Sir William Hamilton has to point out the error of supposing that Kant and Aristotle were serving the same end in their categories, when the former made "an analysis of mind in its unity" and the latter "a synthesis of things in their multiplicity." The analysis and the synthesis disclose, the one on its subjective side and the other on its objective side, the same process. A unity of absolute thought and being — in these elements of the idea of God do the twin sciences of metaphysics and logic ground themselves.

Realistic logic, however, helps us to other ideas of the reason than this one of absolute truth and absolute thought. Absolute goodness and absolute beauty are discovered to be ideals revealed in all the work of the reason. These three it unites in one source of all which is true and beautiful and good, who is the Absolute One, even our Father and God.

It will, doubtless, seem not a little fanciful to some readers, if I call attention to the fact that the categories of the understanding, the formation of the concept and the process of reasoning, have all of them something to teach us concerning their ground in absolute truth, beauty, and goodness. But human thought is no more stationary than the universe of physical substances and forces. Human thought moves forward toward a goal. There is a great world-process of ratiocination, in which mankind rises from synthesis to synthesis toward an ever fuller comprehension of absolute truth. The present theory of evolution is one synthesis in this world-process. It is the effort in thought of the present race of men to see themselves and their surroundings as they appear to absolute thought in their movement forward toward a goal. As one thinker in the use of his faculties moves forward in thought from the individual to the universal, so the race in this great process of thought.

The proposal to account without God for the progress of the race in thought is a proposal to tear up by the roots all that is most deep-set in the past. Grandeur by far, and more conclusive than any evolution of material organisms into higher forms of life, is this progressive uplifting of the world of human thought. Who but the absolutely good and beautiful and true One can be its ground? Who but God weaves the various little threads of thought, spun by the workmen of the passing hour, into the strong encompassing web which encloses and holds up each advancing generation of thinking men? Surely we do need a wonderful *Zeit-Geist* to weave this so wondrous web. We can agree with Matthew Arnold when he writes: "Thought and science follow their own law of development, . . . their ripeness and unripeness, as Dr. Newman most truly says, are not an effect of our wishing and resolving; rather do they seem brought about by a power such as Goethe figures by the *Zeit-Geist* or Time-Spirit, and St. Paul describes as a divine power *revealing* additions to what we possess already." Yes, surely — the process of developing human thought is the work of the spirit of all times, of the Eternal Spirit, revealing *his* thought to and in the world of thinking souls. But is it anything less absurd than to talk of "wooden iron" (to use the figure of Ulrici), when we affect to deprive this Eternal Spirit of all the qualities revealed in the process of thought, — yes, of all spirituality itself?

The process of thought objectified in the universe, the process of thought as it goes on in the various generations and races of thinking man, and the correspondence of the two, constitute the chief contributions which realistic logic has to make to him who, in its elements and truths, would study the self-revelation of God.

The philosophical elements — if I may so call them — of the idea of God are those in which, for the most part, philosophy, in its two divisions of metaphysics and logic, has its ground. In this part of our discussion the more practical elements and the elements of the heart remain comparatively



in the background. Yet they are not wholly out of sight. For, as we have already seen, logic shows us the universal reason, giving conditions and law to aesthetics through the idea of absolute beauty, and to ethics through the idea of absolute goodness. Philosophical theology has always been wont to look upon God as the Thinking Absolute; it always needs to have the emotional and practical elements of his true complete idea supplied from their own most fruitful sources. Left alone it has always tended toward pantheism. Expressions are found in the writings of Paul which considered apart would be pantheistic; nor is it easy for any thinker to drive his steeds of thought near to the central glory of absolute being without incurring risk of a fall into the dark and bottomless sea of pantheism.

The philosophical study of certain other sciences tends to supplement and symmetrize this otherwise restricted idea of God. Yet all philosophical study of theology has to guard itself against the excess of the pantheistic tendency. On the other hand it is certain that the true considerations of fact and principle which pantheism has to present, must have their place in forming every true and exalted conception of God. And just what is their place it belongs to philosophical theology to investigate and determine. How the philosophy of the pure sciences leads us to the vision of the Thinking Absolute, we cannot now take time in detail to inquire. In the metaphysics and logic of mathematics the postulates of all thought reach their highest certainty of expression. This height of certainty is due largely to the fact that the objects of thought dealt with in mathematics admit of such speedy and direct inspection. He who breaks faith with these postulates will find no proofs of the thought of the Absolute Thinker in the certainties of mathematics. He will not feel himself able to trace in the theorems of geometry the thought of the "great geometer." But he who consciously keeps faith with the postulates will find in all the truths of mathematics glimpses, impressions, demonstrations, which will reveal themselves as grounded in that absolute truth which is the thought of God.

How the so-called sciences of nature have their ground in God has already been indicated. They all have to deal with that will and thought and final purpose which give the cause and explanation of the world's progress. Of will, thought, and final purpose, and so of these elements in the idea of God, they can never rid themselves. In vain do the scientists prepare their cosmic vacuum, and then proceed with extremest caution to let into it the one cosmic vapor and the one or two forces with which alone the cosmos is to be built up. Their work is no sooner supposed complete, than the rush of mighty wings is heard; and into the vacuum force their way, borne upon the backs of Mr. Arnold's Pegasi, a troop of divine entities, called "force" and "ultimate existence" and "ultimate cause" and "subtile influences" and "goal of the universe,"—in brief, the whole mysterious something by which all this has been accomplished. Thus we have gods many and lords many, instead of the one Lord God, who is over all, in all, and works through all.

The sciences of history, aesthetics, and politics, have their philosophical basis in the idea and reality of God. How absurd it is to suppose possible a science of history without the work of the Eternal Spirit who weaves the web of history, how the history of religion as it is given to us through the researches of comparative theology reveals God, and how far the historic element enters into the formation of that special type of the idea of God which is held by each individual, nation, and age; we may, perhaps, in the future find courage in some measure to investigate. Considerations like these are scarcely to be introduced, as illustrative material, into the present Article.

We conclude it with a brief consideration of the general truth that the ground of all the sciences is the idea and reality of God, as this truth is illustrated in the case of the two special sciences of psychology and ethics.

Psychology has its philosophical basis in the idea and reality of God; for God is the Author and Inspirer of the human soul, and in the human soul, as his organ, he reveals himself.

If psychology were simply one of the sciences of nature, it would still be grounded in those elements of the idea of God in which, as I have already pointed out, all the sciences have their ground. But since it is the science of the rational and free human spirit, it discloses other and more strictly personal qualities and relations of the Divine Spirit. In the case of psychology, as in that of every other science, it is by examining its philosophical basis that we discover how it has its ground in the idea of God.

That part which the logical and metaphysical faculties of man bear in determining his conception of God, has already been sufficiently treated, either by suggestion or directly, in this and the preceding Articles. Man as a philosopher has difficulties with the concept of God; as a philosopher he finds, however, all progress and being grounded in God. The process of thought leads us to the postulate of a thinking being, who is at once the ground of the process and of that thinkable universe which supplies the process with its material.

But thought is not the whole of man, and psychology is not simply the science of the human soul as rational. Man has feeling, and exercises will; psychology is also the science of the human soul as possessed of appetites, instincts, desires, and emotions, and as making choices. And if psychology include, as it should, the science of the pneuma, it deals with man as possessed, not only of ideas, but also of emotions, which go out toward and take hold upon God. The metaphysics and logic of human feeling lead us to the idea of God.

The science of human feeling can scarcely be said to show much development; perhaps both from the difficulty of making inspection in this direction, and because a sort of unworthy shamefacedness in thinkers has created the impression that human feeling is not worthy of scientific and philosophical research. Especially has the study of the religious emotions been neglected; as though their exercise without their inspection also were enough for the best growth

of man. But we need to know what and of what sort are the so-called religious emotions more than we need to find a "legitimate satisfaction" for them; and this latter need a leading scientist has declared to furnish the "problem of problems of our day."

The constitutional forms and laws of human feeling are not self-originated; they are such as could have been bestowed only by one who has revealed himself in them. Man instinctively concludes that the movements of his finite spirit in feeling, so far as they are considered in their necessary and constitutional features, tell him of an Infinite Spirit that "rolls through all things."

In so far, then, as psychology can furnish the required harmony of principle which should exist between the human soul and its surroundings, and so can show both as answering each to the other, and together witnessing for God, it will satisfy the demands of philosophical research into its domain. That narrow mental science which gives no adequate account of the human soul, and denies the philosophy of psychology a right to existence, has of course no affinities with theology. But the fuller and richer psychology which the phenomena demand, finds in the necessary of the phenomena a proof that the soul has its ground in God.

Blind appetite, instinct, and desire are of themselves in man essentially what they are in the other animals—the push of force not ourselves toward a goal which we but dimly recognize. The disorder, the chaos, of these different impacts of outlying force through inward aptitude for its reception, distinguishes the human soul in painful way from the cosmos in which it is set. But the science of psychology introduces us to suggestions, if not to the established law, of an order amidst this seeming chaos: it gives us glimpses of a goal toward which the complex of different feelings seems to tend. It thus discloses in the construction of the soul a reason and a final purpose not our own, but belonging to him who has set us in the midst of this play of forces. And when ethics comes to the help of psychology, then both rise

to the height of finding their common ground in that Eternal Spirit, who not only gives, but gives laws to, the human spirit.

Nor can psychology contemplate man as possessed of free-will without becoming ethical in its language and conclusions. Only when it finds in the free self-hood, purposing to do right, a power which is fitted to give conditions and law to all the rest of the soul, can psychology discover what is the order and final purpose of its own subject of research. Only by becoming ethical can it know what is the supreme law and idea which enables it as a science to classify its phenomena. There could be no science of psychology were not man, like God, a moral being.

Research into the phenomena of the soul shows that their law of arrangement and control is given to them in the moral faculties. Only when we touch conscience and duty, and get down in research to the philosophy of the ought, do we begin to be in a position to render a philosophical account of the human soul. As vain as to attempt to understand the solar system without gravitation and light, so vain is it to attempt the problem of the soul without recognizing the underived and dominant nature of moral faculties. Ethics gives the key to man's nature into the hands of psychology. The law of duty brings order out of confusion in the phenomena of human feeling and willing.

The science of ethics is pre-eminently fitted and obligated to show us the true idea of God. It sets up the ideal standard of the ought. With an awful voice of warning, or a plea of sweet persuasiveness, it summons every thought and feeling to rally in order around its standard. Then there breaks in upon the continuity of all lower forces — mechanical, chemical, vital, intellectual — a startling new force, asserting with firm, kind majesty, its superiority over them all. A new law of order and a new form of cosmos are opened to the view. What the will and reason and final purpose of the absolute are to the universe, that is the complex of moral activities in man to the otherwise unintelligible phenomena

of his soul. No wonder that conscience is called the voice of God. There is a supreme authority and objectivity to its utterances which can be explained in no other way than by attributing them to the absolute reason and goodness of God.

Among the forms under which ethics reveals to man the sacred rule of duty is the obligation to love. With this form of the rule of duty, as with all its forms, it does and must evince the objective correlate to the rule of duty, which is the eternal law of right. Thus ethics shows us the face of that Holy One, over which the law of evolution leaves a veil, though it implies his presence when it discourses of a movement from the lower to the higher, from the beginning to the goal. The highest of all is holiness, and the goal of the universe must be found in this highest. Perfect love — if love mean the summing up of all burning, but rational, passion for what is highest and best — is given by ethics as the supreme law of the soul, and the supreme quality of its Author as well.

And when physics, collocating and interpreting philosophically the phenomena of the universe, has introduced us to the idea of one will, working out with absolute thought its glorious final purpose; and psychology has introduced us to a wonderful order inherent in all thought, feeling, and final purpose, viz. the order of an absolute moral law; and ethics, catching up the deliverances of psychology, has introduced us to the idea of absolute holiness, and has referred that holiness to him who is absolute love, and whose love is made the goal of the universe; then let the three join hands with one another, and with the whole sisterhood of sciences, to fall upon their faces before the throne of the Infinite God, and worship, saying: "Thou art worthy, O Lord, to receive glory and honor and power, for thou hast created all things, and on account of thy will they were, and were created."