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THE RELATIONS OF CHRISTIANITY AND SCIENCE.

A SERMON

PREACHED BEFORE THE

YOUNG MEN'S CHRISTIAN ASSOCIATION OF
COLUMBIA COLLEGE;

REPEATED, BY INVITATION, BEFORE THE

YOUNG MEN'S SOCIAL AND BENEVOLENT SOCIETY
OF FIFTH AVENUE AND NINETEENTH
STREET CHURCH.

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TO THE
YOUNG MEN
OF
THE FIFTH AVENUE AND NINETEENTH STREET CHURCH

This Discourse

IS AFFECTIONATELY DEDICATED BY

THEIR PASTOR.

THE RELATIONS
OF
CHRISTIANITY AND SCIENCE.

PSALM CXLV, 10: "All thy works shall praise thee; and thy saints shall bless thee."

THE characters of men are known by the works they perform, and by the sentiments they utter. We become acquainted with the character of God in the same way. We behold his works; we read his word. The works of God are of three classes, viz.: works of creation, works of providence, and works of grace. These works, fully revealing the Divine perfections, praise him; and his saints, instructed by them, bless him.

Our knowledge of the works of creation, of their laws and uses, is called *science*. The knowledge derived from the Word of God, is called *faith*. Science, therefore, is concerned mainly with the works of creation; faith is concerned

mainly with the works of providence and grace. The relations of these two departments of human knowledge must be both intimate and important; for both emanate from the same God; both are designed for the benefit of the same creatures; and, to some extent, they cover the same ground.

The relations of science and revelation—the subject of the present discourse—always important, are peculiarly so in our day. For, from different quarters, we hear intimations that science, in its rapid advances, threatens to shake, and even to overturn the foundations of our faith. We are informed, in no doubtful phraseology, that we must prepare to abandon the long-established views of the plenary inspiration of the Bible, and to modify the different articles of our creed to suit the averments of the men of science. And some who hold the ministerial office, have not only yielded to this demand, but have called upon their brethren to follow their example. It is quite time, therefore, for us to survey our ground anew, and see where we stand, and whether our position is safe. This subject is one of great extent, as well as of vast moment. It is impossible, therefore, to do more in a single discourse than present some of the more important points, and in the briefest manner.

Before proceeding directly to the discussion, I propose to offer two or three preliminary remarks.

1. The sources of knowledge in the two departments are equally divine ; and, therefore, their teaching is necessarily harmonious. I say, they are both divine ; for the evidences of the inspiration of the Scriptures, independent of the investigations of science, are abundant and conclusive. Were it otherwise, the Scriptures would be of little value. For if men must wait till science, in its different departments, shall have completed its investigations, before they could determine upon the claims of the Bible to be a revelation, when would it be possible for them to exercise faith ? Science may add a confirmatory testimony ; but without such testimony we know, from evidences quite as conclusive as science can produce in favor of any of its doctrines, that "all Scripture is given by inspiration of God." And since it is impossible that God should, in his Word, contradict anything taught in his works, it is certain, that whenever there is apparent conflict between the two, one or the other, or both, have been misinterpreted. When, for example, the old pagan philosophers taught that matter is eternal, not created, they misinterpreted the volume of nature ; and the Sensational philosophers

did the same thing, when they taught that the brain is the mind. And when the Pope and his advisers condemned Galileo as a heretic for teaching that the earth revolves round the sun, they misinterpreted the Scriptures.

2. Each of these two sources of knowledge is supreme in its own department. The Scriptures, though often referring to matters of science, do not claim to teach any science ; and science, while often brought in contact with religious and moral truth—with “the footprints of the Creator”—ought not to attempt to make out a religious creed. Science brings to view a multitude of truths not found in the Scriptures ; and the Scriptures make a far fuller revelation of the character of God than science can. Should a physician erect an asylum for the insane, an examination of the building and its appointments would make us somewhat acquainted with his character ; but should he write a book on the treatment of the different forms of insanity, the perusal of it would much enlarge our acquaintance with him. This world is the asylum for man, built by the great God ; and his Word exhibits the rich provisions of his grace for his salvation. It is by allowing science to invade the kingdom of faith, and by pressing faith into the domain of science, that

both departments have suffered. "The prejudice hath been infinite," says Lord Bacon, "that both divine and human knowledge hath received by the intermingling and tempering the one with the other: as that which hath filled the one full of heresies, and the other full of speculative fictions and vanities." *

3. It is instructive to observe, that the apparent conflicts between science and revelation relate chiefly, if not exclusively, to the *deductions* from the one or the other, not to *ascertained facts* in either. Zoölogists, for example, discover certain physical differences between the different families of the human race; and from those facts some of them *infer* that all did not spring from a common parentage. We accept their ascertained facts—we question the correctness of their inference. Geologists have ascertained many facts in relation to the structure of the outer crust of the earth; and from those facts they derive certain deductions regarding the age of the earth, and the periods

* One of the chief services Lord Bacon rendered both to science and Christianity, consists in clearly defining the proper limits of these two departments of human knowledge. I have, therefore, thought it proper frequently to quote his language in this discourse. I have met with no other author who has so satisfactorily treated the subject.

when the different races of animals and man respectively began to be. We may accept their facts, and then test the soundness of their deductions. An apparent conflict between the averments of science and the received interpretation of any particular class of Scripture passages, renders it eminently proper for us to review our interpretations; but if those interpretations appear, on careful reëxamination, clearly warranted and required by the language of Scripture, we must hold fast our faith, and call upon scientific men to review their conclusions. For a clear declaration is more likely to be correctly understood, than a scientific deduction to be fully warranted; and what has been called science, in every department, has too often erred in its most important conclusions to warrant scientific men in arraying their opinions against the unequivocal declarations of inspiration.

We are now prepared to inquire into the mutual relations of science and Christianity. They sustain to each other two general relations.

I. They are separate parts of a harmonious whole. Just as the soul and body of man are two different natures forming one person. The body is for the soul, and the soul is for the body. Just as the two sexes form human society, acting

in different, but not opposite spheres. What the apostle Paul says of man and woman, may with equal propriety be said of science and Christianity: "Nevertheless neither is the man without the woman, neither the woman without the man, in the Lord." Just as the church and the state are both of God, both for man, but designed to answer very different ends. Christianity and science have been brought into conflict, just as these other unities have. While multitudes make the mind the slave of the body, to minister to its appetites; others have insisted that the soul is polluted by its connection with the body, and that the latter should be starved and afflicted for the sake of the former. The true doctrine is that they are for each other, and both are to be cherished. Some make the woman the slave of man; while others would translate the woman from her proper sphere into that of man. The church has often encroached upon the rights of the state, and the state has often invaded the rights of the church. Rightly understood in their nature and designs, these two organizations never come in conflict, but constantly minister to the well-being of men, and strengthen each other.

The same folly which has produced conflict between these unities, has arrayed science and

Christianity against each other. Science labors in one department of human inquiry; Christianity, in another. Science provides for one general class of human wants; Christianity, for another. The two together meet all the wants of humanity, and proclaim thus the infinite goodness of God.

II. Science and Christianity, while ministering in different ways to the well-being of men, are mutual helpers in the great work of philanthropy. Christianity has afforded most important aid to science in several ways.

1. It has given to science its starting point and its principles of investigation. How shall we account for the fact that all the sciences are yet comparatively in their infancy? It is not that, for so many ages, the human race looked with stupid indifference upon the works of creation. On the contrary, during many centuries, men of giant minds employed their time and called into requisition all their talents in the investigation of the arcana of nature. And yet the meagre results go far to justify the strong language of Lord Macaulay: "Words, mere words, and nothing but words, had been all the fruit of all the toil of all the most renowned sages for sixty generations." He might well compare their

labors and fruitless investigations to a treadmill—incessant motion without progress; and Lord Bacon is justified in comparing the writings of the ancient philosophers to a brier field, from which one comes out with more scratches than fruit. But how shall we account for the utter barrenness of the researches of such men, when compared with the wonderful progress of science during the last three centuries? I answer—

1st. The ancient philosophers failed to gain the true starting point. They began with what they seemed to regard as an axiom—*ex nihilo nihil fit*—from nothing nothing comes, or creation is impossible. They, therefore, held, that matter is eternal; and those who admitted the existence of mind distinct from matter, held, as the learned Cudworth shows, *æternitatem animorum*—the eternity of minds. Setting out from this point, they very naturally were led to inquire, in the first place, how matter came to have its existing forms, animate and inanimate, and how minds previously existing in some other state came to be united to material bodies. Thus there was opened before them a boundless field for theory and speculation, only too tempting to the ambition of men, but offering little prospect of any useful discoveries.

The Bible terminates all these vain speculations by giving, in its first verse, the true starting point: "In the beginning God created the heavens and the earth." Here is announced a doctrine too sublime to be reached by philosophers, yet simple enough to be received by a child—the doctrine, that God by his infinite power created all things of nothing. When this truth is admitted, there can be no theories or inquiries as to *how* things were created. We comprehend merely the great *fact*, nothing more. What now is the work of science? Simply to inquire what God created, what laws of matter and of mind he established, and in what ways the works of God may be made to minister to his creature, man. And such being the legitimate work of science, the true principles of inquiry and the limits within which it is possible are clear. Its work is to ascertain *facts*, and the *laws* which facts reveal. Facts and laws, not *how*s and *whys*, constitute the whole of science in all its departments. And here we have, derived from the Bible, the inductive philosophy which has achieved such wonders in our day.

It is a most interesting fact that the two volumes of Nature and Revelation are to be studied on the same principles. Both give you facts and

laws ; neither gives you modes and reasons. God is. This is a fact ; but how God exists, the Scriptures nowhere explain. God exists in Trinity in unity. This is a fact. But how he exists thus, we are not told. Inspired men spoke and wrote as they were moved by the Holy Ghost. This is a fact. How the Holy Ghost moved them, is not revealed. Sin was permitted in our world. This is a fact. Why it was permitted, the Scriptures do not explain. It is by raising the questions *how* and *why*, or by attempting to pry into the secret things of God, that men run into theological error. And in the departments of science they fall into error in the same way—by traveling beyond the bounds of legitimate inquiry, or by pushing their conclusions beyond their facts. “For,” says Lord Bacon, “as in the inquiry of Divine truth the pride of man hath ever inclined to leave the oracles of God’s Word, and to vanish in the mixture of their own inventions ; so, in the selfsame manner, in the inquisition of nature, they have ever left the oracles of God’s works, and adored the deceiving and deformed imagery which the unequal mirrors of their own minds have represented unto them. Nay, it is a point fit and necessary in the front and beginning of this work [Interpretation of Nature] without hesi-

tation or reservation to be professed, that it is no less true in this human kingdom of knowledge, than in God's kingdom of heaven, that no man shall enter into it, except he become first as a little child." He who has learned to sit at the feet of the great Teacher, and to receive as a disciple the facts and laws of revelation, is prepared to receive instruction in the same way from the works of the Creator. Bacon got his inductive philosophy from the Bible. It was the Reformation of the sixteenth century, not the inquiries of scientific men, that overthrew the philosophy of Plato and Aristotle, which, as Dr. Chalmers says, had tyrannized over the world for two thousand years. The Reformers, with the Bible in their hands, successfully attacked those venerable errors; and Bacon, with the Bible in his hand, taught the true method of scientific inquiry.

It is an instructive fact that Bacon, the father of Inductive Philosophy; Locke, the father of Mental Philosophy; and Newton, the father of Natural Philosophy and Astronomy, were all firm believers in the inspiration of the Scriptures; and two of them wrote commentaries on parts of the sacred volume. The language of the great Chalmers, in speaking of Sir Isaac Newton, is not

extravagant, when he says: "Thus you may understand how the first man in the accomplishments of philosophy which the world ever saw, sat at the book of nature in the humble attitude of its interpreter and its pupil,—than whom I know not if there ever lighted on the face of our world one in the character of whose admirable genius so much force and so much humility were so attractively blended." When he had astonished the world by his brilliant discoveries in the most sublime of the sciences, he came and sat down at the feet of Jesus to learn, in his Word, a sublimer wisdom.

He who is acquainted with the Bible, and with the wide range of inquiry it opens before the mind, will not be surprised at the statement of De Villers, in his Prize Essay on the Reformation, read before the National Institute of France, viz.: "Whoever is anxious to be well informed in history, in classical literature, in philosophy, can use no better method than a course of Protestant theology."

2. Christianity has determined the true *aim* of science, thus giving direction to its inquiries. This it had done both negatively and positively.

1st. Christianity teaches, that it is no part of the proper aim of science to form a religious creed,

or to teach a code of morals. The philosophers of Greece and Rome, by aiming at too much, accomplished little. By seeking to force science to do that which far exceeded its power, they failed to achieve by its aid that which came within its appropriate sphere. Mingling together the human and the divine, they obscured and perverted both. Bacon speaks "of the singular advantage which the Christian religion hath toward the furtherance of true knowledge, in that it excludeth and interdicteth human reason, whether by interpretation or anticipation, from examining or discussing of the mysteries and principles of faith." And, as he very happily expresses the idea, "the knowledge of man is as the waters, some descending from above, and some springing from beneath; the one informed by the light of nature, the other inspired by divine revelation." His motto was—*Da fidei quæ fidei sunt*—give to faith the things which belong to faith. Christianity furnishes a perfect system of faith and a perfect code of morals, thus leaving science fully at liberty to attend to its proper department.

2d. Christianity teaches science, that its chief aim is to be *useful*. The record of the creation ends thus: "And God saw everything that he had made, and behold, it was very good." And

the Psalmist exclaims : " O Lord, how manifold are thy works ! in wisdom thou hast made them all : the earth is full of thy riches." Since, then, the whole of the creation is very good ; and since the earth is full of God's riches, it is the business of science to search for those treasures, and appropriate them to the use of man. Accordingly Bacon, taught by the Word of God, made *utility* and *progress* the tests of philosophy. " The greatest error of all the rest," says he, " is the mistaking or misplacing of the last or furthest end of knowledge"—in failing to regard it as " a rich storehouse for the glory of the Creator, and the relief of man's estate."

These teachings of the Bible, which have controlled the aims of modern science, stand in strong contrast with the views of the old philosophers. " The ancient philosophy," says Macaulay, " disdained to be useful. It could not condescend to the humble office of ministering to the comfort of human beings. All the schools regarded that office as degrading : some censured it as immoral." In this it was consistent with itself. Like depraved human nature, it was proud and selfish ; and even if a feeling of benevolence arose in its heart, its principles taught that it was not kindness to minister to the physical comfort of man.

For, since it regarded matter as the source of evil; true benevolence would teach and exhort man to punish and emaciate the body, that the soul, freed from its control, might aspire to perfection. How could men holding such doctrines, employ themselves in discoveries and inventions to add to human happiness? No wonder, then, that Bacon should say, that "from the systems of the Greeks and their subordinate divisions in particular branches of the sciences, during so long a period, scarcely one single experiment can be culled, that has a tendency to elevate or assist mankind, and can fairly be set down to the speculations and doctrines of their philosophy."

3. Christianity awakens and cherishes the desire for acquaintance with science, for its perfection and diffusion. There are many reasons why Christians must ever be the earnest friends of science in its highest perfection. Let us consider some of them.

1st. Not only does science minister to the physical well-being of mankind, but it *confirms* the truth of Christianity, while false science and imperfect science discredit it. There always has been, and there always will be philosophy, false or true. The human mind cannot look with stolid indifference upon the wonders of creation.

Its natural inquisitiveness will be awakened ; it will inquire and form opinions, true or untrue. Now, the Christian, fully persuaded that "all Scripture is given by inspiration of God," cannot doubt, that just so far as the volume of nature is correctly interpreted, its teachings will be found in entire harmony with those of revelation ; nor can he fail to see, that just so far as the former shall be incorrectly read on those points where the two cover the same ground, the result must be conflict between them. He must, therefore, earnestly desire the progress of science, and its diffusion among the masses of the people. Accordingly Christians are ever found to be the friends not only of science, but of popular education.

These views receive strong confirmation from the striking fact, that much the larger portion of the infidelity of ancient and modern times has been the product of false science.

When Christianity entered upon its career, under the new dispensation, one of the most malignant and powerful of its enemies was "philosophy falsely so called." And firmly as the Greek philosophy was then established, and strongly as it impressed by its profound speculations the minds of men, the apostles offered no compromises

with it, but fearlessly assailed and denounced it. "The Greeks sought after wisdom ;" and therefore they despised the simple, but sublime doctrines of Christianity. But long since has the glory of that philosophy passed away ; and now Paul is fully justified in his condemnation of it. Had Christian ministers of later ages followed his example, the Christian faith would never have been corrupted by the Platonic and Peripatetic philosophies.

During the latter part of the last century, and in the beginning of the present century, France became a nation of infidels ; and still later, Germany followed her example. How happened it, that infidelity gained a triumph so complete in these nations ? The Sensational Philosophy plunged France into atheism ; and the Transcendental or Idealistic Philosophy made Germany a nation of pantheists. The puzzling question with both these classes of philosophers was the connection between the mind and the body. How is *perception* to be explained ? In answering this question, the French began *outside*. They knew that material objects make their impression upon the nerves. This impression they could trace to the brain, but no further. Their facts went only to the brain ; therefore their philosophy must stop

there. The conclusion was, that the brain is the mind; and consequently that man is nothing more than an intelligent animal, whose highest aim should be to enjoy the greatest amount of pleasure, no matter at what cost to others. Hobbs, of England, was the father of this philosophy; but it was in France, where Popery had disgusted intelligent men with Christianity, that it achieved its greatest triumphs, and brought to maturity its bitter fruits. The fearful scenes of the French Revolution were the crowning work of this degrading system. Voltaire, Volney, and the Encyclopediasts gloried in a philosophy that made man an animal; and the passions of the outraged soul made him a devil.

The French philosophers began *outside*; and they could not get into the mind. They, therefore, denied its existence. The Germans began *inside*. They said—" *Cogito; ergo sum*—I think; therefore I exist. I know I have a mind; for I think." But how does the mind become acquainted with the material world? This was the perplexing question. Discrediting the testimony of the senses, they formed theory after theory to explain what is inexplicable. Finally, they said, we do not see the external world; but we see all things in God. It was but another

step to say, God is the universe. Here is pantheism. The French philosophers made man an animal, and thus degraded him below moral law. The Germans made him a god, and thus raised him above moral law. Both threw the reins on the neck, and bade wicked men do as they chose.

But both these systems of philosophy, which made their votaries infidels, are fundamentally false. The French had half the truth; the Germans, the other half. The former had the consciousness arising from the impression made by material objects; the latter had the consciousness of the mind's exercises. Both sought to explain what must ever remain a mystery—how the mind looks out upon the outer world through the senses. Each class resembled a man in a boat on a stream of water with but one oar. However diligently he plies it, he only goes round and floats down. Both oars—the internal consciousness and the testimony of the senses—would have carried them up stream.

But the fact is eminently instructive—that it was not true science, but false, that plunged France into atheism, and Germany into pantheism. The same thing is true of the greater part of the infidelity in our own country. We have a sprinkling of the German metaphysics, and of the Ger-

man infidelity. We have phrenology, which finds a man's morals and religion, as well as his intellect, in the comparative size of the different organs of his brain. We have mesmerism, which seemed, for a time, to keep phrenology in countenance. And we have the culmination of these follies in spiritualism, which rests on what is called the Harmonial Philosophy, every leading principle of which is demonstrably false. If all the infidelity springing from these false systems were removed from our country, there would be but little left, save only that fanatical form of it which exhibits its character in ultra abolitionism.

But not only false science, but *imperfect* science tends to the discredit of the Scriptures, just as the young and inexperienced so often ridicule or censure the teachings of age and experience. Infidels once appealed triumphantly to chronology, as refuting the inspiration of the Scriptures; but further investigations seem to have silenced their cavils. Then astronomy was pressed into the service; but now it gives a strongly confirmatory testimony to the Bible. Several years ago, I had the pleasure of listening to a learned and eloquent lecture from the lamented General Mitchell, the distinguished astronomer, in which he demonstrated the inspiration of the Scriptures

from the science of astronomy. Zoology, too, has been brought forward to prove, that the human race did not all spring from a single pair, as the Scriptures teach. But so far the weight of authority, as well as of evidence, is on the side of Christianity ; and we have nothing to fear from future investigations in this department.

But no one of the sciences has worn a more threatening aspect toward Christianity, than the youngest of them all—geology. Many of us remember what a sensation was produced, a few years ago, by the appearance of a book, entitled, “Vestiges of Creation.” With the utmost confidence, the author appealed to this science, as demonstrating what has been called—*the development theory*. Such men as Lamarck, Maillet, and Oken had assured the world that animals and men were not created, but gradually developed ; that man is nothing more than a fish developed ; that “all life is from the sea ; none from the continent ; that man also is a child of the warm and shallow parts of the sea in the neighborhood of the land.” The author of the “Vestiges,” adopting this theory, fixed upon that class of fishes called the *Delphinidæ*, as the progenitors of man !

But the science of geology has made progress ; and in its progress it has not only failed to sustain

the development theory, but has completely overthrown it. "There is no truth," says Hugh Miller, "which science can more conclusively demonstrate than that they all (animals and man) had a beginning. The infidel who, in this late age of the world, would attempt falling back on the fiction of 'an infinite series,' would be laughed to scorn. They all began to be. But how? No true geologist holds by the development hypothesis: it has been resigned to sciolists and smatterers, and there is but one other alternative. They began to be *through the miracle of creation*. From the evidence furnished by these rocks we are shut down either to the belief in *miracle*, or to the belief of something else infinitely harder of reception, and as thoroughly unsupported by testimony as it is contrary to experience. Hume is at length answered by the severe truths of the stony science. He was not, according to Job, 'in league with the stones of the field,' and they have risen in irresistible warfare against him in the Creator's behalf."

One or two questions yet remain to be settled between geology and revelation, involving the interpretation, not the inspiration of certain expressions; but the triumphant termination of the more threatening aspect of the controversy in

favor of the Bible, encourages the confident belief that as geology pushes forward its investigations, correcting deductions, which may have been hastily made, the harmony will be complete.

The entire history of the different conflicts between science and Christianity, fully justifies the declaration of Bacon : " And sure it is, and a true conclusion of experience that a little Natural Philosophy inclineth the mind to atheism ; but a further proceeding bringeth the mind back to religion."

" A little learning is a dangerous thing."

The history of this whole controversy shows, that chiefly two classes of scientific men become infidels, viz. : those who confine themselves to one or two departments of science, as Agassiz ; and those who are comparatively smatterers. The controversy, however, will not terminate for some time to come. The harmony between science and revelation will become more and more apparent and complete, just as the two volumes of nature and revelation shall be more correctly interpreted. The misinterpretation of either is likely to exhibit diversity and conflict.

2d. Christianity cherishes the desire for the progress of science, because, by demonstrating the

being and illustrating the perfections of God, it promotes true piety.

Science demonstrates the being of God. In every step of its progress it discovers multiplied evidences of intelligent, benevolent design, controlling infinite power; thus proving beyond a question, the being of an all-wise, good, and mighty Creator. The argument is cumulative; and every new discovery adds to its strength and confounds the atheist. "For," says the apostle Paul, "the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and God-head." True, men have been too deeply depraved to look up, and see in the works of nature the being of the one glorious Creator; but when the idea has been received from the Scriptures, it is easy to demonstrate the truth of it from the works of his power. "The heavens declare the glory of God."

The progress of science illustrates the *greatness* of God. Every improvement in the power of the telescope gives us a more adequate understanding of such passages of Scripture as the following: "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?" Again: "Lift up your eyes on high and behold who hath created these things, that bringeth out their host by number: he calleth them all by names by the greatness of his might; for that he is strong in power not one faileth." With the progress of science we rise to a fuller comprehension of the sublime language of Job: "He stretcheth out the north over the empty place, and hangeth the earth upon nothing. . . . By his Spirit he hath garnished the heavens; his hand hath formed the crooked serpent. Lo, these are parts of his ways; but how little a portion is heard of him! but the thunder of his power, who can understand?"

Since it has been ascertained that it is the true aim and the highest honor of science to minister to the happiness of mankind, its various discoveries give a richness of significance not before conceived, to the language of the Psalmist: "O Lord, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches." And again: "The works of the Lord are great, sought out of all them that have pleasure therein." We have but just begun to discover the inexhaustible treasures laid up in the bosom of the earth by infinite Goodness, for the

benefit of his creatures. Let science push forward its investigations, and thus illustrate the wisdom and goodness of God.

The truth is, there is not one of all the sciences that has not for the Christian an interest, which to others it cannot have. He has all the reasons which others have to desire the progress of every department of it; and besides those reasons, he has this—that he constantly sees and adores his Heavenly Father in his works, and in them sees most striking illustrations of the teachings of revelation. This is not theory. The lives and labors of good men in all ages are the confirmation of it. The book of Job, probably the most ancient book in existence, affords abundant evidence that he was not only an ardent admirer of the works of creation and its laws, but a very successful student of them. “So, likewise,” says Bacon, “in that excellent book of Job, if it be revolved with diligence, it will be found pregnant and swelling with natural philosophy; as, for example, cosmography—‘He stretcheth out the north over the empty place, and hangeth the earth upon nothing;’ wherein the pensileness of the earth, the pole of the north, and the finiteness or convexity of heaven are manifestly touched: so again, matter of astronomy—‘Canst thou bind the sweet

influence of Pleiades, or loose the bands of Orion ?'—where the fixing of the stars, ever standing at equal distance, is with great elegance noted."

Humboldt, though not professing to be a Christian, was an admirer of Job. He refers especially to the thirty-seventh chapter, as presenting comprehensive and accurate views of the Cosmos, in a style beautiful and impressive. He remarks: "The meteorological processes which take place in the atmosphere, the formation and solution of vapor, according to the changing direction of the wind, the play of its colors, the generation of hail, and of the rolling thunder, are described with individualizing accuracy; and many questions are propounded, which we in the present state of our physical knowledge may indeed be able to express under more scientific definitions, but scarcely to answer satisfactorily. The book of Job is generally regarded as the most perfect specimen of the poetry of the Hebrews. It is alike picturesque in the delineation of individual phenomena, and artistically skilful in the didactic arrangement of the whole book."

The same learned author has borne a just and honorable testimony to the whole Hebrew poetry, not only because of its literary merit, but as it exhibits both the delight of the writers in the

contemplation of the works of nature, and their acquaintance with them. I make no apology for quoting somewhat at length from a witness so competent and so impartial. He says :

“The Semitic or Aramæic nations afford evidence of a profound sentiment of love for nature in the most ancient and venerable monuments of their poetic feeling and creative fancy. This sentiment is nobly and vividly manifested in their pastoral effusions, in those hymns and choral songs, in all the splendor of lyric poetry in the Psalms of David, and in the schools of the seers and prophets, whose exalted inspiration, almost wholly removed from the past, turned its prophetic aspirations to the future. * * * It is a characteristic of the poetry of the Hebrew, that, as a reflex of monotheism, it always embraces the universe in its unity, comprising both terrestrial life and the realms of space. * * * The Hebrew poet does not depict nature as a self-dependent object, glorious in its individual beauty, but always as in relation and subjection to a higher spiritual power. Nature is to him a work of creation and order, the living expression of the omnipresence of the Divinity in the visible world. Hence the lyrical poetry of the Hebrew, from the very nature of its subject, is grand and solemn,

and when it treats of the earthly condition of mankind, is full of sad and pensive longing. * * * The epic or historical narrations are marked by a graceful simplicity, almost more unadorned than those of Herodotus, and most true to nature ; a point on which the unanimous testimony of modern travellers may be received as conclusive, owing to the inconsiderable changes effected in the course of ages in the manners and habits of a nomadic people. Their lyrical poetry is more adorned, and develops a rich and animated conception of the life of nature. It might almost be said, that one single Psalm (the 104th) represents the image of the whole Cosmos." And after quoting from this Psalm, Humboldt remarks, " We are astonished to find, in a lyrical poem of such a limited compass, the whole universe—the heaven and the earth—sketched with a few bold touches."

But it is not only the poetry of the Bible that shows the intense interest of good men in the study of nature's works. Solomon was by far the greatest naturalist of ancient times. He not only spoke many proverbs, and wrote many songs, but " he spake of trees, from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall : he spake also of beasts, and of fowl,

and of creeping things, and of fishes." And the audiences that attended his lectures were such as no other man has been permitted to address. "And there came of all people to hear the wisdom of Solomon, from all kings of the earth, which had heard of his wisdom."

Humboldt observes, in primitive Christians, the same fondness for the works of nature. "It was the tendency," he remarks, "of the Christian mind to prove from the order of the universe and the beauty of nature, the greatness and goodness of the Creator. This tendency to glorify the Deity in his works, gave rise to the taste for natural description."

Thus it is clear, that wherever Christianity exists in its purity, the inquiries of the human mind must be turned, with intense interest, to the works of nature. And furnished by the Scriptures with the starting point, with the principles of investigation, with the true aim, and with powerful motives to inquiry, its progress in scientific investigation must be constant and increasingly rapid.

3. Christianity imparts to history also a peculiar interest. It teaches us to regard the history of the nations, not merely as the natural working of the intellects and the passions of men, but as

the gradual unfolding of the great and gracious plan of infinite wisdom in relation to human redemption, and the working out of great moral principles. The Bible is, by many centuries, the oldest history in the world. Could its inspiration be successfully assailed, we should be left in utter ignorance of the origin of the human race, and of the most deeply interesting period of its history. Yet a bishop of the Church of England, sent to Africa to make the degraded heathen acquainted with this wonderful volume, comes out with a book in which he controverts the historical verity of the five Books of Moses, and would have us believe, that they not only contain moral principles which shock even an intelligent pagan, but abound in historical statements too absurd to be imposed upon a child ! This book comes with a flourish of trumpets about the progress of science, but gives us such quibbles as we have long since had in Paine's *Age of Reason*. We may be permitted to pity and despise such attacks upon a volume which has stood the test of ages, and has commanded the confidence and the admiration of men of the most eminent talents and profound learning.

But the entire history of man, through all ages, has for the Christian not only the same in-

terest it has for others, but additionally the interest which attaches to the wisdom of Divine Providence, the fulfilment of prophecy, the progress of the Gospel, and the working out of the principles of the moral government of God.

4. Whilst Christianity has been of infinite service to science ; science, as already intimated, has been of great advantage to Christianity. It has furnished answers to the arguments of false science against the inspiration of the Scriptures. True systems of Mental Philosophy furnish refutation of the plausible absurdities of the Sensational and Idealistic systems. True systems of Physiology answer the plausible attacks of certain men of science upon the unity of the human race. True astronomy has overthrown the *nebular theory* ; and true geology, the *development hypothesis*.

Science not only confirms the claims of Christianity, but comes to its aid in the overthrow of false religions. The hoary superstitions of India fall before its progress. An eloquent writer has justly said, " One look through the telescope dispels all the illusions of the Brahminical faith, and blots out of existence as many myriads of gods, as it brings into view myriads of stars reflecting the glory of the one living and true God." The

reign of Mahometanism, too, must yield to the power of Christianity, with science in her hand. The calif Omar gave expression to the true spirit of the system, when, ordering the destruction of the Alexandrian library, he said, "If these writings of the Greeks agree with the Book of God, they are useless, and need not be preserved; if they disagree, they are pernicious, and ought to be destroyed." But Mahometanism can neither arrest the progress of science, nor sustain itself against it.

Bacon was probably correct in his understanding of Daniel xii. 4, at least in part, as a prediction, that in the latter times, "in this autumn of the world,"—"the opening of the world by navigation and commerce, and the further discovery of knowledge, should meet in one time and age." For, Christianity is greatly the gainer by all those improvements in science, which, by increasing so wonderfully the facilities of travel and communication, have brought the nations of the earth into close proximity to each other; and by those improvements which enable the Church of Christ to multiply Bibles and religious publications so rapidly and cheaply.

The views now presented, receive further confirmation from the following instructive facts:

1. Science and popular education have made no progress at all in countries where the Bible has been unknown. Take a survey of the nations of the earth, and say whether this statement is not true to the letter. We talk of the present age as the age of progress ; and many have been disposed to think, that there is in human nature a principle of progress. But the history of the world is far from sustaining such an opinion. In the halcyon days of Greece and Rome, there were the names and forms of science ; and there were philosophers whose names are familiar to us as household words. But where, on the face of the earth, where the Bible is unknown, can we now find any such men ? Where has there been progress ?

2. It is a fact, that in countries nominally Christian, the progress and the diffusion of science, in all its departments, have been chiefly where the Bible is received as the sole rule of faith. In Roman Catholic countries, there have been, and are colleges and universities ; but they do not compare favorably with Protestant institutions. De Villers, in the Prize Essay, already quoted, says, " There is more real knowledge in one single university, as that of Göttingen, or Halle, or Jena, than in the eight Spanish universities of

San Iago de Compostela, Alcala, &c. In these they teach what must, with or without the consent of reason, be believed ; in the others, they teach how a reasonable belief may be acquired on any subject whatever." The same comparison might be instituted between Romish and Protestant institutions, in every part of the world.

3. It is a fact, that whilst all other systems of religion have fallen before science, Christianity has not only maintained its ground, but has become the chief patron of every department of useful knowledge. It is in Christian institutions that we find the sciences taught in their most advanced state ; and not a few of the ablest men in every department of science have been, and are devout believers in the plenary inspiration of the Scriptures.

Three reflections will close what I propose to say on this subject.

1. We, as Christians, have nothing to fear, but much to hope from the progress of science. However superficial men may attempt to array against each other the two volumes of nature and revelation ; and however particular sciences may, in their earlier investigations, seem to throw doubt upon the authority of the Word of God, it is certain that with the progress of the sound in-

terpretation of both volumes, their entire harmony will become more and more apparent—nay, that science, in its onward progress, will become more and more the supporter of Christianity. We say not with a writer in one of our quarterlies, “Hold by the old paths and traditional faiths until the irresistible force of proof demands modification.” We say, hold to your faith till death; for true science will never assail it. True, some texts of Scripture relating to the department of science, may have been wrongly interpreted; and unwarranted inferences may have been drawn from others. But the doctrine of the plenary inspiration of the Scriptures, and the doctrines which constitute our evangelical faith, are sustained by evidences quite independent of the sciences; and can never be successfully assailed by them.

2. Strange as the statement may seem to many, I do not hesitate to affirm, that science is more dependent upon Christianity, than Christianity is upon science. It is a fact, that Christianity has not only existed, but achieved its most glorious triumphs, not only without the aid of science, but against the assaults of whatever was called science in the world. It has, moreover, by its own power, overthrown false science, and pre-

pared the way for the true. But science has scarcely existed, much less made progress, without the aid of Christianity. Such facts have a significance that may not be disregarded. And in the light of such facts, I do not hesitate to express the conviction, that if science could succeed in overthrowing Christianity, it would, at the same time, work its own overthrow. The destruction of Christianity, could it be effected, would be inevitably followed, and in a very brief space of time, by the destruction of science. The enlightened friends of Christianity must ever be the advocates of scientific investigation ; but it is no less true, that the enlightened friends of science must ever desire to maintain the authority of the Scriptures unimpaired.

3. The highest wants of mankind are those which Christianity meets, not those for which science provides. Man has a moral, as well as a physical and intellectual nature ; and he has moral, as well as physical and intellectual wants. He has a conscience, that constantly urges upon him questions of right and wrong ; as well as an intellect that raises questions of true and untrue. He has moral affections, as well as natural affections and tastes ; and the former, as well as the latter, must have objects around which they may entwine them-

selves. He has earnest longings for immortality, and for imperishable joys. He strains his mental vision to penetrate the dark and mysterious future ; and his present happiness depends largely upon an assured hope of eternal bliss. He is deeply conscious of sin and pollution ; and he asks, anxiously, " What must I do to be saved ? " What has science, in its highest attainments, to meet these highest, noblest wants of man ? It has never, unaided by the Bible, even demonstrated the being of the one living and true God, the Creator and Ruler of all things. Much less has it furnished a moral code for the regulation of his conduct. " Let me ask any one," said the great Locke, " who is forward to think that the doctrine of morality was full and clear in the world, at our Saviour's birth ; whither would he have directed Brutus and Cassius (both men of parts and virtue, the one whereof believed, and the other disbelieved a future being) to be satisfied in the rules and obligations of all the parts of their duties, if they should have asked him, where they might find the law they were to live by, and by which they should be charged or acquitted, as guilty or innocent ? If to the sayings of the wise, and the declarations of philosophy, he sends them into a wild wood of uncertainty,

to an endless maze, from which they should never get out; if to the religions of the world, yet worse." In this department, modern science, with all its boasted progress, has accomplished nothing. Much less has it answered the great question about the method of salvation, or thrown any clear light on that future, eternal state, toward which we are all hastening. The Gospel alone "has brought life and immortality to light;" and the cross of Christ alone fills the anxious heart with glorious hopes.

Were it possible for science, in all its wide domain, to go on to perfection without Christianity; yet when it had brought forth all its stores of learning, and brought out of the earth all its hidden treasures; it would leave the highest wants of man unsatisfied, his noblest affections unregulated, and his whole moral nature in ruins. Nothing but Christianity can prepare man to enjoy the advantages of science in this world; nothing else can light up to him the glorious future. So true is it, that "godliness is profitable unto all things, having the promise of the life that now is, and of that which is to come."

These great truths I earnestly commend to the young men of this congregation, and to all others. This is a day of excitement and agita-

tion. The very foundations of society seem becoming unsettled. "Prove all things; hold fast that which is good." Be ready to give to every one that asks, a reason of the hope that is in you; and continue to carry the rich treasures of the Gospel to the poor and wretched, whom science has no power to elevate or to comfort.

