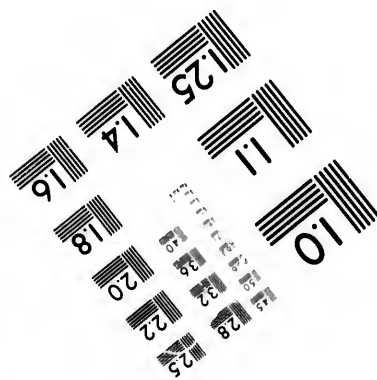
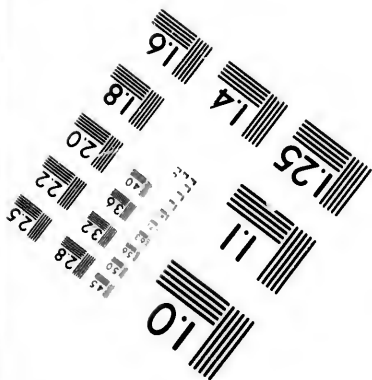
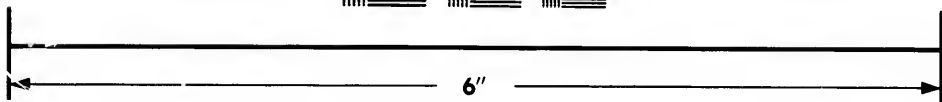
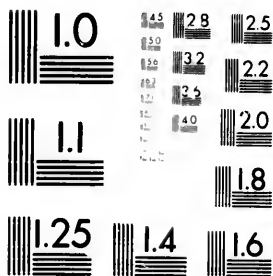


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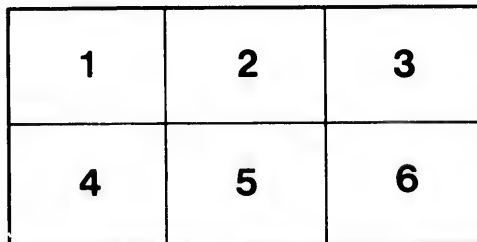
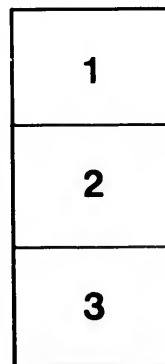
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## SCIENCE THE ALLY OF RELIGION.

By SIR WILLIAM DAWSON, LL.D., F.R.S.

The substance of an Address at the Jubilee Conference of the Evangelical Alliance,  
Mildmay Park, London, July 1, 1896.

If revelation is the thought, and nature the work of the same Almighty and All-wise Creator, we may be sure that they are in harmony, and that when we find students of the Bible and students of science ranged in opposition to each other there must be mistake somewhere. Believing that Nature and the Bible are one in origin, I propose to notice a few points in which they are unnecessarily placed in antagonism to each other.

The sciences that relate to the natural history of animals, plants, and minerals, and to the structure and changes of the earth itself, are, in their simplest or most elementary forms, concerned with facts relating to material things or phenomena, with their proximate or secondary causes, and with the grouping of such facts and causes under general expressions which we term natural laws. In all this, while they may have much to do with mental culture, and with our material interests and prosperity, they have no direct relation to our religious beliefs or hopes. There is, however, a tendency in connexion with the present division of every science into specialties, and with the efforts to teach the rudiments of certain sciences to young people, to descend to a low materialistic level, which, while making science itself less attractive, may make it, at least, a deterrent from faith in higher things, in the same way that an exclusive devotion to any other worldly pursuit tends in this direction.

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Yet those who enter with enthusiasm on the study of nature, cannot be content always to remain on this low ground. They find rising before them ultimate questions which they cannot solve—questions relating to the nature of causation itself, and of the natural laws to which it is subject—questions as to the origin and import of the properties of material objects, and to the correlations and combinations of these in the great cosmos or orderly system of nature with all its adjustments and uses. The attempt to answer these questions from a merely physical point of view and without faith in the unseen and spiritual must certainly be abortive.

There is, however, no need of this, for so soon as the student of nature arrives at this point, he can scarcely fail to perceive that, in addition to the world of the seen or phenomenal with which he is occupied, there must be another world of the unseen or spiritual, inviting his consideration. It then becomes an object of the highest importance that his entrance into this new field of thought and feeling should be facilitated rather than hindered. I fear, however, that there is much in the current modes of thought and expression in the religious world which tends to bar his entrance. Of these, one of the most important has been the mis-use of the term "supernatural," as distinguished from the natural.

The word does not occur in the Bible, nor is the idea which it represents one that is sanctioned by the spirit of God. In the Bible, God, who alone is supernatural, is at once over and in all His works; and the distinction between those that we can refer in some degree to secondary or proximate causes in natural laws, and those that we cannot so understand, is one purely subjective or human, and in no way expressive of the Divine action. It is, in short, an idea dependent on our imperfect knowledge; and hence, if we make such a distinction we shall find that as knowledge increases, the domain of the so-called supernatural appears to diminish as if about to vanish away. The true distinction

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which the Bible adheres to throughout, is that between the natural as embodied in matter and energy, and the spiritual as denoting the domain of intelligence and will.

When in this lower world we seek for ultimate causes, we find only one—the human will—which cannot be referred to material power, nor brought under the dominion of the laws of matter and force ; yet we do not regard reason and will as supernatural, though, like the Creator Himself, they belong to the unseen and spiritual, The First Cause, or Creator, whose existence we must, even independently of revelation, assume, in order to avoid the absurdity of mere chance and causelessness, must also be spiritual, and His modes of action, though inconceivably greater, must have some analogy to those of the will of which we are conscious in ourselves. Hence arise two different but not contradictory modes of expressing ourselves respecting material nature. The first is that which relates to secondary causes and natural laws ; the second that which relates to the First Cause as present in all phenomena. In ordinary elementary science we are occupied with the first aspect of the matter. In more philosophical science, and in religious beliefs, we rise to the consideration of the latter. So far as we can understand, not only the whole material universe, but even the spiritual world, must be within the domain of Divine law ; but in any case we may be sure that God is over all and in all, and this is the appropriate view of Holy Scripture, which speaks of all things as originating in God, and does not, except on rare occasions, concern itself with secondary causes.

Let us not then present to our scientific friends the partial and inaccurate distinction of the natural and the supernatural, but the true and scriptural one of the Natural and the Spiritual. We shall thus find the real meeting-place of Science and Religion, excluding atheism and agnosticism, and leading easily and naturally to the Almighty Creator and loving Father and Saviour presented to us by Divine revelation.



Nor should we forget here that revelation sanctions this union of the natural and the spiritual by claiming for God the creation and the constant care of all things in heaven and in earth, and by its appeals to nature as evidence of His being, power, wisdom, and love. Christ Himself, though the great Revealer, and asserting that only through Him can we know the Father, does not disdain to call on the sparrows, the ravens, and the flowers of the field to bear witness with Him. Paul assures the heathen people of Lystra that God has not left Himself without a witness in that He "did good, and sent them rain from heaven and fruitful seasons, filling their hearts with food and gladness." In the noble introduction to his Epistle to the Romans, he defines more clearly than any other writer precisely what we can know of God from His works, when he says: "The invisible things of Him since the creation of the world are clearly seen, being perceived through the things that are made, even His eternal power and divinity."

These two things all men may perceive in nature—power beyond our conception and contrivance beyond our comprehension; and the whole eternal, and so far above us that they must be held to be divine. Paul goes even further than this, and proceeds to argue that those who fail to glorify this Almighty Architect of man and nature, and to give thanks to Him for His goodness are "without excuse." But he has the authority of the Gospel to add to this the proclamation that even for those who have neglected and despised the manifestation of God in nature and have turned it into the basest uses, a loving Father offers mercy and salvation through Jesus Christ.

Another point on which there seems to be much misunderstanding between writers of popular science and Christians, is that which relates to the nature of faith as distinguished from credulity and superstition, and its place as one of the springs of human action. It has even been said, on no mean authority, that the progress of science has made

faith "a cardinal sin," while on the opposite side we often hear the demands of science for material evidence denounced as hostile to faith. Physical science, no doubt, has to insist on proof of its facts and laws, either by observation, experiment, or mathematical demonstration. Yet it cannot dispense with faith in its own preceptions and intuitions, and in the testimony of others with reference to facts and processes. Still more are we dependent on faith in the domain of the spiritual. In a question of how much weight a beam will sustain, we may apply a mechanical test, and after this a mathematical calculation, but who can test or calculate the trust of a child in a parent, or of one friend in another? Yet this may be quite as sure and reasonable as the other, though perhaps not reasoned out at all, but based on affection or on experience. In this domain a glance, a gesture, or a word, may be as trustworthy as a demonstration in matters physical; and without this assured faith the world could not go on for a day. All this applies still more clearly to our relations to God. He is willing to give us physical proofs of material matters; but, in regard to our higher spiritual interests, He declines to give us a physical "sign from heaven," but he presents to us the testimony of a Divine Saviour, full of goodness, love, truth and self-sacrifice, and invites us to trust in Him, as willing and able to save to the uttermost. Our faith in such a person as the Christ of the Gospels is our own willing trust; yet it is also the gift of God, who has given us the evidence of it, and the capacity to entertain it and to live by it. Between such reasonable faith and anything deserving the name of science there can be no conflict; but we must beware not to limit the grace of God by any narrowness of our own.

It is often said that students of Nature are, as a whole, hostile to religion. Unfortunately those who are so have often put themselves very much in evidence in their writings and so have given occasion to the enemy. In so far, however, as my experience extends, I have reason to believe that

as large a proportion of the votaries of science are pious men as of any other class. It is not to be denied, however, that they have been so under some disadvantages, both on account of the constant efforts of infidels and popular agitators to wrest science to their own uses, and of the intolerance, errors in matters of fact, and unwise concessions of Christian teachers, who should practice in such matters the same wise reticence that appears in Christ himself.

Much stress has been laid on the alleged retreat of religion before the advance of science, and of the persecutions said to have been suffered by scientific innovators. This depends partly on the error already referred to of supposing that the reference of effects to natural causes withdraws them from the domain of the Creator. It also results from misapprehension of historical facts. Even quite recently, the old story of the persecution of Galileo, and of the alleged adherence of theologians, and even of the Bible, to the Ptolemaic system of astronomy, have been paraded as examples of the supposed defeats of religion. Now, without insisting on the facts that it was antichrist rather than Christianity that persecuted Galileo, and that Copernicus seems to have been as much a Christian as some of his assailants, we may explicitly deny that Christianity as represented in the Bible has ever maintained any special astronomical theory. The Hebrew word represented by *firmament* in the first chapter of Genesis is well known to have the meaning of "expanse"; and it is quite as suitable to express an atmospheric or ethereal expanse as one of a solid nature. The Greek and Latin translators, in rendering it by *stereoma* and *firmamentum*, no doubt supposed that they were conforming the statement to science as held in their time, and did not stop to reflect that the Ptolemaic system originated centuries after the time of Moses, and that a solid sky below the clouds is impossible, though even our revisers were so much under the control of old figments that they have merely ventured to place the true meaning in the margin. To our present knowledge

an atmospheric and ethereal expanse expresses the general fact, without committing itself to any doctrine either ancient or modern as to atmosphere or ether.

Such misapprehensions, based often on the mistranslation of single words, have done great mischief, and they warn us against the danger of committing the cause of religion either to the support of decayed philosophical or scientific systems, or to that of new views certain to be modified in the progress of discovery. The Bible itself, while so explicit as to the Divine creation of and immanence in nature, is perfectly non-committal as to secondary causes and theoretical explanations; and this rightly, because it is revelation and not science. It is of the nature of science to be ever advancing. Its goal to-day is its starting point to-morrow. Revelation, on the other hand, like the great natural laws which regulate the universe, is unchanging from age to age, yet capable of endless new applications to the wants and conditions of man in every age. Its old truths can never pass away. Its new applications will ever appear till all is fulfilled.

We might retort on those who inveigh against science in its attitude to religion, that many of the worst foes of Christianity have been men trained in merely literary and dialectic studies, and destitute of the love and knowledge of nature; while those chosen of the Spirit of God to reveal to man the plan of redemption, have been in full sympathy with God's mighty works, and have been guided to use them as illustrations of spiritual things. The study of nature has not, indeed, yielded a tithe of what it is capable of doing for the study of the Bible. Just as the archæologist disinters from mounds and ruins proofs of Bible history, so the old Book itself needs digging yet to disclose its wealth of analogy between things in heaven and things on earth.

Here, also, appears a special function of the Evangelical Alliance. Nothing in the outward aspect of Christianity is so repulsive to thinking men, viewing it from without, as its divisions and strifes within, and its conformity to human de-

vices outwardly. Those only who represent the Church of Christ in its divine unity, and as consisting of men united with Christ by faith, and living under the guidance of the Divine Spirit, can present it in its true aspect to our scientific workers. If the Church is the Body of Christ, then it must be an organism not constituted by man but by God. No power or skill of man can make or mend the humblest living organism, how much less that which stands at the head of the Divine system of the world. It may be marred or wounded; but cannot be improved by us; and it is only when denuded of the mean and tawdry rags with which men invest it, and respecting which they contend and quarrel that it can appear in all its heavenly beauty.

Finally, do we ever expect to be altogether free from the natural and material, even in the spiritual bodies promised at the resurrection? In that celebrated passage in Paul's First Epistle to the Corinthians, which is said to have had more than thirty different interpretations put on it by commentators, and in which he tries to explain that in baptising outwardly the human body, we are not applying a Christian rite to a thing doomed to final dissolution, but to one capable of unending life, as well as in the same apostle's beautiful comparison of the body with a grain that dies to spring up in a new form, we read that there is a sense in which the human organism is immortal. In that passage also in the eighth chapter of Romans, in which he holds that the whole creation is to partake in the final manifestation of the sons of God, we further learn that redeemed and glorified man is to be associated with a redeemed and glorified nature. Even the very little that we have learned here of the work of God may remain in that new world as a new and glorified science. Were it not for this hope, I should have had much less pleasure and interest in enquiring into the ways in which it has pleased God to build up this beautiful world—beautiful even in that state of suffering to which, for a time, it has been subjected by man's transgression.



