

Science and the Old Testament.¹

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THE Bible and science are both divinely appointed factors in the education of the human race. This truth is finely expressed by Francis Bacon in a passage chosen by Charles Darwin as a motto for his "Origin of Species": "Let no man think or maintain," says the philosopher, "that a man can search too far or be too well studied in the Book of God's Word or in the book of God's works, divinity, or philosophy; but rather let men endeavour an endless progress and proficience in both."

Centuries later a similar declaration was made at a meeting of the British Association by 800 students of science, as follows: "We conceive that it is impossible for the Word of God, as written in the Book of Nature, and God's Word written in Holy Scripture, to contradict one another, however much they may appear to differ. We are not forgetful that physical science is not complete, but is only in a condition of progress, and that at present our finite reason only enables us to see through a glass darkly; and we confidently believe that a time will come when the two records will be seen to agree in every particular." This declaration sets forth the starting-point of this paper. We believe that the Bible and science both come from God, and both are parts of His truth. We may expect to find them in agreement, and believe that any conflict may well be attributed to our own ignorance of the full meaning of one or the other.

At one time it was fashionable to say that, if science contradicted the Bible, science must be wrong, and further investigation was impious. That time has happily passed; but a new danger has arisen. In their anxiety to avoid the Scylla of superstition some modern theologians have shipwrecked upon the Charybdis of rationalism, and to-day the cry is raised that, if science contradicts the Bible, the Bible must be wrong, and

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further investigation is irrational. Has, then, the mantle of infallibility been torn from the shoulders of the Pope merely to be placed upon those of the Professor? Scientific men are the first to disclaim for their results and speculations that finality which is assumed on their behalf by some of their followers.

Before passing in review the present state of science in relation to the Old Testament, a further word of warning may be uttered against this popular mistake—that natural science consists of a body of truth of a higher order of certainty than that attaching to any other realm of thought.

In a recent criticism Sir Oliver Lodge rebukes Haeckel for even assuming the conservation of energy and matter, and states that "It is quite likely that before long fresh atoms of matter may be brought into being in a laboratory." But if a materialist be thus rebuked for assuming the permanence of matter, need some Christian men be in such haste to condemn the Old Testament because it is supposed not exactly to fit in with a theory of evolution which rests upon a much more precarious foundation? The spheres of the Old Testament and science are in the main distinct; but the relations between them are real and important, and some of these may now briefly be examined.

Sixty years ago many maintained that science had rendered a belief in miracles impossible, and wildly charged great discoverers like Faraday and Clerk-Maxwell, who still believed in them, with wilful obscurantism. But to-day it is generally admitted that the question of miracles belongs rather to philosophy than to science, and the series of eminent scientific men who hold the Christian faith continues so unbroken that any idea of conflict upon this score may be regarded as one of those exploded superstitions which now only linger in the pages of the rationalist press.

There is a second direction in which the trend of science is distinctly away from the materialism of Haeckel, and that is the question of the origin of the universe. Haeckel, with a few others, maintained that the discovery of evolution rendered

belief in a Creator unnecessary. A larger number have maintained, with Huxley and Darwin, that it leaves it entirely unaffected, and it should not be forgotten that Darwin expresses his belief in the Creator more than once in his "Origin of Species." But in the last generation there is a growing school which maintains that science is not silent upon the subject, but, in Lord Kelvin's words, "positively affirms creative power." In their essay upon the "Unseen Universe," Professors Tait and Balfour Stewart claimed to prove that the law of continuity demands absolutely the existence of a spiritual world of the kind pictured in the Bible. Herbert Spencer, whilst proclaiming God as "unknowable"—or perhaps we may say "incomprehensible"—yet regards the existence of a First Cause, either personal or higher than personal, as a necessary postulate of scientific thought. Lord Kelvin, speaking in 1889, denied that "the facts of Nature could be explained without a definite belief in a Creator." And, finally, Sir Oliver Lodge disposes of Haeckel's contention, that science alone can account for the origin of the universe, by saying that "the progress of thought has left him . . . somewhat high and dry, belated and stranded by the tide of opinion, which has now begun to flow in a fresh direction."

In regard especially to the origin of life, Charles Darwin and Wallace both attributed it to a creative act; and Charles Darwin's son, Sir G. H. Darwin, speaking in 1905, could still say, "The mystery of life remains as impenetrable as ever, and in his evolutionary speculations the biologist does not attempt to explain life itself"; whilst, again, Lord Kelvin has said that "here science is compelled to accept Creative Power."

These are strong witnesses, and although their testimony is borne from a strictly scientific point of view, it has an immediate and important bearing upon the first chapter of Genesis. In spite of criticism, that wonderful chapter stands out like a primeval granite rock—grand, mysterious, and unaffected by the march of centuries. In that majestic description the lesson of creation is impressively taught. With a few bold

strokes the foundations of idolatry and polytheism are swept away, and the power, the patience, and the providence of God are impressed. We need not be surprised at Sir Isaac Newton exclaiming: "We account the Holy Scriptures to be the most sublime philosophy!" And when to-day we find biology, physics, and astronomy teaching the same truths concerning the creation, we can join with Sir William Herschel in adding, "All human discoveries seem to be made for the purpose of confirming more and more strongly the truths contained in Holy Scripture."

Professor Driver, indeed, tells us on the contrary that the Scripture account of creation is grafted upon "the false science of antiquity"; but as the question is a scientific one, we may be pardoned for preferring Sir William Herschel's judgment to Professor Driver's.

We must next examine briefly the theory of evolution and its bearing upon the method of creation. Here the ground may be cleared by pointing out that there is nothing in the first chapter of Genesis which is inconsistent with the ordinary evolutionary theory. Even Haeckel admits that the fundamental ideas of evolution "are found there" with "surprising clearness and simplicity." Kitchen Parker, who was a convinced evolutionist, says that "science in geology and biology does not touch the Scripture in the least." Again, Professor Romanes states that "the order in which the flora and fauna are said by the Mosaic account to have appeared on the earth corresponds with that which the theory of evolution requires and the evidence of geology proves." Is this the false science of antiquity? Sir William Dawson, a great geologist, further states that "the order of that vision of the creative work with which the Bible begins its history is so closely in harmony with the results worked out by geological investigations that the correspondences have excited marked attention, and have been justly regarded as establishing the common authorship of Nature and revelation."

Has this been said of any other account? And if the

harmony is so exact as to excite the wonder of Professor Haeckel, to convince Professor Romanes, and to confirm the faith of men like Herschel and Dawson, can we easily regard them as the pious fraud of some post-Exilic priest ?

In regard to the creation of man there is more obscurity. Upon the Scriptural side some maintain (like Mr. Hugh Capron, himself a Fellow of two scientific societies) that the Bible teaches the evolutionary origin of man, and some have maintained that Adam was not an individual, but a race.

On the side of science there is still more confusion. The theory of evolution is still only a theory, to which, in some directions, the facts obstinately refuse to conform.

This is particularly the case in its application to man, so that Sir Alfred Wallace was led to place him under different laws to those which govern the development of the animal world, and to say that "some intelligent power has guided or determined the development of man."

Man certainly occupies a distinct place in the animal world, not only as its highest product, but as constituting the sole member of a distinct genus, a distinct family, and some say a distinct order. The search for the missing link has so far proved a will-of-the-wisp. A French anthropologist recently thought he had discovered *Homo alalus* in the African Pygmies, whose speech he compared to the "chattering of monkeys"; but the Baganda Christians have since evangelized them, and some of them have been baptized. The earliest specimens of palæolithic man are higher in the scale than the Esquimaux of to-day, to whom they bear a striking resemblance. In his haste to establish our descent from the ape, Professor Haeckel predicated as the home of our Simian ancestors a region which geology has since unkindly proved to have been submerged beneath the Indian Ocean at the time when Haeckel required it for their residence.

Concerning this search Professor Virchow wrote in 1890 : "[Twenty years ago] it was hoped that the idea of descent in its extreme form would be victorious, sharply defined and

developed, not by Darwin, but by his followers. . . . There was general expectation that man's descent from the ape, or from some other animal, would be demonstrated. . . . In vain have the links which should bind man with the ape been sought; not a single one is to be recorded. The so-called fore-man—the pro-anthropos which should represent this link—has never yet been found. No man of real learning professes that he has seen him. For the anthropologist, therefore, the pro-anthropos is not an object of discussion founded on fact. Perhaps some one has seen him in a dream, but when awake he will never be able to say he has come across him. Even the hope of his future discovery has fallen far into the background. He is now scarcely spoken of, for we live, not in a world of imagination or dreams, but in an actual world; and this has shown itself extremely unyielding.”

Since this was written nothing has occurred to modify it, but rather it has gained additional force by the lapse of time.

It may be added that in two directions at least Darwin's theory of the method of evolution has been materially modified, and that in a direction to bring it more into harmony with the Scriptural record. In the first place, his theory of imperceptible and slow variations has given way to one of rapid and almost sudden changes in view of the remarkable persistence of fixed types, and the exceeding scarcity of intervening ones. Whatever theory be ultimately adopted to account for their origin, the facts of science affirm decidedly that the species were intended to be each “after his kind.” In the second place, the theory that species were evolved by natural selection acting upon chance variations has been abandoned; and it is now generally accepted by evolutionists that the variations are definite, and directed towards some practical end by a power of responsiveness in the protoplasm which has been called “directivity.”

Professor Henslow holds that this latest theory re-establishes the argument from design upon a new and firm foundation.

In view, then, of the unsettled state of current science in this matter, and in view of the fact that many men of science have not found a belief in evolution to conflict with a belief in the scientific accuracy of the Old Testament, we may well hesitate before adopting any of these fluctuating theories as the basis of our theology ; and we may safely agree with Professor Parker that science does not touch the Scripture in the least.

Time will not allow us even to touch upon many other interesting points in the later chapters of Genesis, but an exceedingly useful book has just appeared which gives exactly that guidance which the practical teacher requires. Dr. Griffith Thomas's new Commentary on Genesis i. to xxv. deals with these questions in a way which combines spirituality with fearlessness and common sense.

Thus far evidence has been brought forward to show that there is nothing in science which requires us to abandon the belief that the Old Testament is a veracious record of facts. But as many deny this, it may be well to turn aside for a moment to see what such an abandonment would involve.

As a rule, those who deny the accuracy of the Old Testament are compelled to adopt a theory of the Kenosis which limits our Lord's authority to purely spiritual matters, and regards Him as sharing the mistakes of His time upon scientific and critical questions.

But are there not grave difficulties in this view? If the Old Testament is intended only for spiritual use, and our Lord's authority is paramount upon spiritual questions, must not the use of the Scripture come under His authority? Yet He always used the Scriptures as if they were true and trustworthy. This theory would seem, therefore, to import a new and real difficulty in drawing the line as to what is and what is not a spiritual matter.

Moreover, the Kenosis theory can hardly affect those long hours which He spent in His risen and glorified state in opening the Scriptures to His disciples. It must be conceded that in what is there attributed to Moses He found more

“concerning Himself” than some modern writers are able to discover. Yet there is no sign of a break between His teaching then, and when, a few days before, He had refused to call in the aid of angels, in order that “the Scriptures might be fulfilled.” It is not here contended that this view that our Lord was mistaken as to the character of the Old Testament is outside the pale of Christianity, but it is asserted that it involves much greater difficulties than those which it is invoked to remove.

The doctrine of the inerrancy of Scripture may be only a theory, but in many cases it is built upon spiritual experiences which are as much facts as the facts of science. And if one theory conflict with another, it would seem the course of reason to adopt that position which creates fewest difficulties.

In addition to the difficulties just mentioned, the theory of the mythical character of Genesis, whilst it might seem a short-cut to get rid of any apparent discrepancies with science, would leave the much more remarkable agreement of the Bible account of creation with the results of geology an unexplained enigma.

It must be concluded, therefore, that, whilst it may seem desirable in the interests of a rationalistic philosophy, it is not required by the facts of science.

A few rules may now be suggested for the practical teaching of the Old Testament. They have mainly in view young inquirers into the problems of life, whether heathen, Agnostic, or others, who are facing the claims of Christ and all that is involved in them.

1. In teaching the heathen science lends considerable aid. No intelligent Hindu can fail to be struck by the contrast between the Bible account of creation and the story in the book of Manu. God's patience and providence, laws divinely ordered, and the forces of Nature viewed as God's instruments, form a vivid contrast with the jumbled procession of demons and nymphs, storm-gods and wind-gods, men in their four castes, and the qualities and elements of a bygone science which there

emanate from the primeval substance. So a young Chinaman also, fresh from his native necromancy and superstitions of the earth-dragon, finds in the Bible the same free atmosphere which he breathes in the Western science. They rarely feel the necessity of doubting the veracity of the Old Testament, unless they meet with the writings of Colonel Ingersoll or some "Higher Critic."

2. Care should be taken not to give the impression that scientific text-books are infallible, and a distinction should be drawn between facts and theories. Much mischief has arisen from a confused notion that science is on a sure, whereas religion is on a shifting, foundation.

3. In dealing with those who profess to have lost their faith because of modern science, a hint may be taken from Dr. Torrey's admirable little book, "How to Bring Men to Christ." Find out from them, is his advice, where they lost their faith; and that is probably where they will find it again. It is futile to waste hours discussing the order of creation, when the real barrier may be a sense of self-righteousness or the fear of men.

4. In all cases where real scientific difficulties bar the way to faith, a frank and fearless search into both should be encouraged. Let equal time be given to searching science and to searching the Bible; and not without prayer, for scores have begun to pray in the dark and have found the light come. Stress may be laid upon cases of scientific men like Romanes and others converted from unbelief, and of men like Sir G. G. Stokes and Lord Kelvin spending much research upon the supposed conflict, and finding their Christian faith not thereby weakened, but strengthened.

5. In regard to the Old Testament, encourage them to think for themselves. Half the difficulties are derived from books. It may be useful to point out that even Herbert Spencer was not infallible, and that, after being reduced to a state of mental chaos by reading opposing views concerning science and the Bible, a man may find relief in going to each

source of knowledge direct, and studying them first-hand for himself.

6. Much might be said concerning "discrepancies."

In the first place it may be pointed out that progress in science is often caused by the investigation rendered necessary by apparent discrepancies.

In the year 1795 the French astronomer Lalande observed a new star, first on May 8, and then on May 10. There was a discrepancy between the two observations, and he discarded the former one. Had he but believed in both and investigated further, he might have found out that the apparent "discrepancy" was due to the star not being a fixed star, but a planet, and he might have anticipated the discovery of Neptune by half a century and covered himself with glory. Sir Robert Ball says that most of the greatest discoveries of science have been due to such "discrepancies," and it may be that some deeper aspect of truth has been missed when, in the case of discrepancies appearing between science and Scripture, it has been too hastily assumed that one of them must be wrong.

An attitude of inquiry is far different from the undesirable frame of mind which looks upon the reconciliation of science and the Bible as a Chinese puzzle, and twists and forces them into agreement by some ingenious process, and perhaps with the help of an incredible hypothesis calculated rather to destroy faith than to create it. Such an exact parallelism between science and the Bible is not to be looked for. Current science is only the teacher of its own generation. The Bible is the teacher of all the ages.

7. We should distinguish between reason and rationalism. Reason is complementary to faith; rationalism is contrary to both. Reason is the exercise of the mind; rationalism is the preclusion of the exercise of every other faculty. It is the essence of rationalism or positivism to exclude the supernatural; in science it rejects every idea of God being knowable, and it mangles the Bible by cutting out at all costs every part which contains the miraculous, either in event or

prediction. Let it be explained, therefore, that science lends no support to this. A criticism which discredits a narrative merely because it contains a miracle, or which assumes that God could not have imparted to the prophet a truth in advance of his age, is not scientific, but in essence atheistic. God is forgotten. The results of such a criticism are vitiated from their source.

8. The next rule is one upon which all must agree. If in our teaching we find that our way of looking at the Bible puts a stumbling-block in the way of the student, do not let us tell him, "There is nothing between that and atheism." If our Hindu friend finds it easy to accept Christianity only upon the basis that the Bible is not free from error, let us welcome him all the same.

Our object is not to win arguments, but to win souls.

On the other hand, more than one undergraduate has been known to make shipwreck of his faith because some theological lecturer laughed him out of his old belief in the truth of the Old Testament, and because, once started on the course of rationalism, he found no place to stay his foot. Let all things be done to edification.

9. Finally, let us bear in mind that all men have another Teacher than ourselves. We cannot expect men to understand God's message if they are not under the influence of His Spirit. We should remind all seekers that this wonderful gift of the Holy Ghost is promised to all who ask ; and, above all, let us not attempt ourselves to exercise the privilege of ministering the Word of God to others without first asking, in believing prayer, for a special in-filling of that same Holy Ghost.

