BIBLICAL BIOLOGY.

A CONTRIBUTION TO RELIGIOUS NON-SCIENCE.

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"Avoiding profane and vain babblings, and oppositions of science, falsely so-called."—1 Tim. vi., 20.

In these later days, when science is carrying devastation into the land of faith, and godless education is everywhere offering the fruit of the tree of knowledge to the children of men, it behoves those who still cling to the faith once delivered to the saints to offer such small aid as they may in defending the citadel of Christianity, the Holy Bible, against its foes. And above all things is it necessary to know thoroughly what is in the Bible, so that those who "turn the Bread of Life into stones to cast against the enemies" may not suddenly shoot one out of an unsuspected catapult. Let us search the Scriptures, as did the noble Bereans, and we shall be rewarded by discovering therein biological facts that we shall never find if we confine ourselves to works written by mere uninspired scientific men.

And, first, let us reject with indignation the idea that the Bible is not written to teach us science. All that is in the Bible is written "for our learning" (Rom. xv., 4), and if scientific statements are made therein they must be made for our instruction. It is not conceivable that when "holy men of God spake as they were moved by the Holy Ghost" (2 Peter i., 21) they spake wrong. The very thought is blasphemy, and must be at once rejected by every reverent mind. How should we be able to trust the Bible in its revelations about heaven if we refuse to credit its revelations about earth? If it is worthy our faith in celestial matters, surely we may believe it in matters terrestrial. If it is to be our guide to eternal, much more must it be our guide to temporal, truths. Surely no one

will be foolish enough to accept a light to his feet and a lamp to his paths (see Ps. cxix., 105) if that light is delusive on the road along which he walks, and only throws a glare on the far-off mountains beyond the river of death?

No! Against all such "oppositions of science falsely so-called" let us set our faces as flint (see Isa. l., 7). Give up one of these precious words, and we give up all. If God has not "at sundry times and in divers manners" spoken "in times past unto the fathers by the prophets" how can we be sure that he "hath in these last days spoken unto us by his Son" (Heb. i., 1, 2)? Rather let us "receive with meekness the engrafted word which is able to save" our "souls" (James i., 21), and thank God, who has hidden these things from the wise and prudent Darwins and Huxleys, and has revealed them unto babes (see Matt. xi., 25).

Gen. i. contains some biological facts of great interest and novelty. Herein we learn that trees brought forth fruit, and herbs yielded seed, and the earth brought forth grass, before the sun existed to "divide the day from the night" (verses 11-14). These were the first living things that existed on the earth. At that time there was no animal life in existence; no sound of life broke the silence of those vast woods; for two days the vegetable world triumphed in security; no snail smeared the delicate fronds of the fern; no caterpillar ate the dainty new-born leaves; no sparrow pecked the cherry; no blackbird feasted on the strawberry. Dogmatic science asserts that these grasses and herbs and fruit-trees could not have brought forth their seeds and fruits without the sunrays, but Genesis knows better. Foolhardy science produces miserable pieces of rock, containing fossil animals older than any plants, and sets them against our glorious revelation. men moles or rabbits, that they should burrow in the earth and bring out these deceiving pebbles which God mercifully hid out of sight, clearly showing that he intended them to be out of mind? Far better leave the earth as God made it, and live on the surface, where God placed us. The fossils cannot injure the moles, whereas it is plain that they are a serious danger to a child-like faith. Are we not told that except we "become as little children" we "shall not enter into the kingdom of heaven" (Matt. xviii., 3), and I ask you, as sensible persons, "I speak as to wise

men, judge ye what I say" (1 Cor. x., 15), would any child you ever heard of trouble its little head about Terebratula biplicata, Thecodontosaurus, Pterodactylus crassirostris, Noeggerathia cuneifolia, Homalonotus Delphinocephalas, Gorgonia infundibuliformis? Would not the mere names be enough to bring on croup? And if we are to become as little children, is it not clear that creatures possessing names of this description are, by the merciful dispensation of Providence, stamped as utterly inappropriate to our present state?

There is one beautiful suggestion, it would be going too far to call it thought, of a man of God, which the truly pious may well ponder over. It is this. Perhaps God created the earth, just as it is, full of fossils, placing these apparent records of the past out of the sight of simple people, but ready to entrap the carnal geologist, as it is written: "He taketh the wise in their own craftiness" (1 Cor. iii., 19). Who can say that fossils are not among the means prophesied of by Paul when he says that "God shall send them strong delusion, that they should believe a lie: that they all might be damned "(2 Thess. ii., 11)? At any rate, no one ever alleges that people will be damned for refusing to believe in fossils, while if Christianity be true, people may be damned for believing them, and it is surely wiser to be on the safe side. Fossils would be no consolation in hell, especially as they would probably all become metamorphic rocks.

It is most interesting and comforting to know that God gave man and woman "dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (Gen. i., 23). It is a little difficult, perhaps, for a man to exercise this dominion when his leg is seized by a shark, or his body is carried off by a tiger; but doubtless if he reminded the animals of Gen. i., 28, they would at once mend their ways, and restore his property.

Gen. ii., 21, 22, are verses that have been the source of wide-spread error—I mean of divine correction of so-called science. Adam clearly went through life short of one rib, and it has been generally supposed that his sons have inherited this peculiarity, and that man has normally an uneven number of ribs, twelve on one side and eleven on the other, thus affording a beautiful hereditary proof of

ancestral generosity. This pious faith has been rudely shaken by the study of anatomy, and by the unpleasant discovery that the number of male ribs is not odd; it now exists only, I fear, in country villages where science classes under South Kensington have not yet exerted their sceptic-making influence, and where people do not enquire too curiously into their internal arrangements.

Gen. iii. presents us with a pleasant picture of intercourse with the lower animals before the fall of our first parents brought sin into the world. What does scientific zoology know of a talking serpent? Can any scientist of to-day pretend that he has ever met with a specimen able to talk? Yet this remarkable snake talked with great effect, and we owe to his well-directed eloquence the inestimable blessing by which, as God said, "the man is become as one of us, to know good and evil" (v. 22). The serpent in question was remarkable in ways other than his gift of speech. After God had cursed him, he went about as snakes do now, but before that he progressed on his back, or his head, or his tail, in a manner since become as old-fashioned as the minuet.

The tree of knowledge of good and evil, and the tree of life, are plants quite beyond the reach of modern botany. It would have been a priceless blessing for mankind if Adam and Eve had smuggled some cuttings of these out of the garden, for knowledge now has to be painfully acquired, while life closes when experience has brought its highest utility. It is, perhaps, comforting to know that in the middle of the street of the throne of God and of the Lamb, and on either side of the river, there is a tree of life (Rev. xxii., 1, 2), which bears a different sort of fruit every month-proving incidentally how very much horticulture has advanced in that neighborhood-but the thought intrudes, despite all effort, that we could dispense with the tree of life after we have risen to immortality, while it would be invaluable to us as mortals here. It requires great faith to feel that God is good in withholding the tree of life while it would be useful, and in giving it to us when it will be superfluous.

Gen. xxx., 37—42, gives some suggestions which breeders of cattle will find useful. Peeled rods of green poplar, hazel, and chesnut will influence the color of the young of sheep and cattle. There is no reason why they should,

and the whole idea is absurd, but we are assured that by this means Jacob cheated his uncle Laban in the most scandalous manner.

The bush which burned with fire and was not consumed (Ex. iii., 2.) and the rod which became a serpent and then retransformed into a rod (*Ibid* iv., 2—4), offer much subject for study to the pious mind, while the kinds of dust that became lice (*Ibid* viii, 16, 17), and of ashes that became boils (*Ibid* ix., 8, 10), are fortunately confined to Egypt. The cattle that were all killed of murrain (*Ibid* ix., 6) and subsequently plagued with boils (*Ibid* 9), and later smitten with hail, so that they died again (*Ibid* 18—25), and of which some died a third time (*Ibid* xii., 29), smitten by the Lord, and others a third time drowned in the sea (*Ibid* xiv., 28) are also confined to that same curious land; in other countries animals only die once.

Lev. xi. gives some interesting facts of animal life. Nowa-days the camel's leg does end in two toes, although not very obvious ones, but in Moses' time it was not so (v. 4). The hare that chews the cud (v. 6) has become extinct, though all hares have a deceptive habit of munching, and the bat is not now classified as "a fowl" (compare verses 13 and 19). Probably at that time the bat was not a mammal, and it has only become one since with the object of damning the scientific biologist. The "fowls that creep. going upon all four" (v. 20) have also become extinct, and have left no fossils behind them to perpetuate their memory; four-legged fowls given to creeping are wholly unknown. So again with the "flying creeping things which have four feet," and go "upon all four" (verses 23, 21), such as locusts, beetles, etc. These have six legs now-a-days, having acquired two more since the days of Moses, and I desire to point out to scoffing sceptics that were it not for this blessed book these remarkable quadrupedal birds and insects would have remained unknown. Who after this can dare to say that the Bible makes no contributions to science?

I say nothing of the pregnant suggestion contained in the reference to the flying, creeping things that "have legs above their feet" (v. 21). To me this verse contains a hint that at that time there existed some four-legged birds with feet above their legs, a peculiarity that would necessitate a unique anatomical re-arrangement of the appendages, and, to our purblind eyes, seems to present certain difficulties in locomotion. This speculation is full of interest, but perhaps it is dangerous to press too far inferences from the sacred text. We must ever remember that he who adds to the words of this holy book is cursed with him who takes away from them (Rev. xxii., 19), but perchance we avoid this danger by not regarding the existence of these supracrural-footed, flying, creeping things as a matter of faith, like that of the four-legged

fowls, but only as a pious opinion.

The Israelites must have had serious difficulties during the period of transition between the queer beasts and their modern namesakes. Thus a four-legged beetle was "clean" (Lev. xi., 22), but "whatsoever hath more feet [than four] among all creeping things" was "unclean" (Ibid. 42), as, for instance, everything now known as a Perhaps beetles had four legs until the Jewish ceremonial law was supplanted by Christianity, and thereupon they suddenly changed into the modern six-legged This change may have taken place even in the time of Moses, for it is remarkable that in Deut. xiv., 19 "every creeping thing that flieth" has become unclean and may not be eaten, and it would reconcile this apparent contradiction if we suppose that all the insects had suddenly developed an extra pair of legs, and so had come under the head of flying creeping things with more legs than four. Thus beautifully does science throw light on the dark places in scripture, and cause apparently discordant texts to harmonise.

In Numbers xvii. we read of a remarkable rod which in the space of a single night "budded and brought forth buds, and bloomed blossoms and yielded almonds." So greatly can God expedite natural processes when he wills. Indian jugglers can now perform these marvels, but no one would dream of being so blasphemous as to suggest that Moses, who was "learned in all the wisdom of the Egyptians" (Acts vii., 22), played a conjuring trick in order to substantiate his brother's claim to the priesthood.

The unicorn is another animal of which we should know nothing were it not for the Bible. We find it mentioned in Deut. xxxiii., 17, in Job xxxix., 9—12, and in Ps. xcii., 10. There must therefore have been such an animal, as the Holy Ghost would not talk about a non-existent

creature, and yet there is not a trace of its existence outside this book of God.

Ezekiel is a book of priceless value from our present point of view. Who can read without his heart thrilling of the living creatures that "had the likeness of man," and such a man—a man with four faces, with four wings, with a calf's feet, and a man's hands, sparkling like burnished brass, looking like burning coals of fire and like the appearance of lamps (Ezek. i., 5-13). The likeness is clearly not to any man of the past, so it must be to a man of the future, and under these circumstances well might John the Apostle say that "it doth not yet appear what we shall be" (1 John iii., 2). In the tenth chapter of Ezekiel the same creatures appear again and are named cherubims, and we learn the additional fact that "their whole body, and their backs, and their hands, and their wings, and the wheels were full of eyes round about" verse 12), a superfluity of visual organs that must have been almost confusing to the possessors. First cousins to these extraordinary creatures must be the four beasts of Revelation, who are "full of eyes within" (Rev. iv., 8), an arrangement admirable for introspection, but otherwise slightly unsatisfactory. I am almost inclined to think that these four beasts are made out of one of Ezekiel's, for a careful comparison shows that, barring the multiplication of wings, one beast is exactly a quarter of a cherub.

Jonah's experiences are full of valuable biological information. The whale (compare Matt. xii., 40), which was a "great fish" (Jonah i., 17) living in the Mediterranean Sea, and the internal arrangements of which were suitable for swallowing a prophet and affording him lodging for three days; the gourd which grew up in a night, and the worm which "smote" the gourd (*Ibid* iv., 6, 7)—are not these known to and admired by every student of holy writ?

Space fails to draw attention to all the biological revelations made in this blessed book, but I cannot pass over the withered fig-tree without a word. As against the story so beautifully told (Matt. xxi., 18, 19; Mark xi., 12—14, 20, 21) of this unhappy tree, on which Jesus "found nothing but leaves, for the time of figs was not yet," it is alleged by infidel critics that if the season for figs had not arrived it was absurd for Jesus to expect to find any, and

they scoff at the explanation given by the true believer that fig-trees at that time in Judæa (although at no other time and in no other place) bore figs before they bore leaves, and that this fig-tree was therefore guilty of false pretences, whereby it deceived its Creator. It is perfectly true that now the fig-tree is covered with leaves long before its remarkable inflorescence has ripened into fruit, but it is clear that this particular fig-tree began at the other end and worked backward, otherwise we should be obliged to come to the horrible and blasphemous conclusion that Jesus was both silly and ill-tempered, and that he behaved like a petulant child, howling because it cannot obtain impossibilities.

The Revelation of St. John the Divine offers a rich feast of creatures unknown to science; I have already mentioned the quarter-cherubs, and we have in addition a sevenhorned seven-eyed lamb (v. 6); locusts shaped like horses, with men's faces, women's hair, lions' teeth, scorpions' tails, wearing crowns and breast-plates (ix., 7-10); a red dragon, with seven heads, ten horns, and a wonderful tail, who casts a flood of water out of his mouth (xii. 3, 4, 15); a beast like a leopard, with seven heads and ten horns, with a bear's feet and a lion's mouth, and another with two horns, who "spake as a dragon" (xiii., 1, 2, 11), however that may be; yet another, scarlet in color, "full of names of blasphemy," as others were full of eyes, and with seven heads and ten horns (xvii., 3); never was there such a menagerie full of most curiously composite animals as that seen by the beloved Apostle from "the isle that is called Patmos" (Rev. i., 9).

My task is ended; I have shown something of the treasures of biological knowledge laid up for us in this most precious book, and I commend my humble effort to all true believers, beseeching them to aid it by their prayers.

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