

DISCUSSION ON THE ORIGIN OF SPECIES.

A DIAMOND.

F. So you have tabulated Darwin? Well, how did you pay the bill?

C. You cannot expect me to do his like. He is too hard, and logical, and he treats his subject with such an intensity of dry reasoning, without giving himself the least rest for a single moment, that one end of the book is to the other, that I could scarcely have found it a great effort to read his through.

F. But I fancy, that if you are to be useful, you will admit that the high law rather with yourself than with the book. Your knowledge of natural history is so superficial, that you are necessarily misled by terms of which you do not understand the meaning, and in which you consequently take all mistakes. I admit, however, that the book is hard and laborious reading, and moreover that the writer appears to have misunderstood from the commencement to repeat all arguments, and simply to argue from beginning to end. From your point of view it will be conceded that he had made his case sufficiently clear.

C. I agree with you, and I do not like the book, partly on that very account. He seems to have no eye but for the slight point at which he is aiming.

F. But is not that a great virtue in a writer?

C. A great virtue, but a cold and hard one.

F. In my opinion it is a grave and vital one. Moreover I conceive that the political economy which so strongly characterizes the whole book, the absence of all passion, the air of extreme and serious caution, which pervades it throughout, are rather the result of training and artificially acquired self-restraint, than symptoms of a cold and unimpassioned intellect. At any rate whether the lawyer like faculty of viewing both sides of a question and attacking the full value to both is acquired or natural in Darwin's case, you will admit that such a habit of mind is essential for any really valuable and scientific investigation.

C. I admit it. Science is all hard—she has to learn of all. You are right. But a man of science may be a man of other things besides science, and though he may learn, and ought to learn, on hard during a scientific investigation, yet when he has done so for a resolution he may be hearty enough in support of it, and in his other capacities may be of as warm a temperament as even you can desire.

C. I tell you I do not like the book.

F. May I entreat you to smile upon it?

C. To your heart's content.

F. Truly then, I still ask you, what is the real ground upon which you have decided your reading of the book, and what do you think to be the main impression that Darwin's volume has left you to derive?

C. Why I should say some such thing as the following:—That man are descended from monkeys, and monkeys from something else, and so on back to dogs, and horses, and kangaroos, and apes, and pigeons, (what is a kangaroo?) and sheep, and then through the plants down to fish, and so on.

F. You express the prevalent idea concerning the book, which in your opinion it appears to excite enough.

C. How then should you express it yourself?

F. Stand on the book and I will read it to you through from beginning to end, for to express it more briefly than Darwin himself has done is almost impossible.

C. That is nonsense—as you called me what impression I derived from the book, so now I ask you, and I charge you to answer me.

F. Well, I consent to the justice of your demand, but I shall comply with it by requiring your consent to a few principal statements deducible from the work.

C. So be it.

F. You will grant then, firstly, that all plants and animals increase very rapidly, and that unless they were in some manner checked the world would soon be overstocked. This you do not dispute, nor with what rapidity they breed on the different parts of the Province where there is little or nothing to check them, or even take the most slowly breeding sheep, and see how soon 1000 may become

1000 sheep under favorable circumstances. In this sort of thing to go on for a hundred million years or so, and where would be the standing room for all the different plants and animals that would be ever existing, did they not naturally check each other's increase, or were they not liable in some way to be checked by other causes. Remember the great New Zealand sheep wars, and the extensive wars with the wolves from Europe. Why were they so abundant? Simply because they had plenty to eat, and could get sufficient shelter from the hawks to feel perfectly free. The same eggs, and lambs could stand the poor little creature in his poor world. The wolf increased, and multiplied because they had plenty of food and an unlimited supply to check them. Let them eat a year or two till they have materially reduced the hawks also, so they have long since reduced the great, and let them have to depend entirely upon occasional dead lambs and sheep, and they will find a certain rather formidable natural enemy called *Fascia* the white rat incessantly against them and slaughter them wholesale. The best preparation that to which I demand your consent that all plants and animals tend to increase in a high geometrical ratio; that they all endeavor to get that which is best suited to their own welfare; that, as not uncommonly things are conflicting interests among animals, animals constantly find one another's interests in the way, whereby the rate of increase of each species is very materially checked. Do you admit this?

C. It seems to be obvious.

F. You admit, then, that there is in nature a perpetual war of plants, of land, of food, of life, of rapine, that each is fighting continually for its own advantage, and will get what it can out of its own.

C. If what?

F. It is so. How much is there that nature has created? Simply because all are not of equal strength and the weaker must go to the wall.

C. You seem to glaze over your Darwin's statements.

F. Glaze? go glaze—in it how or not? I am not one of them.

"Who would naturally prefer nature?"

"By looking out that which is best."

If the law of nature is "struggle"—it is better to look the matter in the face, and adapt yourself to the conditions of your existence. Nature will not love to you, unless will you would struggle by getting low on the back and telling her that she is not to think you she is pointed. My dear fellow—my dear continental friend—do you not want food or meat sooner?

C. They that shall and go back to the matter in hand.

F. To continue then with the case. *Fascia* comes and eats them, so to speak; the weaker, the less active, the less cunning, and the less enduring race get killed off, and only the strongest and hardest race survive; there will be no lawless shown to animals in a state of nature; they will be weighed in the balance, and the weight of a hair will sometimes decide whether they shall be found wanting or die. Thus being the case, the case having been thus naturally settled, and the struggle having been protracted, there will be a gradual tendency to improve manifested among the able, and in giving out new sorts of sheep, cattle, rolling back to the party the best.

C. This law is obvious.

F. Extend this to all animals and plants, and the same thing will hold good concerning them all. I shall now change the ground and demand consent to another statement. You know that though the offspring of all plants and animals is in the main like the parent, yet that in almost every instance slight deviations occur, and that

By  
Lancelotti  
grandson of  
the Bishop  
of Lichfield

Carroll

upon this earth a single spontaneous form of the very lowest life, or suppose that three or four such primordial forms existed. Change of climate, of food, of any of the circumstances which surrounded any member of this first and lowest class of life, would tend to alter it in some slight manner, and the alteration would have a tendency to perpetuate itself by inheritance. Many failures would doubtless occur, but, with the lapse of time, slight deviations would undoubtedly become permanent and inheritable, these alone being perpetuated which were beneficial to individuals in whom they appeared. Repeat the process with each deviation, and we shall again obtain diversities in the course of ages differing more strongly from the ancestral form, and again those that enable their possessors to struggle for existence most efficiently will be preserved. Repeat this process for millions and millions of years, and, as it is impossible to assign any limit to variability, it would not be so though the present direction of species must certainly have some aboutness or bias, and that other diversities will continue to come about to the end of time. The great agent in this development of life has been competition. This has killed species after species, and forced that those alone should survive which were best fitted by the conditions by which they found themselves surrounded. Endeavour to take a bird's-eye view of the whole matter. See battle after battle, first in one part of the world, then in another, sometimes raging more furiously and sometimes less; even as in human affairs war has always existed in some part of the world from the earliest known periods, and probably always will exist. While a species is competing in one part of the world it is being subdued in another, and while its competitors are in, fighting in their triumph down comes the first for their being called and dashed out, some to life and some to death, and so forth, ad infinitum.

C. It is very hard.

F. No more hard than that you should not read matter as halleluiah.

C. But it is utterly subversive of Christianity; for if this theory is true the fall of man is entirely fabulous, and if the fall, then the redemption, these two being inseparably bound together.

F. My dear friend, there I am not bound to follow you. I believe in Christianity and I believe in Darwin. The two appear irreconcilable. My answer to those who accuse me of inconsistency is, that both being undeniably true, the one must be reconcilable with the other, and that the impossibility of reconciling them must be only apparent and temporary, not real. The reconciliation will never be effected by placing a little of the one and a little of the other, and then doing them together with glass. People will not stand this sort of dealing, and the rejection of the one truth or of the other is sure to follow upon any such attempt being persisted in. The true course is to see the broad outline in the acknowledgment of the difficulty; to estimate precisely its real value, and obtain a correct knowledge of its precise form. Then and then only is there a chance of any satisfactory result being obtained. Far wiser the exact nature of the difficulty to know first, who can attempt to remove it; let us restate the matter once again. All animals and plants in a state of nature are undergoing constant competition for the necessities of life. Those that can hold their ground hold it; those that cannot hold it are destroyed. But as it also happens that slight changes of habit, of food, of climate, of circumjacent accident, and so forth, produce a slight tendency to vary in the offspring of any plant or animal, it follows that among these slight variations some may be favorable to the individual in whom they appear, and may place him in a better position than his fellows as regards the enemies with whom his interests come into collision. In this case he will have a better chance of surviving than his fellows; he will thus stand also a better chance of modifying the species, and in his offspring his own slight diversions from the parent type will be apt to appear. However slight the diversions, if it be beneficial to the individual, it is likely to preserve the individual, and to appear in his offspring, and this process may be repeated ad infinitum.

Once grant these two things, and the rest is a mere matter of time and degree. That the immense difference between the camel and the pig should have come about in six thousand years is not believable; but in an hundred million years it is not incredible, more especially when we consider that by the assistance of geology a very perfect chain has been formed between the two. Let this instance suffice. Once grant the principles, once grant that competition is a great power in nature, and that changes of circumstances and habits produce a tendency to variation in the offspring, no matter how slight such variation may be, and unless you can define the possible limit of such variation during an infinite series of generations—unless you can show that there is a limit, and that Darwin's theory oversteps it, you have no right to object his conclusion. As for the objections to the theory, Darwin has answered them satisfactorily elsewhere, and you were better had you perused them here. My recommendation to you is that you should read the book again.

C. Thank you, but, for all your part, I content to carry my little whether my millionth ancestor was a giraffe or not; and as Darwin's book does not please me, I shall not trouble myself further about the matter. 