CRITICAL NOTICES.

On the Origin of Species by Means of Natural Selection; Or the Preservation of Favored Races in the Struggle for Life. By CHARLES DARWIN, M.A., Fellow of the Royal, Geological, Linnæan, etc., Societies, etc., etc. New York: D. Appleton & Co. Cincinnati: For sale by Rickey, Mallory & Co.

In this great conflict of truth with error, between which the line is becoming more defined every day, "the fence" itself having become so razor-like that those who sit thereon are divided asunder, nothing is more encouraging than to find men earnest and true enough for self-correction. James Martineau coming forth recently to withdraw the assertion made in his *Rationale*, published some years since, that he did not believe that Anti-Supernaturalists could be rightly regarded as Christians, has bound every one of his friends more closely to him. He who can not be humble, can never be exalted; and he who can not leave his former self for present truth, will have to make at last the confession of a warrior upon an inferior field: "I have lost a great battle, and entirely by my own fault."

Charles Darwin, in the full knowledge that he opposes Agassiz, and the majority of his equals in eminence throughout the world, also, that he will be classified with Sciolists, such as the author of the Vestiges of Creation, has yet come forth and announced and corrected his error of opinion thus:

"Although much remains obscure, and must long remain obscure, I can entertain no doubt, after the most deliberate judgment of which I am capable, that the view which most naturalists entertain, and which I formerly entertained—namely, that each species has been independently created—is erroneous. I am fully convinced that species are not immutable; but that those belonging to what are called the same genera, are lineal descendants of some other, and, generally, extinct species, in the same manner as the acknowledged varieties of any species are the descendants of that species. Furthermore, I am convinced that Natural Selection has been the main, but not the exclusive means of modification."

As may be expected from these brave words, Mr. Darwin goes forward to *prove the point*. It is very simple and grand: with Newton pondering the falling apple, Young, the aërial soap-bubble, Gothe, the bleached skull of a ram, deducing from these the central laws of Gravitation, Diffraction and Vertebration of the skull, we shall hereafter have to think of Darwin exploring the geologic strata in his pigeon-roost, and visiting the stalls of the sheep-breeders. What will the naturalists who have been compassing land and sea to find any variety or species, say to this philosopher who has found the fauna of Australia and California in his pigeon box aforesaid! "Sir," said Dr. Johnson to a fine gentleman just returned from Italy, "some men will learn more in the Hampstead stage, than others in the tour of Europe."

The wonderful successes of the sheep-breeders seem first to have indicated to Darwin, that his theory had not taken in the full susceptibilities of form. Youatt had spoken of the principle of Selection as "that which enables the agriculturist not only to modify the character of his flock, but to change it altogether. It is the magician's wand by means of which he may summon into life whatever form and mould he pleases." Inquiring among the bird-fanciers and the horticulturists, he found, that from birds and plants of which he knew the parent-species, varieties quite as distinct as species had been cultivated by proper crossings. He tried this himself with pigeons, all of which he could prove to have originated with the rock-pigeon (*Columba livia*), and found that he could produce a given feather or beak, in a certain time. These results are, as every one knows, produced by fixing on the slightest advantageous difference which any individual presents, and training it into a variety.

When once this principle had been ascertained, all the results of science which had accumulated, all the reports of the continents came in to prove that *Nature was the first and most successful of Breeders*. The principle of Selection

was one that began with the first lichen on the first rock that broke from the cosmic ring. The awkward, the monstrous, the slow, the useless had, through their foes, beast or water or fire, become rare or extinct: the free, the fleet, the valuable had escaped and perpetuated themselves. Nature had been always seizing on differences, training them into varieties, rearing them into species. "Slow though the process of selection may be," says our author, "if feeble man can do much by his powers of artificial selection, *I can see no limit* to the amount of change, to the beauty and infinite complexity of the coadaptations between all organic beings, one with another and with their physical conditions of life, which may be effected in the long course of time by nature's power of selection."

We have given but the theme of this timely and excellent work, which brings with it inevitably the crisis of inquiry into this much discussed question of the origin of species. Owing to the theological exigency, which, finding historic records inadequate to the proof of supernaturalism, has fled to an imagined series of "independent creations" miraculously carried on in the strata of the earth, naturalists have been intimidated and the people befogged on the question of their own origin. Chasms have been opened up where God had built bridges; insulations superseded continents,—the lovers of truth were called on to dance to the pipes of discord and complexity. Where Reason had passed long since by her birthright to Music, lagging Science is now beginning to come; the walls which rise to such strains will endure.

ORIGIN OF SPECIES—DARWIN'S THEORY.

[We have already given our views of this work. The following sensible criticism has been sent us by a correspondent.—Ed.]

No objection should be made to Mr. Darwin's theory that it contemplates, in the origin of species by means of what he calls *natural selection*, the manifestation of law as unvarying as in their subsequent perpetuation. I can not doubt, however circumscribed our present view, however profound our ignorance, that system and order lie at the foundation of all, as the action of the Creator's will.

Each step in the progress of Science approaches nearer to proving that it is only ignorance which names the phenomena of Nature chance or accident; or would isolate them from a preestablished system of order. We seem to discover, in the distance, that Science will yet prove that there has been no cataclysm in Nature.

Mr. Darwin's theory leaves a God in the material world; for here we see the prevalence of *law*,— and, as Butler says, "what is fixed as much requires and presupposes an intelligent agent to render it so — *i. e.*, to effect it continually, or at stated times—as what is supernatural, or miraculous, does to effect it for once." But the defect of Mr. Darwin's theory, which it has in common with all systems of materialism, is, that it supposes that everything which does not serve a material purpose, is subject only to chance or accident; or, perhaps, that there is nothing existing but that which is of material use. Mr. Darwin states, distinctly, that on the theory of natural selection the various forms of life which we now see are the aggregate of qualities which have been, at some period of the existence of the race, of use in preserving its life; qualities which have been added up through the long process of ages, till they have produced the forms of organic life which we now find in the world. He says: "Nature cares nothing for appearances, except in so far as they may be useful to any being." But we find that Nature does care for appearances, preeminently; often at the expense of material use. The highest types of beauty most often combine with forms least able to withstand the fierce struggle for existence. Over all the world, the effort of creative skill seems as manifest in the production of qualities beautiful, as in those of simply material use. "Nature puts some kind of pleasure," says Thoreau, "before every fruit; not simply a calix behind it."

Let it be supposed, that all the wonderful mechanism of the human frame is the result of *natural selection*,— that even so complicated and marvelously adapted an organ as the eye was developed by the action of outward circumstances, from the mere optic nerve, coated with pigment, as in the Articulata; yet, how shall we account, by the same means, for the shaping of these organs, which *natural selection* could have made only for use in preserving the life of the race, into a form moulded to such perfection of beauty as that which the artist has copied in the statue of Apollo. I think natural selection would give us nothing but Calibans: such forms would be much better fitted to conquer in the great struggle for life. As it is, however, nothing but long continued degradation and oppression suffice to even partially efface the image of God in the human form.

Here, seems to me, the strongest objection to Mr. Darwin's theory — that we find that the same organs which are beneficial to the race, and are of use in preserving its life, yet conform to another standard — governed by other laws — that of beauty. This would be impossible by the theory of natural selection, which could produce only types of form within its own province.

M. B. B.