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We do not know whether Mr. Darwin is related to the well-known author of the "Zoonomia," whose physiological speculations, long since consigned to oblivion, attracted so much attention in the days of our grandfathers. If it be so, he has some hereditary claim to construct theories on the subject of zoological development. But as he has a far larger body of observed phenomena to work upon than were accessible to his predecessor in name and pursuit, so he has also brought to their consideration a less amount of proneness to conjectural and plausible theorizing, a better turn for patient investigation, and a more profound acquisition of scientific knowledge.

Mr. Darwin has to a great extent taken up the same ground which was trodden before by the author of the well-known "Vestiges of Creation." That ingenious though recklessly unphilosophical book has, we strongly suspect, operated not a little to keep back inquiry from the mysterious subject of the propagation of the several forms of life. Our naturalists subdivide tribes into genera, genera into species, species into varieties. But it is impossible to lay down any precise rule whereby to distinguish in all cases the difference between two varieties of the same species from the difference between two species of the same genus. And that being so, how are we entitled to assume, as is commonly done, that the several varieties of the same species are all descended from one common type, while the several species are each descended from a separate type? On this point Mr. Darwin remarks-

In considering the origin of species, it is quite conceivable that a naturalist, reflecting on the mutual affinities of organic beings, on their embryological relations, their geographical distribution, geological succession, and other such facts, might come to the conclusion that each species had not been independently created, but had descended, like varieties, from other species. Nevertheless, such a conclusion, even if well founded, would be unsatisfactory, until it could be shown how the innumerable species inhabiting this world have been modified, so as to acquire that perfection of structure and coadaptation which most justly excites our admiration. Naturalists continually refer to external conditions, such as climate, food, &c, as the only possible cause of variation. In one very limited sense, as we shall hereafter see, this may be true; but it is preposterous to attribute to mere external conditions, the structure, for instance, of the woodpecker, with its feet, tail, beak, and tongue, so admirably adapted to catch insects under the bark of trees. In the case of the misseltoe, which draws its nourishment from certain trees, which has seeds that must be

transported by certain birds, and which has flowers with separate sexes absolutely requiring the agency of certain insects to bring pollen from one flower to the other, it is equally preposterous to account for the structure of this parasite, with its relations to several distinct organic beings, by the effects of external conditions, or of habit, or of the volition of the plant itself.

The author of the "Vestiges of Creation" would, I presume, say that, after a certain unknown number of generations, some bird had given birth to a woodpecker, and some plant to the misseltoe, and that these had been produced perfect as we now see them; but this assumption seems to me to be no explanation, for it leaves the case of the coadaptations of organic beings to each other and to their physical conditions of life, untouched and unexplained. It is, therefore, of the highest importance to gain a clear insight into the means of modification and coadaptation.

[page 3 Introduction, F373]

In endeavouring to trace out a law on this subject Mr. Darwin has wisely given his especial attention to the phenomena more immediately within our ken, those which are supplied by the domesticated animals. He observes that breeders of any stock produce important variations of type by selecting the animals from which to propagate, and that any peculiarities which they exhibit are, as a general rule, perpetuated and developed by inheritance. Then he argues that if there be any natural forces in operation analogous to the artificial selection made by breeders and fanciers, we may easily conjecture how the several lines of heritable blood would divaricate more and more from each other and from the common ancestor, would develop in an increasing degree the organisation which fits them for any special circumstances, and seek more and more the circumstances for which they are fitted. Thus in a long succession the generations the descendants of a common stock would assume the distinct characteristics of different species, even to that recognised test of difference in species, the infertility of their mutual hybrids. This suggestion has often been thrown out before, but it has never been put forward, we think, in so definite a shape or so philosophical a spirit; nor has it ever received such illustration and support as is supplied to it by Mr. Darwin's ingenuity and scientific knowledge.

The required natural force, analogous to the breeders' selection, Mr. Darwin terms Natural Selection. There is, as he remarks, a constant struggle for existence going on, and that being so, he asks-

Can we doubt (remembering that many more individuals are born than can possibly survive) that individuals having any advantage, however slight, over others, would have the best chance of surviving and of procreating their kind? On the other hand, we may feel sure that any variation in the least degree injurious would be rigidly destroyed.

[page 80-81 Chap. IV. Natural selection, F373]

Elsewhere he illustrates the above process in the following fashion:

When we see leaf-eating insects green, and bark-feeders mottled-grey; the alpine ptarmigan white in winter, the red-grouse the colour of heather, and the black-grouse that of peaty earth, we must believe that these tints are of service to these birds and insects in preserving them from danger. Grouse, if not destroyed at some period of their lives, would increase in countless numbers; they are known to suffer largely from birds of prey; and hawks are guided by eyesight to their prey,—so much so, that on parts of the Continent persons are warned not to keep white pigeons, as being the most liable to destruction. Hence I can see no reason to doubt that natural selection might be most effective in giving the proper colour to each kind of grouse, and in keeping that colour, when once acquired, true and constant. Nor ought we to think that the occasional destruction of an animal of any particular colour would produce little effect: we should remember how essential it is in a flock of white sheep to destroy every lamb with the faintest trace of black.

[page 84-85 Chap. IV. Natural selection, F373]

Thus Mr. Darwin would suggest that all existing species have spread out from a few common types, and that there may still be a continuity of descent between our modern race of animals and the extinct forms of fossil life; so that the existing elephant may be “served heir” (as the Scotch lawyers say) to the mammoth of forgotten ages.

Our author frankly states the objections that may be urged against his theory, and he admits that the strongest is to be found in the want of any geological testimony in his favour; for having here the facts of a vast series of ages before us, we might reasonably expect to trace the gradual divergence of a species from its primordial type by the remains of those intermediate forms through which it has passed. He can only meet this objection by urging the imperfect state of the geological record so far as it is yet known to us:-

The several difficulties here discussed, namely our not finding in the successive formations infinitely numerous transitional links between the many species which now exist or have existed; the sudden manner in which whole groups of species appear in our European formations; the almost entire absence, as at present known, of fossiliferous formations beneath the Silurian strata, are all undoubtedly of the gravest nature. We see this in the plainest manner by the fact that all the most eminent palæontologists, namely Cuvier, Owen, Agassiz, Barrande, Falconer, E. Forbes, &c., and all our greatest geologists, as Lyell, Murchison, Sedgwick, &c., have unanimously, often vehemently, maintained the immutability of species. But I have reason to believe that one great authority, Sir Charles Lyell, from further reflexion entertains grave doubts on this subject. I feel how rash it is to differ from these great authorities, to whom, with others, we owe all our knowledge. Those who think the natural geological record in any degree perfect, and who do not attach much weight to the facts and arguments of other kinds given in this volume, will undoubtedly at once reject my theory. For my part, following out Lyell's metaphor, I look at the natural geological

record, as a history of the world imperfectly kept, and written in a changing dialect; of this history we possess the last volume alone, relating only to two or three countries. Of this volume, only here and there a short chapter has been preserved; and of each page, only here and there a few lines. Each word of the slowly-changing language, in which the history is supposed to be written, being more or less different in the interrupted succession of chapters, may represent the apparently abruptly changed forms of life, entombed in our consecutive, but widely separated formations. On this view, the difficulties above discussed are greatly diminished, or even disappear.

[\[page 310-11 Chap. IX. Geological record, F373\].](#)

In connexion with the palaeontological aspect of the question there is another consideration which Mr. Darwin has not noticed, and which may in some sort be taken to militate against his theory. We allude to the fact that the grandest and strongest types of animal life have become extinct, while dwindled specimens of the same group survive among us. If in the days when

A monstrous rept was of old the lord and master of earth,

he could not maintain his supremacy and existence, what could have been the more favourable conditions which enabled his scurvy relations of the newt and lizard sort to prosper, in their crawling way, at this present epoch?

One of the most curious chapters in Mr. Darwin's book is that in which he illustrates his theory from the indications of what we might term a yearning on the part of nature for a common pattern on which to construct the several forms of life. Such are the phenomena of what is termed Morphology:-

What can be more curious than that the hand of a man, formed for grasping, that of a mole for digging, the leg of the horse, the paddle of the porpoise, and the wing of the bat, should all be constructed on the same pattern, and should include the same bones, in the same relative positions?

[\[page 434 Chap. XIII. Morphology, F373\].](#)

Such indications he also gathers from Embryology, as pointing out the similarity which exists between the embryos of animals which at maturity are widely distinct. Perhaps the most striking illustration of this sort is that drawn from the existence of rudimentary organs, such as the mammæ of males and the undeveloped upper jaw of ruminants.

It is obvious that Mr. Darwin's speculations must jar on the pre-conceived opinions of those who are pleased with such arguments as those advanced in Paley's "Natural Theology." In fact the whole of that ingenious and interesting treatise is superseded if we admit Mr. Darwin's theory. Let it not be supposed, however, that the establishment of this theory (and it can by no means be said to be established yet) is to be regarded as any gain to a Lucretian

view of cosmogony. It is surely not less a Divine act of creation, to impress a law upon nature by which she develops herself, than to create the developed forms themselves. All the progress of science leads us from the latter aspect of the Creator to the former. Happily we are not dependent on scientific knowledge for the lesson which tells us of a God. From

The poor Indian, whose untutored mind

Sees God in clouds and hears him in the wind.

to a Humboldt with all the arena of Science before him, Nature teaches all one and the same truth, though she varies the language in which she expressed it.

doing such an extensive business, is quite out of, because traders are not operating beyond their means or legitimate credit, and have no speculation to bolster up. With regard to the "manufactured bills" above referred to, it appears that one or more "firms" were in existence in that year who did nothing else but draw bills in and upon purely fictitious but well-sounding names. These they remitted to parties in the country wanting bills for discount; with their names attached they were discounted by the country banks, taken up by the "buyers" until the crisis came, when of course they proved worthless beyond the only *bona fide* signature or signatures placed at the back, showing through whose hands they had passed. These were afterwards being constantly appearing in the country papers at the time from the parties in London, offering to supply persons in the provinces with such paper. There was, in fact, almost perfect organization in operation.

The movements of the precious metals are so equally counterpoised as to prevent anything material going in or out of the Bank. The demand is good, but the arrivals have been of about an equal extent. The greater portion of the gold recovered from the wreck of the *Royal Charter* has been sold for abroad.

Instead of the stock of gold in the Bank of England reaching £100,000,000, as was prophesied, we have seen that the bullion has been down to some £12,000,000, and this notwithstanding that instead of the annual production of gold being £3,000,000, and £1,000,000, it had increased to £25,000,000 or £30,000,000, and is now estimated to be £33,000,000. The simple truth of the matter is that the consumption has increased with the supply, and had only been withheld within its former narrow bounds because it could not meet with an adequate supply. In fact, the £200,000,000 of gold produced in the last ten years, against the £30,000,000 of the ten previous years, has been so eagerly absorbed, that there remains no more evidence of its actual existence than is furnished by that of the tin manufactured into pins, the amount of which metal annually consumed in this article being something remarkably striking, and for a period of years prodigious.

As usual about this period of the year, when most people are thinking of the Christmas holidays, the transactions in the English funded and other securities have this week been moderate; and as there has been no particular event political or monetary to affect prices they have been very steady, the fluctuation being only 1/4 per cent. There was a rumour on Thursday afternoon respecting the views of the Cabinet Ministers on the subject of the Suez Canal scheme, and the question with which it is supposed to be involved, but the report was not in general circulation, and had therefore no influence. Consols have been 95 1/2 to 95 3/4, and 95 1/4 to 3/4; the former is their present quotation. "The Rotten and New Three per Cents. have both varied from 95 1/4 to 95 1/2; the former being the quotation now. The India Loan has recovered to 104 and is firm at 104 1/4; India Debentures, 97 1/2 to 98 1/2, being also a rise; the Bonds are at 5s. to 5s. prem.; Bank Stock, 22 1/2 to 23. Exchequer Bills, 28s. to 31s. prem. The India Five per Cents. "enfaced" paper, has been placed on the official list, and business has been done in it up to 96.

The Mexican bondholders will be gratified by the assurance that Her Majesty's Government is striving in concert with France and America to put a stop to the present deplorable state of affairs in Mexico. In reply to the memorial addressed by some of the leading mercantile houses in the City trading to Mexico, including the Rothschilds and the Larings, &c., Lord John Russell says:—

I am fully aware of the evils which the present position of affairs in Mexico must inflict upon all merchants interested in the trade of that country. Instability has been repeatedly given to property, and the personal and property of British subjects residing in Mexico, and Her Majesty's Charge d'Affaires is active and zealous in carrying those instructions into effect. But unhappily a civil war rages in that country, the result of which, who, only intent upon satisfying their adversaries, have very little respect for the rules of justice or the safety of property. It is difficult to say which is the de facto Government, and while Great Britain and France acknowledge the authority of the President who has possession of Vera Cruz, Her Majesty's Government are endeavouring to come to some understanding with other powers respecting the advice to be offered to you may be secured that they are especially well to be offered with counsel with a view to bring about a termination of the present devastating and sanguinary war. Your representations, as expressed in your present memorial, shall be transmitted to Her Majesty's Charge d'Affaires, and he will be instructed to use every exertion to promote the security of commercial dealings.

It may be inferred that the time is near at hand when the belligerent parties will be obliged to come to some arrangement between themselves for an adjustment of difficulties, or else one or other must give way, from foreign pressure. The Bonds on this prospect have this week been up to 23, but are now 22 1/4 to 22 1/2. In other South American securities there has not been much change. Ecuador are at 12 1/2 to 13 1/2; Venezuela, 28 to 29; Peruvian very firm at 91 to 92 1/2; Chilean, 103 to 105; Buenos Ayres, 76 to 78, but have been 77 to 79; Brazilian, 101 to 103; Peru, 100 to 103, but have been 99 to 101. The European Stock Exchange has fallen 1 to 1 1/2 per cent., the present quotation being 76 1/2 to 76 3/4 for the Old, and 63 1/2 to 63 3/4 for the New Six per Cents. The depression arises from some large sales, and the probable complications arising out of the Suez Canal affair. Spanish are at 45 to 45 1/2; Portuguese, 45 1/2 to 46 1/2, being a rise of a half per cent.; Russian, 108 to 110.

The quotations of the several New Foreign Loans are, Austrian Five Per Cents., 77 to 79; Brazilian, 98 to 94; Chilean, 86 to 88; Russian, 96 to 1.

In general, Railway Shares have been extensively dealt in, but the holiday movement now affects the market, and the decrease of business brings with it some little reaction on prices; otherwise it is firm in character.

Indian and Canadian Railway Shares are well supported, and are rising in value. Colonial Government Debentures are all particularly firm but dull. Joint Stock Bank Shares continue a favoured class of investments. Miscellaneous Shares are quiet.

There have been two new undertakings announced this week—namely, the St. Paul Brazilian Railway capital £2,000,000, with a guaranteed interest from the Government of 7 per cent. unconditionally, with a profit of the line up to 3 per cent. to belong to the shareholders, and beyond that up to 12 per cent. to be divided with the Government. The other is the London and Colonial Company, capital £150,000, to supply the Australian colonies with malt, hops, and beer—a business which seems better suited to private enterprise. There will be nothing new brought out now until the new year, when, if the public evince a disposition to encourage their introduction, there are many ready to be announced.

The fleet of twelve vessels of the Iron Screw Collier Company is about to be sold for £60,000. The profits of the half year have been about £9,000 and £10,000. The assets on hand are about £29,000, subject to a reduction for a claim of £8,000 to £10,000. The original capital of the concern was £125,000, since reduced by the repayment of £9 per paid off in full the capital they subscribed. The Bank of England returns for the week ending Wednesday last, the 21st inst., when compared with those of the previous week, show the following results:—Issues issued, decrease £33,680; rest, increase £5,827; public deposits, increase £639,039; other deposits, decrease £326,536; seven day and other bills, decrease £29,523; Government securities, no change; other securities, increase £181,439; reserve of notes, increase £68,830; gold and silver coin, increase £38,638; stock of bullion, increase £1,858; active circulation, decrease £102,510.

In our notice of the British and Foreign Tanning Company last week, it was erroneously printed in our Saturday's edition, "Farm In," instead of "Tanning" Company. The error would at once be explained by the context.

TO SIR JOHN COLLIERIDGE, ON CHURCH RATES.  
Sir,—Considering the great importance to the Church that the question of church-rates should be rightly viewed and rightly settled, I will kindly excuse my making some observations on your recent speech at Exeter.

In these times of perplexity, all who have the good of our Zion at heart, and identify the welfare of our country with her welfare, will rejoice at your zealous advocacy of her cause. Assuredly it is very unstatesmanlike policy for those who are at the helm to succumb to mere agitation and popular clamour. Assuredly we ought to watch and resist (to use your own words) "a spirit of aggression, and determination systematically to go on step by step for the destruction of the Church." Assuredly a systematic aggression ought to be met by an enlightened, temperate, firm, systematic opposition. Assuredly the fruits of the more voluntary principle are precarious. Assuredly the Church ought not to put on a mendicant garb, and the state of her exchequer ought not to be regulated by the popularity or unpopularity of the preacher. Assuredly, too, the human law may be useful as an auxiliary bulwark to the truth.

But, on the other hand, if we will only carefully study the constitution of the Church, we shall find that she exacts of all her members a sacrifice which costs something, not upon the voluntary principle, but as a moral obligation. This sacrifice she requires as a token of the sincerity of the worshipper, and as a mean of providing for her own wants. Moreover, the history of the Church prior to Constantine exemplifies her principles in practice, and proves that she must not accept any pecuniary resources from the State. Holiness to the Lord is the sacred stamp or superscription which she bears upon her coin.

In your own feeling and forcible words, "She baptizes us as children, and we go into her hall Sunday after Sunday to hear the Word of God, and from time to time to receive the Holy Communion, and we trust to lie in the yard of our parish church." The pleadings in our Courts of Law (Jeffrey's Case, Lord Coke's Reports, vol. v.) tells us that in return for these privileges we are made chargeable to repair that church in which we receive them. Here is the groundwork of the law. It is most important for us to understand that Christianity creates the obligation, and that the law is only the human authority which enforces it. You say most truly that in matters connected with Church expenses the custom of England is different from the custom of Europe. But the canon law and the common law are both designed to uphold that great principle of reason and religion which requires all Christians to give "worldly things for spiritual things." The two laws only differ in the method which they adopt to carry this great principle into effect.

Whatever may be done in Parliament, there can be no satisfactory solution of the question of church-rates unless the English Churchman be brought to understand that he is bound to pay them as a religious duty. Any Parliamentary enactment which may look in this direction will be very valuable.

In a course of letters which I am writing in a provincial paper (the *West Suffolk and Essex Gazette*, published at Colchester), I am endeavouring to supply some materials which I hope may be of some little use in enabling these in authority to come to a right conclusion on this important subject. I beg to be allowed to call attention to these letters, and believe me,

*Harlow, Dec. 9, 1859.* Yours most respectfully,  
**CHARLES MILLER.**

### Literary Review.

*On the Origin of Species by means of Natural Selection.* By Charles Darwin, M.A.—London: Murray, 1859.

We do not know whether Mr. Darwin is related to the well-known author of the "Zoonomia," whose physiological speculations, long since consigned to the oblivion, attracted so much attention in the days of our grandfathers. If it be so, he has some hereditary claim to construct theories on the subject of zoological development. But as he has a far larger body of observed phenomena to work upon than were accessible to his predecessor in name and pursuit, so he has also brought to their consideration a less amount of proneness to conjectural and plausible theorizing, a better turn for patient investigation, and a more profound acquisition of scientific knowledge.

Mr. Darwin has to a great extent taken up the same ground which was trodden before by the author of the well-known "Vestiges of Creation." That ingenious though recklessly unphilosophical book has, we strongly suspect, operated not a little to keep back inquiry from the mysterious subject of the propagation of the several forms of life. Our naturalists subdivide tribes into genera, genera into species, species into varieties. But it is impossible to lay down any precise rule whereby to distinguish in all cases the difference between two varieties of the same species from the difference between two species of the same genus. And that being so, how are we entitled to assume, as is commonly done, that the several varieties of the same species are all descended from one common type, while the several species are each descended from a separate type? On this point Mr. Darwin remarks—

In considering the origin of species, it is quite conceivable that a naturalist, reflecting on the mutual affinities of organic beings, on their embryological relations, their geographical distribution, their geological succession, on their successive appearance on the earth, and on the conclusion that each species had not been independently created, but had descended like varieties, from other species. Nevertheless, such a conclusion, even if well founded, would be unavailing as a fact, for it would be necessary to establish the truth of the fact, and to ascertain that the world had been modified, so as to acquire that perfection of structure and coadaptation which most justly excites our admiration. Naturalists could not possibly see in the variety of the highest intensity, but as we shall hereafter see, this may be true; but it is preposterous to attribute to mere external causes the structure for instance of the woodpecker, with its feet, tail, bill, and tongue so admirably adapted to each insect under the bark of trees. In the case of the mistletoe, which draws its nourishment from certain trees, which has seeds that must be transported by certain birds, and which has flowers with separate sexes, absolutely requiring the agency of certain insects to bring pollen from one flower to the other, it is equally preposterous to account for the structure of this parasite, with its relations to several distinct organic beings, by the effects of external causes, or of habit or of the will of the Creator. I would, I presume, say that, after a certain unknown number of generations, some bird had given birth to a woodpecker, and some plant to the mistletoe, and the bird and its offspring to proceed to perfect their respective forms; but such an assumption seems to me to be preposterous; for it leaves the case of the coadaptations of organic beings to each other and to their physical conditions of life, untouched and unexplained. It is, therefore, the object of the highest importance to draw a clear insight into the means of modification and coadaptation.

In endeavouring to trace out a law on this subject Mr. Darwin has wisely given his special attention to the phenomena more immediately within our ken, those which are supplied by the domesticated animals. He observes that breeders of any stock produce important variations of type by selecting the animals from which to propagate, and that any peculiarities which they exhibit are, as a general rule, perpetuated and developed by inheritance. Then he argues that if there be any natural forces in operation analogous to the artificial selection made by breeders and fanciers, we may easily conjecture how the several lines of heritable blood would diversify more and more from each other and from the common ancestor, would develop in an increasing degree the organs which fit them for any special circumstances, and seek more and more the circumstances for which they were fitted. Thus in a long succession of generations the distinct characteristics of different species, even to that recognized test of difference in species, the infertility of their mutual hybrids. This suggestion has often been thrown out before, but it has never been put forward, we think, in so definite a shape or so philosophical a spirit; nor has it ever received such illustration and

support as is supplied to it by Mr. Darwin's ingenuity and scientific knowledge.

The required natural force, analogous to the breeders' selection, Mr. Darwin terms Natural Selection. There is, as he remarks, a constant struggle for existence going on, and that being so, he asks—

Can we doubt (remembering that many more individuals are born than can possibly survive) that individuals having any advantage, however slight, over others, will have the best chance of surviving and procreating their kind? And we may add, we may be sure, that any variation in the least degree injurious would be rigidly destroyed.

Elsewhere he illustrates the above process in the following fashion—

When we see leaf-eating insects green, and bark-feeders mottled grey; the alpine ptarmigan white in winter, the red-grouse the colour of heather, and the black-grouse that of peaty earth, we must believe that these tints are of service to the individuals of each species in protecting them from their enemies. If not destroyed at some period of their lives, would increase in countless numbers; they are known to suffer largely from birds of prey; and hawks are seldomly by oversight to their prey,—no, so that on parts of the mountain are probably very numerous. Hence I can see no reason to doubt that natural selection might be most effective in giving the proper colour to each kind of grouse, and in keeping that colour, when once acquired, true and constant. Nor might we think that the occasional destruction of an animal of any particular colour would produce little effect: we should remember how fatal it is in a flock of white sheep to destroy every lamb with the faintest trace of colour.

Thus Mr. Darwin would suggest that all existing species have spread out from a few common types, and that there may still be a continuity of descent between our modern race of animals and the extinct forms of fossil life; so that the existing elephant may be "serred heir" (as the Scotch lawyers say) to the mammoth of forgotten ages. Our author frankly states the objections that may be urged against his theory, and he admits that the strongest is to be found in the want of any geological testimony in his favour; for having here the facts of a vast series of ages before us, we might reasonably expect to trace the gradual divergence of a species from its primordial type by a remains of these intermediate forms through which it has passed. He then meets this objection by arguing that the imperfect state of the geological record so far as it is yet known to us.

The several difficulties here discussed, namely our not finding in the successive formations infinitely numerous transitional links between the many species which now exist or have existed; the sudden manner in which wide groups of species appear in our European geological strata, and their absence, as at present known, of fossiliferous formations beneath the Silurian strata, are all undoubtedly of the gravest nature. We see this in the plainest manner by the fact that all the most eminent paleontologists, namely Lyell, Owen, Agassiz, Huxley, Barron, Edmond, Sedgwick, and all our greatest geologists, as Lyell, Murchison, Sedgwick, &c., have unanimously, often vehemently, maintained the immutability of species. But I have reason to believe that they are wholly unfounded. Charles Lyell's theory, as he explains it, entertains grave doubts on this subject. I feel how rash it is to differ from these great authorities, to whom, with others, we owe all our knowledge. Those who think the natural geological record in any degree perfect, and who do not attach much weight to the facts and arguments of other kinds given in this volume, will undoubtedly at once reject my theory. For my part, following out Lyell's metaphor, I look at the natural geological record as a book which has been so imperfectly written, in a chattering dialect; of this history we possess the last volume alone, relating only to two or three countries. Of this volume, only here and there a short chapter has been preserved; and of each page, only here and there a few lines. Such a record may be slowly changed in language, in which the language is supposed to be written, being more or less different in the interrupted succession of chapters, may represent the apparently abruptly changed forms of life, contained in the fossiliferous strata which are so imperfectly written. The difficulties above discussed are greatly diminished, or even disappear.

In connexion with the paleontological aspect of the question there is another consideration which Mr. Darwin has not noticed, and which may in some sort be taken to militate against his theory. We allude to the fact that the grandest and strongest types of animal life have become extinct, while dwindled specimens of the same groups survive among us. If in the days when

A monstrous elf was of old the lord and master of earth, he could not maintain his supremacy and existence, what could have been the more favourable conditions which enabled his scurry relations of the new and lizard sort to prosper, in their crawling way, at this present epoch?

One of the most curious chapters in Mr. Darwin's book is that in which he illustrates his theory from the indications of what we might term a yearning on the part of nature for a common pattern on which to construct the several forms of life. Such are the phenomena of what is termed a morphology.

Why can we be so curious than that the hand of a man formed for grasping, that of a mole for digging, the leg of the horse, the paddle of the porpoise, and the wing of the bat, should all be constructed on the same pattern, and should include the same bones in the same relative positions?

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It is obvious that Mr. Darwin's speculations must jar on the preconceived opinions of those who are pleased with such arguments as those advanced in Paley's "Natural Theology." In fact the whole of that ingenious and interesting treatise is superseded if we admit Mr. Darwin's theory. Let it not be supposed, however, that the establishment of this theory (and it can by no means be said to be established yet) is to be regarded as any gain to a Lucretian view of cosmogony. It is surely not less a Divine act of creation, to impress a law upon nature by which she develops herself, than to create the developed forms themselves. All the progress of science leads us, from the latter aspect of the Creator to the former. Happily we are not dependent on scientific knowledge for the lesson which tells us of a God. From

The poor Indian, whose untutored mind Sees God in clouds and hears him in the wind, to a Humboldt with all the arcana of Science before him, Nature teaches all one and the same truth, though she varies the language in which she expresses it.

Tales for Leisure Hours. Translated from the German, by the Rev. W. B. Flower, B.A., late Scholar of Magdalene College, Cambridge.—London: J. Masters.

Mr. Flower has been our acquaintance with the late editor of the *Churchman's Companion* in a department of literature in which his exuberant imagination and his copious flow of language peculiarly fit him to take a high place. These pages abundantly avouch Mr. Flower's right to appropriate as his own the saying of Richter, "I love God, and every little child." In the first three tales, as the translator tells us in his preface, there is a moral in every page. These are followed by eight very charming little stories for boys and girls, full of pleasantly conveyed lessons of kindness and affection. In the "Little Garden" we have the power of sympathy, and in "Bad Frank" the danger of deceit well set forth; so in the "Gold Cross" we see the power of language, in the "Stepmother" we have the disfigurement of self-doubt, and the reward of humility in "Mary and Elizabeth," the blessing of a kindly act in "The Rose opens the Heart." We will conclude this notice with the concluding words of the preface—

How I love the expressive word "Gracious-child" in reference to this season, which is especially that of the "Christ-child." Learn the lesson here taught, little ones, and then you will learn that, while he is being the disfigurement of self-doubt, and the reward of humility in "Mary and Elizabeth," the blessing of a kindly act in "The Rose opens the Heart." We will conclude this notice with the concluding words of the preface—

Aggelden Vicarage; or, Bridget Storey's First Charge. A Tale for the Young. In Two Vols.—London: J. W. Parker, 1859.

This season of the year seems to belong especially to children. They share in all the pleasures of their elders, and are the chief objects of their amusements, and the recipients of their liberality; so