6"

Photographic Sciences Corporation

**23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503**

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**

Canadian Institute for Historical Microreproductions

Institut canadien de microreproductions historiques

1980

Technical and Bibliographic Notes/Notes techniques et bibliographiques

TI. Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- ☒ Coloured covers/
Couverture de couleur
- ☐ Cover damaged/
Couverture endommagée
- ☐ Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/
Le titre de couverture manque
- ☐ Coloured maps/
Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- ☐ Bound with other material/
Relié avec d'autres documents
- ☐ Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- ☐ Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- ☐ Additional comments:
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured pages/
Pages de couleur
- ☐ Pages damaged/
Pages endommagées
- ☐ Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- ☒ Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- ☐ Pages detached/
Pages détachées
- ☐ Showthrough/
Transparence
- ☐ Quality of print varies/
Qualité inégale de l'impression
- ☐ Includes supplementary material/
Comprend du matériel supplémentaire
- ☐ Only edition available/
Seule édition disponible
- ☐ Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
						✓					

The copy filmed here has been reproduced thanks to the generosity of:

Izaak Walton Killam Memorial Library
Dalhousie University

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol → (meaning "CONTINUED"), or the symbol ▼ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:

L'exemplaire filmé fut reproduit grâce à la générosité de:

Izaak Walton Killam Memorial Library
Dalhousie University

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ▼ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

arrata
to

pelure,
on à

32X

1923

*Price 15 Cents
Incl. post & freight*

J.J.S. Pam. Box 87

DRIFTING

AWAY.

BY

THE HON. PHILIP CARTERET HILL, D.C.L.

London:

BEMROSE & SONS, 23, OLD BAILEY,
AND DERBY.

PRICE SIXPENCE.

CAN

BV

.H65

Dalhousie College Library

The

JOHN JAMES STEWART
COLLECTION

DRIFTING AWAY:

A FEW REMARKS ON

PROFESSOR DRUMMOND'S

SEARCH FOR

"NATURAL LAW IN THE SPIRITUAL WORLD."

BY THE

HON. PHILIP CARTERET HILL, D.C.L.

London:

BEMROSE & SONS, 23, OLD BAILEY;
AND DERBY.

6381 - July 13/21

DRIFTING AWAY.

IN the month of February, A.D. 1666-7, Samuel Pepys made the following entry in his diary:—

“10th (*Lord's Day*).—To church, where Mr. Mills made an unnecessary sermon upon original sin, neither understood by himself nor the people.”

Though Mr. Pepys' dictum, so glibly enunciated, may be disputed in this instance, it is admirably suited to express the character of Professor Drummond's work on “Natural Law in the Spiritual World”; and were the worthy Secretary to the Admiralty living now, he might make a similar entry after reading that volume. It resembles Mr. Mills' sermon very closely in all its features: it is unnecessary, and it may safely be affirmed of it, that it can be understood neither by himself nor by his readers.

It would be idle to ignore the great popularity of

CAN
BV
.H65

a book which has already run through twelve editions, or the fact that many Christians have read it, either with approval or with but a faint suspicion of its unsoundness. So much the worse if the real tendency of the work is to undermine or obscure the truth. The most melancholy feature of the case is that a deadly blow is struck by one who appears to be in all sincerity a lover of the truth, however mistaken he may be, and is, in my judgment.

It is not to be wondered at that Mr. Drummond should have fallen into error and mental confusion, when we read his preface, and learn from himself what his object is, and how he was led into his present views. On week days, he tells us, he lectured to a class of students on the Natural Sciences, and on Sundays to an audience chiefly of working men, on subjects of a moral and religious character. After some time, he says, "New channels for outward expression opened, and some of the old closed up; and I found the truth running out to my audience on the Sundays by the week day outlets. In other words, the subject matter, Religion, had taken on the method of expression of Science, and I discovered myself enunciating Spiritual law in the exact terms of Biology and Physics."

Surely, the poor working men to whom religion was presented in this guise must have been more mystified than even Pepys admits that he was over the discourse of Mr. Mills.

This path diverges at its outset from the teachings and the method of Scripture, and the further it is pursued the wider must be the divergence. St. Paul, speaking by the Holy Spirit, says :—" Even so the things of God knoweth no man but the Spirit of God." And again :—" Which things also we speak, not in the words which man's wisdom teacheth, but which the Holy Ghost teacheth, comparing spiritual things with spiritual." But Professor Drummond says, " Science will be complete when all known phenomena can be arranged in one vast circle in which a few well known laws shall form the radii—these radii at once separating and uniting : separating into particular groups, yet uniting all to a common centre. To show that the radii for some of the most characteristic phenomena of the Spiritual world are already drawn within that circle by science, is the main object of the papers which follow. There will be found an attempt to restate a few of the more elementary facts of the Spiritual life in terms of Biology." Here is an unmistakable conflict of authorities. Professor Drummond leaves

us in no doubt as to his meaning on this point. He does not propose merely to use the Natural world as an illustration. "Nature," he says, in another place, "is not a mere image or emblem of the Spiritual." He goes far beyond this:—"If the Natural Laws," he tells us, "were run through the Spiritual world, men might see the great lines of religious truth as clearly and simply as the broad lines of science."

St. Paul tells us that he speaks not in the words which man's wisdom teacheth, but which the Holy Ghost teacheth, comparing spiritual things with spiritual. But Professor Drummond assures us here that he has discovered a more excellent way. He has found himself "enunciating Spiritual law in the exact terms of Biology and Physics."

But he does not stop here. He appears to have brought himself to the conviction that Science has purified Religion! "Herbert Spencer," he tells us, "points out further, with how much truth need not now be discussed, that the purification of Religion has always come from Science. It is very apparent, at all events, that an immense debt must soon be contracted. The shiftings of the furnishings will be a work of time. But it must be accomplished." In other words, we need not discuss how far this puri-

fyng process has gone in the past, but it must take place, and that in the near future.

Is it not enough to make angels weep to see a Christian man, lured on by the subtle casuistries of an advanced sceptic, enunciate doctrines which, if they prove anything, prove that the teachings of God's Holy Spirit need cleansing and supplementing by the shifting theories of geology, biology, zoology, and I know not what other branches of human science?—that the Holy Spirit, in fact, has failed to make His utterances sufficiently intelligible or pure without the scientific aid of Darwin and Herbert Spencer and their followers?

It cannot escape the notice of any reader of Professor Drummond's book that the authorities he quotes are nearly all well-known sceptics and agnostics. Indeed, the influence of this school will be found at the root of all the fallacies and contradictions with which his work abounds. He has allowed himself to become so imbued with the spirit of their teaching, that he is in a constant state of mental conflict with the immutable laws of truth revealed to us in the Scriptures, whose Supreme authority he acknowledges while apparently unconsciously undermining them. It is not without significance, that Mr. Drummond never refers to a

greater than Darwin, whose whole teaching was a refutation of the Darwinian system. The illustrious Agassiz, beyond all controversy one of the greatest men of science of this century, was from the beginning a pronounced and earnest opponent of Darwin's theory. He opposed the doctrine of evolution as not only destitute of any scientific basis, but as subversive of the best established facts in zoology; while his apprehensions of its atheistical tendency also entered largely into the grounds of his opposition. One of his most remarkable productions, containing most profound views of creation, is his essay on "Classification," the whole drift of which is in distinct antagonism to the Darwinian theory. Agassiz taught that every zone had its own fauna and flora suited to its climate and soil, created on the spot and adapted to it. He pushed this theory, no doubt, too far, but even within the most restricted limits, it is utterly subversive of the Darwinian doctrine.

And even in the field of embryology, which, at first sight, appears to give countenance to the evolution theory, Agassiz, with deeper views, saw only evidence of the unity of plan in the works of the Creator shadowed forth in the progress of the em-

bryonic organism from its earliest stages to its full development.

And yet Professor Drummond, in a chapter of forty-six pages on Classification, takes no notice of Agassiz' remarkable essay on the same subject.

Principal Dawson is one of the first palæontologists and geologists of the day, and he has written largely on the evolution doctrine. In his "Story of Earth and Man," he sums up the argument against the theory of evolution, especially as applied to man, in the following eloquent words "Finally, the evolutionist picture wants some of the fairest lineaments of humanity, and cheats us with the semblance of man without the reality. Shave and paint your ape as you may, clothe him and set him up upon his feet, still he fails greatly of the human form divine; and so it is with him morally and spiritually as well. We have seen that he wants the instinct of immortality, the love of God, the mental and spiritual power of exercising dominion over the earth. The very agency by which he is evolved is of itself subversive of all these higher properties; the struggle for existence is essentially selfish, and therefore degrading. Even in the lower animals, it is a false assumption that its tendency is to elevate; for animals when driven

to the utmost verge of the struggle for life become degraded. The dog which spends its life in snarling contention with its fellow curs for insufficient food will not be a noble specimen of its race. God does not so treat His creatures. There is far more truth to nature in the doctrine which represents Him as listening to the young ravens when they cry for food. But, as applied to man, the theory of the struggle for existence and survival of the fittest, though the most popular phase of evolutionism at present, is nothing less than the basest and most horrible of superstitions. It makes man not merely carnal, but devilish. It takes his lowest appetites and propensities, and makes them his God and Creator. His higher sentiments and aspirations, his self-denying philanthropy, his enthusiasm for the good and true, all the struggles and sufferings of heroes and martyrs, not to speak of that self-sacrifice which is the foundation of Christianity, are, in the view of the evolutionist, mere loss and waste, failure in the struggle of life. What does he give us in exchange? An endless pedigree of bestial ancestors, without one gleam of high and holy tradition to enliven the procession; and for the future, the prospect that the poor mass of protoplasm, which constitutes the sum of our being, and which is the

sole gain of an indefinite struggle in the past, must soon be resolved again into inferior animals or dead matter. That men of thought and culture should advocate such a philosophy, argues either a strange mental hallucination, or that the higher spiritual nature has been wholly quenched within them. It is one of the saddest of many sad spectacles which our age presents."

And yet Professor Drummond, who, as we shall presently see, holds and advocates the doctrine of evolution, never alludes to Principal Dawson, or appears to recognize the existence of his works, more than he does those of Agassiz.

The language of Humboldt is equally clear. In speaking of a writer who taught the doctrines of evolution, he says: "What displeases me in him is the scientific levity which causes him to see no difficulty in the organic springing from the inorganic, nay, man himself, from the Chaldæan mud." Indeed, the whole of his great work, "Cosmos," may be said to be in its aim and scope irreconcilably opposed to the views and tendency of the evolution theory.

One might be led to infer from Mr. Drummond's chapter on Biogenesis that he is a firm believer in the formula, *omne vivum ex vivo*, as opposed to spontaneous generation, which, without hesitation,

he repudiates. Whether he changed his views as he proceeded, or whether he only held them in the sense in which Darwin held them—that is, that there was a distinct act of creation of one or more primordial germs from which by evolution all successive organisms have sprung—it is very difficult to decide; probably the latter; if so, there is another passage in Principal Dawson's book which describes with wonderful precision Professor Drummond's attitude: "It may be said that evolution may be held as a scientific doctrine in connection with a modified belief in creation. The work of actual creation may have been limited to a few elementary types, and evolution may have done the rest. Evolutionists may still be theists. We have already seen that the doctrine, as carried out to its logical consequences, excludes creation and theism. It may, however, be shown that even in its more modified form, and when held by men who maintain that they are not atheists, it is practically atheistic, because excluding the idea of plan and design, and resolving all things into the action of unintelligent forces. It is necessary to observe this, because it is the half-way-evolutionism, which professes to have a Creator somewhere behind it, that is most popular; though it is, if possible, more unphilo-

sophical than that which professes to set out with absolute and determined nonentity, or from self-existing star-dust containing all the possibilities of the universe."

To what startling results this half-way evolutionism may lead, we have only to look at the conclusions arrived at by Darwin himself. In his "Descent of Man," he teaches that man's moral nature has been evolved by slow degrees from the social instincts common to many animals. "Lower animals," he says, "especially the dog, manifest love, reverence, fidelity and obedience; and it is from these elements that the religious sentiment in man has been slowly evolved by a process of natural selection."

These are the views of Darwin; but, it may be fairly asked, are they the views of Professor Drummond? To which it may well be replied, that without evolution he is nothing: he would have no *locum standi*; nearly all his arguments are derived from its existence and assumed operations as incontrovertible facts. Thus, as to its existence, he speaks "of the greatest of modern scientific doctrines, the evolution hypothesis." And again he says, "The strength of the doctrine of evolution, at least in its broader outlines, is now such, that its

verdict on any biological question is a consideration of moment. And if any further defence is needed for the idea of a third kingdom (the Spiritual Kingdom or the Kingdom of Heaven), it may be found in the singular harmony of the whole conception with *this great modern truth.*' It is to be noted that he not merely speaks of evolution as "the greatest of modern scientific doctrines," but as "this great modern truth," thus distinctly assuming it as an established and incontrovertible law.

In speaking of the ultimate results of the theory, he uses language attributing to it the most remarkable inherent powers. "It is, perhaps, impossible," he says, "with such faculties as we now possess, to imagine an evolution with a future as great as its past. So stupendous is the development from the atom to the man, that no point can be fixed in the future as distant from what man is now, as he is from the atom." While in another chapter he approaches perilously near the borders of profanity, when he states that "the goal of evolution is Jesus Christ"!

And when we come to details, we find that Professor Drummond does not shrink from adopting some of the most extreme views of the most extreme evolutionists. He applies the evolution theory to

plants with as little hesitation as to animals, ascribing to them the moral power to choose their course in life—to know the better and to follow the worse. “Parasites,” he tells us, “are the paupers of nature. They are forms of life which will not take the trouble to find their own food, but borrow or steal it from the more industrious. So deep rooted is this tendency in nature, that plants may become parasitic—it is an *acquired habit*—as well as animals. . . . There are certain plants—the dodder, for instance—which begin life with *the best intentions*, strike true roots into the soil, and really appear as if they *meant* to be independent for life. But, after supporting themselves for a brief period, they fix curious sucking discs into the stem and branches of adjacent plants. And after a little *experimenting*, the epiphyte finally ceases to do anything for its own support, thenceforth drawing all its supplies ready-made from the sap of its host.”

“In the Mistletoe,” he says again, “the parasitic habit has reached a stage in some respects lower still. It has persisted in its downward course for so many generations, that the young forms even *have acquired the habit*, and usually begin life at once as parasites.”

Here are distinct lines of conduct ascribed to

plants, and for the results of the choice which they may make they are held responsible. But Mr. Drummond does not stop here: he appears to charge them with "immorality." "Is parasitism," he says, "after all, not a somewhat clever ruse? Is it not an ingenious way of securing the benefits of life while evading its responsibilities? And although this mode of livelihood is selfish, and possibly undignified, can it be said that it is immoral? The naturalist's reply to this is brief. Parasitism, he will say, is one of the gravest crimes in nature. It is a breach of the law of evolution. . . . But the parasite has no thought for its race, or for perfection in any shape or form. It wants two things—food and shelter—how it gets them is of no moment. Each member lives exclusively on its own account, an isolated, indolent, selfish and backsliding life." Had Professor Drummond been speaking of a sentient, accountable being, he could scarcely have spoken in more severe language, or painted its actions in blacker colours.

But when he comes to the animal creation, he attributes to them, in language much more explicit, both the power of discriminating good from evil, and moral responsibility for their conduct. Thus, in speaking of the peculiarity of the Hermit crab, which

takes up its abode in the cast-off shell of some other animal, he says : " How best to protect themselves, has been the problem to which the whole crab family have addressed themselves ; and *in considering the matter*, the ancestors of the Hermit crab hit on the happy device of re-utilizing the habitations of the molluscs which lay around them in plenty, well built and ready for immediate occupation." This language, which attributes to a little creature of low type, " consideration " of its circumstances, and " hitting on a happy device," is sufficiently extravagant ; but Mr. Drummond, whether consciously or unconsciously, goes to the startling length of ascribing moral sentiments to it also. " Whether its laziness costs it any *moral qualms*, or whether its cleverness becomes to it a source of congratulation," he says, " we do not know." But surely we do know. It is a monstrous perversion of language to speak of moral qualms in connection with the lowest forms of animal life, and one against which all our instincts rise in unconquerable hostility. To man alone was a command given with a penalty for disobedience attached—" In the day that thou eatest thereof thou shalt surely die." Man alone of all the myriad forms of animal life stands erect, with his " countenance lifted to the stars," that he may look

up to his Creator and appeal to Him for guidance in his path through life.

But Darwin teaches that even the moral and religious faculties have been evolved, like the physical frame and its organs, from a primordial germ in the long course of ages, and apparently Professor Drummond has embraced the Darwinian theory in all its repulsiveness, perhaps unconsciously, for he sets out, like his own "Dodder," with the "best intentions," in his chapter on Biogenesis; but his later pages, with their elaborate arguments based on evolution, are utterly incapable of reconciliation with his previous statements. For it cannot be concealed that Darwin's theory, even in what Sir John Dawson calls halfway-evolution, dethrones God from His empire, and ascribes the present condition of the world, animal and vegetable, including man himself, to the inherent power of development contained in a mass of protoplasm, aided towards continually higher developments by the "consideration" and "happy devices" of the lowest forms of animal life. We must, therefore, choose between Evolution and Revelation.

In following these lines of thought, Professor Drummond has adopted the language used by the older school of sceptics, under which a subtle form

of error is concealed. It is an ancient fallacy to speak of Nature as the representative of certain unchanging and inexorable laws by which the universe is governed, as distinct from the ever active personal control of an Almighty Creator. This idea also dethrones the God of Revelation as effectually as the theory of Evolution, being almost, indeed, in the nature of a corollary from it. It is probable, indeed, that Mr. Drummond would shrink from the avowal of so erroneous a view; but let us see to what amazing lengths the use of the language of sceptics has led him. He is speaking of the results of neglected powers or opportunities. "Nature," he says, "has her revenge upon neglect as well as upon extravagance. There are certain burrowing animals—the mole, for instance—which have taken to spending their lives beneath the surface of the ground. And *Nature has taken her revenge upon them* in a thoroughly natural way—she has closed up their eyes. If they mean to live in darkness, she argues, eyes are obviously a superfluous function. By neglecting them, these animals made it clear that they do not want them. And as one of Nature's fixed principles is that nothing shall exist in vain, the eyes are presently taken away or reduced to a rudimentary state." Now, the very contrary of all

this is true. God in His wisdom created the mole to fill the place appointed by Him in the universe, and with exquisite wisdom, He adapted its organization to the circumstances in which He placed it; its powerful limbs, its elongated head, and above all its eyes—for it has eyes, as we shall presently see—protected from too great exposure by their minute size, are perfectly fitted for the scene of its existence. So far from establishing the extravagant theory laid down by Professor Drummond of a rebellion by this poor little animal against the laws of its Creator and of an inexorable Nemesis overtaking it, the mole and its organization furnish one of the most remarkable evidences of the universal presence of design, and of the boundless skill which is manifested in the myriad forms of animal life, and their miraculous adaptation to the theatre of their existence. And again in the same chapter, page 114: "The Crustacea of the Mammoth Cave (of Kentucky) have chosen to abide in darkness. Therefore they have become fitted for it. By refusing to see, they have waived the right to see. *And Nature has grimly humoured them.*"

Through both of these passages there runs the monstrous assumption that the moles and the crustacea of the Mammoth Cave, having the gift of

eyes, deliberately chose a scene of life in which they could not make use of them, and thereby justly incurred the penalty attached to a wilful transgression of law. But if we would see the utter confusion of thought involved in these extracts, let us substitute the word "God" for "Nature" in the passages which I have italicised—"God has taken His revenge upon them in a thoroughly natural way"—"*God* has grimly humoured them."

This is not only perilously near the verge of profanity: it has gone over the edge of the precipice. And surely Mr. Drummond would not object to read God for Nature in these passages, unless, indeed, he has unreservedly adopted the theory of the older infidels, of which I have been speaking, of an unknown entity or code of laws called Nature, distinct from God, which controls the universe. He will, however, hardly adopt that horn of the dilemma.

It may be here remarked that Professor Drummond has, for the purposes of his argument, assumed, as an established fact in zoology, blindness in moles. This, however, so far from being recognized as a fact by all naturalists, is distinctly denied. Thus Maunder, in his "Scientific and Literary Treasury," revised edition, 1870, under the title "Mole," says: "Its eyes are so minute and so con-

cealed by its fur, as to have given rise to a belief that it is formed without these important organs."

Being anxious to ascertain the facts in connection with the assumed blindness of the mole, I consulted a professional taxidermist who has set up many specimens of this animal. He assured me that it undoubtedly possesses eyes, though minute; and that in one instance he had examined the eye under a microscope, and that it was not rudimentary merely, but a perfect organ of vision.

Nor is the case of the mole the only instance in which Professor Drummond, in his anxiety to support his position, has carelessly assumed as an established fact that which is contrary to all experience.

In his chapter on Eternal Life, he has reached a stage in his argument when it appeared to him necessary to show that the most complex organisms are the longest lived. "Now," he says, at page 208, "it will speedily appear that a distinct relation exists, and must exist, between complexity and longevity. Death being brought about by the failure of an organism to adjust itself to some change in the environment, it follows that those organisms which are able to adjust themselves most readily and successfully will live the longest. They will continue time after time to effect the appropriate

adjustment, and their power of doing so will be exactly proportionate to their complexity—that is, to the amount of environment they can control with their correspondences. There are, for example, in the environment of every animal certain things which are directly or indirectly dangerous to life. If its equipment of correspondences is not complete enough to enable it to avoid these dangers in all possible circumstances, it must sooner or later succumb. The organism, then, with the most perfect set of correspondences, that is, the highest and most complex organism, has an obvious advantage over less complex forms. It can adjust itself more perfectly and frequently. But this is just the biological way of saying that it can live the longest. And hence the relation between complexity and longevity may be expressed thus—the most complete organisms are the longest lived."

He then adduces the case of a Medusa tossed ashore by a wave, and finding itself so "out of correspondence with its new surroundings that its life must pay the forfeit." And, "Again, in the case of a bird, in virtue of its more complex organization, there is command over a much larger area of environment. It can take precautions, such as the Medusa could not; it has increased facilities for

securing food ; its adjustments all round are more complex ; and therefore it ought to be able to maintain its life for a longer period. It becomes evident, then, that as we ascend in the scale of life, we also rise in the scale of longevity."

Unfortunately for Professor Drummond's argument, the evidence does not support his theory. Longevity is by no means the necessary result of complexity of organization. The elephant, far below man in the scale of organization, it is well known, lives for a hundred years. The common domestic goose and the raven, both lower in their organization than the elephant, are longer lived than man ; and there is now in Ceylon a tortoise, of great size, which was full grown, and said to have been very old, at the capitulation of Colombo, in 1796, and which then belonged to the last of the Dutch Governors.

Professor Drummond adduces instances from animal life only, but his formula, "The most complex organisms are the longest lived," includes every kingdom of nature whether animal or vegetable ; and the testimony of the latter contradicts him as flatly as that of the animal kingdom. There are numberless oaks in England to-day whose age makes that of the oldest man living appear but as that of a child ; while the giant Wellingtonias of California have witnessed the rise and fall of many

mighty empires. The rings on sections of some of these wonderful trees have been counted by patient observers, showing clearly that they have been growing upwards of three thousand years—are, indeed, coeval with Abraham—and yet there is a great gulf between the simple organization of a coniferous tree and the complex system of man, whose days are as a shadow in comparison with its marvellous life.

Nothing is more surprising in the whole of Professor Drummond's book than the hold which the Darwinian theory of evolution has taken of a mind at once acute and reverent. It is, however, in the judgment of some of the most profound students of science, utterly inconsistent with the teachings of Scripture. There are not three more illustrious names in the ranks of modern science than those of Agassiz, Humboldt, and Dawson; all of whom, as we have seen, are irreconcilably opposed to the evolution doctrines; yet their names are never mentioned by Professor Drummond, while Darwin, Tyndall, Huxley, Ray Lankester, and, above all, Herbert Spencer—all of them pronounced agnostics—have evidently been studied carefully, and are frequently quoted. It is the baneful effect of studies in this direction which has led Mr. Drummond into such lamentable errors. Writers of this

school appear to possess for him an irresistible fascination, which blinds him to the dangerous nature of their teachings. Thus, in his preface, he speaks of the "splendid achievements" of Herbert Spencer. To ordinary men, Mr. Spencer's chief achievement appears to be a ceaseless effort to unsettle men's faith and to overturn the authority of Scripture as an all-sufficient revelation from God, true beyond all challenge or controversy. Indeed, Mr. Spencer himself says that his doctrine of an inscrutable, unintelligent, unknown force, as the cause of all things, is a much more religious doctrine than that of a personal, intelligent, and voluntary Being of infinite power and goodness. And yet Mr. Drummond can use the following language in reference to that undisguised teacher of infidelity, whom Tyndall and all the agnostic school call their "great philosopher": "Mr. Herbert Spencer's masterly elucidation of the chief phenomena of life has placed philosophy and science under many obligations, and in the paragraphs which follow we shall have to incur a further debt on behalf of religion." Now, Mr. Spencer has very distinctly stated in the *Nineteenth Century*, in reply to some of his critics, the goal towards which his labours are tending. In speaking of his theory of the phenomena of nature, he says: "There is a

tacit confession of impotence in the presence of the mystery of things—a confession which brings science into sympathy with religion, and that in their joint recognition of the unknowable cause for all the effects constituting the knowable world, religion and science would reach a truth common to the two. I do not see,” he continues, “that anything said by my critics has shaken this position. I held at the outset, and continue to hold, that this inscrutable existence which science in the last resort is compelled to recognise as unreached by its deepest analysis of matter, motion, thought, and feeling, stands towards our general conception of things in substantially the same relation as does the creature power asserted by theology; and that when theology, which has already dropped many of the *anthropomorphic traits* ascribed by it, eventually drops the last of them, the foundation-beliefs of the two must become identical. So far as I know, no endeavour has been made to show that this is not the case.”

Now, what Mr. Spencer terms the anthropomorphic traits of theology, are of its very essence, and constitute the bases of all revealed religion. In the beginning, God said, Let us make man in our image, after our likeness. It is not said that God, in the singular—a mere abstract entity or force;

nor even in the dual ; but in the plural—Elohim—embracing, therefore, three persons, Father, Son, and Holy Spirit, made man, “after our likeness.” While round Christ—God in human form—cluster all the hopes of believers for eternal life beyond the grave, without which hope we are of all men most miserable.

What Mr. Spencer, therefore, means, clearly is, that when theology gives up revealed religion, there will be nothing to separate between it and agnosticism ; which is undoubtedly true.

And it is at the feet of this Doctor of the Law that Professor Drummond sits and tells us of the mighty debt which religion owes to his splendid achievements ! Indeed, Mr. Drummond has at length apparently brought himself to look on this infidel writer as the exponent of truths in the spiritual world hitherto concealed from men—as the author of a new revelation. Thus, he tells us in the chapter on Eternal Life that “one of the most startling achievements of recent science is a definition of Eternal Life. To the religious mind this is a contribution of immense moment. For eighteen hundred years only one definition of Life Eternal was before the world. *Now there are two.*” There can be no doubt of whom he speaks as the authors of these

two definitions; for the chapter opens with the following quotations—"This is Life Eternal—that they might know Thee, the true God, and Jesus Christ whom Thou hast sent.—JESUS CHRIST."

And, "Perfect correspondence would be perfect life. Were there no changes in the environment but such as the organism had adapted changes to meet, and were it never to fail in the efficiency with which it met them, there would be eternal existence and eternal knowledge.—HERBERT SPENCER."

That is to say, Herbert Spencer has supplemented the incomplete work of Jesus Christ eighteen hundred years ago by a new definition of equal authority and wider import!

There is here, it seems to me, something worse than bad taste; much plainer language might be applied to it without any breach of charity.

Perhaps, however, we should not be astonished at the lengths to which the adoption of the evolution theory, even in a modified form, has led Mr. Drummond: it is essentially and utterly antagonistic to the retention of a belief in the completeness and sufficiency of the old paths.

"In the beginning," whether we take that expression as referring to a period six thousand years ago, or to a time in the infinite distance of the past,

God saw everything that He had made, and, behold, it was very good.

Not so, say the Evolutionists—this is all a mistake. So far from being very good or perfect, there was nothing in the beginning beyond a mass, more or less extensive, of protoplasm—one or more primordial germs, out of which were to be evolved in process of time all the manifold forms of life, including man himself, which now people the earth,

the force of natural selection and the survival of the fittest.

It seems difficult to believe that men of learning and intellect should seriously ask us to believe that the eye, for instance, is not the result of infinite wisdom planning an organ exquisitely adapted to the wants of the creature, and then by a direct act of power causing it to spring into existence, but arose from small and feeble beginnings, gropings in the dark, which in the long course of ages, produced more and higher results, pupils, lenses, retina, optic nerves, and all the marvellous powers of sight. Yet this is no exaggerated statement of evolution doctrine. In living bodies, Mr. Darwin says, variations will cause slight alterations, generation will multiply them almost infinitely, and natural selection will pick out with unerring skill each improvement. Let

this process, he says, go on for millions of years, and we shall at last have a perfect eye.

If this principle be true as to the formation of the eye, it must be true of every other organ and attribute of animal life. Why do we not, then, see some of these remarkable changes in the process of evolution? Immense periods of time, we are told, are demanded by the theory of evolution for the accomplishment of these ends; but surely in some species there must be a process of development going on at the present time, and we should be able to see at least some of the incipient stages. But no man has ever seen the faintest outlines of such a transformation. Neither horse nor man, for instance, has evolved any, the most minute, change in appearance since the days when the noble equestrian statue of Marcus Aurelius came from the hand of the Roman artist eighteen hundred years ago. Nor is the appearance only unchanged: the minute description of a good horse given by Virgil in the third book of his *Georgics* might have been written by a veterinary surgeon of to-day as a guide to an intending purchaser;

*Continuo pecoris generosi pullus in arvis
 Altius ingreditur, et mollia crura reponit,
 Primus et ire viam, et fluvios tentare minaces
 Audet, et ignoto sese committere ponti,*

*Nec vanos horret strepitus. Illi ardua cervix,
 Argutumque caput, brevis alvus, obesaque terga ;
 Luxuriatque toris animosum pectus. Honesti
 Spadices, glaucique ; color deterrimus albis
 Et gilvo.*

Which is thus translated by Dryden ;

Of able body, sound of limb and wind,
 Upright he walks, on pasterns firm and straight ;
 His motions easy ; prancing in his gait ;
 The first to lead the way, to tempt the flood,
 To pass the bridge unknown, nor fear the trembling wood ;
 Dauntless at empty noises ; lofty necked ;
 Sharp-headed, barrel-bellied, broadly backed ;
 Brawny his chest and deep ; his colour gray ;
 For beauty dappled ; or the brightest bay :
 Faint white and dun will scarce the rearing pay.

And fifteen centuries before Virgil's day, the description of a war horse in the book of Job gives evidence of the identity of nature of the equine race in that remote period with that of the present day ; while, singularly enough, Virgil's description of a charger in the same book of the Georgics bears a remarkable resemblance to that of the more ancient author of the book of Job.

And if even the three thousand years which have elapsed since the first of these descriptions was written is too brief a period to allow for the evolution of any new features or specific differences, however faintly indicated, yet in the case of the horse, remains are found as far back as the upper Miocene

period, presenting its present peculiarities and exhibiting no appreciable differences from the species now existing. Surely this period, whatever length may be assigned to it, is long enough to satisfy the demands of the most exacting evolutionist.

If the theory of natural selection be well founded, we may ask again, why is it confined in its operations to some portions only of the animal world? Why has it not aided many animals whose condition would be greatly improved by its effects? Sheep and deer are the prey of the wolf and the leopard. Nothing could be more useful to both of these timid and helpless races than the possession of a coat of mail such as that of the crocodile or the tortoise, or of powerful jaws armed with formidable teeth like the carnivora; and yet to this day they have remained as defenceless as they were ages ago against the ferocity of their assailants. Had they even become pachydermatous, we might suppose that they were making some advances, however slow, towards a more desirable state of existence—growing more nearly into a “perfect correspondence with their environment.” Yet, alas! they are being harried and devoured by their enemies at every convenient opportunity, even at the present hour; and are occupied only in developing

silken fleeces and glossy coats of fur, which no more serve to strike terror into the hearts of wolves and tigers, than do the grimly painted faces on the shields of the Chinese warriors to protect them from French arms of precision. This seems to be a fatal neglect on the part of the sheep and deer; why have they not at least evolved electric organs, like those possessed by some species of fish, and so stunned their assailants?

That the doctrine of the survival of the fittest in the struggle for life may be accepted as a universal law, must be admitted to be not unlikely, at least in the human family, if we may judge by the recent tragedy of the *Mignonette*. If the morbid sympathy which has been expressed for the survivors by some persons should become general, no woman or child should ever venture to go to sea; or, if they do, they should certainly, in case of a wreck occurring, not accept the treacherous refuge of a seat in a boat. It would be far less hazardous, however indefensible morally, to leap into the ocean and venture all on the tender mercy of the sharks, than to trust to human savages acting upon the doctrine of the survival of the fittest, that is, of the strongest. In all the cases of which I have read hitherto, the starving survivors of a wreck who resorted to cannibalism had at least

the manliness to draw lots before sacrificing one of their fellow-sufferers. The wretched survivors of the *Mignonette*, however, spared themselves this troublesome ceremony, which might have been somewhat inconvenient in its results, and found a much simpler solution of the question by dispatching a poor, helpless boy. It is no exaggeration to say that this hideous tragedy is in strict accordance with the theory to which Darwin says we owe the various races of men and animals in their present state of development, and which theory Professor Drummond appears to have embraced with all the rest of the evolution doctrines.

In his chapter on environment, Mr. Drummond accepts the startling theory that "a change in the surroundings of any animal can so react upon it as to cause it to change. By the attempt, conscious or unconscious, to adjust itself to the new conditions, a true physiological change is gradually wrought within the organism." This theory he supports by adducing several cases of organic change in birds, alleged by those who performed the experiments, to have been brought about by a change in their diet. "Thus, a sea-gull is said to have been kept in captivity, so that it could obtain no food except grain. The effect was to modify the stomach of the

bird, normally adapted to a fish diet, until in time it came to resemble in structure the gizzard of an ordinary grain feeder such as the pigeon. And so also, as the result of another experiment by a different authority, pigeons fed for a lengthened period on a meat diet had the gizzard transformed into a carnivorous stomach. It need hardly be said that these experiments require further confirmation. The alleged results are contrary to the universal experience of mankind. So far from being as a general rule organically transformed and adapted to such a radical change in their food as in these experiments, it is well-known that animals subjected to such treatment pine away and die. It is a fact well-known to medical men that if a patient suffering from diabetes could confine himself strictly to a diet of animal food, the fatal course of his disease would be arrested. Why, then, is no one ever thus cured? Simply because the stomach revolts against such treatment, and so far from adapting itself to the new condition, absolutely rebels against it, and the patient simply cannot continue the regimen. Although the recurrence of the disease, and its inevitable termination in death, are the alternatives, he is literally compelled by the inexorable laws of his own organism to accept them. He finds himself

powerless to force his nature to adopt a course subversive of its design and contrary to its constitution.

If, however, animals can be so readily converted from grain eaters to carnivora, or *vice versa*, where are any new races thus developed to be found? No one has ever seen a race of carnivorous pigeons; and the isolated cases adduced by Professor Drummond are wholly insufficient as a basis for so far-reaching and revolutionary a theory.

But Mr. Drummond does not stop even at such monstrous doctrines. Nothing seems to stagger him if it comes clothed with the authority of Mr. Herbert Spencer. Thus, in the chapter on death, in a foot note on page 172, he is urging that it is not only a right but a duty to exercise the spiritual faculties, a duty demanded not by religion merely, but by science. "Upon biological principles," he says, "man owes his full development to himself, to nature, and to his fellow men. Thus," he continues, "Mr. Herbert Spencer affirms, the performance of every function is, in a sense, a moral obligation." And again, "All the animal functions, in common with all the higher functions, have, as thus understood, their imperativeness." This language in the mouth of Mr. Spencer or of Professor Drummond, who quotes it

with approval, if understood literally, and carried into practice, would turn every city in the world into a scene of unbridled licentiousness eclipsing even the corruptions of Pompeii.

Nor is this the only instance in which Mr. Drummond uses language of the most extraordinary nature, betraying an utter confusion of thought and a wide departure from the sobriety of a Christian man's expressions. In the chapter on Conformity to Type, he is speaking, page 295, of the processes of the New Birth. "In what terms," he says, "does the New Testament describe them? The answer is sufficiently striking. It uses everywhere the language of biology. It is impossible that the New Testament writers should have been familiar with these biological facts. *It is impossible that their views of this great truth should have been as clear as Science can make them now.* But they had no alternative. There was no other way of expressing this truth. It was a biological question. So they struck out unhesitatingly into the new field of words, and with an originality which commands both reverence and surprise, stated their truth with such *light or darkness* as they had."

That is to say, the writers of the New Testament, inspired by the Holy Spirit, could not have had as

clear views of the great truth of the New Birth as Science can give now ! They state their truth with such light *or darkness* as they had ! And this is the language of a professed Christian teacher speaking of Inspiration !

In the chapter on Conformity to Type, Mr. Drummond—let us hope, unconsciously—adopts one of the most flagrant fallacies of the atheistical writers. “What,” he says, “corresponds to the protoplasm in the spiritual sphere ?” And then, in replying to his own question, he continues: “We should be forsaking the lines of nature were we to imagine for a moment that the new creature was to be formed out of nothing. *Ex nihilo nihil*—nothing can be made out of nothing. *Matter is uncreatable and indestructible* ; nature and man can only form and transform.”

We have here again to choose between Professor Drummond and the Scriptures. “Matter is *uncreatable*,” says the Professor: “In the beginning God *created* the heaven and the earth,” say the Scriptures ; and St. Paul, writing under the inspiration of the Holy Spirit, enunciates in still more explicit language the same all-important truth—“Through faith we understand that the worlds were framed by the word of God, so that

things which are seen were not made of things which do appear."

There is, indeed, no doctrine of the atheistical school which so completely dethrones God from His empire as this of the eternal existence of matter.

But Professor Drummond goes beyond even this; he not only denies, in common with the writers of the school referred to, that matter *was* created: he denies that God *could* create it. "Matter," he says, "is uncreatable." Translated into plain English, this boldly affirms that God is not Almighty!

We cannot wonder that a writer who has been lured into such a maze of error by the teaching of false guides like Herbert Spencer, should sometimes be inconsistent with himself, and contradict in one place what he affirms in another. And the most cursory reader of his book will find him contradicting himself continually. In his preface he says: "Is there not reason to believe that many of the laws of the Spiritual world hitherto regarded as occupying an entirely separate province, are simply the laws of the Natural world?" And again: "Now this was not simply a scientific colouring given to Religion, the mere freshening of the theological air with natural facts and illustrations: it was an entire re-casting of truth. And when I came seriously to

consider what it involved, I saw, or seemed to see, that it meant essentially the introduction of Natural Law into the Spiritual world."

If we turn to page 227, when in the course of his argument he required a denial or modification of this statement, we find him writing, in apparent forgetfulness of it, in the following terms: "He (Jesus Christ) makes no attempt to project the material into the immaterial." Unless language be indeed a medium by which to conceal our thoughts, there is here an irreconcilable contradiction, not only with the statement quoted from the preface, but with the whole drift of Mr. Drummond's book, which he tells us is an attempt to project the lines of Natural Law into the Spiritual world.

This is only one instance of the contradictions with which the book abounds: the reader will find them scattered throughout its pages; and this is simply the inevitable result of the position in which Mr. Drummond finds himself. There are two irreconcilable principles ever striving for the mastery in his mind: he is apparently a Christian man, possessed with a love and fear of God and reverence for His Revelation; but in an evil hour he has listened to the voice of Mr. Herbert Spencer and other advocates of evolution, and has become so hopelessly

confused by their pseudo-philosophy, that truth and error alternately exhibit themselves throughout his entire book, and he seems to have no settled opinions remaining. It seems almost impossible that the same writer who acknowledges the authority of Scripture as a revelation from God to His creatures of His will, as Professor Drummond, in a general sense, undoubtedly does, could have penned such a sentence as this: "There is a sense of solidity about a Law of Nature which belongs to nothing else in the world. Here, at last, amid all that is shifting, is one thing sure; one thing outside ourselves, unbiassed, unprejudiced, uninfluenced by like or dislike, by doubt or fear; one thing that holds on its way to me eternally, incorruptible and undefiled."

If this language means anything, it means that the Bible as a revelation from God is not solid enough to rest upon; that it must be buttressed by something outside, which Mr. Drummond calls a Law of Nature!

I have already noticed the extravagant language in which Professor Drummond attributes conscious moral actions to plants and animals of low type; but in his chapter on Classification, he proceeds to still greater extremes. Thus, on page 392, in speak-

ing of "Mimicry," he says: "Certain organisms in one kingdom assume, *for purposes of their own*, the outward form of organisms belonging to another. This curious hypocrisy is practised both by plants and animals, the object being to secure some personal advantage, usually safety, which would be denied were the organism always to play its part in nature *in propria persona*. Thus, the *Ceroxylus laceratus* of Borneo has assumed so perfectly the disguise of a moss-covered branch as to evade the attack of insectivorous birds; and others of the walking-stick insects and leaf-butterflies *practise* similar deceptions *with great effrontery and success*!"

Now, no organisms in one kingdom assume, for purposes of their own, the outward form of organisms belonging to another. They are precisely, in every, the most minute, detail, what God, for purposes of His own, has created them. To attribute to them hypocrisy, effrontery, and the assumption of other forms than the Creator has given them, is to use language in direct conflict with the account of creation which God Himself has given us in the Scriptures, and to assign to some of the lowest of His creatures a power to change His plans "for purposes of their own"!

But even this, monstrous as it is, is but the

legitimate and inevitable result of the adoption by Mr. Drummond of the Evolution doctrines.

It would, however, be impossible to notice all the inconsistencies into which Professor Drummond has been led by attempting to reconcile things which are irreconcilable. Apparently not satisfied with the old foundations, he tells us that "Theology must feel to day that the modern world calls for a further proof. Nor will the best Theology resent this demand; it also demands it. Theology is searching on every hand for another echo of the voice of which Revelation also is the echo, that out of the mouths of two witnesses its truths should be established. That other echo can only come from Nature. Hitherto its voice has been muffled. But, now that Science has made the world around articulate, it speaks to religion with a twofold purpose. In the first place it offers to *corroborate* Theology; in the second, to *purify* it."

We may, in all soberness, ask, what is the real purport of this passage? God Himself tells us that His Word, as He gave it to us, without any corroboration from science, is able to make us wise unto salvation; He tells us that it is "very pure," needing no purifying process from men of science or agnostics.

It is true that Professor Drummond speaks of a "derived" theology, but it is quite clear, from numerous other passages, that he has in his mind the theology based on the Scriptures as ordinarily accepted by plain men ; and it is of this he speaks as requiring " further proof."

The modern world, under the teaching of modern science, in his judgment, requires some new means of defence, and having gone out into the fields of science in search of it, he announces in tones of triumph that he has found it. He assures us that he has discovered the true helmet of Mambrino, proof against all assaults ; but it turns out to be only a barber's basin after all. The doctrines of Darwin and Spencer, even after they have filtered through Professor Drummond's mind, can never lead men into the light of truth or into peace. In the judgment of some of the most eminent authorities in the world of science, as I have already shown, their tendency is to undermine faith in the revealed account of the Creation, on which hangs all the Christian Plan of Salvation ; they dethrone God from the empire of the universe ; they tamper with the doctrine of the Resurrection ; they loose the bands of morality ; they set up an inscrutable blind force as the origin of all things, and the ruler of the

world; and they ask us to accept this system of negation and confusion as a substitute for the God of Revelation, and the easy, artless, unencumbered plan proclaimed to the human race in the Gospel of Jesus Christ.

If, indeed, it be true that we sprang from a primordial germ, enveloped in a mass of protoplasm, in some far distant age, and only through a long line of simian and other bestial ancestors, arrived at our present condition by a slow and imperceptible process of development, it may well be that Tyndall was right: that our end shall be in accordance with our beginning; and that at last our destiny and highest hope shall be, "to melt into the infinite azure of the past."

With the wisdom to be derived from the teachers of such doctrines, I have no wish to be made wise. Professor Drummond tells us that new light has dawned upon him, and that he now teaches Spiritual Law in the exact terms of Biology and Physics. I prefer the method of St. Paul, who tells us that he speaks not in the words which man's learning (*σοφία ανθρωπινη*) teacheth, but which the Holy Ghost teacheth, comparing spiritual things with spiritual, not with natural.