The Dominion Review.

VOL. II. JUNE, 1897. NO. 6.

CANON FARRAR ON THE BIBLE AND THE HIGHER CRITICISM.

CANON FARRAR has just issued from the press of Messrs. Longmans a new work, in which he summarizes, with his well-known literary skill and broad and scholarly views, the present phase of the Bible controversy, as viewed from the Broad Church standpoint. While men like Moody and Sam Jones, Booth-Tucker and Dr. Hall, and others of the same school, are shouting their firm belief in hell-fire for all who do not believe, with them, that every word in the Bible was literally inspired and is infallibly true, it gives some hope for the future of the church when we find men like Canon Farrar willing to accept the results of the application of the canons of rational criticism to the Bible as to every other book, at all events to some tangible and important extent. The eminent position occupied by Canon Farrar, among scholars as well as in the church, will give his views great weight among the more thoughtful sections of the Christian world; and we can only hope that his work will be extensively read among the orthodox.

A DILEMMA FOR THE BIBLIOLATERS.

Speaking on the general question of the infallibility of the Bible, Canon Farrar puts this dilemma before those who uphold it:

"God is a God of truth. He who thinks to serve God by the offering of falsehoods, or of half-truths, is as if he offered swine's flesh upon the altar. Christians must make their choice between freely admitting that there is a human, and therefore fallible, element in some of the sixty-six books which we call the Bible or the adoption of 'reconciliations' which may be 'accepted with ignominious rapture,' but which are so transparently casuistical as to shock the faith of men who are unprejudiced..... It is no part of the Christian faith to maintain that every word of the Bible was dictated supernaturally, or is equally valuable, or free from all error, or on the loftiest levels of morality as finally revealed. It is because I deeply reverence the Bible, and because I absolutely accept the Word of God, which it contains, that I refuse to be guilty of the blasphemy of confusing the words of men with the Word of God, or the inferences of ignorant teachers with the messages of God."

THE BIBLE NOT ONE BOOK, BUT A COLLECTION OF BOOKS.

Canon Farrar accepts the only rational view of the Bible: that it is *not* a homogeneous work, written or put together at a particular time for

a special purpose; but that it is a collection of works that have been gradually selected from among a literature certainly *not* "supernaturally dictated and infallibly true." Such an opinion—that the Bible is literally inspired—he distinctly declares to be untenable: "There is not the least merit in its acceptance; it is not helpful to the religious life of the individual or of nations; it has, on the contrary, been prolific of terrible disasters." And he insists upon the importance of remembering that—

"The Bible is, strictly speaking, *not a book, but a library*. The neuter plural *biblia* was mistaken in the Western Church in the thirteenth century for a feminine singular, and from it is derived our familiar name 'The Bible.'"

FRAGMENTARY REMAINS OF AN EXTENSIVE LITERATURE.

After discussing the gradual process of collecting the various books of the present canon, Dr. Farrar says:

"No vision of the night, no voice from heaven, declared these books to be the Word of God. Having bestowed on man his reason and his conscience, He does not speak to them by voices in the air. God never reveals to man what He has enabled man to discern for himself. The marked separation of the Bible into the Books of the Old and New Covenants is alone sufficient to show that the Bible cannot be regarded as a simple homogeneous book. Both sections represent the selected and fragmentary remains of an extensive literature. Probably, too, our sacred books are even more fragmentary than at first sight they appear to be. Few competent critics hesitate to allow that it is a work of composite structure; that it has been edited and re-edited several times, and that it contains successive strata of legislation."

LET HONESTY AND COMMON SENSE BE OUR GUIDES.

Then, referring to the fanciful "spiritualization" or allegorical interpretations of some of the Old Testament stories that square with neither the teachings of Christ nor the dictates of common honesty and decency, Canon Farrar proceeds:

"As a matter of plain honesty and common sense, it ought to be stated that the morality of some passages in the Bible is not in accord with the words of Christ. When we maintain the supremacy of the moral teaching of the Bible, we mean the supremacy of that teaching which is stamped by the sanction of consciences, which the Gospel has illuminated."

"THUS SAITH THE LORD!"

Dr. Farrar objects to the usual interpretation of prophecy, as being possible only when the prophet was in a trance; and of the arguments of such men as H. L. Hastings—that the frequent use by the "prophets" of the above phrase is unique in literature and shows their firm faith in—as well as proves the fact of—the divine inspiration of the Bible, he says:

"The phrase 'Thus saith the Lord' had no such meaning. It was the common formula of all prophets, and attentive examination shows that the phrase was

simply the natural expression of sincerity and conviction. The voice of heaven which spoke to them was addressed to their own consciences. No prophet intended to intimate that he had heard the articulate utterances of the Eternal, but every true prophet believed that he had spoken in accordance with that which the spirit of the Eternal had revealed."

LITERAL INSPIRATION IRRATIONAL AND UNCRITICAL.

On the question of verbal inspiration Canon Farrar distinctly says: "Such views we reject. *They are disproved by history, philosophy and criticism;* they are burdensome to the reason and repugnant to the conscience." Indeed, considering the many utter absurdities into which this dogma naturally leads, one can only wonder that men outside a lunatic asylum should for so many ages have continued to fight for a doctrine which is not supported by even a pretence on the part of the book itself that it is inspired; but which is contradicted by the fact that special portions of the book are put forward as being the veritable words of deity, thus necessarily implying that the other portions are not of that divine character. A glimpse of the truer view has come to Dr. Farrar, who proceeds to lay down these

CANONS OF INTERPRETATION.

"But we may lay down two rules: First—That there can be no deadlier desecration and perversion of the true purpose and meaning of the Bible than when it is used to justify slavery, or religious persecution or intolerant bigotry, or any form of false religion and false morality. Second—That it is always rightly used when its teachings are applied to make men more noble and more happy."

We need hardly stop to point out the utter fallacy of the methods thus laid down. One could not reasonably expect that, however firmly disposed towards a strictly logical method of criticism, an elderly and devoted clergyman could arrive at a conclusion similar to that of a perfectly free and impartial inquirer. Bibliolatry in its coarser form is abandoned by the Canon; but he still holds to it in a certain milder form, which leads him to modify his rationalism to preserve his Bible, instead of testing his Bible entirely by his reason. If the Bible sanctions slavery, etc., which undoubtedly it does, then our reason should compel us to reject it to that extent as "repugnant to our consciences," and not to make an attempt to twist it to suit our ideas, or in order to "make men noble and happy."

EVOLUTIONARY REVELATION.

This is how the Canon treats the orthodox doctrine of inspiration:

"It might seem incredible that, in the nineteenth century, any one could still profess a theory so crude and so unscriptural [infallibility]. It is in opposition to all the evidence of facts which show that it was God's will to reveal Himself in the Old Testament, not immediately and completely, but mediately, indirectly, progressively, partially, as we could alone receive the manifestation of His will. Yet this theory will find maintainers until men get rid of that heresy

of heresies which lives and talks as if God had withdrawn himself into silence since the days of old..... If there be, as no sane scholar denies, a human element in Scripture, can it be free from human limitations and infirmities ?.... Even if we were to adopt the proposition, which involves a constructive blasphemy, that God had verbally dictated the whole Bible, such verbal dictation would long ago have become worse than useless, this being due to countless copyists and translators. Inspiration is an indeterminate symbol used by different men in different senses, which none of them will define."

The last sentence is a good one, and we should like to see our friend the Canon replace "inspiration" by the word he himself uses so frequently—"God"—and seriously consider it, especially in connection with his own dictum, "God everlastingly reveals himself to earnest souls." A progressive and everlasting revelation is somewhat of a tax upon our imagination.

HELL ONLY CONCERNS THOSE WHO BELIEVE IN IT.

In his discussion of the barbarous and foolish dogma of Eternal Punishment, Canon Farrar says:

"What a poet has called 'obscene threats of a bodily hell,' when stated, as they used to be, in common manuals and by men like Jonathan Edwards, in their crudest and coarsest form, were sufficient to crush many tender souls under a burden of intolerable agony, and to drive many into fierce revolt against a system which represented Our Father in Heaven as a relentless Avenger. Widely current as such doctrines had become, there is scarcely any age of Christianity in which they have not been more or less distinctly repudiated by some saints, fathers, and teachers of the Church. Calvinists may, if they will, still assert that God, by a decree which their leader himself characterized as 'horrible,' condemns the vast mass of mankind to 'writhe forever in sulphurous flames,' and may doom even unbaptized infants 'a span long' to crawl on the floor of hell Such opinions concern themselves only. They may assert them at their pleasure and at their peril, but every Christian is at perfect liberty to regard them as 'idols of the theatre,' created by the pride of system, the ignorance of exegesis, the obstinacy of opinion, and the terrors of guilt. No Christian is called upon to defend them when he hears them branded as cruel or unjust by the natural horror and indignation of mankind."

THE QUENCHLESS FIRE AND THE UNDYING WORM.

In the following passage Canon Farrar deals with the oft-quoted passage from Matthew 9, used to support the idea of a literal hell of fire and brimstone:

"The passages quoted in favor of it from the Old Testament are only relevant in erroneous versions, or when irrelevant connotations are read into them, or when they are pressed into impossible syllogisms..... The phrases of the New Testament are interpreted in the same bare and bold way, without any reference to history, literature and the common laws of Eastern language—just as though they had first appeared in some book of yesterday..... Thus, the fearful metaphors, to be 'cast into hell fire,' and 'where the worm dieth not and the fire is not quenched' (Mark 9 : 48), are part of a parabolic passage so entirely built

on Jewish metaphors and idioms that apart from them it cannot be understood. It is quoted as a decisive proof of 'endless torments.' Its bearing on such a dogma evaporates to nothing when we examine it. In the first place, 'hell' can only mean what the original word 'Gehenna' means, and 'Gehenna' was the vaguest and most metaphorical word of later Jewish theology. In our Lord's time, Gehenna was a pleasant valley outside Jerusalem; but five centuries earlier it had been first desecrated by Moloch worship, and then defiled with corpses, and lastly purified from pestilence by huge fires. To have the dead bodies thrown into 'Gehenna' was a terrible indignity, and became a metaphor for severest punishment; but the use of the phrase in this proverbial way no more sanctions the belief in the 'hell' of the Middle Ages than the use of 'Tartarus' in 2 Peter 2:4, shows that the author intended to vouch for the stories of Ixion and the Danaides.....On such isolated phrases we have no warrant for building up vast and terrific doctrines which run counter to many plain passages of Scripture and to its representation of God's mercy, and to the moral sense of mankind—which is itself a source of the divinest revelation."

"PROVING" DOGMAS BY "SCRIPTURE."

Discussing and denouncing the methods often employed by pulpiteers to support theological dogmas by isolated Bible texts, Dr. Farrar says:

"The doctrine of 'eternal torments' has been again and again *proved* by Isaiah 33:14: 'Who among us shall dwell with the devouring fire? Who among us shall dwell with everlasting burnings?' Even a moderate study of the context might have sufficed to show that the verse had not the most remote connection with that terrific dogma. No such doctrine, it may be confidently affirmed, was ever on the horizon of the Prophets or other Scripture writers before (at the earliest) the days of the exile."

BUT SOME MIRACLES ARE NECESSARY.

On the subject of miracles, the position taken by the Canon is about on a par with that adopted by those who reject all miracles but *ours:*

"The miracle of creation—the miracle which called light out of darkness and order out of chaos—the miracle which first thrilled the spark of life into inanimate matter and evolved from its dust the rich diversities of sentient existence—the miracle of the human nature of the Son of God—those two miracles of the creation and the incarnation involve and include to my mind the credibility of all other miracles.

"I withhold my credence from no occurrence—however much it may be called miraculous—which is adequately attested, which was wrought for adequate ends, and which is in accordance with the revealed laws of God's immediate dealings with man. About the miracles performed by our Lord and Saviour Jesus Christ—about the Incarnation, the Resurrection and the Ascension, which are the most stupendous of them all—I can still say with all my heart, '*Manet immota fides.*'"

It is but natural that "the line must be drawn somewhere," and the point chosen by Canon Farrar is at those miracles which are necessary if Christianity is to be defended at all—the Creation, the Incarnation, the Resurrection and the Ascension, and Christ's miracles. It would be

demanding more than human courage to expect the Canon to throw away at one fell swoop all the incredible things in the Bible, however great may be the demand made by them upon our credulity. We can only hope that, when he has revised his work, and has determined to fully carry out his own dicta as to defining every term he uses and demanding sufficient evidence for every occurrence placed before him for belief, he may see that *no* miracle can be sufficiently attested (unless, it may be, one that happens to himself); and that the same reasoning that induces him to reject the story of Jonah must inevitably lead him to reject the story of Jesus. We ought, perhaps, to be "thankful for small mercies" when we find a distinguished dignitary of the Church of England willing to abandon not only the literal inspiration of the Bible, but the stories of the Tower of Babel, of Balaam's ass, of Joshua ordering the sun to stand still, of Jonah being swallowed by the whale, etc., etc., even if he does still defend the miracles without an expressed belief in which his bread and butter would disappear.

"DISHONORABLE TO DIE IN THE LAST DITCH."

Finally, Canon Farrar puts into this shape his conclusions as to the outcome of the Higher Criticism and the duty of intelligent, honest and honorable inquirers:

"First, nothing can prevent the acceptance of the general principles of criticism, because nothing can finally retard the linear progress of truth and knowledge; second, the things which cannot be spoken will remain; third, it is a dishonorable and faithless position to be the last defenders of traditional prejudices which have been disproved by thorough and fearless investigation."

Of the first section of this declaration we need only say that all men who have freed themselves from the nightmares of superstition must of necessity accept it; and of the last, it is a question for the Canon himself to decide how far he subjects himself to his own condemnation. It is unfair to classify as "dishonorable and faithless" men who "die in the last ditch" in defence of dogmas they have been trained to regard as of supreme importance, because to other men those dogmas appear to have been "disproved by thorough and fearless investigation." The "charity which thinketh no evil" should have saved the Canon from so sweeping a denunciation, even if a regard for his own position—as defending dogmas utterly wanting scientific evidence—did not dictate a more modest and charitable conclusion. The "things which cannot be spoken" must certainly remain where they are, so far as we at present can see. If, by and by, we are blessed with keener insight and greater powers of speech, we may follow the Canon into a field which seems "void and without form." We are glad to stand beside him while he keeps on solid ground, and rejects the follies that he disproves; he can hardly expect us to follow him when he "fights in the last ditch" for those things that others have disproved.

J. S. E.

UTILITARIAN ETHICS.

(A Paper read before the Cambridge (Mass.) Conferences, April 12, 1897.)

BY B. F. UNDERWOOD, CHICAGO, ILL.

II. *(Conclusion).*

The position occupied by Herbert Spencer in relation to Utilitarianism is unique, and his criticism of what he terms "empirical Utilitarianism" has sometimes led to his being regarded as not belonging to that school of moral philosophy. That he might not be further misunderstood, Spencer years ago explained his ethical views in a letter to Mill, in which he says:

"My dissent from the doctrine of Utility as commonly understood concerns, not the object to be reached by men, but the method of reaching it. While I admit that happiness is the ultimate end to be contemplated, I do not admit that it should be the proximate end. The Expediency Philosophy, having concluded that happiness is a thing to be achieved, assumes that Morality has no other business than empirically to generalize the results of conduct, and to supply for the guidance of conduct nothing more than its empirical generalizations. But the view for which I contend is, that Morality properly so called—the science of right conduct—has for its object to determine how and why certain modes of conduct are detrimental and certain other modes beneficial. These good and bad results cannot be accidental, but must be the necessary consequences of the constitution of things; and I conceive it to be the business of Moral Science to deduce from the laws of life and the conditions of existence what kinds of action necessarily tend to produce happiness and what kinds to produce unhappiness. Having done this, its deductions are to be recognized as laws of conduct; and are to be conformed to irrespective of a direct estimation of happiness or misery.....It seems needful to add that, corresponding to the fundamental propositions of a developed Moral Science, there has been and still are developing in the race certain fundamental moral intuitions; and that, though these moral intuitions are the result of accumulated experiences of utility, gradually organized and inherited, they have come to be quite independent of conscious experience.....The experiences of utility, organized and consolidated through all past generations of the human race, have been producing nervous modifications which, by continued transmission and accumulation, have become in us certain faculties of moral intuition, certain emotions responding to right and wrong conduct, which have no apparent basis in the individual experiences of utility."

The experiences thus organized are not those of mankind merely. Spencer says we must go "much deeper down than the history of the human race" to find the beginnings of the connections between the groups of feelings which constitute the faculties of moral intuition. This fact bears on the distinction made by him between absolute and relative

ethics. "Granted," says Spencer, "that we are chiefly interested in ascertaining what is *relatively* right, it still follows that we must first consider what is absolutely right; since the one conception presupposes the other."

The chapter in his "Data of Ethics" dealing with that distinction, throws light on Spencer's system as furnishing an ethical ideal deducible from the facts of man's actual experience. It is summed up in the following passage:

"The law of absolute right can take no cognizance of pain, save the cognizance implied by negation. Pain is the correlate of some species of wrong—some kind of divergence from that course of action which perfectly fulfills all requirements. If the conception of good conduct always proves, when analyzed, to be the conception of a conduct which produces a surplus of pleasure somewhere, while conversely, the conduct conceived as bad proves always to be that which inflicts somewhere a surplus of either positive or negative pain; then the absolutely good, the absolutely right, in conduct, can be that only which produces pure pleasure, pleasure unalloyed with pain anywhere. By implication, conduct which has any concomitant of pain, or any painful consequence, is partially wrong; and the highest claim to be made for such conduct is that it is the least wrong which, under the conditions, is possible—the relatively right."

Within the latter category are to be placed the acts of men during the transition period of social life now in progress; "in so far as pain is suffered, evil inflicted; and conduct which inflicts any evil cannot be absolutely good." Spencer affirms as the result of his analysis of the principle of general happiness, that pure altruism is suicidal, showing that when adaptation is perfected, that is, when all persons are at once completely conserved and completely able to fulfil the obligations which society imposes on them, those occasions for postponement of self to others which pure altruism contemplates, disappear; contrary to the view of Comte that "living for others" should be the ultimate aim and standard, and that the more altruistic any man's thoughts and habits are the greater his happiness and that of others.

The compromise between egoism and altruism, he finds to be, "that general happiness is to be achieved mainly through the adequate pursuit of their own happiness by individuals; while reciprocally the happinesses of individuals are to be achieved in part by their pursuit of the general happiness."

This conclusion is consistent with Spencer's statement in his essay on "Morals and Moral Sentiments," that sympathy, which is the root of all the altruistic sentiments, is "the concomitant of gregariousness; the two having all along increased by reciprocal aid."

John Fiske speaks of sympathy as "the power of ideally reproducing in one's self the pleasures and pains of another person"—a power which exists in some degree where the intelligence is very low. "Given the rudimentary capacity for sympathy," says Fiske, "we can see how

family integration must alter and complicate the emotional incentives to action. . . . . The mere present sense of collective pleasure or pain is enough to organize the complex feeling. The good of the individual must begin to yield to the good of the community."

The state of consciousness called pleasure according to the Spencerian view accompanies those activities which tend to the perfection of the organism, while pain, indicating discord between inner and outer relations, impairs the powers of the organism and is opposed to fulness and perfection of life. In pursuing pleasurable courses of life, organisms have lived in a way conducive to completeness of life. Excesses and cases of moral disease, as Fiske observes, do not invalidate the corollary which inevitably follows from the doctrine of evolution that pleasures are the incentives to life-supporting acts and pains the deterrents from life destroying acts.

Darwin, who recognizes conscience or the moral sense as the most important distinction between man and the lower animals, nevertheless finds the basis of the moral sense in the feeling of dissatisfaction at having sacrificed the ever-enduring social instinct to the temporary impulse of passion or desire, and thinks "any animal whatever, endowed with well-marked social instincts, would inevitably acquire a moral sense or conscience, as soon as its intellectual powers had become as well developed, or nearly as well-developed, as in man."

Old impressions are continually repassing through the mind. The weaker impressions of past hunger, of satisfied vengeance, of peril escaped by injuring others, etc., man is compelled to compare with the ever enduring instinct of sympathy, companionship and good will which is still present and always active. He will then feel in his imagination that a stronger instinct has yielded to one which now seems comparatively weak, and that sense of dissatisfaction will inevitably be felt with which man is endowed, like every other animal, in order that his instincts may be obeyed." It is in this feeling of dissatisfaction and in the accompanying desire to do differently in the future, that Darwin sees the explanation of regret and remorse, and the basis of conscience and "the imperious word ought," which imply the consciousness of the existence of a persistent instinct, serving man as a guide, though liable often to be disobeyed. The dissatisfaction which comes from disobedience, if weak causes regret; if severe, remorse, and these feelings develop the moral sense which grows with the expansion of sympathy, as communities come together and afford the conditions of a larger social life.

The earlier English writers on ethics were not influenced in their speculations by contemporaneous foreign thought, but Bentham derived several of the doctrines which form the ground-plan of his work from the French writer Helvetius; and Comte's influence is seen in the moral and political speculations of John Stuart Mill and other writers of the last fifty years. During this time, and longer, Kant and other German writers on ethics have profoundly influenced the intuitional school of

thought; but Utilitarians seem not to have modified their conceptions through the influence of these writers. Spencer's effort to reconcile the intuitional and the experiential philosophy by recognizing in the mind an element *a priori* to the individual, but due to ancestral experience, and to explain the moral sense as thus derived, was the result of the study of Evolution and the application of its principles to the mind.

The same is true of Darwin's theory of the genesis of the moral sense, which Fiske and other Utilitarians who have come under the influence of Evolutionary thought have accepted as a valuable contribution to the experiential philosophy, which is generally, but not invariably, regarded as including Utilitarian ethics.

All schools of ethics teach that virtue promotes and vice is opposed to the well-being of man; that morality is necessary to social order and security, and to the highest and most permanent enjoyments. The Utilitarians say that the well-being of man means the greatest happiness of man—not of one man, but of all men,—and that this is the object of morality. If the objection is urged that morality often requires self-sacrifice, suffering, and ignominious death, the Utilitarian replies that the object of morality is the public good, the good of society, upon which depends the greatest happiness of all; and this high social condition often demands sacrifice of the individual, whose personal reward is in the consciousness of having made the world better by his suffering. If it be said that not happiness, but complete development, or holiness, or blessedness, or obedience to the will of God is the object of morality, the Utilitarian may ask, Why is complete development, or holiness, or blessedness, or obedience to God's will desirable? What rational answer can be given other than that such a condition is necessary to man's happiness? Happiness is an end in itself. One cannot rationally ask, Why should a man prefer happiness to unhappiness? Therefore happiness is the ultimate object of morality: and fulness of life and development of the highest faculties are desirable *because* they secure the largest amount or the highest kind of enjoyment—the greatest possible happiness.

According to the Utilitarian view, moral conceptions, precepts, and codes have grown, so to speak, out of the wants and necessities of mankind. They have increased in complexity as man's knowledge and relations have multiplied and as his life has become more complex. In the school of experience he has learned what actions conduce to human happiness. The only criterion by which we can ultimately decide as to the morality of acts is the effects they produce for or against human well-being, and that implies the conditions of happiness.

The words "moral law" are a generalized expression for all those actions which have the approval of enlightened minds. The conception of a moral order is formed by abstracting from character and conduct, and by combining in an ideal sequence, all those moral qualities which are advantageous to the race. The moral law is the ideal rule of life.

With the Utilitarian, the word "utility" comprehends all that is implied or expressed by moral systems. Our ideas of duty become more correct with advancing culture, which enables us to understand more fully our relations to our fellow men and to the external world, and to perceive the result of certain lines of action and courses of conduct, by which is learned what is *involved* in those general precepts and principles that have descended from the early and comparatively uncultured periods of human history.

Life has been evolved and sustained in a perpetual conflict, but chiefly by actions which are accompanied by pleasurable sensations. A race of animals that sought pleasure in actions of a painful character—supposing that were possible—would soon become extinct. Under such circumstances, indeed, no race could come into existence. Thus we see it indicated how our knowledge and practice of virtue—the sum total of acts which conduce to our well-being—have been attained by the desire for happiness.

Experience has taught men that some acts which are pleasurable for the moment are under certain circumstances ruinous in the end; that others which are painful for the time are a step to happiness. It has also taught that acts which may be a source of pleasure to the individual, if he can enjoy it without reference to others, may be against the happiness of the community which is the main consideration even in tribal life. Since the well-being of the individual depends upon the existence and security of the collective body, the social interests become of primary importance and they must be guarded, even though individual members suffer. Whatever, therefore, promotes the highest social interests is right. With the advance of civilization the community grows to be more and more inclusive until finally it comprises the entire human race, and utility represents those actions which are the best for the entire human family.

We do not, of course, usually stop to consider a vast train of circumstances, which must follow a given act. The larger part of our life is lived without calculation. The results of the experiences are summed up in precepts and codes, and are expressed in customs and laws which serve as ultimate authority for most men.

Then we have in us the organized experiences of countless generations who preceded us, and who having through ages acted in accordance with moral rules and principles, slowly learned by experience, have transmitted to civilized men of to-day the results, as a legacy, in the form of moral intuition. The moral sense, thus evolved from the multiplied experiences of men registered in the slowly-evolving organism and transmitted like other characteristics, has become a part of our mental constitution, extremely sensitive in some, dull in others, and in the lower races and in many individuals of the higher races, but little developed.

The lowest creatures have no sight, no hearing, no taste. Their whole structure serves the general purpose of performing, without division of

labor, the simple functions of life. Slowly life, as it is developed, differentiates into several senses,—taste, hearing, seeing, etc.,—with corresponding organs. Similarly there has been evolved out of experiences of men who originally could have made no ethical distinctions the lofty moral conceptions of to-day. The race has learned by experiences courses of conduct which are promotive of its well-being, and at the same time, it has acquired a moral sense which intuitively responds to the distinctions which we have learned to make. Although intuitive in civilized man, the conscience, the "instinct of duty," is the result of acquirement in the race and a highly complex product of human culture. It is not the voice of God. It approves and condemns according to the convictions of its possessor, and these depend upon charactar, education, and surroundings.

Thus morality has its foundations in the mental constitution and in the nature of things, and the fine moral sense which equally with the starry heavens filled Kant with wonder and awe, is the very efflorescence of evolution. This view of the intuitional character and at the same time of the experiential origin of conscience is an important modification of the utilitarian theory necessitated by the conception of evolution.

The moral life involves a struggle only when the lower nature, the savage in man, is still strong and hard to resist. With the highly-evolved man virtue is second nature. The right course is pursued without any sense or feeling of coerciveness. The man who is good organically does good easily, naturally, almost instinctively. His aspirations and inclinations are in harmony. But this condition never could have been reached had not the struggle to overcome evil, with all its failures and conquests, been continued through countless generations of ancestral life. The whole history of civilization from the dawn to the present time, is a record of experiences which have educated us into our present moral conceptions.

The *practical* agreement between the intuitive and the inductive and utilitarian systems is indicated by Whewell, who remarks that "if a reverence for general maxims of morality, and a constant reference to the common precepts of virtue take the place in the utilitarian's mind, of the direct application of his principle, there will remain little difference between him and the believer in original moral distinctions; for the practical rules of the two will rarely differ, and in both systems the rules will be the moral guides of thought and conduct." For be it remembered that Whewell holds that "if we could take into account the whole happiness produced by virtuous feelings, we could commit no practical error in making the advantageous consequences of actions the measure of their morality."

Mackintosh, in illustrating the distinction between the criterion of morality and the nature of our moral sentiments, says: "Man may be so constituted as instantaneously to approve certain actions, without any reference to their consequences, and yet reason may nevertheless

discover that a tendency to produce general happiness is the essential characteristic of such actions."

The "tendency to produce general happiness" is, then, a characteristic, given sufficient knowledge, by which to test the moral character of actions. Mackintosh says: "All virtuous acts are admitted to be universally beneficial; morality and the general benefit are acknowledged always to coincide. It is hard to say, then, why they should not be, reciprocally, tests of each other, though in a different way;—the virtuous feelings, fitted as they are by immediate appearance, by quick and powerful action, being sufficient tests of morality in the moment of action, and for all practical purposes; while the consideration of tendency to general happiness—a more obscure and slowly discoverable quality—should be applied, in general reasoning, as a test of the sentiments and dispositions themselves. It has thus been employed, and no proof has been attempted that it has ever deceived those who used it in the proper place." Thus writes one who, though opposed to the Utilitarian theory in regard to the origin of moral ideas, admits the utilitarian criterion of morality. *Practically* it is unimportant whether actions are useful because they are moral, or moral because they are useful. It is of practical importance that utility be regarded as the criterion of morality, and it is by continual reference to this criterion that changes are made possible for moral, social and political progress.

THE SILENCE OF HISTORY.

BY CHARLES C. CATTELL.

THE accounts furnished in the New Testament of the advent of Christianity are full of marvellous works, events sufficiently startling to arrest the attention of mankind in general. Stripped of all theatrical drapery, there is the alleged appearance of a boy prophet, a new-born king, a deliverer of the nations, without the intervention of a human father. The silence of all history in the presence of such a phenomenon can only be accounted for on one of two suppositions. Either the event was so common as to cause no special notice, or all the historians of that and the following age failed to hear anything about it. But not only the birth of this boy, but the deaths of all the other boys, born at the same time, escaped the attention of contemporary writers. Perhaps we should hesitate in deeming it strange that historians should omit to record the birth of the son of a virgin, when we discover that neither Mark nor John mention the circumstance, and that, although Matthew and Luke refer to it in detail at first, the subject is never alluded to by Jesus nor his mother. But it is not only the first miracle that is passed over, but all the New Testament miracles, although said to have been done in the

presence of thousands, among men of different nationalities, creeds, and social conditions. The appearance of a crucified man and the dead saints in the streets of Jerusalem, the veil of the temple being rent in twain, all failed to reach the ears of the contemporary chroniclers of the time. As Prof. Graetz says in his brilliant history of the Jews, Josephus and Justus of Tiberias related all the events of the time under the rule of Pontius Pilate, but they never once mention the birth, life, death, or teachings of Jesus; a circumstance that seems to have had great weight with the Church in subsequent times. In the early editions of Josephus there are dates in the margin, and between the events, so dated, there is a forged interpolation, referring to Christ—about the time when it might have been inserted by the historian. Prof. Graetz makes no allusion to this forgery, although it is in all the copies now in our British Museum. The fact that historians passed over such stupendous interferences with the invariable order of nature, as are recorded in the gospels, whether they believed them or not, would seem to imply that these events had not become known in their time, or that they were not unusual.

But take another great authority, who flourished also in the first century—Plutarch, who was studying philosophy, he tells us, when Nero made his progress into Greece, soon after the crucifixion took place. We naturally seek to find his inquiring mind occupied about it; but, like Josephus, he fails to enlighten us. On Christianity alone is Plutarch silent. The Rev. J. and W. Langhorne quote passages, of what he learned from various other sects, but none from the Christians—"Nothing is now extant from which we can *infer* that Plutarch was acquainted with the Christian religion." His notions of particular providence he got from the Stoics—and "he went back to Socrates for principles on which to rest." This eminent teacher of philosophy in Rome gives us no account of that philosophy that was revealed from heaven by the mouth of the Son of God. Not a word.

Perhaps the facts in connection with Boëthius, or Boetius, will appear more striking than those concerning Plutarch. He flourished in the fifth century, and also in Rome; and also, like Plutarch, he studied philosophy, and left the world a book entitled "The Consolation of Philosophy." The strange part of this is that he entirely omits to give us "The Consolation of the Christian Religion;" which is supposed to be so much more efficacious in calamitous circumstances. It has been suggested that had he been allowed to live a little longer, he would have added another chapter with that included. The objection to this inference seems obvious; for, if he had held the consolation of Christianity as more perfect and satisfactory than that of philosophy, he would have set that before his readers *first*. It is impossible to doubt that he would have done this.

Pliny the younger is reported at the end of the first century as giving a favorable view of the characters of Christians; but that is all; we get

no news about the remarkable events in the life of the founder, nor any admiration for his teachings, nor even any allusion to them in any form by which we might get his estimate of them.

Contemporary with Pliny was Suetonius; but he is also silent as to Christianity.

But in the third century, we surely may expect to get full details of the origin and progress of the divine faith, the message from heaven to both Jews and Gentiles, among them the Romans. Dion Cassius flourished before the middle of that century. He spent twenty years in collecting materials and in writing his history to the eighth year of the Emperor Alexander Severus, but he is silent about Christianity, and does not even mention Christians. It seems incredible that any allusion in Pliny's writings was extant in the time of Dion Cassius or escaped his notice.

Tacitus was twelve years old when Nero finished his career; and lived and wrote in Rome in the first century; and was visited by all the learned men of his time, from whom he could have obtained the best information available. But as to the miracles and teachings of Christ, he is entirely silent.

Seneca was born about the same time as Jesus, but he is silent about Christianity, although he lived till A.D. 65, and must have been familiar with it, if it was known in his time. But although he tells us not a word about it, St. Jerome refers to *him*, and puts him "among the *Christian* writers"; apparently because his writings were held in such high esteem in what are called "the early ages of Christianity," of which we know nothing.

Juvenal, the poet, was equally lofty in moral tone, and lived eighty years in the world; about sixty of them in the first centnry. He saw all that went on in the Roman Empire under many masters; yet on Christianity he too is silent.

Lucian was born in the first century, in the province of Syria, and studied Homer, Plato, and the rest; and, although he lived at Antioch and wrote in Greek, on Christianity, after a life of ninety years, he also is silent. He has the credit of putting the finishing stroke of his ridicule upon Pagan worship; he is also credited with *abstaining* from hurting the feelings of "Christians." We might have expected that the wit of one who "put up the philosophers for sale," exposed the gods to public ridicule, and declared the doctrines of the philosophers "vain and uncertain," would have pointed out the "more excellent way," *if he knew it* and believed it.

Perhaps, from a Christian standpoint, the most remarkable incident revealed by modern research is the discovery that the only accepted authority, outside the Gospels, has broken down under examination. It was at one time believed that certain persons, who are quoted in history as to the early events, were "disciples" of the first disciples of Jesus. But the name "Apostolic Fathers," by which name they were known, is

now found to be inapplicable to them. All the early literature, once relied upon, is now the subject of suspicion, doubt, or dispute.

I do not wish to convey the idea that the opinions about the value of these writings are uniform and consistent among scholars in general. The same remark applies to other early writers, who were not claimed as successors to the Apostles. Opinions differ among men equally honest and able to judge of these writers. Let us take the case of "Pliny the Younger" and his alleged writing to the Emperor Trajan in A.D. Mr. Wm. Addis, M.A., in his "Christianity and the Roman Empire," says that Pliny, in describing the "infection" of the Christian "superstition" as having spread into his province, is "a witness beyond suspicion." But Prof. Edwin Johnson, M.A., in "The Rise of Christendom," informs us that this supposed correspondence is not to be found in any extant MS. It was added to the collection by Aldus. Not only so, but he says that, on reading the first two sentences, we feel that they are the writing of one "unaccustomed to think in classical Latin;" and, finally, that it is "one of the most glaring and impudent fabrications in the long series." Prof. Johnson holds, and I think rightly, that all the allusions in the authors I have referred to are but "interpolations" of a later age, even when they only *name* Jews or Christians, and this is nearly all they ever do.

Prof. Johnson, in his extensive researches, devotes over thirty pages to examples of interpolations in Roman literature. Although I think he makes out a very good case, he is held to be "extreme" in his views in maintaining that this fraudulent business was enacted in modern times by the monks. He may be proved wrong about the date, but it will be difficult to show he is wrong about the fact that the passages he refers to are interpolations.

Mr. Addis (although writing in defence of Christianity) refers to one of my "silent" authors in these terms: "But it is significant that Dion Cassius, who lived under Alexander Severus and wrote the history of the Empire down to his time, never once mentions the name of Christian" (p. 51).

Speaking of Tacitus and Suetonious, Mr. Addis says they "show by their brief and contemptuous notices that they knew little about Christianity and cared less." Epictetus and Aurelius "dismiss Christianity in scornful phrase." Lucian enlarges on its "credulity," because it "supplies an easy mark for his wit" (p. 51). But if all this be true, it is not by any means important.

Then, as to the existence of a Christian Church as a corporate body with an external government and a constitution of its own, Mr. Addis says: "Of such a body there is no trace during the first century and a half of the Christian era" (p. 94).

The allusion, found in Suetonius, to Claudius, that he "drove out of Rome the Jews who were excited to constant riot by Chrestus," he refers to correctly as "confused" and "obscure," although "famous." But

the allusions are all alike deficient in sense when compared with other statements.

Then as to the early martyrdoms; many authors of apologetics in modern times have admitted the very doubtful character of some of the "sacred" historians. See what Mr. Addis has to say: "It may be well to warn the reader that the popular list of *ten* great persecutions *has no historic worth.*" Yet it appears in Augustine, and it appears to answer, he says, to the *ten plagues* of Egypt, or to the *ten horns* of the beast in the Apocalypse! That is, it is purely fanciful.

Referring to the strange early stories about the Christians, it would seem needful we should exercise due caution before we reject them as absurd and incredible; Mr. Addis shows, by his story from Tertullian, that the Christians really worshipped the head of an ass! Excavations made in Rome, in 1856, confirm the story! A representation of a human body with an ass's head nailed to the cross, has been discovered; while there is a man standing before it in the attitude of prayer! The Greek inscription, now readable, is—"Alexamenos worships his god" (p. 57). What it means he does not tell us.

The general conclusion, which I think may be safely adopted, is that within the first two centuries, Christianity, the Church and the New Testament were unknown and unmentioned in histories or books wherein it would be reasonable to expect otherwise; "always providing," as lawyers say, that there is any truth in the orthodox representations of the wonderful things that happened in that age of the world, "to the contrary notwithstanding." Those who are disposed to disagree with my judgment on this matter will find on a careful examination that all the writers who maintain the opposite view, rely on Eusebius and Jerome. Before accepting them as true and honest historians, read the stories they tell; the things they believed; and the policy they adopted—that lies were useful and the truth might be suppressed, in the interests of their propaganda; that the end justified the means. But as to who they were; where they lived; and how they passed their lives (according to the highest authorities): all these matters are as vague and uncertain as any saint could desire or invent. On the last point I am willing to let the case rest on statements contained in our Encyclopædia Britannica as to what is actually known about Eusebius and Jerome.

A new anecdote of Christopher North has just been put in circulation—one that is not only new, but authentic. A feminine enthusiast was talking to the eccentric writer about his "noble head." She told him about his "frontal development," and so on. Finally, Kit replied, with a result that can be imagined: "True, madam. In our village there was only one head bigger than mine, and that was the village idiot's."

Minister—Brother, you should try to be content with what you have.
Brother—So I am. It's what I ain't got that I'm dissatisfied with.

MOLECULAR MACHINES.

BY PROFESSOR DOLBEAR.

IF one of the functions of a machine be to transform the kind of motion it is supplied with into some other kind of motion,—translatory into rotary or vibratory, any one into either of the others,—one may be prepared to follow mechanical processes from masses of visible magnitude into those of molecular magnitudes, and thus note the antecedents of the new phenomena that appear.

When a gas is condensed by pressure the individual molecules have less free space to move in, and they consequently collide with each other more frequently. Being elastic, their average amplitude of vibration is increased proportionally, and a greater number of them will strike with greater velocity upon the walls of the containing vessel per second than before. Thus the temperature and the pressure of the gas are increased. We say that mechanical energy has been converted into heat energy, or sometimes simply into heat, though what has really happened has been the transformation of external translational motion into internal vibratory motion, which the elasticity and mobility of the molecules permit. When by friction or percussion a body is heated, the same thing precisely has happened—translatory motion has been transformed into vibratory, through the agency of the molecules, which have, therefore, acted as machines for transformation.

In like manner the reverse transformation may take place in several ways. When the increased vibratory motion of the molecules produces an increased pressure upon the movable head of a piston in an engine, the piston as a whole may move and do work. Also, when the molecules strike harder upon one side of a surface than upon the other side, the surface moves toward the side of less pressure, as with the radiometer; so that both engine and radiometer are machines for transforming vibratory molecular motions into translatory mechanical motion.

When the temperature of steam is raised to about 5,000 F., the amplitude of vibration is so great that the atoms can no longer cohere in the molecules, and they become separated into the gases hydrogen and oxygen; and again vibratory motion is transformed into translatory, which in gases is called free-path.

Heat is also largely derived from the chemical properties of coal, wood, oil, gas, and other substances called fuel. As the heat is derived from some antecedent condition which is not heat, it follows that the stove or furnace is a machine for transforming into heat motions those motions which constitute and are the measure of chemism.

When heat is applied in any way to the face of a thermo-pile, electricity may appear which may be made to do work in many ways. The vibratory motion disappears as such,—that is, it is annihilated,—while an electric

current appears as its substitute. The thermo-pile is, therefore, a machine for the transformation of heat into electric current. If heat be a kind of molecular motion, then an electric current must be some other kind of motion!

When the armature of a dynamo is turned and an electrical current is developed, the latter is the representative of the mechanical movement of the armature. It takes more power to make it move at a given speed when it is producing a current than when it is not. The current represents the difference. It is mechanical motion that goes into the dynamo, and an electrical current comes out of it; and hence a dynamo is a machine for the transformation of mechanical into electrical motion. One is visible, the other molecular, as is the case when friction develops heat. An ordinary static electrical machine possesses a similar function.

On the other hand, a galvanic battery transforms chemical into electrical motions; and, in every case where electricity is developed, there is some sort of apparatus which receives one kind of motion for transformation. That one kind of machine will transform mechanical motion, a second heat, a third chemical, all into the same kind of product, helps one to see that the antecedents, which at first seem to be so unlike, are really but varieties of the same condition, namely, motion, which, when transformed by suitable machines, might be expected to appear as a similar product of each.

An electrical current always heats the conductor through which it passes. It is, therefore, an antecedent for the production of heat in the same sense as mechanical motion is an antecedent in condensation, percussion and friction, and the conductor is the agency for the transformation into the vibratory molecular form.

So far as the production of light by electricity is concerned, whether by the incandescent or the arc system, the function of the current is to raise the temperature of the conductor to the proper degree for luminousness. The light comes from the hot molecules, not from the electricity; but here, as in the simpler case of heating the conductor, the conductor itself, whether it be a filament of carbon or the tips of the carbon rods, acts as a transformer of electrical into heat motions, and thence to ether waves.

Ether waves may be transformed in two different ways. First, by falling on molecules of matter; the latter absorb them, and are heated in consequence, which is the converse of the production of ether waves by heated molecules. Second, by their own interferences, plane, elliptical, and spiral waves may be produced, which resultant waves are capable of affecting matter in different ways. One of these consequences is of so much theoretic importance it will be well to allude to it.

Given a flexible section of a spiral ether wave, no matter what its origin. If its ends were to come together, there is good reason for thinking they would close and weld together, forming a ring which would then be practically a vortex ring. The ends of vortex rings formed in

the air will do thus, so if the atoms of matter are really vortex rings, as has been supposed, the above suggests how they may originate, or how matter is created.

All the different kinds of phenomena which are generally attributed to different forces one may readily trace to these antecedents; namely, matter, ether, and motion of various forms. The condition necessary for a new phenomenon to appear is that the present forms of motion in either matter or ether need to be transformed. Atoms and molecules, as well as large masses of them, which we call bodies of visible magnitude, act as machines for the transference and the transformation of motion; and one might define a machine as *a collocation of matter having for its function the transference or the transformation of motion, or both.* An atom and a molecule, then, are as much machines as a steam-engine or a dynamo; and every molecule in the universe, whether near or remote, is constantly receiving and transforming energy through its individual motions. What the particular phenomenon will be in a given case depends upon the form of the motion received by the mechanism and the new form which the latter has made it to assume. As before remarked, what a given mass of matter will do depends upon the kind of motion it has.

So far nothing has been said about the relation of these mechanical principles to living things,—animals and plants; but it will be obvious to every thinking person that unless, when matter assumes the forms exhibited by such living things, it surrenders its mechanical properties and relations, then such transformations must be going on constantly in all living things. Mechanical motions, chemical re-actions, heat, and so on, ought to be expected from such complex machines as animals. Foods, as fuel, air, and water, are physical factors which imply metamorphosis; and the forms into which the factors will be changed depend upon the special mechanism provided. Hence, an animal is a complex machine for the transformation of motions of various sorts, the sum of them being what are called the phenomena of life.

The foregoing analysis shows that what have heretofore been considered as forces in nature are non-existent; that all phenomena in the different fields of physics are simply and plainly mechanical; and that an application of the laws of motion, as presented by Sir Isaac Newton, supplemented by the laws of ether action, is sufficient to account for all kinds of phenomena; and therefore the supposition of particular forces of any kind is entirely unnecessary. What have been called forces are but various forms of motion, of matter, or of the ether, each embodying energy; the particular phenomenon a given body may produce depending upon its size and the particular quality of motions it chances to have. Granting this, one may at once perceive that expressions implying higher and lower forms of force are misleading. No one is higher in dignity or importance than any other one. Let one ask the question, Which is

higher, vibratory or translatory motion? and he will see the absurdity of the language.

If one will bear these principles in mind, they will be helpful in unravelling phenomena which otherwise may appear to be very puzzling. For instance, one may frequently came across the statement that one cannot get out of a machine what is not in it or put into it. Is it so? Coal is put into a furnace, and heat comes out. Mechanical motion is put into a dynamo, and electricity comes out. A current of electricity is turned into an arc lamp, and light comes out. The character of the product thus depends upon the form of the machine and its relation to some antecedent factor. The physical knowledge we have enables us in most cases to trace and understand the metamorphosis. In some cases the molecular changes are not so completely known in detail, yet the quantitative relations between what goes in and what comes out of the machine are so definite that one is warranted in asserting that no other factors are present but the one considered. In one sense, the product of any machine is like its antecedent, if both be but kinds of motion, or forms of energy as some prefer to say; but if one assumes that these various forms of energy differ in any way from forms of motion, or that they have distinct individualities, then one can get out of a machine what he does not put into it. What seem to be more unlike than the mechanical movements of a steam-engine and the electricity of the dynamo? One is simplicity itself; the nature of the other, its product, has been the despair of philosophers for generations. The subject is of fundamental importance, chiefly because some philosophers have evolved their schemes without duly considering the obvious relations.

However much a given phenomenon may differ in character from its known antecedents, no good reason can be assigned for thinking that, when properly analyzed, it would be found resolvable into other factors than matter, ether and motion. Furthermore, there is no evidence that any one of the physical forms of motion is or was necessarily prior to any other. As there is no hierarchy among them, no one of them can be called primal. A linear arrangement does not properly represent their mutual relations. They are more like a close ring of interrelations.

The visible universe may be considered as a vast machine, within which motions are being exchanged by contact and by radiation. It is not the absolute amount of energy a body may have which determines whether it shall give or receive, but it is the degree it has of a given kind of energy. Thus, it is the temperature of a body that determines for it whether it shall gain or lose heat in the presence of other bodies. The whole tendency is towards equalization of conditions, and for this reason some philosophers think they foresee the end of this act in the drama of the solar system. The possibility of the variety of phenomena that gives interest to existence depends upon the fact that at present matter is in an unstable conditlon, and, when uniformity of condition is reached, there will be an end to changing phenomena. Astronomers

have figured out that in five or ten millions of years the sun will have radiated away so much of his energy that the earth will no longer be habitable. Perhaps so; but it is certain that the whole solar system is drifting in space somewhere at the rate of seven hundred millions of miles a year, and in one million of years it may reach a region in space where the present rate of loss might be greatly reduced. In that time it will have travelled three times the distance to the nearest of the fixed stars. It could hardly be where its expenditure would be greater than now. If it should drift into one of the great hydrogen regions such as are numerous in the heavens, not only would the supply of energy be renewed indefinitely, but the earth would become uninhabitable in an hour. At any rate, there is no guarantee in nature for permanent stability, supposing that stability should be attained; for simple mechanical impact between the sun and any of the millions of stars would not only annihilate the earth as such, but would so reduce to a nebulous mass the matter that now composes the solar system, that the whole process of world formation would have to be gone through with again. The sudden blazing out of stars here and there in the heavens show that similar physical processes are taking place elsewhere in the universe. Such an end is quite as probable as the refrigerating one referred to; for there is implied in the latter, not only that the present conditions in the solar system will continue, but that the environment of the solar system will remain for so many millions of years what it is. The matter is not alluded to here on account of its humanitarian interest, but to point out that in either case the results will be due to purely physical conditions. What mankind would contemplate as a dreadful catastrophe would be but the interaction of huge machines, where energy was transformed on a grand scale, and no particle of matter omitted for an instant to conform to the three laws of motion.

INFALLIBILITY.

HUMAN infallibility, avaunt!
The claim is impious wheresoever made;
Whether by Papist or by Protestant,
Rivals in pharisaic robes arrayed.
No one is more, and no one less, than man;
Where all are equal, who shall claim control
Over the conscience, or put under ban
The free, outspoken, independent soul?
There is no heresy in honest doubt,
Or strong dissent, where demonstration fails;
Or non-conformity, however stout;
For thus the righteous cause at last prevails.
Begone! Popes, Cardinals, Councils, Bishops—all
Who seek to hold the human mind in thrall!

—*William Lloyd Garrison.*

THE REAL VALUE OF THE DARWINIAN HYPOTHESIS.

BY THE LATE THOMAS H. HUXLEY

THE Darwinian hypothesis has the merit of being eminently simple and comprehensible in principle, and its essential position may be stated in a very few words. All species have been produced by the development of varieties from common stocks by the conversion of these, first into permanent races, and then into new species, by the process of *natural selection*, which process is essentially identical with that artificial selection by which man has originated the races of domestic animals—the *struggle for existence* taking the place of man, and exerting, in the case of natural selection, that selective action which he performed in artificial selection.

The evidence brought forward by Mr. Darwin in support of his hypothesis is of three kinds. First, he endeavors to prove that species may be originated by selection; secondly, he attempts to show that natural causes are competent to exert selection; and, thirdly, he tries to prove that the most remarkable and apparently anomalous phenomena exhibited by the distribution, development, and mutual relations of species, can be shown to be deducible from the general doctrine of their origin, which he propounds, combined with the known facts of geological change; and that, even if all these phenomena are not at present explicable by it, none are necessarily inconsistent with it.

There cannot be a doubt that the method of inquiry which Mr. Darwin has adopted is not only rigorously in accordance with the canons of scientific logic, but that it is the only adequate method. Critics exclusively trained in classics or in mathematics, who have never determined a scientific fact in their lives by induction from experiment or observation, prate learnedly about Mr. Darwin's method, which is not inductive enough, not Baconian enough, forsooth, for them. But even if practical acquaintance with the process of scientific investigation is denied them, they may learn, by the perusal of Mr. Mill's admirable chapter "On the Deductive Method," that there are multitudes of scientific enquiries, in which the method of pure induction helps the investigator but a very little way.

"The mode of investigation," says Mr. Mill, "which, from the proved inapplicability of direct methods of observation and experiment, remains to us as the main source of the knowledge we possess, or can acquire, respecting the conditions and laws of recurrence of the more complex phenomena, is called, in its most general expression, the deductive method, and consists of three operations: the first, one of direct induction; the second, of ratiocination; the third, of verification."

Now, the conditions which have determined the existence of species are not only exceedingly complex, but, so far as the great majority of them are concerned, are necessarily beyond our cognizance. But what

Mr. Darwin has attempted to do is in exact accordance with the rule laid down by Mr. Mill; he has endeavored to determine great facts inductively by observation and experiment; he has then reasoned from the data thus furnished; and lastly, he has tested the validity of his ratiocination by comparing his deductions with the observed facts of Nature. Inductively, Mr. Darwin endeavors to prove that species arise in a given way. Deductively, he desires to show that, if they arise in that way, the facts of distribution, development, classification, etc., may be accounted for, i.e., may be deduced from their mode of origin, combined with admitted changes in physical geography and climate, during an indefinite period. And this explanation, or coincidence of observed with deduced facts, is, so far as it extends, a verification of the Darwinian view.

There is no fault to be found with Mr. Darwin's method, then; but it is another question whether he has fulfilled all the conditions imposed by that method. Is it satisfactorily proved, in fact, that species may be originated by selection? that there is such a thing as natural selection? that none of the phenomena exhibited by species are inconsistent with the origin of species in this way? If these questions can be answered in the affirmative, Mr. Darwin's view steps out of the ranks of hypothesis into those of proved theories; but, so long as the evidence at present adduced falls short of enforcing that affirmation, so long, to our minds, must the new doctrine be content to remain among the former—an extremely valuable, and in the highest degree probable, doctrine; indeed, the only extant hypothesis which is worth anything in a scientific point of view; but, still a hypothesis, and not yet the theory of species.

After much consideration, and with assuredly no bias against Mr. Darwin's views, it is our clear conviction that, as the evidence stands, it is not absolutely proven that a group of animals, having all the characters exhibited by species in Nature, has ever been originated by selection, whether artificial or natural. Groups having the morphological character of species, distinct and permanent races in fact, have been so produced over and over again; but there is no positive evidence, at present, that any group of animals has, by variation and selective breeding, given rise to another group which was even in the least degree infertile with the first. Mr. Darwin is perfectly aware of this weak point, and brings forward a multitude of ingenious and important arguments to diminish the force of the objection. We admit the value of these arguments; nay, we will go so far as to express our belief that experiments, conducted by a skilful physiologist, would very probably obtain the desired production of mutually more or less infertile breeds from a common stock, in a comparatively few years; but still, as the case stands at present, this "little rift within the lute" is not to be disguised nor overlooked.

In the remainder of Mr. Darwin's argument our own private ingenuity has not hitherto enabled us to pick holes of any great importance; and

judging by what we hear and read other adventurers in the same field do not seem to have been much more fortunate. It has been urged, for instance, that in his chapters on the struggle for existence, and on natural selection, Mr. Darwin does not so much prove that natural selection does occur as that it must occur; that, in fact, no other sort of demonstration is attainable. A race does not attract our attention in Nature until it has, in all probability, existed for a considerable time, and then it is too late to inquire into the conditions of its origin. Again, it is said that there is no real analogy between the selection which takes place under domestication, by human influence, and any operation which can be effected by Nature, for man interferes intelligently. Reduced to its elements, this argument implies that an effect produced with trouble by an intelligent agent must, *a fortiori*, be more troublesome, if not impossible, to an unintelligent agent. Even putting aside the question whether Nature, acting as she does according to definite and invariable laws, can be rightly called an intelligent agent, such a position as this is wholly untenable. Mix salt and sand, and it shall puzzle the wisest of men, with his mere natural appliances, to separate all the grains of sand from all the grains of salt; but a shower of rain will effect the same object in ten minutes. And so, while man may find it tax all his intelligence to separate any variety which arises, and to breed selectively from it, the destructive agencies incessantly at work in Nature, if they find one variety to be more soluble in circumstances than the other, will inevitably, in the long run, eliminate it.

A frequent and a just objection to the Lamarckian hypothesis of the transmutation of species is based upon the absence of transitional forms between many species. But against the Darwinian hypothesis this argument has no force. Indeed, one of the most valuable and suggestive parts of Mr. Darwin's work is that in which he proves that the frequent absence of transitions is a necessary consequence of his doctrine, and that the stock whence two or more species have sprung need in no respect be intermediate between these species. If any two species have arisen from a common stock in the same way as the carrier and the pouter, say, have arisen from the rock-pigeon, then the common stock of these two species need be no more intermediate between the two than the rock-pigeon is between the carrier and the pouter. Clearly appreciate the force of this analogy, and all the arguments against the origin of species by selection, based on the absence of transitional forms, fall to the ground. And Mr. Darwin's position might, we think, have been even stronger than it is if he had not embarrassed himself with the aphorism, "*Natura non facet saltum*," which turns up so often in his pages. We believe, as we have said above, that Nature does make jumps now and then, and a recognition of the fact is of no small importance in disposing of many minor objections to the doctrine of transmutation.

But we must pause. The discussion of Mr. Darwin's arguments in

detail would lead us far beyond the limits within which we proposed, at starting, to confine this article. Our object has been attained if we have given an intelligible, however brief, account of the established facts connected with species, and of the relation of the explanation of those facts offered by Mr. Darwin to the theoretical views held by his predecessors and his contemporaries, and, above all, to the requirements of scientific logic. We have ventured to point out that it does not, as yet, satisfy all those requirements; but we do not hesitate to assert that it is as superior to any preceding or contemporary hypothesis, in the extent of the observational and experimental basis on which it rests, in its rigorously scientific method, and in its power of explaining biological phenomena, as was the hypothesis of Copernicus to the speculations of Ptolemy. But the planetary orbits turned out to be not quite circular after all, and, grand as was the service Copernicus rendered to science, Kepler and Newton had to come after him. What if the orbit of Darwinism should be a little too circular? What if species should offer residual phenomena, here and there, not explicable by natural selection? Twenty years hence naturalists may be in a position to say whether this is, or is not, the case: but in either event they will owe the author of "The Origin of Species" an immense debt of gratitude. We should leave a very wrong impression on the reader's mind if we permitted him to suppose that the value of that work depends wholly on the ultimate justification of the theoretical views which it contains. On the contrary, if they were disproved to-morrow, the book would still be the best of its kind—the most compendious statement of well-sifted facts bearing on the doctrine of species that has ever appeared. The chapters on Variation, on the Struggle for Existence, on Instinct, on Hybridism, on the Imperfection of the Geological Record, on Geographical Distribution, have not only no equals, but, as far as our knowledge goes, no competitors within the range of biological literature. And, viewed as a whole, we do not believe that, since the publication of Von Baer's "Researches on Development," thirty years ago, any work has appeared calculated to exert so large an influence, not only on the future of biology, but in extending the domination of science over regions of thought into which she has, as yet, hardly penetrated.—*Lay Sermons, pp. 292-298.*

Deacon Johnson—I'm afraid dat ef yo' married mah daughter, I would hab to assist yo'.

Abe Hardcase—Why, no; I kin take care ob myself all right. Yo' wouldn't hab to do nuffin but take care ob her an' de chillun. Doant yo' worry yosself about me."

Visitor—My husband would like you to come and read the Bible to him this evening. Parson—Is he very ill. Visitor—The doctor says it's insomnia.

THE STORY OF THE GREAT INDIAN MUTINY.

BY E. W. L.

V.

AT Jullundhur were stationed the 6th Cavalry (native) and the 36th and 61st B.N.I., and also the 8th Foot and one troop of horse artillery. The European force was small for the work it had to do, and the head of the civil department at Jullundhur applied to the Rajah of Kuppoorthulla, a Sikh, for aid. Promptly the Rajah came to the assistance of the Government; troops and guns were at once marched to Jullundhur.

The largest arsenal in Upper India was at Ferozepore. To protect this important place, a brigade was made up of the 10th Cavalry, the 45th and 57th B.N.I, the 61st Foot, and three batteries. Brigadier Innes commanded. The brigadier, who had but lately arrived, noticed signs of mutiny among the native troops. But the officers laughed at his suspicions: their men were as true as steel. The infatuation of the European officers in this direction was simply marvellous. Their faith in the Sepoys often turned the scale in favor of lenient measures, and this leniency meant death to the Europeans. But the news from Meerut and Delhi excited the Sepoys, and brought matters to a crisis. The attitude of the officers commanding the native forces induced the brigadier to modify his own plans. Instead of disarming the Sepoys at once, he dallied with danger. His plan was to place the European forces between the 45th and the 57th B.N.I., intending to disarm both regiments on May 14th. A parade was ordered for the evening of the 13th, to carry out the former part of this plan. After some simple manœuvres, the command came for the 57th to march in one direction, the 45th in another. The 57th obeyed, and went into their quarters without a protest. The 45th acted differently. Coming within sight of the magazine, and seeing European troops filing into the entrenchment, a part of them made a rush and took possession of the weakly-guarded ditch, but a steady fire from behind the wall where the ammunition was stored forced them to retire. In this attack the 45th men were aided by a company of the 57th, which formed a part of the magazine guard. The 57th gave up their arms the next day. The 45th started off for Delhi, pursued by the 10th Native Cavalry and some European troops. Nearly all the fugitives were either captured or slain. General Anson thanked the 10th for their fidelity. Within a month the thanked were numbered among the transgressors and the thanker dead!

"He who holds Kangra holds the hills," says a native proverb. Mooltan, Kangra and Peshawur (especially the last) were stations of supreme importance. As soon as news of the mutiny reached Major Lake, he ordered a body of his

Punjab Police to occupy Kangra. The river Chenab runs into the Indus. On the left bank of the Chenab, a few miles above the meeting of the waters, is Mooltan, considered to be the key of the country lying around the junction of the five rivers (Punj-ab). In Mooltan were 60 Europeans and 3,500 natives. The 62nd and 69th B.N.I. were stationed at Mooltan; as usual, their officers were confident of the loyalty of the men. A small force of 250 Punjabese and the 60 Europeans were alone relied upon by Major C. Chamberlain, who was in command. A bold front, strong language, and gentle hints of reinforcements of European troops, kept the natives in check for a season.

Cassell quotes an anecdote related by Mr. F. Cooper, Commissioner at Umritsir: "Very early in the crisis, Rajah Sahib Dyal, an old and faithful adherent of the Government, asked the writer (Cooper) how matters looked at Peshawur. The reply was, 'Satisfactory.' 'Otherwise,' said the questioner,—and he took the skirt of his muslin robe and rolled it up significantly." Cooper saw in this act the meaning that, if Peshawur fell into the hands of the mutineers, their forces and those of their allies would "roll up" the Punjab and wrest it from the British. The Peshawur valley lies at the mouth of the celebrated Khyber Pass; the allies would have been the fierce Moslems, inhabiting the surrounding hilly country. The rajah's pantomime, it seems to me, might have been construed into meaning, "If you have lost Peshawur, it is time for you to gird up your loins and run!"

At Peshawur were stationed the 21st, 24th, 27th, 51st, and 64th B.N.I., and three cavalry regiments, the 5th Regulars and the 17th and 18th Irregulars. A Hindoo regiment was also near the place. Against these there were the 70th and 87th Foot and four batteries, say 2,000 men. Some twenty miles off were the 27th Foot, and with them the 55th B.N.I., the 10th Irregulars, and a battery. At Hotee Murdan were the Guides, natives; good men and true. The ratio of native to British troops was about as 3 : 1.

The officer commanding-in-chief in the Punjab was of the Anson type, and, like Anson, he had mighty men under him. Brigadier S. Cotton, Colonels Edwardes, Nicholson, and N. Chamberlain acted; General Reid, the Commander-in-Chief, looked on more or less complacently. On May 12th a council was held. Nicholson suggested a movable column that should march from place to place, giving help where help was needed. He voted for making the British force a reality that the natives could see and feel. The suggestion was at once acted upon. The reliable Guides were called in from Hotee Murdan, and the unreliable 55th replaced them. The 64th B.N.I. were divided into three detachments and sent to occupy three different forts. News of the disarming of native troops at Lahore reached Peshawur on May 13th. The telegraph was busy between Rawul Pindee and Peshawur, Sir John Lawrence at one place and General Reid at the other. Reid was summoned to Rawul Pindee, where Sir

John and he talked over the serious state of affairs. Sir John was the moving spirit that suggested the General's orders.

At Peshawur the movable column was daily gaining in strength. Nicholson and Edwardes were popular with the Sikhs and had no difficulty in procuring good, reliable men. The country on both sides of the Indus was kept quiet, with little loss to the Europeans. Sir John Lawrence, acting on his own responsibility, sent Messrs. Barnes and Forsyth to the Maharajah of Puttiala and to the Rajahs of Jheend and Nabha to solicit help. The request was promptly granted, and troops, provisions, and means of transport were provided at once. But the commissariat department was unequal to the emergency. It could not supply sufficient transports. Civilians came to the rescue, however; and, helped by friendly rajahs, the road from the Punjab to Delhi was made secure.

About the 17th May a Ghoorka detachment created a disturbance, and Gen. Anson's personal baggage was looted. The Ghoorkas were quieted, and returned to their allegiance. These Ghoorkas were to have had charge of a siege train which was ordered to be organized at Philour; but in consequence of the disturbance the escort was formed by the 3rd B.N.I. These men had sworn that the train should never reach Delhi. On the 21st May the thirty-two guns which formed the siege train started for that city. Nineteen hours it took to travel seven miles to the banks of the Sutlej. There, at Loodiana, a bridge of boats crossed the river.

In India, it is quite a common occurrence for a stream that at ordinary times one can step across to become suddenly a mighty raging river. Many an officer has lost his life, and many more have lost their baggage, by this sudden rising of the waters. The bed of a river that is nearly dried up is a favorite place for travellers to pitch their tents. Suddenly, an awful roaring is heard; no time is to be lost; an instant rush for the bank, or life goes with the baggage. But a moment elapses ere everything is swept away, and an angry river sweeps along. An amusing incident happened to my father's regiment. It was on the march and during a time of peace. The baggage and tents had been sent on, with instructions that the regiment was to camp on the other side of a stream near by. An hour or so later up came the regiment. The tents had been pitched all right, but between them and the famishing officers and men a broad and swift river now rushed foaming by. Result, no beer for the officers for a week or more.

The Sutlej was raging mightily; 300 workmen were busy day and night raising contrivances to check the force of the torrent, and thus protect the bridge of boats. The train, with its ammunition, passed over safely; two hours later there was no bridge of boats. The Sutlej had swept it away. Not only was the river baulked of its prey,—the treacherous Sepoys of the 3rd B. N. I. suffered a like mortification. Hardly was the train over the river than a detachment of the

men sent by the Rajah of Nabha relieved the 3rd B. N. I. The train went on its way towards Delhi.

To show what thorough confidence the British had in each other an anecdote is here introduced. An officer at Meerut, hearing some complain of being so completely isolated from headquarters, remarked: "Hodson is at Umballa; I'll bet" (so like an Englishman) "he'll cut his way through to us ere long." The next day Hodson did put in an appearance. Troops, few in number, were marching from Umballa to Delhi; four companies of the 1st Fusiliers, a squadron of the 9th Lancers, and two guns H. A. On May 17th they reached Kurnaul; Lieutenant Hodson was among them on the 18th. He volunteered to ride to Meerut. Escorted by a few of the men sent by the Rajah of Jheend, he started for Meerut on the 20th. The next day he was in Meerut. To quote a writer, "he rode straight to (Brigadier) Wilson; had his interview, a bath, breakfast and two hours' sleep, and then rode back the 76 miles. He arrived at Kurnaul on the night of the 23rd; *en route* he met with mutineers, but forced his way through. The next day he drove over to Umballa, saw the Commander-in-Chief (Anson), made his report that evening; and, after a rest of five hours, was speeding away back to Kurnaul. Thanks to Hodson's daring feat, the troops at Kurnaul and at Meerut were able to act in concert. Hodson, who had been in trouble under an unjust accusation, was now ordered to raise a force of 2,000 Irregular Horse, and was appointed head of the Intelligence Department.

(*To be continued.*)

Archdeacon Sinclair, in "Leaders of Thought," tells this story of an old Eton head master, known as "Flogging Keate." One morning a row of boys came before him, and he at once began to flog them. The boys were too terrified to remonstrate till he had gone half way down the row, when one of them plucked up courage to say, "Please, sir, we're not up for punishment; we're a confirmation class." "Never mind," said Dr. Keate; "I must be fair all round, and it will do you good." So he finished them off.

President Angell, of the Boston Humane Society, says that Professor Agassiz, the greatest scientist we ever had on the American continent, firmly believed in the immortality of dumb animals.—*Ex.* The founder of Methodism believed that, as men were to develop into angels, so dogs, horses, and cows would be reincarnated into human beings. Just as rationally, the Buddhist believes it right to include all animated creation in the same delightful process, carrying it to its logical conclusion, and believing that at last all beings will be developed into, or become part of, the Supreme Being. These speculations may serve the useful purpose of keeping men from worse mischief, but will any one tell us what other good they can do to humanity?

The Welsh people claim that Welsh is the most ancient language, and think Adam, Eve, Jehovah, and the Serpent all talked in it.—*Ex.* And why not?

A SPIRITUALISTIC EXPERIENCE.

Of all the hardened, obstinate unbelievers as regarded anything approaching supernatural visitations our uncle Bayle was surely the climax. He would not even admit that there might be the faintest truth in any of the theories of Spiritualists. It was of no use arguing with him, for he always finished up with what he no doubt considered as final: "I tell you there is no such thing as spirits; I don't believe in them, and never shall."

"But uncle," I persisted, for I had been reading some wonderful psychological literature, "you do not believe in them because you have never happened to have an experience of the kind——"

"Oh! haven't I, though? I expect an experience I once had would have been enough to convince you a hundred times over, and your hair would have stood on end for the rest of your life."

"Oh, do tell us about it!" I exclaimed, eager to have some fresh proof to add to that I had already collected.

"Well," began my uncle, leisurely, and looking very solemn all at once. "It was about forty years ago that this happened, so that I should be about twenty then. It was in the autumn, and just getting dusk, and I was on my way home from Toulouse. I was pretty tired, for I had been riding nearly all day, and when I reached Auterrive some friends there I knew wanted me to break my journey and put up at their house for the night. I did not accept their invitation, as I wanted to get as far as Saverdun.

"Well, I went on through the Secourien woods, and had come out just near the Bolbourne monastery when a terrible thunderstorm commenced. It was one of those fearful storms which come on so suddenly without any warning whatever in the neighborhood of our mountains. I should most certainly have asked for shelter at the monastery until it was over but that my horse, taking fright at the vivid flashes of lightning, suddenly set off at a full gallop down a narrow pathway to the left, and in spite of all my efforts I could not stop him.

"As he went tearing along I discovered that he was taking me in the direction of the little village of Sainte-Gabelle. On, on we flew, until at length, as the storm began to abate, my horse slackened his pace, and when we came to the little inn I was able to draw up, for I wanted to dismount and have some refreshment.

"On entering the inn parlor I found it was full of travellers, who, like myself, had been surprised by the storm. There were some Spaniards, some merchants, and a fair number of sportsmen, and before we had finished drying ourselves at the crackling wood fire supper was announced. We all sat down together at a long table, and the conversation naturally fell on the fearful storm we had just had. One man had been thrown from his horse; another had been an hour

getting his cart wheels out of a regular bog; every one had some adventure to relate, and we all abused the weather heartily.

"'It's beastly,' exclaimed one.

"'Yes, and with such wind, too,' said another; 'it's regular witches' weather.'

"There was nothing much in such an expression, but it gave rise to a strange remark from another man, delivered in a still stranger and more peculiar tone.

"'Witches, and indeed all kinds of supernatural visitors, prefer a peaceful moonlight night to such boisterous weather as this.'

"We all looked in astonishment at the man who spoke. He was a Spaniard, a regular gypsy-like looking fellow, strong and swarthy, with black hair and eyes, gold rings in his ears, and he was dressed in a rough suit, leathern gaiters and a red cloak. He had spoken with such conviction that every one was taken aback, and there was silence for a minute, until a young man who was sitting next me, and who had a very frank, honest expression, burst out laughing, and exclaimed:

"'Well, that's good! Do you mean to say, though, they have told you about their habits and tastes—and is it really a fact that they object to getting wet and muddy——'

"He had not quite finished speaking when the Spaniard turned on him fiercely, saying:

"'Young man, I advise you not to speak so lightly about things of which you know nothing.'

"'Do you mean to say you want me to believe in spirits and——'

"'I might if I thought that you had enough courage to even look at them, supposing they should appear to you.'

"The young man sprang from his chair, furious and crimson with indignation, then suddenly mastering his anger, he said, sarcastically:

"'You would have paid for insulting me in that way if it had not all been fools' nonsense.'

"'Fools' nonsense!' exclaimed the Spaniard, jumping up and striking the table with his clenched fist. 'Look here,' and he threw a thick leathern money-bag on to the table, 'there are thirty quadruples there, and I will risk losing them if, within an hour from now, I do not let you see the face of any of your friends, even if they have been dead ten years; and if, after recognizing them, you dare touch them or let them touch you—why, the money's yours.' The Spaniard looked so terrible as he uttered these words that, in spite of ourselves, we all felt awed. The young man, however, still kept up his mocking air as he answered:

"'Ah! you think you could do that, do you?'

"'Yes, I do,' said the Spaniard, 'and I will bet this bag of money on it, but you must bet the same amount, and if I do as I say I shall win it.'

"The younger man was silent for a moment, and then he said, still in the same mocking tone:

"'Thirty quadruples is a big sum for a poor student to possess. I haven't the amount, but if you like to bet five, why, here's my money.'

"The Spaniard picked his leathern bag up and put it silently back in his pocket.

"'So you want to back out, do you?' he said, scornfully.

"'Back out—no, indeed, I don't. If I owned the thirty quadruples, you'd soon see whether I wouldn't risk them.'

"'Well, I'll find you four,' I said, curious to see how the affair would end, and several other men feeling the same curiosity offered to make up the amount.

"The Spaniard, looking as though he felt no doubt as to the result of the extraordinary wager, handed over his money to the young student.

"The next thing was to proceed with the experiment. The landlord of the inn suggested that it should take place in a summer house at the end of the garden, where there would be no risk of our being disturbed.

"We examined every corner of this out-door building carefully, so that there might be no trickery. It was just a room with one window, which was shut close, and a door. A pencil and paper were placed on the table, the young man went in alone, and then, shutting the door to, we all remained outside.

"We were all, in spite of any skepticism we might feel, very much interested, and there was perfect silence as we waited to see what was going to happen. Presently the Spaniard, who was at the door with us, began to chant in a low, melancholy tone, the following words:

"'With a creaking noise the coffin burst its lid,
The grave is open, too. The spectre cries:
"The grave is open, the grave is open!"
A creaking noise is heard, is heard:
The coffin lid is burst asunder;
A phantom rises from its prison house
And steps out on the cold, wet grass.'

"There was dead silence for a minute, and then the Spaniard said, in a loud, solemn voice, 'You wished to see your friend, Francois Vialat, who was drowned three years ago! What do you see now?'

"'I can see a white, misty light near the window,' answered the student; 'it has no form, though, and looks more like a cloud than anything else.'

"We were all stupefied with astonishment.

"'Has it alarmed you?" asked the Spaniard.

"'No, not at all,' replied the student, with a shade of fear or hesitation in his voice.

"We were holding our breath with excitement. The Spaniard then stamped on the ground three times, and after another minute's silence began to chant again, this time more solemnly and slower than before:

"'The white phantom moves, the white phantom moves,
And shakes the damp from his hair,
And shakes the damp from his clinging shroud.'

"Once more there was silence, and then the Spaniard, in a still more solemn voice asked :

"'You who have thus wished to know the mysteries of the tomb, what do you see?'

"We all listened anxiously for the student's answer. He spoke very deliberately, and it was evident that he was describing what was just taking place, phase after phase.

"'The vapor is rising and getting longer and longer—it has now taken the form of a phantom—there is a veil over the phantom's face - it is standing there quite still, just in the place where it rose from the ground.'

"'Are you afraid of it?' asked the Spaniard, in a sarcastic tone.

"The young man's voice was quite firm, as he replied, calmly, 'No, I am not afraid of it.'

"We scarcely dared move—all of us—and we gazed in breathless amazement at the Spaniard. He was now waving his hands over his head in the most frantic manner, and afterward he called some strange, wierd-sounding name three times, and finished by chanting, in a much louder voice than before :

"'The phantom said, as he rose from his grave :
"I will appear before my friend :
And he will know me, he will know me ;
He will recognize his friend."

"There was silence again, and the Spaniard asked once more, 'What do you see now?'

"'The phantom is moving—coming nearer—he has lifted his veil * * * It is Francois Vialat—nearer and nearer he comes—he is at the table—he is writing something—he has written his name——'

"'Are you afraid yet?' asked the Spaniard, and there was an expression of anger in his voice. Another terrible silence, and then the student replied, in a voice which this time was just as loud but scarcely as firm as before :

"'No, I am not at all afraid.'

"This time the Spaniard almost yelled as he waved his hands about in the air; and then, suddenly dropping his voice, he chanted very slowly :

"'The phantom said to the young man :
"Come closer, come closer, my friend,
Give me your hand, and put your fingers so warm
Into my cold clammy ones—
I want to touch you, my friend, my friend."

"'What do you see now?' stormed the Spaniard in a voice of thunder.

"'He is coming close.... close.... ah! he is pursuing me.... his arms are stretched out.... horror.... horror.... open the door!'

"'Are you afraid?' cried the Spaniard with ferocious excitement, holding the handle of the door.

"A piercing scream was the only reply, followed by a fearful groan.

"'You'd better go to him now,' said the Spaniard, bitterly sarcastic. 'It seems to me I have won the bet; but let him keep the money, for I have given him a lesson. He can keep the money, but you'd better advise him to be wiser in the future and not to mock at subjects so serious.'

"He strode off abruptly, leaving us all stunned, as it were, with astonishment. We opened the door of the summer house, and there, unconscious and lying on the floor, we found the young student. He soon came to himself as we struck a light and lifted him on to a bench.

"On the table was the paper with the name 'Francois Vialat' scrawled across it. As soon as ever the student began to realize all that had happened, he vowed that he would kill the wretched man who had made him go through such horrible torture. He rushed back to the inn in search of him, and on being told that the Spaniard had already left, he started off at a frantic rate in pursuit.

"And do you mean to say," I exclaimed, my hair standing on end with horror, so tragically had Uncle Bayle related his terrible experience—"do you mean to say that, after such a proof as that, you can absolutely refuse to believe that there is anything in what the Spiritualists tell us?"

"Yes, I do; and for a very good reason—neither the Spaniard nor the young student put in an appearance again. And we had been fools enough to lend the money we bet!"—*Strand Magazine, from the French of F. Soulie.*

The melancholy Jacques is a good type of Philistine. A Philistine laughs because he knows somewhat concerning the Relative Importance of Things. Still, he laughs only on the surface; down underneath he never smiles—the old world is too sad. And so, if I am now serious (as well as sincere), and tell of death—the Great Death that awaits us all—will you pardon it?

A Theatrical Troupe from New York was recently making a tour of the small western cities. Unlike most theatrical troupes, the members were all on very good terms with each other. In fact, there seemed to be a genuine bond of fellowship among them. At Burlington, Iowa, the Leading Lady was taken severely ill with an acute affection of the throat. The company took her on to the next stand, at Keokuk. A physician was called, and all was done that could be done, but the patient grew rapidly worse, and in a few hours passed out. She was a good girl—all of her savings had been sent at regular intervals to her old parents at Rahway. And now, after sending all of her effects, trinkets, and money to the old folks, a collection was taken up to defray the funeral expenses. They would give her a decent burial—it was all they could do for her now. A committee of three went to the Undertaker's and ordered a fine cedar casket.

"Shall I line the casket with white or lavender satin?" asked the Undertaker.

"Just which you please—we do not care for expense," said the spokesman.

"Yes, I know; but you do not understand. You see, if the deceased was a single lady the lining must be white; if she was married, it should be lavender."

The committee withdrew to advise. After some consultation they came back and the spokesman said: "We have decided that the lining should be white—pure white—but we think you had better trim it with lavender."—*Philistine.*

THE STAGE AND ORCHESTRA.

The Theatres in Toronto.

THE experiment at the Toronto Opera House of establishing a season of summer opera here has, after a trial of four weeks, been abandoned for want of sufficient financial support. This is to be regretted, of course; but little else was to be expected. Summer opera has failed to pay in most of the large cities across the line, cities with twice or thrice our population, and we could not expect any other result in Toronto. Business is dull and employment slack; people are going out of town or saving their money to do so; the bicycle is more in evidence among us than ever, and after several dreary months of winter people prefer to spend a light fine evening out in the air to visiting a theatre. This is natural enough, and it was fortunate for the Madison Square Opera Company that the whole of May was dull and cold, or the company would have done much worse than it did. Of the organization about the best I can say is that it was quite as good as one could expect for the prices charged; but from a musical point of view the performances were distinct failures. Miss Goldie made a favorable impression as a lively actress and a pretty singer, but she is not strong enough for the position of leading lady in an organization with any pretensions to strength. Mr. David, Al. Leech, and one or two others of the artists we shall be glad to see here again, but as a whole the company was a poor one, and failure was apparent from the commencement. Every possible encouragement was given to the experiment by the Toronto papers, which, while careful not to stultify themselves by saying anything specific in favor of the various performances, took much care not to condemn them, and were persistently blind to many glaring defects. It is probable that we shall not have a trial of summer opera in this city for some time to come.

The return of "The Geisha" to the Grand Opera House for the race week was about the best thing that could come here for the occasion; many visitors were in town, and the light and lively popular show admirably filled the bill, and consequently the Grand was well filled at each performance. Of course we missed the clever singing of Miss Dorothy Morton, but the lady who took her place (Mlle. De Costa) was a good substitute. Miss Violet Lloyd added to her professional reputation and increased the number of her admirers by her vivacity of manner and the happy nimbleness of her feet.

The Toronto Opera House will re-open in August with Mr. Berte Coote.

Many people will be pained to hear of the death from peritonitis, after a few days' illness, of Miss Emily Bancker. The lady has been to Toronto several times, appearing in the comedy called "Our Flat," and later in more ambitious roles. By her death we lose an artist who had a considerable future before her.

Of the minor shows the Bijou theatre and the Auditorium are still running; and the Roof Garden at Hanlan's Pavilion has opened for the summer under the management of Messrs. Rich and Ramsay. These gentlemen will, with the assistance of some variety artists from the States, give a new vaudeville entertainment each week until September.

The musical and theatrical season has now closed in Toronto; it has been a trying one in every respect; to musical enthusiasts the attendances at the concerts of the higher order have been most discouraging, while from the point of view of the promoter financial results have been disastrous. I need say no more

Theatrical Notes and Gossip.

Kathryn Kidder has fully recovered from her recent illness and is quietly resting at Larchmont.

Here is a case where the dramatic critic has got ahead. On application of Corporation Counsel Delehanty, of Albany, N.Y., Justice Edwards at Troy granted last Wednesday a perpetual injunction restraining F. F. Proctor, lessee of the Leland Opera House, Albany, and his employees from excluding J. C. Mullaney, dramatic critic of the Albany *Morning Express*, who had been forbidden to enter the Leland.

Eleonora Duse has decided finally on the repertoire with which she will beard the Paris lion this summer in Mme. Bernhardt's theatre—the Renaissance. It will consist of "Camille," "Magda," and "La Femme de Claude." There is a keen interest shown among the French critics and public regarding this event.

At the Hyperion theatre, New Haven, last week, the season of "A Contented Woman" ended, and Caroline Miskel Hoyt made her farewell appearance on the stage, she having decided to retire into private life.

The suit of Roland Reed, as well as those of Isadore Rush and Mrs. Mary Myers, brought against the Southern Railway Co. for injuries sustained in an accident some time since, was tried at Macon, Ga., before a United States Court, the jury bringing in a verdict for the plaintiffs. An immense crowd attended the trial, and the lawyers appealed to the court to have the room cleared, but the judge decided to let everyone remain. The suits were brought for $10,000 each, and the jury awarded Mr. Reed $2,000, Mrs. Myers $4,000 and Miss Rush $1,000

Miss Nethersole, during her first American tour under the Frohman banner, made about $16,000 for her managers, but they lost fully one-half of these profits on her unsuccessful London engagement last year. During the past season the Frohmans cleared about $15,000 on Miss Nethersole; but as she played, it is said, to an average business of $8,000 a week, they were dissatisfied with these comparatively small returns. The star's contract called for personal payment to the amount of 15 per cent. of the gross receipts to $5,000 and 20 per cent. on all over that figure each week. On this basis her individual profits last season were about $40,000.

Pretty women are always an attraction to an entertainment. Capt. Paul Boyton appreciated this fact when he put his World's Water circus together for its tour this summer. The lady star of the company is Birdie Lewis, lady champion high diver of the world, who is a woman of remarkable courage. There are eight other champion lady swimmers in the company, each one of whom is said to be not only a beauty, but a remarkable example of physical culture.

William H. Crane has completed the arrangements for his next season. The actor will again be managed by Joseph Brooks, and he has engaged for his company Annie Irish, Percy Haswell, Una Abell, Kate Lester, Theodore Babcock, Boyd Putnam, Percy Brooke, William Boag, Vincent Serrano, Charles F. Gotthold, George F. De Vere and W. E. Butterfield. Mr. Crane's repertoire will include "A Virginia Courtship," by Eugene Presbrey; a new play by Louis N. Parker and another by Clyde Fitch and Leo Dietrichstein, besides a comedy by two popular literary lights whose names are not to be announced at present. The tour will begin at the Baldwin theatre, San Francisco, on Sept. 13.

WILFRID WISGAST.

FROM OUR OWN OBSERVATORY.

Judge McDougall Upholds the Toronto Sunday Car Vote.

THE litigation over the Sunday car vote has ended in a complete fiasco. Judge McDougall, who was appealed to by the Sabbatarians to inquire into the validity of the vote of May 15th, after hearing lengthy arguments on both sides, decided on Friday last that, though under the Acts of the Legislature he had power to open a full inquiry and make a scrutiny of the votes, the Anti-Sunday Car people had utterly failed to show any solid grounds for doing so. Though there had been ample time to make inquiries, and the petitioner asserted that he had full knowledge of the circumstances, neither in the petition nor in the affidavits by which it was supported had a single specific charge of wrong doing been set forth, and no reason had been shown to justify him in entering upon a lengthy and expensive investigation—a "fishing voyage of discovery," as he called it. A more severe condemnation of the pettifogging and unscrupulous tactics employed by Blake and the rest of the Sabbatarians could not well be imagined.

The "Strong-minded Woman" as a Mother.

The popular novelist of this generation has drawn many a picture of the woful effect in household affairs of the efforts made by women to secure a better and more solid education, and juster treatment as responsible members of society on equal terms with men. One would think at first glance, that more knowledge, more liberty, and more responsibility could have no possible evil result; but this is one case, out of many, where custom and prejudice, and a method of looking at things from the narrowest and meanest and most selfish point of view has led many, even of the most cultured of our literary men, to take up a position of opposition to what, at the first as well as the last view, would seem to be, not only a natural outcome of modern educational development, but a sternly-demanded reform in our social life. This letter from Mrs. Alice Stone Blackwell, in *The Woman's Column*, might be taken as a text by our Woman Suffrage friends, and extended to almost any degree with corroborative examples from their own experience:

"STRONG-MINDED MOTHERS.

"An anonymous correspondent, in a recent letter to the papers, says that the children of to-day are more excitable than those of fifty years ago, because they are left to servants, and on coming home from school they find their mother 'off to some woman's rights meeting, or casting her ballot.'

"Nothing so stirs the indignation of the children of suffragists as the charge that the women who attend equal rights meetings neglect their offspring. Whatever it may please outsiders to imagine on this point, we know by happy experience that there are no better mothers in the world.

"At the party given in honor of the seventieth birthday of Mrs. Harriet Beecher Stowe (a suffragist), her son told one of the editors of the *Woman's Journal* that he wished the public could know how completely, in the eyes of her own family, Mrs. Stowe's fame as an author was eclipsed by her virtues as an almost ideal mother.

"From Juvenal's time down to our own, the great enemies of maternal duties have been fashion and frivolity. Children are neglected for 'society' a thousand times where they are neglected once for philanthropy or reform.

"Ask the children of Lucretia Mott, Julia Ward Howe, Mrs. Livermore, Mrs. Booth, of the Salvation Army, Mrs. Elizabeth Cady Stanton, etc. They will all testify that a strong-minded mother is worth fully as much to her family as any weak-minded mother could possibly be.

"Whatever tends to make women more thoughtful and broad-minded tends inevitably to make them better mothers.

"My impression is that just now the rising generation is in more danger from whist parties than from woman's rights meetings.

"It may also be observed, parenthetically, that whatever may be the cause of the alleged greater excitability of modern children, it cannot well be due to their mother's 'casting a ballot,' as she is not yet allowed to do so.

"Alice Stone Blackwell."

A Lesson of Old Age.

A few weeks ago a lady paid a visit to Mrs. Elizabeth Cady Stanton, whose active share in producing "The Woman's Bible" has recently brought her name into prominence in two hemispheres, and has subjected it to a vast amount of foolish abuse from the orthodox ghouls, who can see no merit in anything but a slavish adhesion to their worn-out crudities, and cover with abuse any one who possesses a mind and thinks for himself. Mrs. Stanton has just passed her 81st birthday, and to the remark that, if men would but learn to live properly, they should live to a hundred years at least, she replied that she would like to live to one hundred if she could retain her faculties. She spoke of the enjoyment of old age, and thought it really the happiest part of life. Of course, the great secret of the fabled "fountain of perpetual youth" is a contented, happy mind, a mind that is occupied with work, or that can enter with zest into the thoughts of the best writers and philosophers. With such a mind, old age is not to be dreaded. While the heart is young, the body can be kept in fair tune. "Mrs. Stanton," says the lady, "invited us to stop to lunch with her, and entertained us with interesting stories from her own experience as well as with the hospitalities of her table. It is true, as she remarked, that women generally place too much importance on the food. Never make the guests secondary to the food. Whatever one has in the house, little or much, make the best of it and have a good time. Spend no time in apologising. Mrs. Stanton's wit sparkles, and her logic is as sound as ever." Which shows us that Mrs. Stanton, in her personal contact with her friends, in no way belies the very charming portrait with which we are all familiar.

The Forests of Canada.

At Ottawa, a few weeks ago, Prof. Macoun, of the Geological Survey, gave an address on the "Forests of Canada," in which he referred to the vast and untold wealth of forests that Canada at one time possessed, and which were Canada's chief assets. Instead of guarding them with care and zeal, our present governments, he said, appeared to be following a policy which would result in their utter annihilation. The means by which these vast forests were being destroyed was in some cases legitimate, but in many cases it was illegal. He believed that the legislatures had been grossly negligent of their duties in the preservation of this one great fortune which had been consigned to them for sure and safe keeping. The heritage of young Canadians was being squandered, and when the rising generation reached years of maturity, instead of taking possession of their once valuable heritage, they would fall heir to a barren plain. The subject

was called attention to by Mr. Fisher, of Winnipeg, in the DOMINION REVIEW of December and January last, and is of vital importance to the whole country.

Municipalities and Water, Gas and Other Companies.

At the annual convention of the Canadian Electrical Association, at Niagara Falls, the President, Mr. John Yule, manager of the Guelph Light and Power Company, made a very moderate and sensible introductory address. Speaking specially of the lighting companies, he said the present agitation threatened the unjust wiping out of a large amount of capital, invested in lighting plants, often at the invitation of municipalities, who now sought to destroy the companies they had formerly encouraged, either by establishing municipal plants or admitting ruinous competition. The remedy he proposed was the enactment of a law combining the leading principles of the British and the Massachusetts laws. Under the former, corporations are not allowed to compete with private companies, but must purchase all established plants either by agreement or by arbitration, if they desire to run their own plant. Under the latter, a Board of Commissioners is appointed, who exercise general supervision over all the companies carrying on a business in the State, and to this Board all disputes as to reduction of rates, etc., must be referred for decision. Taking the case of our Toronto Consumers' Gas Company, as working under such a law as that proposed, and the circumstances arising that the principality of Toronto desired to run the gas lighting plant by its own officials, the course of the Board would be very clear. At any moment the officials of the Board would be in a position to state the exact amount of cash the members of the company had invested in the concern; and if the shareholders had received their stipulated 10 per cent. interest on that amount, that would be the sum the municipality would be compelled to pay to the company in order to buy them out and run the plant by its own officials. Under such a law, however, it is likely the same result would come about in Canada as in Britain, where, out of 1,383 gas undertakings only 65 were run by the municipalities themselves. For, were the Board of Commissioners at all honestly managed, there would be little inducement to take the management out of the hands of the private company. Taking Toronto again as an example. The Gas Company shareholders have invested $1,750,000 in the plant as it stands at present; and as the financial saving could only amount to the difference between 10 per cent. on this sum and the rate the city would have to pay on the money to be raised to pay off the shareholders—say 5 per cent., $37,000; if the company were honestly managed—which the Board of Commissioners would see to—it would possibly be preferable to let the Company continue, which they probably would be willing to do at a reduced guaranteed interest. The only question would be the much-debated point as to which would be the most satisfactory plan – for the corporation to run the plant, or a private company under corporation supervision. Whatever course, however, may be taken, in the mean time, in individual cases, no time should be lost in enacting such a law as would place all gas, water, electric and steam railways, telegraphs, telephones, and other monopolies established by act of parliament, under strict financial inspection and control; the general principle being undoubtedly a justifiable one—that wherever a government monopoly is granted to any company or special government protection accorded, the company's affairs should be carried on under official inspection as the necessary accompaniment. "No taxation without representation." "No protection or monopoly without inspection"