

# THE THEOSOPHICAL PATH

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VOL. III

OCTOBER, 1912

NO. 4

THERE is no escape, even through death, from the supreme necessity of self-conquest. — *Japanese Buddhist Teaching*

## WHAT IS "MATTER?" by H. T. Edge, B. A. (Cantab.), M. A.

MATTER CONFUSED WITH INERTIA



"IS Matter Indestructible?" is the title of an article by H. Stanley Redgrove, B. SC. (LOND.), F. C. S., in *Knowledge* (London, August 1912). The writer shows that the familiar statement that *matter* is indestructible is misleading; only by an illegitimate identification of the meaning of the word "matter" with that of the word "inertia" can the statement be regarded as valid, and then only in a limited sense. It is, in fact, an instance of a dogma. Dogmas are not peculiar to theology, all branches of thought being liable to them. But the writer acquits the scientific authorities of today of accepting this particular dogma and accredits the wrong belief to the multitude. The multitude inherits the cast-off ideas of bygone generations of authorities, just as fashions in clothing are handed down. Many of the scientific text-books are largely responsible, as our writer points out, by their loose statements, for such false popular impressions as the above.

When we perform the experiment of burning a candle and collecting the products, or any other experiment intended to prove the alleged indestructibility of matter, we arrive at our conclusions by a process of *weighing*. But the weights of bodies are proportional to their inertias; hence all that the experiments warrant us in declaring is that *inertia* is indestructible, or that the quantity of inertia in the system remains constant throughout the experiment, or that inertia is unaffected by chemical action. In short, we may enunciate a doctrine of the "conservation of inertia." But to substitute the word "matter" and say that matter is indestructible is not warrantable, unless we are using the word "matter" as equivalent to the word "inertia."

The writer proceeds to consider the propriety of thus using the word "matter." He mentions two uses of the word as prevalent among the scientific philosophers. First:

By a certain school of metaphysicians, who may be termed materialists, the word "matter" is used to denote a hypothetical thing-in-itself, a "substance" supposed to underlie all the phenomena of the physical universe. This metaphysical use of the word at once places it outside the domain of pure science, since science is only concerned with phenomena as such.

Next, a less speculative school uses the word "matter"

To connote the fact or, perhaps we should say, law that certain phenomena (the so-called "properties of matter"), are always found grouped together so as to form a complex, which may be termed a "material body."

This makes the word signify a mere mental category or abstraction, and the writer thinks that it is now becoming more realized that the word ought to be used with some such non-metaphysical meaning as this. Inertia is only one of the properties grouped under the generic name "matter"; and there is no valid reason for identifying matter with that particular property rather than with any one other of the properties (*e. g.* spatial extension).

#### INERTIA A VARIABLE QUANTITY

But now we pass on to a further consideration. The doctrine, even as thus amended, is no longer found to be true; that is, it is true within certain limits only, and these limits have been passed by recent research. The doctrine of the conservation of inertia is found to hold good — at least with sufficient accuracy for all practical purposes — within the limits of what is defined as chemical action. But it no longer holds good when we come to the recent refinements in electrical investigation.

Professor Sir J. J. Thomson has proved mathematically that an electrically charged particle in motion possesses inertia in virtue of this motion, and that if its velocity is sufficiently high, an increase in the velocity produces a considerable increase in its inertia. This has been experimentally verified by Kaufmann, who measured the inertias and velocities of the small particles emitted by the disruption of the atoms of radium. He found that the greater the velocities of these particles the greater were their inertias.

From this it follows that if matter and inertia mean the same thing, we can create or destroy matter by means of a positive or negative acceleration. Arriving at this result, the writer concludes that

It is evident, therefore, that, at the best, the doctrine of the indestructibility of matter is a pure hypothesis, entirely unsupported by scientific evidence: indeed, so far as we can see, contradicted thereby. This fact is very generally recognized by physicists nowadays, but many people still believe that the doctrine of the indestructibility of matter is a law of the highest scientific importance, supported by the most convincing evidence.

We are now brought to the conclusion that inertia itself, hitherto accepted as an irresolvable and inalienable quality in matter, is a variable property; and if we are not content to consider matter as merely a complex of properties, but seek to know its essence, then we have to go back behind inertia to find the invariable substratum upon which inertia is grafted. If we say that inertia is a function of acceleration, then what is acceleration? If force is a product of acceleration and inertia, and inertia is a function of acceleration, then force has no longer two components but only one, and we must try to form a notion of force without mass. Our dynamic conceptions become reduced to a system of mutually opposing forces, inertia being simply a more passive kind of force opposed to the more active kind. So we are thrown back on the old difficulty of defining "motion."

#### NOUMENA AND PHENOMENA — AND ABSTRACTIONS

It appears that however we may carp at the above-mentioned metaphysical materialists for believing in matter as a hypothetical thing-in-itself, a substance underlying all physical phenomena, we do need such a conception. Possibly a man pluming himself on his practicality and freedom from metaphysics would seek to replace the hypothetical conception by an observed fact. But that will never solve the real question at issue; that fact, if discovered, will obviously stand as much in need of explanation as do the present facts. In short, so long as the human mind persists in peering behind phenomena in search of their cause it will never in the phenomenal world reach the end of its quest; there will always be something else behind. *Behind phenomena stand noumena.* This is not a dogma — merely a statement of the inevitable conditions of thought.

If, therefore, we are to use the word "matter," as suggested by the writer, to connote a complex of phenomena, we need some other word to denote that fundamental substratum of the physical world of which we fain must be in search. For the practical man will not be content to build his philosophy on a foundation of abstractions, whether materialistic, monistic, hylo-idealistic, or what not. This

leads to another point. Certain acute thinkers, in criticising the philosophy of modern science, have demonstrated, and rightly enough, that many of the terms which that philosophy has often used as though they stood for realities actually denote mere abstractions; thus force and atoms are found on analysis to be concepts. But these critics have gone too far. If "force," as understood in scientific philosophy, reduces to an abstraction, this does not mean that force is non-existent; nor, though the scientific "atom" can be shown to be an abstraction, are we thereby justified in asserting that there is no such thing as an atom. We must not escape from one kind of delusion to fall into another. "Spirit" can be made into a vague abstraction just as well as "matter"; and we may be just as vague and visionary under the name of spiritists as under that of materialists. Hence writers who, like H. P. Blavatsky, undertake to set forth the ideas of ancient science upon such subjects, are careful to distinguish between the meaning to be assigned to the words "force," "atom," etc., as used by modern science and as used in the explanation of ancient science. Over and over again H. P. Blavatsky insists that ancient science believes in the existence of actual living Beings as the causes behind all natural phenomena; and shows that no other conclusion is possible if we are to avoid positing abstractions instead of entities.

#### PHYSICS AND METAPHYSICS

Hinging closely upon this point is that concerned with the meaning of the word "metaphysics." The proper use of the word is to denote a branch of science that deals with actual phenomena lying beyond, or not included in, the department of physics. The essential point is that metaphysics, thus defined, is as real and legitimate a branch of science as is physics. The wrong use of the word is to denote a vague excursion into the wilderness of loose and illogical speculation, where phantasies of the mind are mistaken for actualities. The word, as thus defined, applies about equally well to physicists as to other classes of speculators; it all depends on the extent to which they deceive themselves by the said fallacies. In considering the dictionary definition of metaphysics, or what may be regarded as the orthodox use of the word, we may say that any branch of inquiry thus denoted is more or less a true science according as it deals with actualities or fancies.

Real metaphysics, then, as understood by Theosophical writers,

means a science of actualities, but of actualities that lie beyond the limits of sensory perception and hence do not come within the department of physical science. And surely this is a branch of science that needs to be studied. We can never, within the self-imposed limits of physical science, reach that finality which our minds desire. If our minds did not desire it, we might rest content with not reaching finality; but not thus are our minds constituted; and, failing to find finality in the phenomenal world, people will inevitably invent abstractions to take the place of the needful but missing realities, and so impose upon us what might be called scientific theology. Of this character are the various schools of thought called by such names as Monism, Hylo-Idealism, Materialism, Animism, and what-not.

There must be a fundamental unit in the physical world, a substratum to all those phenomena which, when grouped together, we call "matter" or "the physical world." We see now that inertia is not that rudiment but only one of its qualities; even force is but a mode of it. If it is to be (as demanded by the hypothesis) the basis of physical properties, it must in itself be devoid of those qualities and hence undetectable by physical means. This brings us to the confines of physics, and in order to pursue the inquiry farther we can do one of two things: speculate and create some system of belief; or examine farther. To do the latter means that we must now employ instruments other than the physical senses.

At this point we shall doubtless be told that we have entered the domain of transcendentalism and are preaching a system of Theosophy, which is indeed the case, but we do not intend to be knocked down by a name. The fact remains that people must either be content to remain ignorant or else must enter this domain; for the key to the sensuous world is in the supersensuous worlds; and this statement again is no dogma.

Occult Science, as said by H. P. Blavatsky, recognized these facts boldly and grappled with the problem of knowledge, holding that nothing which man, in his imagination, can aspire to lies beyond the reach of his possible attainment. This doctrine she preached in our day, issuing, however, a warning that the folly of man would give rise to many perversions of the teaching. This is fulfilled in the present-day vogue of pseudo "occultism," "psychism," and all the other crank theories and fads which bring unmerited discredit on Theosophy and cheat anxious inquirers out of the true goal of their aspira-

tions. But the truth must prevail as long as the heart of man remains faithful to it; and these mists, raised by the first rays of the sun on an earth damp with the dews of night, will clear away. It will become possible for man to study intelligently the mysteries of his own nature and the mysteries of supersensuous nature in the world at large, without wandering into these bypaths of folly.

#### LIVING ATOMS

On the subject of atoms the following quotations may be found helpful:

Every elemental *atom*, in search of which more than one Chemist has followed the path indicated by the Alchemists, is, in their firm belief (when not *knowledge*), a SOUL; not necessarily a disembodied soul, but a *jīva*, as the Hindūs call it, a center of POTENTIAL VITALITY, with latent intelligence in it. . . .

Modern physics, while borrowing from the ancients their atomic theory, forgot one point, the most important of the doctrine; hence they got only the husks and will never be able to get at the kernel. They left behind, in the adoption of physical atoms, the suggestive fact that from Anaxagoras down to Epicurus, the Roman Lucretius, and finally even to Galileo, all those Philosophers believed more or less in ANIMATED atoms, not in invisible specks of so-called "brute" matter.—*The Secret Doctrine* (H. P. Blavatsky), Vol. I, pp. 567, 568

. . . The ancient Initiates, who were followed more or less closely by all profane antiquity, meant by the term "ATOM," a Soul, a Genius or Angel.—*Ibid.*, p. 569

It may be pointed out in connexion with the above that recent researches have tended to replace the older-fashioned atom by a center of living force in the shape of the electron which is often defined as a particle of electricity.

Science has directed its attention towards the regions of interplanetary space where it is surmised matter may be in a state of evolution, not having yet reached the stage of matter as we find it on this globe. And following along the lines laid down in *The Secret Doctrine*, science has speculated as to whether comets may not be composed of some such inchoate matter. Cometary matter is described in *The Secret Doctrine* as being entirely different from the matter on our earth. Again, science has to fill space with an ether, yet is strangely surprised to find that this ether refuses to accommodate itself to the conditions required of matter — though this is hardly to be wondered at if ether is not matter. Do the roots of physical matter exist in interplanetary space, devoid of all recognizable (by our physical

senses) properties? And is it true that comets play a part in the building up or evolving of this rudimentary matter into stuff fit for the making of planets?

The *living being* is destined to take the place of those two abstractions, scientific "force" and "matter" (inertia or mass); for thus only can we escape from an interminable chain of abstractions. The one unassailable fact in our own lives is our own conscious existence; for, this article not being written for Bedlam, it is assumed that no reader will begin by denying his own existence. This then should be the starting-point of our philosophy. From it we infer the existence of other beings, our fellow men, the animals, the plants. The ancient Science declares that the whole world is made up of living beings, and the progress of modern science tends ever towards the confirmation of that statement.

#### THE SCIENCE OF LIFE AND ITS REQUIREMENTS

A final word as to the practical side of this question, which involves a consideration of the real purpose of science. In truth there is but one Science, and it may be defined as the Science of Life; and all lesser sciences, which are but branches of this one Science, approximate the more closely to it as we fathom them more deeply. In passing beyond the customary restricted sphere of modern physics and chemistry, in our search for the origins of matter and force, we have reached a point where science becomes an inseparable part of the great Science of Life. Nature can no longer be studied as though it were external to man and separate from him. We have now to study our own faculties in search of those subtler channels of knowledge through which we may know the subtler aspects of nature. In short, science has become a question of self-knowledge, self-development. Our own nature is the most marvelous chemical and physical laboratory we can find; in it we see force and matter at work. Let us learn to know it and to master it, so that we may not fail in observing those conditions of integrity which always guard the gates of knowledge.

## HIDDEN LESSONS IN SHAKESPEARE:

by Kenneth Morris

### I



LET the stage manager concentrate his attention and that of his audience on the things seen which are temporal, and such a play is robbed of half its majesty and all its significance. But let him . . . raise the action from the merely material to the psychological, and render audible to the ears of the soul if not of the body "the solemn uninterrupted whisperings of man and his destiny," point out "the uncertain dolorous footsteps of the being as he approaches or wanders from, his truth, his beauty, or his God," and show how, underlying *King Lear*, *Macbeth*, and *Hamlet*, is "the murmur of Eternity on the horizon," and he will be fulfilling the poet's intention instead of turning his majestic spirits into sepulchral-voiced gentlemen with whitened faces and robes of gauze.

Now the above, we take it, is a very beautifully worded expression of a profound artistic truth; but when we find such a gloss put upon it as a certain journalist puts in the following sentence:

The play, in short, should make man realize that he is an embodied ghost in the presence of ghosts not embodied, more potent, more masterful than he —

we begin to feel that it is time to exercise a little caution.

Some one wrote an essay on *Hamlet*, and devoted the bulk of it to proving that Shakespeare, like himself, was a spiritualist. He did not see that thus he had only succeeded in proving himself, at least, a very thorough-paced materialist, one insisting upon the letter and letting the spirit go. That almost goes without saying. It does not matter to us, and it did not matter to Shakespeare, what views might be held on this matter or that. For example, in some of the plays the whole machinery of old Paganism is taken for granted; in others, the whole machinery of medieval Christianity. It is profitless to assign dogmas to Shakespeare on the strength of the scheme of things made use of in this drama or that; because he makes use of whatever scheme of things is suitable to the local color of the play in hand.

He had to say his mighty say, and proclaim the things that are true in all ages. Men may be Buddhist, Christian, or Muslim, Jews, Turks, Infidels, or Heretics; but still the Law works. Truth and art stand superior to all religion and all creeds; and so with the artist there may be this set of personal beliefs or that; but the moment he ascends into the real region of art, those beliefs are lost sight of, and he handles the eternal verities.

Half the world is worried that we can get no clue to Shakespeare

the man. We deny his existence; we prove that he was Bacon; we write biographies of him, mainly relying on imagination for our facts. What is not sufficiently realized is that this very illusiveness is what makes him so uniquely great. Impersonality is the secret of him; "self-emptiness," as the Chinese say. "Cursed be the man that moves my bones," says Shakespeare from his tomb; in other words simply, *Let my personality be; that which is of account came not from it, but from universal and spiritual sources.*

He could take any belief, any system, and twist the paraphernalia of it into a symbol for world-wide stable truth. No religion specifically denies such facts as that the nature of man is dual, good and evil; that he may follow the evil side of him to destruction, or the bright side to high summits of being; that "whatsoever a man soweth, that also shall he reap." The trouble is that most religions have skilfully overlaid these truths with a tangle of dogmatic perversities, so that they remain concealed and forgotten. But if a man might proclaim them so the truth of them should "bite," as we say; should lay hold upon the minds of men, and force itself insistently into memory — that man would be among the teachers and benefactors of the race.

Shakespeare certainly did that. He does not care whether it is Jove that is wielding the thunderbolts, or whether they fall driven by no visible or ascribed hand; fall they shall, it is certain, to smite, not the unbeliever, but the unrighteous. It is true, indeed, that he showed a certain leaning to Pagan symbology, rather than Christian; he does bring in Pagan Gods as agents in the working of his plots, but not ever, I think, a Christian angel or saint. But that was, one may say, because paganism lends itself more readily to the uses of the symbolic treatment of realities. It was more lifted out of the field of dogma, presented a more dispassionate, impersonal arena; and so there was and is more chance of Truth striking home through it. So Shakespeare the Artist, either with or without the conscious design of Shakespeare the personality, used it more often and more intrinsically in the structure of his plays than he used the Christian scheme. But that does not prove that Shakespeare believed in Juno, Iris, Jove, Ceres, etc., in the old exoteric pagan way. No doubt he went to church and conformed outwardly to the religion of his day. Indeed, had he not done so, the results might have been unpleasant for him. It does not matter. What of Truth there is in a man will live after him; it will shout through all his acts and writings, a voice not to be silenced, a light

unquenchable; his creed, on the other hand, is "oft interred with his bones."

Not that we can believe that even the man Shakespeare was much hampered with such a thing as a creed; he could put by and rise above it too easily, if it existed at all, for it to have sat otherwise than very lightly upon him. But what we are concerned with is not the creed of him, but the manner in which he handled any creed or material for the purpose of symbolizing his teachings.

"The solemn uninterrupted whisperings of man and his destiny": but if Shakespeare proclaims one thing with no shadow of uncertainty, it is that that destiny is made by man himself. All its ministrants are the reflections of man's own acts and character; the spirits of good and evil are whisperings within his own mind. Eternity does "murmur on the horizon"; this deep eternal truth of Karma sounds forever through the tragedies, like the sea-sound in a shell. Nothing could be farther from the spirit of this man and his work than the clammy atmosphere of Spookology. Which of his characters was the victim or creature of any other power, except in so far as some internal weakness made him so? Certainly not the hero of any play, not one of those archetypal figures that represent embodied Man. Rash and ungovernable Lear, without any fixed anchorage or steadfast point within his being, comes to no harm until he has deliberately given himself up into the power of his own evil progeny. Here Shakespeare uses no ghost or "supernatural" figure; but Regan, Goneril, and Cordelia serve him in the same stead as the spirits in certain other plays. They stand for the principles of good and evil; they are the children of Lear, the fruitage of his own acts, the accumulations of his own history. The "Moment of Choice" having come for him, he has to choose in accordance with his character — rashly, seizing the seeming sweetness of the moment; turning from the stern honorable words of Cordelia, who is symbol of the Higher Life; and flinging himself upon the greater promise of ease, delight, and honor held forth by the life of the personality and senses, Regan and Goneril. Says the *Bhagavad-Gîtâ*:

Those who thus desire riches and enjoyment have no certainty of soul and least hold on meditation.

And again:

The uncontrolled heart, following the dictates of the moving passions, snatcheth away his spiritual knowledge, as the storm the bark upon the raging ocean.

And does not Shakespeare intend to symbolize the choice between "that which in the beginning is as poison and in the end as the waters of life, and which ariseth from a purified understanding" — Cordelia; and "that arising from the connexion of the senses with their objects which in the beginning is sweet as the waters of life but at the end like poison" — the two elder sisters? It is *when he has made the choice*, and chosen wrongly, that destiny begins to overwhelm King Lear. In the death of Cordelia we have another mystic teaching foreshadowed, that of sacrifice; on which there is no space to enlarge here.

Now there in *King Lear* we find the pattern of the tragedies, and the main purpose and current of them. The absence of any ghost there, or in *Othello*; the absence of any so-called "supernatural" figure; shows that supernaturalism was incidental and a mere convenient method of symbolization, to be made use of when required, but quite apart from the grand purpose. But in every one of the great tragedies, the work of the years when Shakespeare had come to his own, we do find the same insistence upon spiritual, not psychic, things: we do find Karma, not fate, at work; man, not the plaything of "ghosts not embodied, more potent, more masterful than he;" but the maker of his own destiny, the victim of his own acts.

## II

It is claimed that man is

an embodied ghost in the presence of ghosts not embodied, more potent, more masterful than he.

Now three plays stand out pre-eminently as depending upon "supernatural" machinery; and it will be well to examine these briefly, in order to find out how and why this kind of machinery is used. These plays are, of course, *Hamlet*, *Macbeth*, and *Julius Caesar*; and the point to be decided is: Were these plays written to preach spiritualism, or for some other purpose?

To take first the least important of the three, *Julius Caesar*. The story could have been told without introducing Caesar's ghost at all. The conspirators, centering about Brutus Cassius, constitute the hero. They kill Caesar, whereafter (and wherefore) fate slowly weaves its web around them, and brings them to doom. You have there the elements of a tragedy; a moving, terrible tale. Such a drama would

have been tragic enough, and great enough, for the ordinary playwright and for the ordinary audience. There is man at war with fate, and man defeated; all that exoteric drama asks in a tragedy, so it be properly handled. From that standpoint the ghost seems unessential; you might cut the scenes in which it appears, and still have a presentable, and even a great drama.

Not so from the deeper standpoint; not so for the great art; not so for Shakespeare. Brutus, let us say, is the embodied ghost; Brutus, symbolically, is that much of the soul of man which is incarnate in the personality and brain-mind. Mark his position, standing as he does between the all-evil Cassius, Envy impersonate, and the impersonal, dominant, superman principle, Caesar. Noble he was essentially; but, as soon as the Cassius idea gains the ear and heart of him, clouded, ineffectual, befogged, worthless. His participation in the murder of Caesar foredooms his own pitiful end as clearly as Macbeth's murder of Duncan foredoomed *his*. In both cases, the man by a definite act on his own part, put himself in the power of fate.

True, Brutus does not lose all his nobility. His is the fate of those whose very good qualities are turned against them, because of some lack of intuition on their part. They will not see clearly; they turn against the Law, the Higher Self, that which is inevitably destined to win; but they are honest in their blindness, and their crime is that they have allowed circumstances and the evil-minded to deceive them. Why did he not see through Cassius? The answer is, that Cassius found a weak spot in him to play upon; there was buried ambition there, ready to be fanned into a potent and destroying flame. He must emulate his ancestor; *he* must liberate Rome. But clearly Rome was moving in the nature of things towards that principle which Caesar stood for, and needed Caesar above all things. Let Caesar be taken for the symbol of the dominant Soul in man. Brutus-brain-mind has loved and been loved by him. And yet this Brutus fears the complete submission, cannot take the step, holds back, dreading the curtailment of liberties. On that indecision, allied as it always is, to ambition, the evil forces play. So the blow is struck, Brutus becomes traitor, and Caesar is killed. They could never have done it without Brutus, and would not have dared the attempt. Even materially, in the action of the play, it is the Brutus-stab that kills: "*Et tu, Brute! Then fall Caesar!*" Which indicates that Cassius in a sense knew what he was doing, and that all blows would be powerless unless Brutus struck too.

Now follow the play from that point, and note why art, which is one thing with Truth, when you have reached such a plane as this, demands that the Ghost be brought in. Without it, you have merely the failure of a plot; merely the greater skill of Antony and Octavius overcoming the chaotic counsels of the conspirators. With it, you have the indestructibility of a Principle. Caesar is more potent, more masterful than Brutus, whether embodied or not. You may turn against that principle, you may stab it; but you cannot kill. Rather, and only, it is your end that you are fashioning. He who fell in the Senate house is yet inevitably victor on the plains of Philippi. He will have another embodiment — we treat these figures symbolically, and do not here imply the reincarnation of a human soul — as Octavius. You kill Julius, but the Caesar is not to be killed. So it must be indicated that he whom Brutus is to meet at Philippi, when he falls, when he runs upon his own sword, defeated — is the same Caesar whom he stabbed at Rome. No other symbol would have told the tale. In effect, the Ghost does not terrorize Brutus, raises no remorse or mental confusion; it appears for only one purpose, to symbolize the indestructibility of the principle that Caesar stands for.

Let it be said that there are many interpretations for a play such as this, according to the plane on which you choose to read it. The thing is as true if you understand it merely from a politico-social standpoint, as an allegory of the awful results of assassination in that sphere. Killing of a personality is the wrongest and most fatuous method; for the principle that was incarnate in the slain one immediately will find some other personality to embody and express it. But whether we take it as referring to the history of an individual or to that of a community; whether we find in the impersonal Caesar a good or a bad force, the lesson remains that it is not a personality, but an indestructible principle; and in order to symbolize this vividly, the Ghost has to appear.

But to recur to the interpretation that has been attempted above. There are men who make such fateful mistakes as Brutus made, and remain honorable in spite of it, up to the point of their deaths. We might indeed read the Ghost's warning to Brutus in another way: "*Thou shalt see me at Philippi*"; *the breach between thee and Me is not so complete but that it shall be healed over when thou art dead. We shall meet again.* I do not see why it should not be interpreted thus, as a forewarning of forgiveness and reunion when the Karma

of the great blunder is worked out on the field of ruin. This would be of a piece, too, with the words of Octavius, the new incarnation of the Caesar, on the battlefield:

*Within my tent his bones tonight shall lie.*  
With all respect and rites of burial.  
According to his virtue let us use him,

True, the Ghost's announcement that he is "Thy evil spirit, Brutus," would seem to militate against this; but then to Brutus, persistent in his error, the Caesar would be "his evil spirit." And it is not claimed that there was verbal inspiration throughout the play; or that Shakespeare the personality *necessarily* fully understood the symbolism of what he was writing. And the Ghost made no appearance to Cassius, which it might have done, had it merely been intended to represent the spiritualistic idea of a dead man's personality, seeking to inspire terror and reap revenge. There is no talk whatever of meeting Cassius again; and yet Cassius was as courageous as a soldier as Brutus was, and it would have been as profitable to endeavor to terrorize him. The point is that the person who errs to an extent honorably, who blunders into such blindness and desertion without becoming altogether base, does meet his Higher Self again, does have another opportunity, either in this or another life, when he has paid the Karma of his crime; but there are those who are altogether base, and they do but with difficulty.

### III

*Macbeth* is steeped in ghost-life; it represents that pole among the tragedies. A ghost walks here and does strike terror, is most ghost-like, a mere haunting, dreadful thing; and beside the ghost there are the Three Weird Sisters. There is more of the ghostly in *Hamlet* than in *Julius Caesar*, and more in *Macbeth* than in either. And let it be said at once that there *is* this psychic region in the universe; there is such a thing as the Astral Plane. If Shakespeare did not personally know about it, at least he served it up to us in a symbol. But he had to do so. There would have been a type left out, a warning unuttered, if he had failed to devote one tragedy to the exploitation of

this thing. But to say that *Macbeth* (the drama, not the man) preaches ghostology! Why, it is the most fearful warning against it, probably, that ever was crammed into a drama.

There are those three types of dreamers: Brutus on his plane, the politico-philanthropic, ruined by personal ambition, even though it was what many would call a noble form of ambition — the old sin under a great disguise of nobility; Hamlet on his plane, the speculative, free from ambition, but marred by indecision and the inability to *do*; and Macbeth on his plane, the psychic-emotional. And which of these three was irretrievably lost? Only one, Macbeth. And why?

Let us remember that each of the three stands for that principle which is the ordinary consciousness in man; the "I" of everyday life. It links the animal and the divine nature; and is the field and instrument of conflict between these two. Thus Hamlet stands between his father's ghost and his uncle; Brutus between Caesar and Cassius; Lear between Goneril-Regan and Cordelia. Hamlet stands highest of them; *he* is in sharp, if ineffective, antagonism against Claudius; ineffective for long, because of his indecision; yet he does win a kind of victory in the end. We feel that with the entry of Fortinbras, for whom Hamlet himself has prepared the way, the "something rotten" is purged out from the state of Denmark; Hamlet, dying, is victorious and receives the crown. The dead Brutus too is not without honor; Shakespeare preserves for him our sympathy and pity. As for Lear, he has gone far; and yet he too in a sense is redeemed by Cordelia: he stands on the side of the angels at the end: Cordelia returns from France to meet her death, but pays by it, we may say, for the deaths of Goneril and Regan, and Edgar. So also Desdemona dying redeems Othello from Iago; the Moor at last turns upon his tempter and stabs him, and though he does not kill, leaves him to a worse fate. Of all these the death is not utter loss, nor without some feature and hue of hope; but the case of Macbeth is different.

We are not to suppose that he was altogether a bad man, this Gaelic chieftain. Duncan praised and honored him as deserving beyond the possibility of recompense: from Lady Macbeth we have a revelation of his character. Full of the milk of human kindness he was; ambitious, but without the illness that should attend ambition; what he would highly, that he would holily. Each of the tragedy heroes has much that is splendid in him; each has to contend with some weakness or passion; in each play there is some human figure

that represents the hero's lower nature, actively evil. Lady Macbeth of course takes that place here.

Now up to a certain point, all her workings had failed to destroy his nobility. She had been with him, we presume, for some years; yet still there was that "milk of human kindness;" still he "would holily;" still "would not play false." Then came the change and sudden breakdown. He comes into contact with the psychic world; that is the meaning of the Weird Sisters. "Metaphysical aid" is suddenly poured like naphtha on the smouldering fire of his ambition; and all that was good in the man is burned away.

We cannot doubt that those three witches represent astralism. Those who dabble in it should read what H. P. Blavatsky taught on the subject. The lower astral light, she said, is the storehouse wherein are all the seeds of human vice and crime; once open the door of one's nature to it, and one is flooded with the whole mass of the accumulated foul thought of mankind. She quotes Éliphas Lévi, who called it "Satan" and the "Great Serpent." It is bad enough for a man to contend with his own personal devil, his own lower, animal nature; yet one might contend with that to the end of life, and die respectable, without being a great hero; even falling under its power, one might part with life without the utter loss of hope, the utter severance of the link with his divinity. So Shakespeare teaches in these tragedies. He confronts Brutus, Hamlet, Lear, and Othello, only with their own passions and weaknesses, symbolized by the "villains" of the plays; and leaves us assured that they will do better in their next incarnations; they die penitent, or still retaining something of nobility. But not Macbeth. He has not only Lady Macbeth to tempt him, his own lower self; but also that supernatural astral world; and so his ruin is complete and without hope of redemption. He kills Duncan, as Brutus killed Caesar; and then he turns and kills Banquo likewise; as if Cassius should out of sheer malice and devilry have killed Brutus. Lady Macbeth dies before him; that is, even the inspiration of his lower self, even his personal potency for evil vanishes; and at the end he is the mere semblance of a man, a wreck, a remnant, a shell; a hollow thing through which surges unadulterated hate and passion.

It is that touch with the "supernatural," that "metaphysical aid," which breaks him. Note that after the interview with the witches all restraint ebbs away from him: it is exactly so in real life. The

evil of the world, stored there in the lower reaches of the Astral Light, seizes upon the weak spot in the nature of the "fool who treads" there, and inflames that until the whole being is burned away. So we see that Shakespeare taught the danger of Psychism. At this present time what warning could be of greater importance?

Now it will be well to look at the ghost of Banquo; the third of Shakespeare's important ghosts; the other two being, of course, those of the elder Hamlet and Julius Caesar. These *represent*, in the case of King Hamlet obviously, and in the case of Caesar but little less obviously, the Higher Self. If Macbeth had been no worse than Hamlet or even Brutus; if the slaying of Duncan had been of no deeper damnation and finality than the slaying of Caesar; it is the ghost of Duncan, and not that of mere Banquo, that would have walked: but we hear nothing of such a "spirit." The separation of the Higher Self and personality is, in this instance, absolutely complete. Caesar, being dead, yet lives, as Brutus' innate nobility yet lives. Duncan, being dead, is as dead as Macbeth's own better qualities. All that remains is Banquo; and he only for a little while.

Banquo, I would say, represents personal soundness, sanity, and respectable outward showing. As a character apart, we note that he too meets the witches; but he is not ambitious, and neither begs nor fears their favor nor their hate. In all things we find him level and composed, a man of balance. While he remains with Macbeth, he is, if the latter but knew it, a protection to him; being a trust-worthy man, and one of good-seeming, upon his side. His murder is the throwing off the mask of respectability; and is the second great step downward in the career of Macbeth. His ghost must be introduced, to fill the king with public terror. Until then, Macbeth has carried things well enough, wearing his mask efficiently; he retains the respect and loyalty of his court, at least to a degree, and has not been driven to foregather further with the witches. But he is *obliged* to murder Banquo; just as the votaries of evil may walk well in the eyes of the world for a time, but sooner or later are compelled to come forth without disguise, to some action which proclaims them and murders their good name and outward respectability. The appearance of Banquo's ghost is not set there for its surface value; if we think so, we rob it of its whole worth and depth of teaching. It is, no doubt, a psychic possibility; but it has its place in the play to symbolize a spiritual fact. It means the unveiling of the monster before the world; after which

he can no more keep up appearances, but must race and riot down into perdition. Now Lennox understands him, and with Lennox the others: now he must go straight again for courage and appeasement to the witches; now comes the useless murder of the family of Macduff; and — Macduff and Malcolm in England begin the work of his undoing.

“The letter killeth, but the spirit giveth life.”

## OUR FRONTISPIECE

THERE is no second way whereby to show  
The love of Fatherland.

Whether one stand

A soldier under arms, against the foe,

Or stay at home, a peaceful citizen,

The way of loyalty is still the same. — *H. I. M. Mutsuhito*

IN THIS issue we have the honor to present to our readers a reproduction of what we are informed is the latest portrait of H. I. M. Mutsuhito, late Emperor of Japan, which we received too late to accompany the article “The Late Emperor of Japan,” by Mr. Kenneth Morris, appearing in our September issue. This portrait, we believe, has not hitherto been reproduced in any magazine or journal of the Western World, except in our own Spanish magazine, *El Sendero Teosófico*, issue of September 1912, International Theosophical Headquarters, Point Loma, California.



It is not so much the clearly perceived outward result that counts, as the motive, effort, and aim; for judgment is not passed upon us among the things of sense where human time exists, but in that larger sphere of being where time ceases, and where we are confronted by what we *are* and not by what we have done. — *William Q. Judge*

## REINCARNATION IN THE BIBLE: by William Brehon

(W. Q. Judge in *The Path*, pp. 280-283, December, 1892.)



N exhaustive paper on this subject is not contemplated in this article, but even a sketch will show that the Christian Bible has in it the doctrine of Reincarnation. Of course those who adhere only to what the church now teaches on the subject of man, his nature and destiny, will not quickly accept any construction outside of the theological one, but there are many who, while not in the church, still cling to the old book from which they were taught.

In the first place, it must be remembered that the writers of the biblical books were Jews with few exceptions, and that the founder of Christianity — Jesus — was himself a Jew. An examination of his own sayings shows that he thought his mission was to the Jews only and not to the Gentiles. He said: "I am not sent but unto the lost sheep of the house of Israel." This clearly referred to the Jews and as clearly excluded the Gentiles. And on one occasion he refused for some time to do anything for a Gentile woman until her importunity at last compelled him to act; and then too he referred to his mission to the Jews. So in looking into these things we must also look at what were the beliefs of the day. The Jews then most undoubtedly believed in reincarnation. It was a commonly accepted doctrine as it is now in Hindûstân, and Jesus must have been acquainted with it. This we must believe on two grounds: first, that he is claimed by the Christian to be the Son of God and full of all knowledge; and second, that he had received an education which permitted him to dispute with the doctors of divinity. The theory of reincarnation was very old at the time, and the Old Testament books show this to be so.

Elias and many other famous men were to actually return, and all the people were from time to time expecting them. Adam was held to have reincarnated to carry on the work he began so badly, and Seth, Moses, and others were reincarnated as different great persons of subsequent epochs. The land is an oriental one, and the orientals always held the doctrine of the rebirth of mortals. It was not always referred to in respect to the common man who died and was reborn, but came up prominently when the names of great prophets, seers, and legislators were mentioned. If readers will consult any well-educated Jew who is not "reformed," they will gain much information on this national doctrine.

Coming now to the time of Jesus, all the foregoing has a bearing

on what he said. And, of course, if what he said does not agree with the view of the church, then the church view must be given up or we will be guilty of doubting the wisdom of Jesus and his ability to conduct a great movement. This, indeed, is the real position of the Church, for it has promulgated dogmas and condemned doctrines wholly without any authority, and some that Jesus held himself it has put its anathema upon.

When there was brought into the presence of Jesus a man who was born blind, the disciples naturally wondered why he had thus been punished by the Almighty, and asked Jesus whether the man was thus born blind for some sin he had committed, or one done by his parents. The question was put by them with the doctrine of reincarnation fully accepted, for it is obvious the man must have lived before, in their estimation, in order to have done sin for which he was then punished. Now if the doctrine was wrong and pernicious, as the church has declared it to be by anathematizing it, Jesus must have known it to be wrong, and then was the time for him to deny the whole theory and explode it, as well as definitely putting his seal of condemnation upon it for all time. Yet he did not do so; he waived it then and said the blindness was for other reasons in that case. It was not a denial of it.

But again when John the Baptist, who had, so to say, ordained Jesus to his ministry, was killed by the ruler of the country, the news was brought to Jesus, and he then distinctly affirmed the doctrine of reincarnation. Hence his waiving the matter in the case of the blind man is shown to have been no refusal to credit the theory. Jesus affirmed the doctrine, and also affirmed the old ideas in relation to the return to earth of the prophets by saying that the ruler had killed John not knowing that he, John, was Elias "who was for to come."

On another occasion the same subject arose between Jesus and the disciples when they were talking about the coming of a messenger before Jesus himself. The disciples did not understand, and said that Elias was to come first as the messenger, and Jesus distinctly replied that Elias had come already in the person called John the Baptist. This time, if any, was the time for Jesus to condemn the doctrine, but, on the contrary, he boldly asserts it and teaches it, or rather shows its application to certain individuals, as was most interesting and instructive for the disciples who had not enough insight to be able to tell who any man was in his real immortal nature. But Jesus, being

a seer, could look into the past and tell them just what historical character any one had been. And so he gave them details about John, and we must suppose more particulars were gone into than have come down to us in the writings naturally incomplete and confessed to be but a partial narrative of the doings and sayings of Jesus.

It must now be evident that there is a diametrical disagreement between the church and Jesus. The church has cursed the doctrine he taught. Which is right? The true believer in Jesus must reply that Jesus is; the church will say it is right by acting on that line. For if the doctrine be taught, then all men are put on an equal basis, and hence the power of the human rulers of heaven and earth is at once weakened. Such an important doctrine as this is one that Jesus could not afford to pass over. And if it is wrong, then it was his duty to condemn it; indeed, we must suppose that he would have done so were it not entirely right. And as he went further, even to the extent of affirming it, then it stands with his seal of approval for all time.

John the Revealer believed it of course, and so in his book we find the verse saying that the voice of the Almighty declared that the man who overcame should "go out no more" from heaven. This is mere rhetoric if reincarnation be denied; it is quite plain as a doctrine if we construe it to mean that the man who by constant struggle and many lives at last overcomes the delusions of matter will have no need to go out into life any more, but from that time will be a pillar, what the Theosophist knows as "Dhyân Chohan" forevermore. And this is exactly the old and oriental doctrine on the point.

St. Paul also gives the theory of reincarnation in his epistles where he refers to the cases of Jacob and Esau, saying that the Lord loved the one and hated the other before they were born. It is obvious that the Lord cannot love or hate a non-existing thing, and that this means that Jacob and Esau had been in their former lives respectively good and bad and therefore the Lord — or Karma — loved the one and hated the other before their birth as the men known as Jacob and Esau. And Paul was here speaking of the same event that the older prophet Malachi spoke of in strict adherence to the prevalent idea. Following Paul and the disciples came the early fathers of the church, and many of them taught the same. Origen was the greatest of them. He gave the doctrine specifically, and it was because of the influence of his ideas that the Council of Constantinople five hundred years

after Jesus saw fit to condemn the whole things as pernicious. This condemnation worked because the fathers were ignorant men, most of them Gentiles who did not care for old doctrines and, indeed, hated them. So it fell out of the public teaching and was at last lost to the Western world. But it must revive, for it is one of the founder's own beliefs, and as it gives a permanent and forceful basis for ethics it is really the most important of all the Theosophical doctrines.

**“A PARABLE”:** from **“Le Mirage de la Vertu”** (The Mirage of Virtue): by **Albert Bayet.**



O transport the idol to the top of the mountain, ten days are necessary, and ten men. But listen, O King, to what happened. On the second day the high-priest took his seat on the chariot at the feet of the God and began to pray. The next day the three sages imitated him, saying, “Thanks to our prayers, all will go well.” The third day the three warriors also stopped pushing, and having taken their places on the chariot, said, “From here we shall be better able to keep watch, and if an enemy comes, we will strike him more surely from above.” Thus the three men of the common people remained alone to push the chariot, which only advanced with difficulty, and even stopped at moments. But at each stop laments of astonishment arose. “My heart is pure,” cried the high-priest, “and my prayers are in accordance with the law.” The warriors, their hands on their swords, burned to defend their God; but they no longer understood why the chariot progressed so slowly. As the stops became longer and more frequent two of the warriors fell asleep, and the third thought within himself, “Perhaps that is the best thing to do.” The sages then began to dispute among themselves. “What is the good of going up there at all?” said one. And another, “Is this the right road?” And the last said, “What is right?” The noise of their discussions reached even the ears of the men of the common people who, tired and disconcerted, were without energy, almost without hope. From that time on the chariot advanced so slowly, so slowly, that even those who still pushed it believed, at times, that it was stationary. But none of those on the chariot thought of getting down to unite his efforts with the efforts of those below. And that is why, O King, that after forty days the idol is not yet at the top of the mountain. (*Translated by H. A. F.*)

**THE DEATH-PENALTY: by H. T. Edge, B. A. (Cantab.), M. A.**

THE horrifying account of a recent electrocution of a batch of seven people at Sing Sing has sent a wave of disgust and indignation through the country and may doubtless be counted on to do much towards hastening the general abolition of the death-penalty in civilized countries. The reports tell of one man dying amid his protestations that "he never had no chance"; while the declarations of innocence poured forth by some of the other victims in their last moments raise fearful doubts as to the possibility of a miscarriage of justice, now rendered irremediable except by Divine Wisdom. Again, to what degree may a man be technically guilty and yet feel that in his heart of hearts he was the innocent victim of his own uncared-for nature? One of the victims was a boy, and he was cut off in the midst of his prayers.

Such an account as this brings vividly before our mind the brutality, the grossness, the stupidity of this penalty. In the same paper we also read an account of an attempted execution in Nevada, where the culprit had availed himself of the law which permitted him to choose shooting instead of hanging. Nobody could be found to shoot him — not even when the guns were shuffled so that none would know who dealt the fatal blow.

One feels that whatever arguments may be put up in favor of the death-penalty, the argument supplied above would outweigh them all. The case against is so strong that the other side might well throw up its hand. But what argument is there in favor of the death-penalty?

For the most part such arguments consist in the citation of certain particular cases wherein the enforcement of capital punishment has been followed, or is alleged to have been followed, by a suppression of criminality. But first it is necessary that such cases be fully established; next they must be shown to be of general and not exceptional import; next the reform, if such there be, must be shown to be permanent and not followed by a relapse. It must also be proven that the good done (if any) outweighs any evil that may be done by the same procedure. And finally there remains the important question whether, even if crime can thus be suppressed, we have the right to adopt such means of its suppression. In other words, is society justified in promoting its convenience by cutting off the life of some of its members? And if this question can be answered in the affirmative, logic leads to

the justification of wider applications of the principle, such as would not be endorsed even by those upholding this particular application.

It may be said that the above considerations apply largely, if not wholly, to the case of judicial punishment in general, as well as to that of capital punishment in particular; and that for this reason we must either condone the death-penalty along with judicial penalties in general, or else extend our condemnation of the death-penalty to the other forms of judicial punishment. This is reasonable, and there are many signs that society is coming round to the latter view — that it is changing its idea of the purpose and nature of judicial punishment in general. Where formerly the ideas of revenge and prevention predominated in our conception of the object of punishment, we now pay more attention to the reforming of the culprit. In fact, we are adopting the same saner kind of view as we have adopted towards the treatment of disease and insanity — the view of mercy and reason, as opposed to the blundering of ignorance and want of feeling. It may be said, therefore, that the rule of mercy and consideration, inspired by the wish to help the culprit, but tempered of course with that true firmness that is inseparable from true kindness, applies to judicial punishment in general.

Yet there is a special case to be made out in favor of forbearance in the matter of capital punishment; so that, even though we held and practised more rigorous views in regard to punishment in general, we might still hold back our hand with regard to the death-penalty. And what is this distinction that makes capital punishment a special case? It is that capital punishment involves a rude interference with the natural laws determining the life and death of individuals, cuts people off abruptly from the experience which they are undergoing in this world, and launches them into a world of which judicial wisdom and procedure takes no account whatever. It is this consideration which bids the thoughtful, whatever their views as to other kinds of punishment, to forbear, and to prefer anything, however severe and prolonged, to this extreme and irrevocable step.

We are every day taking saner and more merciful views of the nature of crime and the character of criminals. We know that a large majority of criminals are not worse on the whole than many not so classed; and that they are susceptible of reformation if only the right means be applied. Even the minority of extremer cases come under the same ruling, if in a less degree. They are bad, but not utterly bad;

they are reformable, but the task is harder and longer. And if at last our sifting process leaves us with a small residue of people who seem utterly intractable — even then we realize that execution is a clumsy expedient to get rid (if possible) of an encumbrance which we are too lazy or too unwise to dispose of in a better way. If society were more united in fellow-feeling, means could readily be found to keep such characters out of harm's way and busy, so that, failing reform, they could at least be prevented from doing more harm and could even be made useful.

After all it is but the unspent momentum of a past age that keeps the death-penalty alive in times when it conflicts violently with the average level of contemporary sentiment; and the same is true of many other superannuated survivals. But little heed need be paid to those who argue that the present age is too merciful, and who profess to discern something of the heroic — nay even of the divine — in methods of procedure which they characterize as a manifestation of stern discipline. It is very easy to point out the self-deception and casuistry which confounds the meanings of words so as to confuse sentimental weakness with mercy, and brutality with discipline. If the age is too sentimentally weak in some respects, the reason is that it is too heartless in other respects; and methods of ruthless violence are the resort of those too weak or too unwise to maintain discipline by normal means. In fine, we may reserve our respect for the few who, holding such views, have the courage of their opinions and would, like some ancient Greek or Roman, heroically consign their own son or their own person to the relentless operation of the stern law they invoked.

The views of human nature and human life promulgated by Theosophy — views which are every day infusing more and more of their leaven into the opinions of the generality, and which must therefore be taken increasingly into account — supply even weightier arguments against the death-penalty. They make clearer to us, what we intuitively felt before, that the mere killing of the body does not bring to an end the life of the man himself. They render comprehensible the statement, otherwise somewhat cryptic, that crime cannot be cured by killing the criminal. We feel that these things are true, yet what extant philosophy of life, whether religious, scientific, or otherwise, gives us a rational interpretation of our own convictions in the matter? This interpretation Theosophy supplies — or does *not* supply (for

nobody is asked to accept dogmatically teachings which were intended to be critically examined and tested).

What becomes of the man after his body has been killed? According to a Protestant evangelical publication, which prints its articles of faith, the soul passes into a deep sleep-like state, wherein it remains passive and quite inaccessible until the day of judgment. This at least is definite, for which one feels thankful, as the views of theology are more often vague and non-committal on the point. To science, as usually understood, few would seriously look for an explanation, its views being for the most part agnostic and in any case unserviceable. We shall not attempt to answer the question whether a belief that death ends all weighs for or against capital punishment, as we are unable to put ourselves into the attitude of mind of a person *really* believing in that doctrine.

The Theosophical teachings afford unlimited information as to the various conditions of the various parts of man's nature after death — that is, in the interval between two earth-lives. These teachings, however, must not be accepted as dogmas, but weighed and tested at every point, the criteria of truth being the same as always. When it is suggested that a human soul does not begin its experience at birth, nor end it at death, the suggestion is accepted by many people because it gives them the key, the missing link, in their own meditations.

A murderer, for instance, is one to be placed under restraint with a view to effecting as much reform as may be possible in this life; and with a view to preparing him for the opportunities that will be his in lives to come. As to deterrent effects — it all depends on whether society is to be kept in order by fear or by other means. The best way to destroy criminals is to destroy their criminality, not their bodies.

Theosophy, again, affords such greatly enhanced means of effecting reformation of character that many rude methods now considered inevitable would be rendered unnecessary. Its power to make real and practical the faith in our own Divinity is a mighty lever applied at the foundation of character. It is generally conceded that the divine qualities in man are the real saviors both of the individual and of society; but the practical problem is how to evoke them and render them effective. This Theosophy has done; it is able to deal with men in a way that no other influence has shown itself able. For this reason the resort to clumsy methods must by Theosophists be postponed indefinitely.

Ignorance and impatience strike petulantly at the symptoms of a

disease, but wisdom seeks the cause. The causes of crime lie deep and their ramifications are subtle and manifold. In how many cases may it be true that violent measures at one end of the scale are the ultimate fruitage of culpable weakness at the other — of that kind of parental weakness that mistakes its own selfish sentiments for love and allows the sapling to grow awry? How many criminals have pleaded that their youth was spent in neglect and misunderstanding on the part of selfish guardians and a heedless public? Surely more could be done by efforts to stop the manufacture of criminals than by rough-and-ready ways of getting rid of them while creating more.

### THE VIVISECTOR'S UNDERSTATED CLAIMS:

by Lydia Ross, M. D.



THE vivisectionists, in asking the legislatures to uphold them with laws and the laity to support them by public opinion, have been accused of other things than too much modesty in presenting their case. With the weight and carrying-power of position and numbers, they have aggressively defended their position against the active anti-vivisectionists.

From the standpoint of the Theosophical philosophy, however, the question remains unsettled in many minds because both sides *understate* their claims, as to the rights of man and of the brutes, and as to the results of vivisection. It is also paradoxically true that if the advocates and the opponents of vivisection had more knowledge of the subject, it would unite rather than separate them. As it is, they are traveling in opposite directions, without either going entirely around, and thus comprehending, the subject.

There has been much intemperate talk by the partisans on both sides. The opponents seem to feel a repugnance and horror which extravagant language still leaves unsaid. The advocates — especially professional men — maintain a desperate and abnormal resistance beyond their own logic to justify. Psycho-analysis, however, would show this attitude to be the subconscious sign of a hidden, if not unrecognized wrong and weakness. It is an open secret that with all the modern marvels performed by an improved diagnostic and surgical

technique, the *treatment* of disease has by no means kept pace in medical evolution. The facility with which new remedies, however bizarre, are presented, adopted and rejected for the next promising product, shows that treatment is *the weak point* in the dominant school, which leads in scientific fads by force of their numbers. The intolerance inherited from theologic forbears has prevented investigation of the drug methods which have been worked out by the newer schools of practice. This concealed and avoided weakness in equipment for a business of healing, reacts upon the physician's psychic status, and influences his gravitation to morbid methods.

In fact, both the advocates and opponents of vivisection seem impelled to defend their positions by a powerful urge, the full meaning of which neither of them evidently can understand or explain. Why question their sincerity? The opinions of most men are usually sincere and quite consistent with their own viewpoint.

Here both sides are arguing for the welfare of humanity; and the arguments hinge mainly upon two points: *First*, has man the moral right to sacrifice the brute race to the human, regardless of the former's suffering? *Second*, has humanity been materially benefited by vivisection? Certainly this is no case for sentimentality; rather does it call for a broad scientific survey of the relation of humanity to the lower animals, and of the results of animal experimentation.

Whatever stand is taken regarding man's right to experiment upon animals, there can be no division of opinion as to whether the subjects suffer or not, with or without anaesthesia. To bake, or boil, or starve, or poison, or infect, or partially dissect or otherwise mutilate any living creature will hurt him, whether it be a willing human martyr in a good cause, or a shrinking monkey, ignorant of the purpose. Nothing could daunt the heroic soul of Joan of Arc, but the girl's tender body shrank at the thought of the flames. Animals will take a positive stand and face pain and even death to defend their young; but in the laboratory they are negative victims, with no sustaining action or interest. The natural instinct of a sick or wounded creature is to crawl out of sight, and to chew some healing herb, or lick the sore place well again, or to die in peace; the following of this natural instinct is denied them. They are forced into man's strange world, made to drain the dregs of his worst diseases, helplessly to endure pain, disability and death, in the limelight of unfeeling inspection and under the hand that hurts them. Their instinctive distrust and fear of man

is intensified. Their spirit is so broken, or the whole venom and passion of their nature is so aroused, that the very quality of their blood and tissues must be changed. The unnatural physical and emotional conditions present certainly must affect their reaction to the experiments, even if the difference between the conscious quality of their body-cells and that of man's did not already make the reading of results unreliable data for his case. The "irritability" active in the single cell collectively makes up a conscious body of sensation and desire, interwoven, fiber for fiber, with the more material but less vital and enduring physical body.

Theosophy demonstrates — to logical minds — that this conscious mold for the fleshly form dictates the growth of all creatures. It is this animating body which changes nutrition into physical cells, stimulates them to functional action, to growth, and to disintegration, and then initiates and repeats the process. That it is unrecognized by the physiology of materialistic science no more affects its vital reality and its wireless messages than the average man's ignorance of his sympathetic nervous system prevents its existence, reflexes, and important functions. The astral mold — the conscious body — is as evident and as invisible as the mysterious motor and sensory nerve currents which no skill of scalpel or vision of microscope can ever detect. H. P. Blavatsky restored to Physiology a knowledge of this lost but illuminating clue to many present mysteries of heredity, pathology, etc. It is this subconscious aggregate of impulses and sensations which dictates the special characteristics of form and of feeling, the type of constitution, and the average length of life. It is noted that the well-known fact that dogs dream shows the higher animals, at least, to have a subjective consciousness and existence. If this body of sensations and desires is unnaturally deprived of its physical form in which to function, its impulses to activity still survive for a time in the astral world, which interpenetrates the entire physical sphere, even man's personal handful of the "dust of the earth." This is the medium which conveys the telegraphy of thought and feeling, linking man to man, and humanity to the animals. It is the developing psychic sense of humanity which makes so many persons susceptible to the vague and wandering impulses and ideas which often dominate the disorderly and restless minds of neurasthenic cases.

The vital urge to expression — the common purpose of life in all forms, whether brute or human — becomes naturally weakened or

exhausted by prolonged sickness or old age. But the characteristic desires, unduly deprived of their familiar vehicle by premature or sudden death, become freed and stimulated by the loss to seek any medium through which to act vicariously. To turn loose into the atmosphere of civilization uncounted entities of depression, of fear, hatred, and strong animal instincts, must result in reacting upon the social mind, health, and morals. Especially susceptible are the thousands of rapidly evolving, sensitized, negative natures, peculiar to the present period of transition along every material, mental, and moral line.

The ill effects of vivisection are not limited to the individual operators who, by their cruel objective and subjective linking with the animal kingdom, are thus blunting their own finer sensibilities and beclouding their intuitive perception of truth. By means of serum therapy countless patients are put more closely in touch with the brute world. Society at large, in permitting these things, also reaps the diffused social effects. In these strenuous days the active life forces impel each nature into *characteristic* activities. Many are practically automata, busily repeating the dominant social note around them. Without the balance of well-defined moral purpose, a self-seeking generation will naturally work out the strongest impulses of the individual body or of the social organization. Of course even a brutal man does not bark or whine, or scratch and bite, as a suffering and terrified dog would do. He expresses his feeling of fear or hatred or resistance in a human way just as he does when threatened by a mad dog, or caught among stampeding cattle, or in defending himself at close range from a wild beast. A strong impulse of primitive fear, seeking expression in him, might easily be correlated into a moral cowardice which would sacrifice any innocent agent to escape the results of self-indulgence or disease.

*Pari passu* with the growth of animal experimentation among *civilizees*, they have shown, with a decrease in common contagions, a general increase in mental and nervous cases; in degenerative, malignant and venereal diseases; in suicide; in precocious vice; in self-indulgence, sensuality and perversions, and in cruel and inhuman crimes. These conditions, apparent to any thinking mind, and too imperative to be ignored, spring from sources so subtle, unrecognized, and potent, that the best efforts of the specialists and of the public, still leave them uncontrolled. It is the unanalysed horror of the whole

situation, even more than the mere suffering of the animals, which the anti-vivisectionists dimly feel and vainly try to express. They may well agree with their opponents, in the light of the larger truth of the case, that man's welfare *has* the first claim. But human rights must rest upon their humanity. The *higher* kingdom cannot evolve out of its psychological errors through the vicarious suffering and death of helpless and irresponsible creatures. Nature will not permit it. It is the exact justice of her laws that protects order from chaos and restores the equilibrium of forces which man disturbs in selfishly "seeking out many inventions."

The animals are Nature's younger children, closely in touch with the mother heart which guards them in ways that her self-willed older family rejects. They are as generally strong and healthy as *civilized* man is weak and diseased. Without man's intelligence, the higher animals surpass him in the psychic sense that often foreknows of storm, disaster, etc., and instinctively guides them to natural antidotes and healing means and natural living. The serum therapist could learn something of wholesome drugs from them. Balaam's master was not the last well-meaning man to be three times slower than the abused ordinary ass to see a good thing in his path awaiting recognition.

Sentiment and science, legend and learning, all agree that cause and effect are equal, that action is balanced by reaction, and everything brings forth fruit after its own kind. The knowledge or protection which is bought by suffering must be paid for in like kind. The growing tide of strong animal impulses and disease quality which is flooding the astral atmosphere with its influence is a peculiar menace to an age where great material and mental evolution precedes a marked development of the latent psychic senses. It is but natural that human consciousness should develop its finer senses, which must meet the more subtle and potent phases of the extended problems of good and evil. But meantime there is the insecure transition stage between the lost foothold on the old ground and the uncertain forward step to the new and unknown consciousness. Unfortunately — and yet consistent with an era of vivisection — the present dangers are supplemented by the practice of hypnotism and by capital punishment. Truly they are a trinity of evils which belie and mock at civilization.

Even where the hypnotized subject adopts some specific good habit at the dictation of the operator's will it is at the price of his own. The

benefit is more than offset by the negative attitude induced which leaves him a prey to any powerful impulse, embodied or free. The popularity of hypnotic church-parlor clinics shows the medical failure to recognize or to meet the psychic need of the times. And no less do they show the ministerial ignorance, both of man's complex nature and of the sacredness of the individual will, whereby a soul must "work out its own salvation."

Closely allied in influence with hypnotism and vivisection is the barbarism of capital punishment, which physically liberates, to prey upon society, the lower impulses of its worst citizens. Here the human desires of expression are more potent and clearly-defined because of the mental powers and the mental pictures which filled the mind of the late murderer. He leaves to society, which has helped to make him the objective criminal, a legacy of his last thoughts and feelings of active hatred, revenge, cruelty, appetite, and lust.

In view of this evil trinity of causes, how puerile it sounds to propose, as social remedies, more cancer and lunacy commissions, longer sentences for the wholesale white slave dealers, segregation of vice, sterilization of criminals, and other dealings with effects.

Vivisectionists justly claim to have brought forward the whole line of serum therapy. Whether the serums and antitoxins materially affect the mortality rates may be left to the statisticians who have something to say for both sides. The question is, even if the immunity claimed, or lengthened life, depended on such means, whether it is worth the price which just nature is already demanding. Will not a few generations, preserved by vampirizing the physical force of the animals and being vampirized in turn by their impulses, result in practically dehumanizing the race?

A study of the essential nature of serum therapy begins with Nature's realms where certain inherent characteristics mark the matter variously used in the forms of minerals, vegetables, animals, and in man's body. The dim sensibility, low in the scale, develops gradually until it becomes individualized in human self-consciousness. The ingestion of minerals and vegetables by man as medicine or as food results in his life-force being affected and supplemented by the force in them. He also takes on something of their distinct though impersonal qualities. So do the crops vary with the soil, and animals with different diets, etc. But in digestion and assimilation, man stamps over the original type of matter the more dominant impress of his own

nature. His quality of greater consciousness frees him more or less from its influence, while he uses the force thus furnished for his own activities. The distinctive quality which is generally diffused through whole types of the lower kingdoms is more concrete and marked in the more conscious animals. Thus the effects of a full meat diet are noticeable, not only physically, but the man's nature is affected, his stronger imprint blurring but not effacing the distinct type characteristics.

To separate and select the desired remedial elements from crude mineral and organic drug forms, and to break up food types into more palatable and digestive matter, civilized man prepares his medicines and cooks his foods. There is an instinctive preference for cooked foods, a popular repugnance for raw meat, and a natural abhorrence for cannibalism. The sight of savages devouring pieces torn from the freshly slain animal, or supping on a stew of noble-minded, healthy missionaries, outrages something even in the eager hunter or calloused murderer. The picture does violence to some strong feeling other than the appetite or the aesthetic sense. The most enthusiastic vivisector or serum therapist would revolt at the proposal to present to others or to partake of like menus — *as such*. The modern scientific vision, however, is so adjusted to fine distinctions of laboratory and microscopic matter, that it is sadly out of focus for viewing the larger issues of life that define the differences between right and wrong.

Any one would shrink from close confinement with even healthy animals, always contacting guinea-pigs, rats, cats, vipers, monkeys, etc. Nor would one wish to be in constant, intimate relation with seriously diseased men. Certainly most persons would starve rather than use either kind of flesh for food. Even a debased soul would intuitively feel that its own image would be further defaced by taking on such imprints and would reject such desecration. Yet the process of digestion would afford the eater some chance to stamp this matter with the quality of his own tissue and of his thought. He would be less helpless than the human victim who is injected with the quality of a foreign virus which has been both *animalized* and *potentized* by its blood serum attenuation. If diseased uncleanness, in its worst human and animal forms, is repulsive to contact with the protecting skin, and too loathsome to ingest, what of the practice of injecting it *directly* into the tissues, to be rapidly carried to the heart and from thence, by the vital blood stream, to every cell of its contaminated body?

This is the principle and the *modus operandi* of serum treatment,

which no one denies is the legitimate product of vivisection, or need question that it is capable of inducing results! This insane sacrifice of human decency and of the dignity of man's rightful place in planetary evolution engenders conditions which the victims cannot work out of in one life.

The most delicate chemical test or the most powerful lens cannot reveal the fact and the phases of thought and feeling which are patent enough to the naked eye, and especially to the *sympathetic* understanding. Neither the faithful pet dog or the kind master can see the tie of affection and trust which makes of him a better man and helps to humanize the animal in his evolution. So also, the fact of the abnormal ties of cruelty and suffering between man and hundreds of thousands of animals must contribute in the aggregate, something to be seriously reckoned with in the common psychic atmosphere, which transmits the subtleties of feeling. If the co-existing animal world did not interpenetrate the human sphere to a degree, they would not even be available victims for tests of alien and undeserved types of virus. That they sicken, suffer, and prematurely die, from disease, mutilation, or anaesthetics, is not a sentiment to be disposed of by legal juggling. It is a colossal fact under the jurisdiction of the universal law of adjustments which has made man suffer and thereby kept him from making worse mistakes, ever since his first experiment in evading the consequences of tasting good and evil. That which is bought with suffering must be paid for in like kind. The serums bought by carrying the vile potencies of some stranger's disease through the poisoned tissues of a lower animal, entangles the patient with the characteristic qualities of both infected bodies. Subconsciously he is permanently infected with foreign, unclean, and unnatural influences which cannot fail to complicate his whole welfare and evolution. The price is not crudely paid in broken bones, but in unexplained increase in brain and nervous pathology — wrongs of the most highly organized tissues — and in degenerations and perversions of the whole nature.

There is an evident and admitted failure in moral resistance in our civilization. The cause is not some undiscovered microbe, but in the degenerate phases of a materially and intellectually great age that tolerates hypnotism, vivisection, and capital punishment.

## IN THE WHITE MOUNTAINS: by H. Alexander Fussell



**A**MONG the many beautiful holiday resorts of this country is the White Mountain region of New Hampshire. At its southern end, for that is the part best known to the writer, it is a wonderland of hills, lakes, and mountains, with great stretches of primeval forest, spruce and hemlock and pine, into which the lumberman is, alas! already making great inroads, often stripping the slopes absolutely bare, for the smallest tree can be made into wood-pulp for our daily newspapers.

Lumbermen were not so ruthless in the olden days, when from Gloucester to Salem, and other ports along the New England coast, were sent out on long voyages in the India and China trade, the finest sailing vessels ever built. Then only the finest trees were taken out to form the timbers of some good ship. There is an old logging-road which still bears the name of "The Old Mast Road," and along the Swift River at the head of the Albany Intervale may still be seen old pines one hundred and twenty feet high or more.

Turning to the left, up Sabba Day Brook, about half-a-mile, is a fine waterfall. The stream strikes a great vertical cliff, and turning at a right-angle, plunges into a caldron of seething water, to flow out again, after a second fall, over a granite ledge, scarcely a foot below the surface of the water, while every niche and smallest ledge of the cliff is covered with moss and fern.

Climbing Mount Chocorua from the Albany Intervale the trail leads past the Champney Falls, two-thirds of the way up, and a couple of hundred yards to the left is the beautiful Pitcher Falls, a single stream of water which, flowing over a high cliff, has worn a depression like the lip of a pitcher, hence the name. From a point a little below one can see both falls. Thence through a fine spruce forest the trail leads to bare granite peaks, falling abruptly several hundred feet towards the east. From the summit the view is superb: to the north is a wilderness of peaks, some of them wooded to the top, dominated by Mount Washington (six thousand feet) and the Presidential Range; the Crawford and Carrigain Notches are distinctly visible, while to the west are to be seen Paugus, Passaconaway, Whiteface, and Sandwich Dome, the other mountains in the Sandwich Range, of which Chocorua is the eastern extremity. On a clear day can be seen, a little to the south and west of Black Mountain or Sandwich Dome, Squam Lake and Winnepesaukee, the latter over thirty miles in length, and beyond these the Belknap Mountains. Due south are the Ossipee

Mountains, and at the foot of Chocorua the beautiful heart-shaped Chocorua Lake, with its beach of gleaming white sand. In all, more than a score of lakes can be seen. It is a most beautiful sight in the early morning to see the mists lift from these lakes and the level rays of the rising sun shine under and through their delicate trailing tracery as they slowly lift and roll away.

There are many trails up Chocorua, for though not a high mountain (about three thousand five hundred feet), it throws off in every direction long spurs and buttresses. The most striking are the Hammond trail from the southeast; the old Piper trail from the east, now disused, which takes one up granite ledges where the finest blue-berries grow; and the Brook trail from the southwest, following a mountain stream which comes tumbling down over big boulders, forming many a miniature waterfall and clear pool, through a heavy second growth of trees.

This southern part of the White Mountains is not without its literary associations. In the Ossipee Range is Mount Whittier, named from the poet, John Greenleaf Whittier, and near the village of West Ossipee is still shown the tree under which some of his poems were written. And Mount Larcom, in honor of Lucy Larcom, who wrote some charming old-fashioned books about New England. Near Squam Lake is the Harvard Engineering Camp, and around Winnepesaukee and on its many islands are summer-camps, some of which are for poor city boys, who there make their entry into Nature's wonderland and learn to love the woods and the creatures in them.

How beautiful is the life of the woods and the mountains! It has been well said that "a mountain is a mystery," especially if it be forest-covered. What deep ravines and beetling crags does it not conceal; what rushing streams; and in the foot-hills are deep, silent pools, where grow the loveliest flowers, and where the deer come to drink, and sometimes a bear! On Passaconaway may be seen in the early summer that most beautiful of small wild flowers, the *Mitchella*; the petals are white at the outer edge, but towards the center most delicately tinted. They cover the ground like a carpet, creeping among the ferns and mosses and the rich humus made of the fallen leaves of centuries. Then there is the *Linnaea borealis*, the favorite flower of the great naturalist Linnaeus, clinging to the moss, with "a complexion like a milkmaid; and oh! she is very, very sweet and agreeable." And you can find the checkerberry, the partridge-berry, and the indian-

pipe, and the purple brunella, wild asters, and a host of other flowers.

There is a fine camp on Passaconaway, about six hundred feet below the summit. Near by is a spring flowing under moss a foot thick, with here and there little pools mirroring the trees and the sky. It is pleasant to sit round the camp-fire at sunset and listen to the last clear notes of the Wilson Thrush or the Peabody bird, and to hear again in the early morning the first notes of the birds, who have come to drink, calling to their mates. There are but few birds in the depths of the forest, but on the outskirts they are very numerous and of great variety, the vireo, the nuthatch, the indigo-bird, the humming-bird, and many others are to be met with, and of course the ubiquitous woodpecker. And if you happen to know his haunts, for he is most shy and retiring, you may hear the Hermit-Thrush, the sweetest-throated of American song-birds. Sometimes, too, from some mountain-top may be seen a great eagle soaring, ready to pounce upon some luckless creature in the brush.

Most glorious are the woods and mountains in the clear days of late September, when there has been a frost at night, just enough to show that "the Color Fairies" have been at work; then dark hemlock and white crag serve but to enhance the rich coloring. You may walk or drive for miles amid the most gorgeous colors, in the most bracing air, and under the bluest skies, and see the granite peak of Chocorua glistening in the sunlight. It is hard to say when the mountains and woods are most beautiful, for they are beautiful at all seasons, even amid the winter snows, when snow-shoeing and sleighing take you over the old routes once more, with the temperature below zero and the bright sun overhead.

The White Mountains are interesting to the geologist, for, lying in the line of glacial drift which terminates in Cape Cod, they show in many places the striations, or scratches made by the grinding of the glaciers in the ice-age. Everywhere are to be met huge erratic blocks, left by the retreating glaciers, some of them perched in almost impossible positions, looking as if they might fall at any moment. One of the most remarkable of these is to be seen on the Weetamon trail on the eastern slopes of Chocorua. A few miles to the northeast of this imposing block is the Madison Boulder, lying in a swamp a little off the Conway Road, the largest erratic block in New England.

**THE WANDERER**  
by **Viktor Rydberg**

(Translated from the Swedish by F. J. D.)

**H**E wanders many and many a year  
Seeking, seeking her footprints here.

But pathways throng  
And roads are long,  
Crossing and twining in tangled lace  
With track on track and trace on trace —  
A labyrinth hard to unravel,  
So many are they who travel.  
Soon all vestiges vanish again  
By winds and drifts and pouring rain.

He seeks, while years and ages wheel  
Beyond the ken of memory's flight,  
And yet his locks no gray reveal,  
No wrinkle mars a feature.  
The glance is clear, the walk is light,  
The lips are whispering music bright,  
For wisdom tells he 'll greet her.  
His youth remains unfading:  
Within the heart he surely knows  
That youth in her eternal glows,  
The deathless form pervading.

In all the storm and shower and stress  
Snow-white his linen, like new his dress:  
'Twas so in days primeval.  
Then wonder not, if some folk tell  
That fays who dwell  
In hill and dell  
And float in space ethereal,  
Have spun the finest lily-fleece  
For him, in light sidereal;  
And woven a starry garment,  
Sewing in moon-rays, piece by piece,  
The Wanderer's coat and raiment.

They say where'er the Wanderer fares,  
With cornflower blue in beaver,  
That though the clouds be darkest, flares  
A sheen o'er mountain and river.  
And softest music good-folk hear  
In cottage lowly when he is near,  
Cheering hearts mid daily cares,  
While lovely dreams follow ever.

Ah what if dead, his long-sought friend!  
Nay, this he can never opine;  
For daily Sûrya's rays descend  
And nightly stars yet shine.  
For her, he knows the heavens enfold  
The myriad orbs that strew their gold;  
For her sake life hath will to be;  
Were she to die, all life would flee.  
In sudden doom  
All color-play would change to gloom.  
Space would darkly thicken;  
Sun and stars would blacken.

But day hath rainbowed splendor still,  
Night's gems in glory hover;  
The Wanderer speeds o'er dale and hill  
With cornflower blue in beaver.  
And purest music mortals hear  
In cottage and palace when he is near,  
Freeing fetters and wafting cheer,  
While lovely dreams follow ever.

From *Fantasos and Sulamit*.

### A TRIBUTE TO JOHN RUSKIN: by a Lomaland Student

THERE were few living in England twenty-five years ago who were not touched somewhere, even if only by its outer ripples, by a movement stirring cultured young England deeply, a movement which originated in the field of art but found its *raison d'être* in the realm of morals; which began with the cultured but reached out to the working classes; this influence came from the soul-stirring words of John Ruskin. His influence cannot be entirely separated from that of the group of literary lights that formed such a brilliant constellation in the nineteenth century; but we can see how Ruskin plowed deeply into the hard soil of indifference and planted seeds that are now springing up with great promise.

What a teacher Ruskin was! He gave himself to those who came, entering keenly into the young delight in the perception of new truths and beauty, knowing how to take the learner step by step as he saw the way ahead. He charmed all with his inimitable style even when he spoke to the humblest in the Guild of St. George.

To the sensitive, impressionable nature of childhood he came with a flood of artistic criticism that made us yearn to draw and paint, to depict the delicate tracery of tree stems or catch the varied tints of mountain, lake, or cloud; while his scorn for careless unconscientious art-work drove us to strive for the best.

To the growing youth he brought such a keen perception of moral beauty as made us desire to realize some noble ideal in life, to enter seriously some pursuit with a pure love of doing beautiful work; while his contempt for machine-made articles of poor finish taught us to value those noble craftsmen of all ages who took infinite pains with all that was worth doing.

To our ripening manhood and womanhood he opened the ideals of unselfish life, where all might let their hearts delight in the labor of their hands and none should toil with suffering for a miserable pittance; while his prophetic denunciations of the hideous conditions prevailing in our large manufacturing districts made us earnestly seek to probe these sores and find their cure.

So far he shone as a bright morning star (and here I can speak for myself only). So far he still led me on until he brought me to the brink of an abyss where I saw unrealized man's vain Utopian schemes, and then his light began to fail before the dawning sun of Theosophy.

Great and noble soul, John Ruskin! Surely one who has led so many towards "The Path" shall himself before long stand at the feet of the Teachers, see with intense delight the great "orphan humanity" embraced in the arms of Universal Brotherhood and nurtured in the Ancient Universal Wisdom.



BUSHIDO as an independent code of ethics may vanish, but its power will not perish; its schools of martial prowess or civic honor may be demolished, but its glory will long survive their ruins. Like its symbolic flower, after it is blown to the four winds, it will still bless mankind with the perfume with which it will enrich life. Ages after, its odors will come floating in the air as from a far-off unseen hill. — *Bushido, the Soul of Japan.*

## HEALTH BY MOVEMENTS:

by Herbert Coryn, M. D., M. R. C. S.



CONSIDERATION of the modern cult of health by movements leads unexpectedly far into human nature, making connexions with psychology and at last with ethics. The connexions are in the fact that thought and emotion always tend to express themselves in muscular movement and that muscular movements react on consciousness.

We must remember first that every thought, no matter how abstract, has *some* halo of emotion. The thought attached to such words as death, victory, sunrise, manifestly has. But there is no one that is perfectly colorless. And any emotion or feeling, diffusing itself through the body, must have a direct bearing upon health, however slight. The continued thought of say ruin, pain, death (as ordinarily viewed), working through the associated emotions, would soon show itself in depressed vitality; whilst thought of life, victory, light, health, would as certainly react beneficially.

Man, in the lower part of his nature, is an animal. Of this part we may consequently learn much by the study of animals proper, remembering that in man the phenomena are much more complicated.

In a general way the animal's reply to any impression on its senses — resulting in what in our own case we should call a thought — is a muscular movement. Its continued existence depends on its immediate reaction to everything it hears, sees, or smells. It must as a rule at once *do* something, advance towards prey, retreat from danger, prepare to fight. Even the breaking of the sun through the clouds or a wave of cold wind may excite a luxurious stretch or a general muscular contraction and bracing. Such thoughts as are possible to its mind, arising independently of any immediately received impression, also tend to pass at once into some sort of expression in movement. The animal's life mostly consists, however, in the reception of impressions and movemental reaction thereto. The same is true of the infant and the young child.

How about older people?

In the first place ordinary thought is carried on by means of unspoken words. Whatever thoughts may "lie too deep for words" we need not here consider. Now an unspoken word, however rapidly it pass across the mind, does *begin* to set in motion the mechanism of speech. The beginning goes so far in some people that when not

actually talking their lips are nevertheless in constant muttering movement. In chatterers there is the completed stage. As long as they can get an auditor their whole stream of thought runs out at once in speech. Beside that the *words* — lip, tongue, and larynx movements — are answering to the *thought*, there are other motions corresponding to the feeling, the emotion. There will be changes of facial expression, gestures, perhaps the assumption of entire bodily attitudes. The great emotions do of course always exact their full expression in attitude and movement. Fear, dread, rage, anger, irritation, vanity, pride, aspiration, have each its manifestation. If they are permitted often enough the manifestation will have permanent registration.

But the reverse of all this is likewise true. We express part of its truth in the broadest way when we say that muscular exercise stimulates thought — and therefore emotion. So true is this that many people almost dread mechanical work which does not employ all the energy and attention of the stimulated mind. The movements set free a stream of thoughts that may be nearly uncontrollable and may at the same time be wearisome, noxious, or painful in the extreme. The ordinary stream which goes on when we are “lazing,” foolish and futile as it usually is, may generally be kept on pleasant lines. But when stimulated by the mechanical movements of drudgery, the will being at the same time preoccupied, it may become at once too quick and insistent for guidance. It is this which makes drudgery *drudgery*; it is this and not so much the work that induces the exhaustion. The brain is incessantly churned into thoughts whose utterance in word and gesture must be checked, the check being itself fatiguing; whilst states of feeling, mostly centering around memories, repeating themselves again and again, are usually such as to wear down rather than encourage vitality.

The stimulating power of motion is often made use of by thinkers. Whilst they may have the power to hold their minds fairly close to the topic in hand they cannot always make them *move* upon it without the inductive stimulus of *muscular* movement. So they get up from the chair and walk about.

Some people at any rate, *read* by this principle. In pronounced cases the lips move inaudibly as the eyes travel along the page. In others there is only the *starting* of that current which if maintained and strengthened would provoke the saying of the words. Only after

this rudimentary pronunciation does the mind grasp the meaning of what is read.

The recent philosophies of "assertion and denial" depend upon this principle. The practitioner "asserts" for instance that he has health, asserts it in the muscular movements constituting words, in those which produce the erect and confident attitude characteristic of health, and in a general muscular bracing and toning. The reaction is consequently an intensification of the thought of health, of its feeling, of the pleasure belonging to the feeling — and vitality is correspondingly bettered. But the practice is of course in its very nature a psychologizing of the mind. It is no natural process of thinking. And the stability of the health is subject to another limitation never considered by these practitioners.

Acting depends in greater or less part upon the same principle. Just as an emotion induces movements and an attitude, so those same movements and attitude will more or less strongly create the emotion. Take up an attitude, make a set of gestures, expressive of some emotion, as rage or joy, and that emotion will begin to be felt.

The principle goes further into a corollary of the law of association of ideas. A scent may awaken memory of some long past event with all the then attendant emotions. If its presence has accompanied many scenes it will awaken no one individually but so vague and general a complex of them all that we notice nothing more than the peculiar appeal the scent makes to us. In the same way any pronounced muscular movement, made, we will suppose, once only, while some strong emotion was running, would, whether naturally connected with that emotion or not, tend to reawaken it when repeated even long after. But if repeated many times during the prevalence of different emotions it would come to arouse that vague complex of them in which we should be able to distinguish no one individually.

*Every* muscular contraction, even of one fiber only, has millions of times been a part of the several larger movements occurring during our states of feeling and emotion, either naturally expressive of them or merely concurrent with them. The fiber has borne its part. And consequently, by the above law of association, we never make any muscular movement, even the smallest, without some vague, utterly unrecognizable, probably minute, but real stir in the field of emotion, in the field of thought and of memory. The body is an instrument on whose strings we have been playing — alas, not melodies always! —

from the moment we were born. About the strings is somehow present all that we have ever played, and we never touch one of them without awakening infinitely complex echoes, not to be disentangled, not to be individualized, but real enough and effective enough in their influence on conduct and life.

But it is along the line of muscular exercise that we are recommended to walk to health. We must make a special business of it, train every muscle to its finest.

Let us turn back to a point we have hitherto but touched, the classification of emotions.

In the usual case the exercises are undertaken because health is found to have vanished or to be vanishing. What injured it? Usually one of these four causes: (1) Actively bad habits. (2) The mere want of exercise. (3) Worry. (4) Leave this open for the time.

(1) Unless these are reformed it is obvious that the bad health will either remain unaffected or return at last against any amount of exercise. *If* reformed, the bad health, so far as really due to them, will tend to disappear of itself.

(2) If there are no bad habits, and especially if there is not too much eating, lack of exercise seems to be a very feeble cause of bad health. Many men have lived to a great age who never made a business of taking any exercise at all.

(3) If the worry ceases the ill-health it caused will tend to cease likewise. If it does not cease no exercises will do much.

Now let us fill in (4), classifying emotions as life-giving and death-dealing.

To take some extreme cases, we know that anger, mounting to rage, cannot only suddenly stop such functions as digestion, but actually kill. Fear can do the same. Apprehension and anxiety are names for moderate fear, very depressant to vitality. Jealousy and greed do not kill, but they manifestly gnaw the roots of health. So do hate, dislike, general irritability, and bad temper. So are ambition and vanity the enemies of that mental peace in which alone health can reach perfection.

Sum the case up. *Any* emotion or feeling which involves antagonism to others is more or less death-dealing, fatal to the mental desire. The same with any degree of fear. If exercise evokes thoughts attended by any of these in any degree there must be harm mixed with its good.

But as we have seen, exercise *does* evoke the latent mental and emotional forces and accumulations, either in definite form or in vague masses.

What are these? Let us consider for the moment only such as in their emergence will be unfavorable to health and nutrition, much the majority with nearly every one.

Of fears, we have the all-present fear of death; the lesser fears of pain, of injuries, of calamity, of bereavement, and of disease.

We have present prejudices, dislikes, often hates. We have perhaps frictions and quarrels in hand, and permanent sources of irritation.

And we have memories of places in our past, of old deeds, which we would gladly forget or keep buried. Of desires unsatisfied, perhaps never to be satisfied, and of disappointments, there may be almost no reckoning.

Lastly, there may be some practice in our daily life which we are aware is a continued affront to conscience, a permanent enemy to mental peace.

Are not these, considered in their totality, a pretty good filling of (4)? Do they not, when massed, seem competent to account for four-fifths of the prevailing ill-health, competent as a general background to give final potency to the more manifest causes which are alone usually taken into account? Do they not seem competent to occasion the quite usual failure to accomplish by any method the permanent bettering of health? And if there is anything in the considerations we have adduced, the whole mass must be especially stirred and accentuated when the method adopted is that of muscular movements.

We do not suggest that proper exercises will at the worst do *nothing* to the good. Circulation of course is bettered, glands stimulated, waste products squeezed out, nerves cleaned. But when all that is done the chief enemies remain, nearer to the most conscious part of the mind and constantly breaking through into it by reason of the stimulation of the muscular basis.

It seems therefore evident that if permanent good is to be got, another set of tones altogether must be set sounding, another set of mental and emotional associations made with the muscles. Consciousness must be stored with renovators instead of destroyers and enemies.

Let us go back to the drudgery occupations. A mother is cleaning and arranging a room for her home-coming son from oversea. The

details *might* be drudgery. But they *are* lighted up into pure joy by the reason for which they are done, by love. They may tire, but beyond that they are giving life. She is accumulating it with every motion of her hands.

And here indeed is the final key, herein the difference between the motives of service and of merely *self* benefit, between thinking out and thinking in. There is no other way to keep added life than to add it for the purpose of service. Whatever is accumulated for self only, becomes the ally of the evil in consciousness and is already changing into an enemy. Whatever is accumulated for service, with the thought of gift, is ever self-reproductive, a continual protective radiance in consciousness. Unless the soul co-operates there is no permanent health. And so the path to health turns out to contain the path to the Heart of the world. Said Gautama-Buddha, speaking of this latter:

The man who walks in this noble path . . . cultivates good will without measure among all beings. Let him remain steadfastly in this state of mind, standing and walking, awake or asleep, sick or well, living or dying; for this state of heart is the best in the world.

### THE RED MEN: by H. Travers

My heart is filled with a great sorrow that the race of Red Indians is departing to the setting sun of lost hopes, beyond a horizon which closes darkly upon them. Were they not to most of us symbols of nursery romance?



SO laments a writer in *T. P.'s Weekly*, reviewing a book called *The Great North Trail*. Races are subject to the same cyclic law of birth, growth, decline, and death, as individual men. And as, with individual men, the physical earthly tenement alone dies, while the Soul passes to its home to await the return of the cycle of incarnation; so, in the case of races, it is merely the visible organism that passes away, while the Soul of the race continues to live and must one day reappear, clothed in a new form. Likewise each individual Soul in that race has its own history and destiny, and must return to earth in some other race.

We regret the passing away of a simple noble people. But, in our collective capacity, we have no just complaint; for how have we treated them?

Is it inconceivable that conditions might have been made such as

to prolong the life of that people? To quote again from this writer:

The Red Indian was the aristocrat of America, whose ways now are darkened and his nobility clouded by the illusion of progress.

The once powerful confederation of the Blackfeet or Siksikaua Indians is of Algonquin origin. A hundred years ago they were a race of warriors faithful to the religion of their tribe, handsome and unspoiled in vigor. Their great quality lay in their acceptance of a wider ideal than that of the family.

I have been told by a clergyman who worked among them that there was nothing evil or cruel in their religion. Before they became contaminated by civilization, by cheap alcohol, and the vices from which as savages they were free, no nobler people ever lived. . . . Take this example of a religious chant:

“Great Sun-god! Continue to give us your light that the leaves and grass may grow so that our cattle will increase and our children may live to be old.

“Our mother (the Moon), give us sleep that we may rise again like our father (the Sun). May our lives be strong and may our hearts feel good towards our white brothers, as we are all your children.”

An Indian said to the writer of the book:

“We fast and pray that we may be able to live good lives and to act more kindly towards each other. If they deprive us of our religion, we have nothing left. We do not understand the White Man’s religion.”

To which the reviewer adds that the White Man would understand his religion better himself if he had more of the simple faith of his red brother.

The story of relentless greed, satisfied by violence, treachery, and broken faith, is too familiar to need repeating. We have sown seeds that must bring us a harvest of affliction. But that affliction is a trifle in comparison with what we must suffer one day when our hearts are opened so that *we* realize the full horror of the crime against truth, love, and trust. A heart so wrung by remorse can only hope to heal itself by the daily and hourly practice of deeds of mercy and honor.

Our duty towards ancient races is simple. In this, as in all other dealings, must we not follow the laws of honor and chivalry? Does not right action require that the actor should fling aside motives of self-interest in full confidence that he can never suffer so long as he follows the right — that any apparent blessing gained at the expense of honor must prove a curse?

Let us waste no time discussing what ought to be done with native races; for it is a problem of benevolence, not of policy. Such discus-

sions are apt to be discussions as to how to reconcile our desires with our conscience — a fruitless task. The truth is that we have to learn to behave. It is not how can we behave like gentlemen, but how can we become gentlemen; then we shall behave right without difficulty.

Our race has a living spirit in it that promises better things in the future; but if we do not hearken thereto, we too may perish and be blotted out even from memory.

### PROLOG TO ECCLESIASTICUS, with a Student's Note

THE knowledge of many and great things hath been shown us by the law, and the prophets, and others that have followed them: for which things Israel is to be commended for doctrine and wisdom: because not only they that speak must need be skilful, but strangers also, both speaking and writing, may by their means become most learned. My grandfather Jesus, after he had much given himself to a diligent reading of the law, and the prophets, and other books, that were delivered to us from our fathers, had a mind also to write something himself, pertaining to doctrine and wisdom: that such as are desirous to learn, and are made knowing in these things, may be more and more attentive in mind, and be strengthened to live according to the law. I entreat you therefore to come with benevolence, and to read with attention, and to pardon us for those things wherein we may seem, while we follow the image of wisdom, to come short in the composition of words: for the Hebrew words have not the same force in them when translated into another tongue. And not only these, but the law also itself, and the prophets, and the rest of the books, have no small difference, when they are spoken in their own language. For in the eighth and thirtieth year coming into Egypt, when Ptolemy Euergetes was king, and continuing there a long time, I found there books left, of no small nor contemptible learning. Therefore I thought it good, and necessary for me to bestow some diligence and labor to interpret this book: and with much watching and study in some space of time, I brought the book to an end, and set it forth for the service of them that are willing to apply their mind, and to learn how they ought to conduct themselves, who purpose to lead their life according to the law of the Lord.

Such is the Greek prolog to the book of *Ecclesiasticus* written by Jesus the grandson of Jesus the son of Sirach of Jerusalem, the Jewish author of the work. *Ecclesiasticus* is just as authentic as the other "books" of the Old Testament, but being written after the time of Esdras the editor, was not in the Jewish canon. The translator evidently recognized the difficulties of translating Oriental wisdom into Western form for European use. We wonder what he would have said had he anachronistically read some of the Anglo-Saxon marvels of mis-translation of the Authorized Version of King James.

## GERMAN SONG FESTIVAL AT NÜRNBERG: by H. Davin



WE live in a time of transition. From the chaotic conditions of the present moment a new life is beginning to develop. Humanity is throwing aside its old garments, and, while looking with pleasure at the new, still casts a regretful glance back at the old. The contrast between the new spirit and the old shell can hardly be better observed than upon the occasion of one of the Festivals which are so frequently celebrated in these days. This contrast was very plainly manifested during the great German "Sängerfest," or Festival of the German Singer Union lately held in our city of Nürnberg. How great were the sacrifices, how splendid the efforts made, both for the preparations and for the actual festival! What a joyous outburst of brotherly feeling! It seemed as if the Golden Age had begun again. It was a visible sign that the eternal spirit of love, patriotism and enthusiasm which can move mountains and do miracles, still lives. Yet the old shell made itself felt, the ingrained habits and illusions which hide the beautiful light of the soul like the frosty cloud which blights a promising harvest. But the soul continues on its way.

We find ourselves in a great Hall flooded with golden light. The enormous choir is filled with singers, whose heads alone are visible. The conductor ascends the platform, which is on a little tower standing by itself. Silence! And then the great song goes forth from the voices of more than fifteen thousand singers.

It has been said, and not without good reason, that four or five thousand singers is the limit for an effective chorus, because the refinements are lost and co-operation becomes practically impossible with a larger number. This may be right for so-called, artificial, songs, but not for the folk-song which awakes feelings and ideas in the human breast that are common to all, a song that becomes a kind of prayer, a solemn invocation. What else can we call the song *St. Michael* by Otto Max Kernstock, sung at the second main performance?

In the literature of the Universal Brotherhood and Theosophical Society much has been said about the power of song and sound. Even if we know little about the laws of vibration it must be admitted that there is a great difference between a song sung by four or by sixteen thousand voices. The difference may not be expressible by a simple proportion. The dynamics of the finer forces — thoughts, wishes, aspirations — are very little known in our times. We do not know under what conditions these powers may produce effects. We know

the effects of the energies in the gross physical world. The potential energy of a pond or a piece of coal is changed by a machine into kinetic energy capable of doing useful work. Before the force concealed in coal could move our trains the steam-engine had to be created. Our power motors are the tools necessary for the transformation of the existing potential energies of matter. But where are the tools capable of transforming the potential energies of desires, of aspirations, of vows and prayers, into active comprehensible powers?

There must be some sort of analogy throughout all the kingdoms of nature! And indeed there is such a machine for transforming those finer forces. And this machine is the most perfect product of nature; it is man himself. But when we think of what man is today compared with what he might and should be, we cannot be astonished that the stream of forces locked up in good wishes and prayers runs so slowly and that it is so frequently diverted into wrong beds. What mankind needs is men, men who are what they ought to be and what they pretend to be. How we are to become such men is the problem that concerns all humanity. Self-education and self-mastery in adults and right education of the children are the two methods for making mankind an efficient tool for the transforming of the fine and helpful forces of nature. One of the most potent factors in education is music, song, which Katherine Tingley has said should be made a part of life itself. The earth sends the waters up into the sky and receives them back in fertilizing rain. Why should not the clouds of selfless wishes and thoughts which rise day by day come back? On this plane also the conservation of energy holds good. The enthusiasm of a great common cause makes us forget all that separates us. Selfishness must abdicate if we give the power into the hands of the soul. The greatness and beauty of the German Song Festival in Nürnberg consisted in the glowing enthusiasm that rose to the heavens like a blazing beacon heralding the coming age of Brotherhood.



KNOW all that you can. Become conversant with and sift all that the schools have declared, and as much more on your own account as is possible, but at the same time teach, preach and practise a life based on a true understanding of Brotherhood. This is the true way. — *William Q. Judge*

## VISIT OF WELSH SINGERS TO LOMALAND:

by Robert Maxon

**A** DELIGHTFUL day, long to be remembered, was July 25, 1912, the occasion of a visit to Lomaland of the Mountain Ash Choir, which includes the most famous Welsh singers out of a nation of singers. Hearing that they were to sing in San Diego, an invitation was extended to them by our Welsh poet and writer, Kenneth Morris, on behalf of the students at the International Theosophical Headquarters and the pupils of the Râja Yoga College.

As our guests arrived at the main entrance to the Râja Yoga College and were ushered into the College Rotunda they were greeted by the Râja Yoga Orchestra playing Weber's Overture to *Euryanthe*. Then followed the Welsh National Anthem, joined in by the thrilling voices of our guests. Before the concluding number of the short program which had been arranged as a welcome, Mr. Glyndwr Richards, the Leader of the Choir, to the great delight of all, said that the Welsh Choir would sing one of their songs. It was *Men of Harlech* sung in Welsh, and the great dome of the Râja Yoga College rang with the stirring battle-song.

Afterwards our Welsh friends, for so they were from the moment they set foot within our gates, were escorted to points of interest on the grounds, several photographs being taken, some of which we reproduce, finally leaving with most cordial invitations on the one hand and hearty promises on the other for another visit should they or any of them ever come to California again.

Love of country and love of their fellow-countrymen are specially characteristic of the Welsh as every one knows. One of the smallest peoples (in numbers) on the face of the globe, and living in one of the smallest of countries, the Welsh heart beats with undying love of home, the dear home-land, little White Wales. A beautiful and touching incident occurred during the stay of the Mountain Ash Choir in San Diego. When taking an automobile ride across the border into old Mexico, they heard that living in National City, which joins the City of San Diego, was a native of Mountain Ash, blind, paralytic, not expected to live another week, though still not old in years. They went to see him. Would he like them to sing? What should it be? A hymn? No, something that would give him life, and courage and hope. And they sang *Comrades in Arms*.

**SCIENTIFIC ODDMENTS: by the Busy Bee**

A PROFESSOR has been dosing hens with urotropin, sodium benzoate, and sodium salicylate, to see if he could make them lay eggs that would not go bad. They did lay eggs that "proved far more resistant to the ravages of time and the decomposing effects of temperature"; but on the other hand nobody wanted to preserve these eggs, as they never were good, being abnormal from the start. There was "something noticeably unusual" about them. So until we find a market for noticeably unusual eggs, the experiment must be considered a failure.

A SCIENTIFIC belief that is now *in articulo mortis* (so we are assured) is that of the alleged fluid condition of the earth's interior. We have been assured that the heat is so great that the inside must be molten. But now we are told that, if that were so, the moon would cause tides in that internal sea, strong enough to shiver the crust to fragments, even though it were two thousand five hundred miles thick. Also the way in which earthquakes are sent hither from Japan through the interior of the earth shows that this must be rigid like steel. So now we are told the inside is probably metal.

A NATURALIST named Brown observed nearly a century ago that when a liquid containing suspended matter is viewed under a powerful microscope in an illuminated field of view, the particles are seen to be in motion. The motion is irregular and incessant. This was called the "Brownian movement." More recent investigation shows that it cannot be attributed to any known cause and that it exists even in the drops of water shut up in the crevices of quartzose rocks, where the drops have been for unknown ages. This perpetual motion is evidently analogous to the motion of the particles of gases; for, as is well known, the particles of gases are in a state of perpetual movement in all directions. Motion seems to be a fundamental property of matter, an inveterate habit.

THE CAMPAIGN against the common drinking-cup, resulting in the provision of paper cups instead, is a recent development in sanitation; and so is the plan of having individual paper towels in public lavatories. There is an outcry against the indiscriminate kissing of children, for fear of infection conveyed by the lips. These precautions, and many similar ones that could be enumerated, are doubtless wise — under existing conditions. But how regrettable are conditions in the world today which render such precautions necessary!

Sanitary science is progressing rapidly, but the real question is whether it manages to keep pace with the progress of sources of infection. Health is after all the best safeguard; but it is not individual health but public health that is in question. We are so interdependent that we can hardly expect immunity for ourself in the midst of an unhealthy society. Sanitary science, in its true sense, must mean the cure, rather than the prevention, of diseases. That would be sanitation indeed which should render us so healthy that we need no longer fear to partake of a common cup or permit a stranger to kiss our baby.

It is suggested that the art of printing was by no means beyond the powers of ancient civilizations, but that they lacked the motive for practising it. There is evidence here and there of the use of movable types for certain limited purposes, such as stamping. Printing would have been of no use for the kind of civilization they wanted. The same remarks apply equally well to other inventions characteristic of the modern period. It is evident that the ancient civilizations did not contemplate or desire development along the lines we have followed. Among the Greeks physical science was rather looked down upon. From this point of view it may be unreasonable to compare ancient civilizations unfavorably with our own because they did not develop in this particular direction, or to say that their failure to do so implies ignorance and impotence. So far as happiness, well-being, and beauty are concerned, they certainly did not fall behind us — to say the least. What if our kind of inventiveness is but a phase that races pass through at certain stages of their history, and which has been often tried before and given up or gotten beyond?

If a sense of humor is not inconsistent with sincere respect, the following scientific item affords an excellent opportunity for exercising this combination of qualities. One may be deeply convinced of the importance of music as a means of harmonizing the nature and rendering it responsive to the harmony within, and yet laugh at the particular instance given below. It is entitled "The Higher Education of the Docile Cow," and relates to the experiments of a Wisconsin man, who claims by the administration of music to have enabled his cows to give one-third more milk than had heretofore been their wont. Non-milkers, he thinks, need a little music to soothe their jangled nerves. One wonders if *The Holy City*, played on a cornet in the

pigsty, would enable the pigs to give better bacon. Probably the music would calm the temper of the milkman, and thus act indirectly on his animal friend, as well as directly. If we could get more harmony into our lives, and carry it about with us even in our humblest duties, it would be better for us, better for our friends, animal and otherwise, better for all nature.

IN the Willard Gibbs address, delivered last year by Professor Svante Arrhenius, on his theory of electrolytic dissociation, and reported in the *Journal of the American Chemical Society*, there are some amusing remarks, though some allowance must evidently be made for the language difficulty. Here is a quotation:

The reason why barium sulphate is precipitated out, Berthollet said, was because the molecules have, so to speak, a feeling that if barium sulphate is formed, then it gives a precipitate, and all precipitates tend to be formed. Of course, this feeling of the molecules of what would happen is something very anthropomorphic and not very scientific; still Berthollet was one of the most prominent scientists of his time. It was an instance of what is called predisposing affinities.

This is a kind of scientific theology; it is deductive and scholastic, starting with the postulate, "Let it be granted that all precipitates tend to be formed," and proceeding, "But barium sulphate is a precipitate; therefore barium sulphate tends to be formed."

Gay-Lussac, however, did not believe in these predispositions — he upheld chemical freedom of the will as against molecule predestination. He said that when we mix sodium sulphate and barium chloride solutions, thus having four radicals, namely those of sodium, barium, sulphuric acid, and hydrochloric acid, all possible combinations are formed, but that the barium sulphate, being a precipitate, becomes removed from the scene of action, thus leaving the sodium and the hydrochloric acid alone together and bringing all further promiscuity of partnership to a close. This theory reminds us of the biological school of evolution; instead of predestination and predisposition on the part of the molecules, we have indifference; and the result is due to natural selection.

While at one time the current in electrolysis was represented as *tearing asunder* the molecules of the salt, it was soon found that the very slightest electric force was sufficient to cause electrolysis; and the only explanation was that the molecules in a solution are already dissociated before the current is turned on, and that the current merely sorts out the ions. But the difficulty was to account for the properties

of the solution: if a solution of sodium chloride is really dissociated into sodium and chlorine, why is it salty, why does it not smack of sodium and chlorine? Professor Arrhenius' work on the relation between chemical combination and electrical conductivity, and on the condition of salts in solution, deals with this question.

His experiences in trying to get other men of science to attend to his theories and discoveries are amusing. To one he said: "I have a new theory of electrical conductivity as a cause of chemical reactions;" and was answered: "That is very interesting; good-bye." Another explained that he had received on one day the Professor's thesis, a toothache, and a new daughter, and that while the last two developed normally, the thesis was forgotten. He concludes his paper by pointing out the importance of solution, quoting the alchemist principle that there is nothing which acts chemically but solutions. Solutions fill the ocean, run in our veins, and form the chief part of all organisms; terrestrial and celestial bodies consist chiefly of solutions.

THE CASE of natural curative waters, radioactivity, and the change of scientific opinion thereon, has already provided matter for comment in these notes; but its recent reappearance in the columns of a scientific periodical affords another occasion for commenting on it. It is important, not only as a sign-post on the road of progressing knowledge, but also as an illustration of the fallibility of many dogmatic pronouncements, even though backed by a weight of authority.

An eminent physician, it appears "with scathing nihilistic words," dissected the waters of Carlsbad, Vichy, and other famous springs, as what irreverent small boy might dissect his sister's doll, and found therein nothing but plain  $H_2O$  and a few salts. As none of these ingredients possessed the alleged curative properties, resort was had to that convenient hypothesis which glorifies the intelligence of a few moderns at the expense of many generations of ancestors; in other words, the curative properties of the waters were a superstition, and our fathers fools; it was merely the change of air and scene, the careful diet and regimen, that worked the cure. But one or two things had been overlooked that certainly should not have been if strict scientific procedure had been carried out. For one thing, a whole may possess virtues which no single one of its ingredients possesses alone; just as the little sister's doll will squeak and say, "Mama," while the heap of rags and sawdust in the hands of the inquisitive brother will do nothing of the kind. Sawdust will not squeak,

neither will rags nor wax; therefore the doll did not squeak, but the girl only thought it did. Again, there may have been ingredients in the water which the doctor did not happen to see. Finally he attached more value to the evidence of his own senses and judgment than to the experience of thousands and generations; which is surely very unscientific.

But radium was discovered; and found in natural waters. Also artificial waters were impregnated with radium and thus made salubrious.

And now a new element has been announced by Sir William Ramsay and named "niton;" it is identified with the "radium emanation" of Soddy and Rutherford, produced by the decomposition of radium. And it has been proved that the curative value of the spring at Bath, England, depends on the niton in its waters. So universal experience was right, and it was the iconoclasts who were superstitious. Perhaps there is niton in the waters at Lourdes, or perhaps there is something else which Professor Ramsay has not yet discovered.

Radium changes into helium and niton; it takes 1760 years for an ounce of radium to turn into half an ounce of niton and helium and leave but half an ounce of radium remaining. Another 1760 years leaves us only a quarter ounce of radium; and so indefinitely. Niton forms no chemical salts and decays to one-half in less than four days, passing into something else. The powers of radium are due to the niton — there is always a god behind the scenes who does the real work. It can be condensed to a liquid and a solid. The atomic weight is equal to the difference between those of radium and helium: radium 228, helium 4, niton 224. The decay gives rise to a succession of bodies, all of which give out electrons; so that the Bath water may be said to be sparkling with healing rays.

It is clear that we cannot afford to deny any well-supported statement of fact on the mere ground that we cannot explain it scientifically. This is of course quite a commonplace remark, but its truth is more apparent since these recent advances of science. The divining-rod is now accepted, on the strength of overwhelming evidence, although we are as yet without a theory of its action. But who knows how soon an explanation may be forthcoming?

## STATUARY IN THE BOTANICAL GARDENS, BALLARAT, AUSTRALIA: by C. J.

THE three single statues illustrated herewith are from the Pavilion of Sculpture at Ballarat, and are the work of the late Charles Summers. They are very effective and characteristic representations of two heroines of the Hebrew Testament, Ruth and Rebekah, and of Susannah, whose story is found in the Apocrypha. The story of Ruth is one of the most charming idylls of the Hebrew books, and throws a vivid light upon the life of the period (B. C. 1322, according to the Oxford Bible). Ruth is represented seated among the grain, resting after her gleaning in the fields of Boaz, who afterwards marries her. Ruth was supposed to be an ancestress of King David.

The statue of Rebekah brings to mind another beautiful chapter in the Hebrew Testament — the meeting of Rebekah and the servant of Isaac (*Genesis xxiv*), one of the most poetic and unaffected narratives that have come down to us from antiquity. Rebekah afterwards took part in the trick played by Jacob, a master of wiles, upon his elder brother Esau, by which Jacob obtained the “blessing” of his father, Isaac, an endowment which Isaac could not rescind though it was obtained from him by fraud. This appears, on the face of it, a very strange thing, but when we remember that the Bible is an esoteric book, as H. P. Blavatsky proves, and that many parts of it are written with an inner meaning known only to the initiated, much of its superficial singularity ceases to repel. The competition of Esau and Jacob for precedence seems to be told in explanation of the condition of certain tribes claiming to be their descendants; but there is a deeper meaning still behind this and other curious narratives in the Hebrew books.

The story of Susannah, from the Apocrypha, is a favorite subject in art, particularly Italian Renaissance painting. Susannah was accused on a false charge by two hypocritical Elders, but although pure and virtuous, she could not clear herself. A youth named Daniel (not the prophet) was aroused by the injustice of the case, and demanded another trial for Susannah. Upon her accusers being separately examined they contradicted each other in one important particular, and were found to be the guilty parties. They were thereupon put to death in place of their innocent victim, and Daniel gained great honor. The statue represents Susannah surprised when about to bathe.