

THE OCCULT REVIEW

A MONTHLY MAGAZINE DEVOTED TO THE INVESTIGATION OF SUPER-NORMAL PHENOMENA AND THE STUDY OF PSYCHOLOGICAL PROBLEMS

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NOTES OF THE MONTH

THE justification for the appearance of a magazine devoted to the investigation of super-normal phenomena and the study and discussion of psychological problems has been put so well by Sir Oliver Lodge in the letter he was good enough to write for publication in the first number of the OCCULT REVIEW, that I feel I cannot do better than quote the letter on the first available page of the new venture in my own defence.

In doing so I would deprecate on the part of readers and critics alike any premature condemnation of an attempt to deal on scientific lines with subjects which have fallen into disrepute

through association with charlatanry, on the one hand, and through the long refusal of scientific minds to investigate the evidence on which they are based, on the other.

Letter from SIR OLIVER LODGE to the Editor of the OCCULT REVIEW.

In spite of the already too great number of magazines, there does appear to be an opening for a Review dealing with that obscure and nascent branch of science which is allied to observational and experimental psychology on its more abnormal and mystical side.

There is a widespread though largely uninstructed interest in these subjects ; and inasmuch as the general bulk of the human race constitutes the sole laboratory in which the facts can be studied, it is desirable to maintain the interest and to record the facts with as much care and as little superstition as possible. It is also well that the Public should become better educated in these matters, otherwise their experiences are apt to be regarded emotionally only, and as matters of special individual privilege, instead of also intellectually and as matters of general scientific interest.

Hence, if a journal is started with this object in view, and if it is well edited and well managed, it may become a useful scientific instrument.

OLIVER LODGE.

I can only add that Sir Oliver Lodge has admirably expressed the object that I had in my mind in broaching the idea of the OCCULT REVIEW, and I am glad to have the opportunity of noting his approval of the title, which, after much discussion and much hesitation, was eventually adopted for this journal.

It was felt that, in spite of some undoubted drawbacks and its association in certain quarters with unscientific methods of study, the name in itself contained no such suggestion, and was probably, on the whole, the most suitable to indicate the subject matter intended to be dealt with.

I should like to make it clear that one of the objects of this magazine is to voice various phases and forms of religious or quasi-religious opinion—always regarding religion not from the purely orthodox point of view, as resting on the authority of certain divinely-inspired documents, but, as in one sense or another, scientifically justifiable, and having as its basis a theory of cosmogenesis, which, however much it may conflict with the science of a particular age and time, is not essentially anti-scientific. Working on these lines, it is natural that many opinions of a mutually

antagonistic character should find expression. While various religious systems will be brought in review, there will be no idea of reconciling the divergent theories of the different writers who deal with them. Still less will the Editor hold himself responsible for the opinions expressed or for the views adopted. Thus the attitude of the writer of the essay entitled "The New God" in the current number will be found to be at least partially incompatible with the standpoint taken by the writer of an article on the "Gnostic Revival," which it is proposed to insert in the February issue, the aim of the Editor being not to put forward his own personal opinions, whether by proxy or otherwise, but rather within certain clearly defined limits to obtain an expression of the position taken up in relation to religious thought and belief by the intellectual portion of mankind.

I should premise that the first number of the REVIEW is of a somewhat general and introductory character, the commencement of articles dealing with the investigation of psychical phenomena being held over till the February issue.

Mr. F. C. S. Schiller's name is a sufficient guarantee that his article in the current issue will meet with the COMMERCIAL attention it merits. I should like, however, to OCCULTISM make some remarks on what I will venture to call the "proof-of-the-pudding-is-in-the-eating" attitude, which he has taken up with reference to matters occult.

I have often thought that the man who first started the theory of the Philosopher's Stone must have been a shrewd man of business, and that there lies hidden beneath the doctrine of the transmutation of metals the recognition of that most profound truth, that in order to acquire the more precious metals, gold and silver, you must start with an abundant supply of the baser, but none the less invaluable—brass. Doubtless, like Mr. Schiller, the originator of this theory took a commercial view of the occult. The great difficulty, however, in the way of putting to a practical use such forces as telepathy is unquestionably their lack of constancy and reliability. True, it is possible that one day man may learn the art of compelling them to act at his bidding; but meanwhile it is to be feared that the sceptics whom it was sought to convince will have passed away to a land where no human argument will avail to reach them.

That such powers as clairvoyance have been put to a practical use is undoubted. I could cite an instance of a near relative of

my own who went up to London to sell a reversion, and going to a clairvoyante was told that money would come to him in the second week of the next month. This actually occurred, the reversion falling in through an unexpected death on the 13th of the month in question, all necessity for financial sacrifice being thus avoided. Such stories are not uncommon. I mention this as one of which I have personal knowledge, and of which I am in a position to give the exactest details.

The obvious comment of the sceptic, "How many bad shots did the lady psychist make on the same day?" may satisfy us that even the obvious utility of the information given on a particular occasion would fail to bring conviction to the doubting mind. Besides, from what we know of clairvoyance, it is highly probable that the sceptic would have been justified.

Still, the general principle is, I think, a true one, that the practical utilisation of a natural force should serve eventually as a test of its genuineness, though the long period that has elapsed between most discoveries and their breaking in to the service of man may well induce us to try in the first place some more rapid method of bringing conviction home.

Probably the utilisation of astrological tests by a life assurance company would be the best example of such a method of putting occultism on its trial. But on account of the greater detail of the *acte de naissance*, a French company would afford a far better criterion than an English one. This however is because astrology—whether true or false in theory—is worked on a purely mathematical basis, and therefore scarcely comes under the same category as telepathy and clairvoyance. Nor would the proof or disproof of astrology affect in any way the believer in telepathic phenomena.

With reference to Monsieur de Champville's article on "Occultism in France" it is well to remember that French investigators have on certain lines advanced much further in their conclusions than their English confrères. The article in question will represent to English readers the attitude and standpoint of one of the most eminent of French psychical investigators, and, as such, must command respect even when concurrence is withheld from deductions that may appear too extreme in the light of our present knowledge. The opinions expressed must, however, be taken as representative of an important body of enlightened

opinion, and serve to show which way the wind blows in psychological circles of investigation on the other side of the Channel.

The late Mr. W. E. H. Lecky in a notable passage in his "History of the Rise of Rationalism in Europe," has been at pains to show that the beliefs of earlier generations have not, generally speaking, lost their hold on mankind through scientific evidence being brought to bear on them which has shown them to be erroneous, but rather through their ceasing to be in sympathy with the spirit of the times, and thus first falling into neglect and then into disrepute and discredit, killed or blighted by the all-powerful Zeitgeist of an alien age, and unable to exist side by side with the new ideas and the new thought-atmosphere which has, for the time being, taken possession of the world. The history of European thought in the eighteenth century and the vicissitudes it underwent at that period afford numerous examples of old beliefs falling into discredit in this manner, some destined subsequently to revive with the revival of religious faith or the return of political stability, others apparently fated to melt away before the saner outlook of a more rationalistic age.

So disappeared the belief in witchcraft, in astrology, in magic and incantations, in the philosopher's stone, in a hundred other beliefs and superstitions tenaciously held and indeed never doubted during long ages of the world's history. And yet for all their long ascendancy over the mind of man they passed away in the end, not disproved nor exposed as other faiths in our own age have been exposed (and have survived the exposure!), but simply dropping out of mind as a new generation arose, like some Homeric hero whom the Harpies snatched away without trace or record left behind. It was not necessary to be at the pains to disprove, such was the mental attitude of the day. The old wisdom was incompatible with the new knowledge. That was enough.

So a generation or two ago all faith in the survival of the personality after death seemed to be fast ebbing out at least among thinking men, a prey to the ridicule but not to the evidence of the exponents of the scientific dogmatism of the day. Herbert Spencer and Darwin had given it the *coup de grace*, it was thought, as at an earlier date astronomical discoveries had killed astrology.

Not so many years before the Psychical Research Society was

founded, the suggestion that such work could be carried out in a scientific spirit and lead to positive results would have been ridiculed by almost every man of science.

And now comes Monsieur Paul Flambart with his "Etude Nouvelle sur l'Hérédité," teeming with evidence of the indications of hereditary influence in horoscopical figures. The question naturally arises: If these figures are without meaning, if they have no more scientific value than, say, a coat of arms or a fancy design, whence come the indications of heredity?

How many of the beliefs condemned or ignored at one time or another by the science of the day are capable of resuscitation in the light of a fuller knowledge? Which of them is to be regarded as a *chose jugée*? Which has a claim to a fresh hearing?

This is the field of inquiry which it is proposed to cover in the pages of the OCCULT REVIEW.

THE SOUL'S FUTURE

By DAVID CHRISTIE MURRAY

IT happens that, at the moment at which I sit down to write, I have just completed an article on a new theory about ghosts. The idea which has occurred to me has been no more than a combination of the pronouncements of Sir David Brewster and Sir Oliver Lodge; but since it looks as if it might afford a purely materialistic explanation of the myriad stories of distant apparitions at the moment of the death of the persons whose wraiths are believed to have been seen, it occurs to me that it will be well to examine it before the materialists get hold of it and turn it to their own poor purposes. Sir David Brewster wrought and wrote in days when the materialistic wave was rising. Sir Oliver Lodge works and writes at a time when the cock-a-whoop surety of the materialist has gone wholly out of him. The dead man was, and the living man is, one whose whole being is strenuously devoted to the cause of truth, so far as truth may be revealed to mortal eyes. The one who has gone before us did something to kill the belief in apparitions. The much younger man who is now amongst us has done something to restore that belief. The result of a union of their observations appears to me to be singularly interesting.

Sir David Brewster remarked in his own person that an object strongly conceived in the mind was occasionally visualised and became so fixed on the retina that a motion of the eyeball did not dissipate it. The object conceived remained in its due relation to the axis of vision, in whatever direction the subject might direct his gaze. Sir Oliver Lodge conceives that the idea of telepathic communication between mind and mind is now scientifically established, and is even willing to believe that voluntary telepathy is set firmly upon the basis of scientific examination and experience. When a person dies and his apparition as he lived becomes visible at the moment of his death, may not the apparition be accepted as a result of these two operations of nature acting in unison? The last thought of the dying person has been in the direction of one whom he has dearly loved. By that strange wireless

telegraphy of the soul which is known in the experience of so many of us, his last thought and his last realisation of himself are flashed upon the mind of the distant sleeper—it is notable that the majority of visions such as this awaken people from a condition of natural unconsciousness—and the shock thus caused has a precisely similar effect upon a sensitive organisation as that observed by Brewster as the result of the prolonged and vivid contemplation of an object in the mind.

Now, suppose this to be accepted as the rational and scientific explanation of all the phenomena of this order which have been observed since the human race began to conserve records of its own experience. To what conclusion should we be logically forced? The belief in the objective reality of apparitions under such conditions would have to make way for a new conception, but the point which is really at issue between the materialist and the spiritualist would remain untouched. That issue relates to the permanence of the human personality after death. The spiritualist will point you to his own experiences as affording evidence of the permanence of personality. The materialist is certain that all the experiences of which the spiritualist is conscious result from the operation of natural law. But the eternal question of the soul—"Am I an immortal thing?"—is not to be decided either by the proof of the existence of whole armies of ghosts, or by the rational explanation of all apparitional phenomena whatsoever. The spiritualist falls into an easy error in the supposition that a continuance of personality on a new plane implies a permanence of continuity. What guarantee has a ghost of being immortal? May not he also perish out of his appointed sphere? And why might we not fancy a whole procession of lives in phantom state—each more ghostly, more attenuated than its forerunner—the ghost of man, the ghost of the man's ghost, the ghost of a "ghost's" ghost, until the thin thing fades into nonentity and slips back into the universal element? The materialist falls into an error parallel with that of the spiritualist when he conceives that a rational explanation of all ghostly phenomena has disposed of a belief in immortality. The concept is as independent of evidence, and as unsupportable by evidence, as it is indestructible by evidence. We can neither prove nor disprove, but the balance of reason is still upon the side of the believer, and it favours strongly the hope of a continued existence and a continued growth. We can but argue from

things known. In all nature we find the clearest evidence of a law of progress. The protoplasmic ooze results in man. It arrives at thoughts and emotions, it builds lofty ideals and great civilisations. The objector urges that this proof of progress is no proof of the permanence of any personality. No proof, but most assuredly no suggestion of disproof. Again, we find no trace of waste. Change and the revolution of one form of matter into another are evident to us, but no waste, no loss, is anywhere discoverable. The noblest product of the universe so far as we are certain of it is the rounded and accomplished personality of man. Why should nature everywhere display her absolute incapacity to cast away an atom of her lowest product, and yet be able to plunge into nothingness her very greatest ?

DEMON POSSESSION

I notice that Father Ignatius has just confided to the Press his own somewhat startling personal belief that the Dean of Westminster is possessed of a devil. This is one way of settling a controversial adversary. It has all the advantages of simplicity and directness, and it can be applied by anybody to anybody, about anything with respect to which one man can differ from another. The pronouncement, which will excite indignation in some minds and a sense of pity and distress in others, is interesting as calling our attention to the fact that there are still some in the Western world who cling to the old belief in demon possession. The common conception has always been of an affliction strongly associated in its outer signs with the recognised symptoms of hysteria and epilepsy, and the pathologists are all but unanimous in attributing its supposed manifestations to those disorders. In the whole range of the occult philosophies there is nothing more curious and interesting, and the literature which has been devoted to it is vast and various. At one time or other the belief has been held by every nation under Heaven, and some of those who have held it have achieved to a high civilisation. The best intelligences of Greece and Rome accepted it. Christ Himself emphatically proclaimed it. The Church had for centuries its special body of Exorcists, whose whole duty was the casting out of devils from the bodies of those whose possession they had usurped. In China, in India, in Patagonia, in Kamkatscha, in

the Pacific Islands, in regions so far remote from each other, and amongst peoples who are so removed in their ethnology and language, that any probability of the communication of the faith from one to the other would appear to be abolished, the belief in demon possession still survives. The inspirational mediums of Spiritualism profess a form of it. Their conception that they are illumined by the souls of the departed, can hardly be divorced from the idea that they are susceptible of occasional control by other spirits than those of the wise and good. Indeed, we find it a common excuse in the case of a medium charged with fraud, that he or she has been duped by a malign influence.

The late Dr. Nevius, for forty years a missionary in China, left behind him a most laborious chronicle of the cases observed by himself, and a fairly exhaustive digest of the views of the various schools of thought. The manifestations are attributed by one school to delusion and imposture ; by another to some yet unclassified force which may either be physical or odic in its nature ; by another to a law of evolution according to which they are found in all races at a certain period of development ; by another to the natural results of a diseased condition of the nervous system ; and by yet another to the actual agency of spirits or demons. The one characteristic fact of the cases observed by Nevius, which appears most strongly to differentiate them from all other forms of dementia, is that the subject invariably speaks of a double personality. Out of the mouth of one sufferer came words to this effect : " I am sick of her. I am leaving not because I am afraid of you, but because I am tired of my habitation," and in *all* observed cases he finds it to be the case that the victim and the supposed demon address each other or speak of each other as entirely separate entities. They quarrel violently, or the one shrieks obscenities and blasphemies, in answer to which the other betakes himself to fervent prayer. In some cases the subject who is at other times incapable of any such feat improvises verse with great fluency and sustains this effort for considerable periods of time. In other cases he or she holds conversations with the bystanders in the alternating characters of victim and demon, each invariably and persistently separating himself from the individuality of the other. Distinct voices are employed, as they might be by a ventriloquist. This happens even in the case of children who are not able, in a normal condition, to produce a similar effect.

Dr. Baelz, of the Imperial University of Japan, where a general belief in the reality of demon possession obtains, finds the cause of the manifestations in the belief that whilst in healthy persons one half of the brain only is engaged in the service of the mind, "leaving the other half to contribute only in a general manner to the function of thought," a nervous excitement arouses this other half, and the two, one the organ of the normal self, and the other the organ of the new pathologically affected self, are set over against each other. But M. Ribot, in his "Diseases of Personality," quite effectually disposes of this ingenious and plausible theory, when he points out that it depends solely on the gratuitous assumption that the contest is always between two states only. This is contradicted by experience. There is a recorded instance of the assumption of six personalities, a fact which reminds one of the Demon of the Gadarene who proclaimed that his name was legion.

None of the explanations offered, whether psychical, pathological or evolutionary, appears to explain all the phenomena. Cases of imposture, of course, occur in numerous instances, and many of the manifestations may be taken as being unconsciously imitative, but imposture and imitation cannot account for all or for even a majority of the cases known. It is noticeable that the visitations are seen occasionally to take an epidemic form, just as influences of an opposite nature are epidemic in the case of religious revivals. The movement now in process in Wales is attributed by thousands of believers to the influence of the Holy Spirit, and it would not be irrational on the part of these same believers to suppose that if a divine spirit may take possession of the human soul, a diabolic spirit may, in certain conditions of the human organism, exert a power of a like character, though to a contrary effect. The spirit-pathology is obscure and is likely to continue so, but the physical pathology leaves little room for doubt that the seizures, whatever their ultimate may be, are peculiar to people of a partial development, so far as the existing races of mankind are concerned. Supposing demon possession to be a real thing, and not a mere imagination of the mind, it is very clear that an undoubting belief in it will render the believer more susceptible to its influences than the person who disdains the idea, just as a man who devoutly accepts the theories of the spiritualist is more open to spirit influence than the man who is sceptical. Mrs. Browning has a passage in "Aurora Leigh" in which she expresses the idea that spirits desiring

human communion may "hate the unreasoning awe that waves them off." The unbelieving soul may deny itself much of high value. And in like manner a staunch mental scorn may save the mind from the intrusion of elements which in a weak and ill-balanced nature may be capable of mischief.

A COMMERCIAL VIEW OF THE OCCULT

By F. C. S. SCHILLER

THE most curious, assuredly, of human instincts, the full scope of which is even now only slowly winning official recognition from philosophers, is the *play-instinct*. Mankind plays at many things besides the avowed games which are the glory of our schools and colleges : about some of these indeed, as *e.g.*, the famous boy-and-girl game of "flirtation," with all its ramifications in frivolity and fashion, it is most in earnest ; on the other hand, it plays also at metaphysics, at religion, and at magic, at the very things, in short, which it professes to regard as the most solemn and portentous truths. But this pretence only adds to the zest of the game ; nay, is it not quite the funniest part of the game that every philosopher should claim for his brand-new "system" truth irrefragable and absolute, that every preacher should profess an ardent yearning to migrate to an unknown "heaven" from the earth on which he lives so comfortably, that every adept should imagine himself to hold the invisible clue to unspeakable mysteries ? The world sees and smiles at such games, and even plays them up to a certain point ; but from time to time it takes care to suppress the few too zealous souls who take their games too seriously, and neglect the primary business of life, *viz.*, to make a comfortable living and successfully to rear a family.

But the world is growing older, and, as it grows older, growing on the whole less frivolous. We are getting serious now, not only about Business, but also about Science. For we have been slowly altering our attitude towards Knowledge. When Knowledge was first invented, the game was thought too hard, and after trying it a little the East soon lapsed into the indolent conclusion that it was the source of all evil, leading to labour and the fall of man. Then the Greeks took it up gaily as a game, and played it with great zeal, until the world wearied of the "beauty" of useless knowledge and bethought itself of "saving" souls. This latter game endured for many centuries, right through the merry middle ages, when men sinned recklessly, and as recklessly repented (at a ruinous cost to their heirs), until Bacon harnessed

the divine steed of Science to the chariot of Progress. And then Knowledge became hopelessly degraded (for purposes of sport) by becoming useful, solid, and verifiable, a patient purveyor to the bodily needs of man, but a heavy clog upon the flights and flightinesses of his soul! At present not even the most flippant could dispute the entire seriousness of science, however they might deplore the restraints which it has put upon the speculative game.

Fortunately, however, not all that might lay claim to knowledge was thus driven off the playgrounds of humanity. Magic remained, the whole realm of the mystic and occult, as fascinating and elusive as of yore. And magic too is one of our oldest games, older even than metaphysics. As far back as we can trace man's history, he has always entertained a belief in magic and in miracle, and played with the notion of a royal road to power over nature, as with a glittering bubble which relieved the grim and sordid pressure of the struggle for existence. But it was always a game to be played gingerly, lest too much matter of fact should burst the bubble. Nowadays, however, even magic is in danger of becoming serious, of being separated from the congenial company of its congeners and rendered scientific! Serious-minded men are slowly investigating its pretensions, and seeking to extract from its visions and its incantations whatever crystals of objective truth they may occlude, content even if the truth they yield turns out to be mainly psychological. Nay more, a similar procedure is being applied even to metaphysics; the day seems to be dawning when the most speculative of pursuits will have to become seriously scientific and to submit to verification.

It seems, therefore, that the occasion is appropriate for considering how the inevitable process of reducing the "occult" to humdrum "science" may be forwarded. For I am not only serious-minded myself (albeit circumstances have sometimes compelled me to descend to levities of expression), but also most anxious to encourage the spirit of the age. I therefore feel it to be my duty to point out emphatically that *the "occult" can never become scientifically established until it becomes a commercial success*, and that to render it the latter is the most expeditious means of getting it recognised as the former. Whoever, therefore, holds that in "occultism" lies potential science should labour to develop its practical and commercial aspects, to discover methods which can be patented, and perhaps even brought out by a limited company and quoted on the Stock Exchange. I say

this thus coarsely, although I know that my suggestion will be repudiated with the fiercest indignation and denounced as an atrocious profanation by a multitude of patient "students" of various branches of the "occult" who have long grown accustomed to seclude their "phenomena" from the public gaze, and would find nothing more embarrassing than a sudden conversion of the world to their ideas. But once we consent seriously to face the facts of the situation we shall find (1) that there is no other way, and (2) no analogy to follow, but that of science.

There is no other way, because (1) there is at present more social prejudice against researchings into the "occult" than researchers could remove in a thousand years by purely scientific methods, even were they ten times as numerous and skilful as they are; (2) because at present there is no money where with to prosecute researches, nor any likelihood of raising an adequate supply until the suspicion has arisen that there is money in it; (3) because the greatest and best part of the evidence comes in such very personal and subjective ways that it is extremely difficult to arouse a conviction of its genuineness as knowledge, without submitting it to such a practical test; (4) because consequently all the evidence is disputed, and will continue to be so, until such time as we have gained such control over it as to be able to produce it at pleasure and at a profit; (5) because it is necessary in this case to convert both the masses and the professors. Of these the former are indifferent, the latter prejudiced as well. Now nothing, and least of all a miracle, will convert a professor who has once committed himself in print; but though the masses may be hard of heart and thick of skull they are almost ludicrously sensitive to what appeals to their *pocket*.

Again, the example of physical science plainly shows that theoretic advancement is not only compatible with, but greatly aided by, practical prosperity. Science began its great advance after Bacon had persuaded men that knowledge was power; it had languished for 2000 years under the tyranny of the Aristotelian superstition that the highest knowledge was unconcerned with the good for man, and that the holiest things were, humanly, the most useless. And, after all, what more sensible way is there of proving that a thing can be done than to do it and to make it pay? It cuts short an endless controversy. Accordingly, in science, when an alleged discovery is disputed, it is not the custom to indulge in subtle dialectics to decide whether the original evidence,

say for wireless telegraphy, or telegony, or radium, or N-rays, or seedless apples, was or was not good enough to preclude all cavil ; but those who believe in the new facts simply continue their work and perfect their methods, until the practical success of their discovery puts its reality beyond question.

The most effective way, therefore, to get the alleged facts of telepathy, spirit-communion, precognition, and what not, seriously entertained as facts is to render them practically useful. And if this can be done, the more coarsely and directly profitable their use can be made, the more readily will the masses of mankind be disposed to admit their reality. But can it be done ? Does not the psychical nature of such phenomena exempt them from such baser uses ?

I can see no antecedent reasons for supposing this. Consider "telepathy" for example. It is held by most of those who have themselves inquired into the matter that there is sufficient evidence to render it highly probable that some cases of telepathy have occurred. But at present they do not know the conditions sufficiently to be able to repeat experiments at pleasure ; and consequently the fact of telepathy (if fact it be) has no practical value. The result is that the scientific world remains sceptical and the general public indifferent. But the matter cannot possibly rest in this *impasse*. If telepathy cannot secure its footing in the world of fact in a more indisputable way, it is bound to lose it altogether. For so long as it rests on what was once observed to have occurred, *i.e.*, so long as its evidence is merely historical, its value is rapidly affected by the lapse of time. Evidence which was rightly convincing to contemporaries, who observed it themselves or knew the persons who did, as rightly ceases to convince succeeding generations.

But now suppose that some more enlightened mystic, with an eye to business and with a serious desire to establish the reality of such ambiguous facts, sets himself to argue that what has hitherto only been observed sporadically and spontaneously, and therefore disputably, must be rooted in some universal "law" of human nature, or even in some wider cosmic habit. And suppose that he managed conceivably as, *e.g.*, by some psychological study of the means of producing receptivity and concentration of mind, to hit upon a method by which he could at will receive or send telepathic messages with a certainty growing with the refinement of his method. What would inevitably happen ? In the first place, that a far-sighted man of business would sell out his invest-

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ments in telegraph and cable companies. For it is clear that telegraphy, with or without wires, would be completely superseded so soon as a sufficient number of persons had mastered the cheaper and more convenient telepathic method of transmitting information. Instead of patronising electric currents our merchants and our newspapers would employ a telepathic clerk. And so, secondly, there would be produced something like a social revolution. For under the changed conditions a new type of human being would be valuable and efficient, in some respects superior, in others perhaps inferior, to the existing types, but certainly different. And this might even be decisive of national welfare. Victory or defeat in war, as in life generally, might depend on the success with which one or the other side succeeded in deciphering telepathically the plans of its opponents and transmitting its own. The most valuable types would probably be those who were best at acquiring telepathic information and those who were quite impervious to telepathic "pumping." For only the latter could keep a secret. And so, thirdly, there would result some welcome and salutary changes, and others the reverse. How exactly things would work out it would be futile to imagine without the aid of Mr. H. G. Wells; but past experience would warrant the expectation that in this case also the growth of knowledge would leave a balance on the right side. And, finally, there would be a sudden and irrevocable end to the debates about the reality of the psychic powers implicated.

Now I do not at all affirm that any or all of this is what is bound to happen, or even could happen, and still less that it is likely to happen in our time. But it does seem clear to me that this is what ought to be attempted, that it is the only way of rendering really and effectively "true" the phenomena about which "occultism," "psychical research," &c., are conversant. In modern philosophic parlance the position is that the "occult," like everything else that lays claim to "truth," must submit to a "pragmatic" test. In other words, its being "true" must make a difference, must express itself in practical consequences, must be revealed in overt acts. For with the doubtful exception of a few metaphysical dogmas which have always been too abstruse and obscure to be really functional, and so have never really been believed, everything that has hitherto been accepted as true has been so accepted because, directly or indirectly, it has proved useful for the satisfaction of some wide human interest. Why, then, one asks, should the "occult" be exempted from the opera-

tion of this principle? If it is "true," this can be most convincingly shown by rendering it useful, and if it cannot be rendered useful, it is certain that its claim to "truth" will continue to be disregarded.

Now the coarsest and most obvious form in which this practical test can be applied is the commercial. Commercialism is a most potent and almost universal human interest. It is futile to dispute the value of what finds a ready market, however much one may personally dislike it. "Truths" which can be sold and can find buyers have to be reckoned with. "Truths" which cannot be brought, however indirectly, into relation with practical life, are illusions. Nay, even "truths" for which no wide demand can be aroused are always more or less precarious. They have to be endowed and protected, and even so are always in danger of disestablishment and disendowment. And because they do not percolate into the mass of humanity, the restriction of their sphere of influence is *practically* a detraction from their reality. If, therefore, a subject has a commercial side to it, and if by drawing attention to this we can promote its development, why should we allow a false delicacy to bar its progress? When the Emperor Vespasian was reproached with laying a tax on manure in his efforts to restore the finances of the empire, he is said to have flaunted a coin in his critic's face and to have asked him *whether it smelt*. Similarly I would like to impress on all who are really interested in extending the boundaries of knowledge in the direction of the "occult," that a good sound efficient fact does not smell the worse, whatever its *provenance*, and that the odour of a serviceable commercialism may even form a salutary antiseptic to the savour of fraud and illusion of which the whole realm of the "occult" has been redolent too long. And so I venture to conclude with the hope that this Review will not leave out of sight this practical aspect of the matter, and will never hesitate "to try the spirits" whether indeed they be of Mammon!

OCCULTISM IN FRANCE

By G. FABIVS DE CHAMPVILLE

THE position of the student of occult science becomes increasingly difficult from certain points of view, whilst, on the other hand, it is considerably simplified by the fact of modern science having elected to resume the study of old-world concepts.

Occultism no longer hides itself in the obscurity of the apothecary's shop, in the cave of the sorceress, or the Satanic cauldron of the alchemist. It is rather in the laboratory of the experimental chemist, of the skilful physician, of the learned bacteriologist, that this *ensemble* of unrecognised forces and unknown laws seems now to be taking refuge.

Since the experiments of Dr. Loddo in the fluorescence of the vital fluid, radio-activity has taken such a position in orthodox science that there seems every likelihood of the theories of occult students and the discoveries of initiates and adepts becoming an integral part of an up-to-date scientific equipment in the not far distant future.

Orthodox science, to which Pasteur did not subscribe, after having denied through successive centuries all those principles which we occultists sought to inculcate, all those forces which it was our wish to submit to it in their more engaging aspects, must needs at the present time admit the undeniable phenomena and the incontrovertible properties of matter for which we have contended. It is the triumph of determination and perseverance, of modest work which only looks for the good of humanity as its reward and the gradual attainment by man of spiritual powers. We see, in effect, that the labours of the occultists are like the flame of the wax taper which Raniero the Florentine carried alight from Jerusalem to Florence, of which we read in the Swedish novelist Selma Lagerloef's "Legends of Christ."

The efforts of these indefatigable workers who despoiled nature of her secrets are as an unbroken chain between the divine spark—stolen from the very first—which will kindle the giant torch appointed for the enlightenment of the world and for the opening of the eyes of the most simple-minded of mankind. And the analogy is not lost if we compare the wax taper which must be kept alight at all costs whilst everything conspires to extin-

guish it—peoples, elements, circumstances, ignorance, malignity—with the persevering labours of the occultists. The same task, the same obstacles are there.

But to-day in the laboratory of the chemist, in the study of the physicist and of the doctor, the theories propounded by Paracelsus, Maxwell and Van Helmont are daily finding confirmation. Our theories are no longer laughed at, they are applied. So we see nowadays the treatment by red, blue and violet rays entering into the domain of the practical.

Close upon a year ago—and it is with satisfaction that we turn to the evidence—the Academy voluntarily recorded that certain light rays were possessed of noxious or healing properties. Chemistry had already borrowed from alchemy the theory of the antipathy of light to certain fluids which were transformed under the influence of the solar rays, and without doing alchemy justice, was forced to admit that there were certain rays of the spectrum productive of a chemical action which had been scientifically observed.

The discovery of the N-rays by the doctors has been accepted by the *savants* quite recently, but this acceptance, it is thought, confers too high an honour upon those who, more than fifteen years ago, described this simple radio-activity of the human body, which, in certain cases, may be compared to the radio-activity of radium, palladium and uranium. As, however, their precursors had not then solicited the endorsement of the Academy of Medicine, in order to avoid admitting that they had been anticipated in this discovery, they expressed doubts as to the reality of the rays of M. Charpentier and M. Blondlot of Nancy. In this matter they have been somewhat unfortunate, for the proof of the occult theories, which have been scientifically established for some twenty years, is conveyed as an explicit fact in the following note from an account of the *seance* of Monday, December 5, 1904 :

“M. le docteur Albert Robin is about to open up some unexpected horizons in the domain of therapeutics. He yesterday developed before the Academy the results of researches he had been pursuing in collaboration with M. Bardet on the action of infinitesimal doses of metallic bodies upon the human organism. On hypodermically injecting solutions containing about one ten-thousandth of a gramme (about gr. .0015432) of a metal such as palladium, platinum, gold or silver, considerable chemical effects were observed, analogous to those obtained from the diastase of yeast. Thus it is observed that there is an increase of tension in the blood, a modification of the component elements of the blood, and a notable diminution of the white corpuscles. The urine products are also greatly increased. It appears

that these metallic ferments do not act merely on account of their being gold, silver, or some other metal, but rather on account of their being in a *radiant state*."

We were justified, then, in our theory that one characteristic of the properties of the vital fluid emanating from the human body was due to the action of metals in infinitesimal dispersion in the blood.

During the past few months magnetism has continued to make progress, and every instance of a therapeutic nature adds more to the sum total of felicitous results. At the "Ecole Pratique de Magnetisme," the well-known school of instruction under the auspices of the University, we have all the recognised grades and diplomas. Recently a pupil who had formerly qualified as magnetiser and masseur, after two years of strenuous work, presented himself for the diploma of professor. There is a curriculum here as complete and severe as that of the Sorbonne. This goes to show that the rational study of those sciences which at one time were stigmatised as diabolical is now being developed under the favourable recognition of professed science. This is a considerable step in advance, and Mesmer, who was so badly received at the hands of the Academicians, would note a remarkable change since his day. We may state, further, that every week at the surgery the sick who have been abandoned by the doctors—poor creatures reduced to despair—come, are treated and go away again, some relieved and full of hope, others entirely cured. Will-power, and the magnetic fluid on the one hand, and faith on the other, accomplish these results.

Let us not forget that the will-power and the fluid with which we are endowed, together constitute the basis of all magic. By these two means and a knowledge of natural laws, we may utilise these little understood forces and bring about results conducive to the individual and general welfare. Schopenhauer, pessimist though he was, admirably understood the part played by the will, and in closely studying his philosophy as one studies likewise the acts of the thaumaturgists, the sorcerers, the magicians and the enchanters, one comes to understand how, through magnetism, man may acquire, little by little, some share, however infinitesimal, in the Divine Omnipotence.

Among the opponents of magnetism in the domain of hypnotism, we may equally discern conscientious effort, but it is worthy of remark that, as regards therapeutics, it is particularly by the use of purely magnetical means, aided by suggestion, that

the hypnotist is able to effect his cures. At all times the one essential thing is the clear and definite employment of the attributes of the human being—conscious of himself, of his forces, of his capabilities and the extent of his powers. And as a matter of pure science we may repeat that this occult basis leads us back again to our theory of radio-activity pure and simple. In this connection we may recall the definition of a celebrated occultist :

“ There are two emanations and two atmospheres, the one physical and the other hyper-physical, the one gaseous and the other ethereal. They interpenetrate and enfold us upon all sides. The former acts upon our bodies, the latter on our souls. The one is a wave of sensation and the other a wave of emotion. To will is an immaterial act, but the volition operates by means of a plastic medium which is called ether in space, astral fluid on the earth, and nervous fluid in the human body. At the command of the will the nervous fluid coagulates and freely moulds the astral fluid, which becomes in its turn the hand that cures, the sword that strikes, the force that blinds Elymas or translates Elijah to Heaven.”

The will sends out radiant emanations. We do not imply in this statement that the will possesses equal force with radium, but we cannot, for all that, dispute its superiority as to quality. Eliphas Levi has clearly defined those phenomena which the discovery of radium enables us to realise. He says :

“ The substance which Hermes calls the Great Talisman we call Light in its effect as radiance. It is at the same time both substance and motion. It is at once a continuous fluid and a perpetual vibration. In space it is called Ether ; in the stars, the Astral Light ; in organic bodies, the Magnetic Fluid ; and in man, the Plastic Medium or Fluidic Body.”

In view of the practical realisation of the statements of the occultists, theirs is fair ground for satisfaction. Science slowly tears aside the veil which hides the Unknown from our eyes, the mists of time are cleared away, and we are proud to behold the formulæ of an almost execrated prescience becoming realised in the laboratories and studies of our *savants*.

M. Berthelot, with his theory of atoms, maintains the march of progress towards the realisation of every promise of occultism.

In spiritism we have nothing to record that is altogether fresh. The reviews continue their teachings and relate many instances of the externalisation of thought. We shall again revert to this matter, for it is one of the manifestations of the marvellous which is truly surprising, but not by any means inexplicable. M. Blondlot of Nancy claims to have actually seen the radiations of his own brain, to have seen himself thinking ! Often enough

our magnetised subjects affirm the same thing, and inasmuch as they indicate with singular precision the preoccupying idea, expressed in a radiation of greater force or of a different colour, we are disposed to believe MM. Charpentier and Blondlot. Further, these gentlemen have been able to indicate at will the muscular and nervous radiations, and by means of a screen have also determined their colours.

In the alchemical field a small treatise has made its appearance, but we are not yet in a position to review it, having no copy yet to hand. It is a contribution to the evidences of alchemy by M. Abel Haatan.

In the literature of philosophy we should call attention to a work of exceptional merit entitled, "La Personnalité Humaine, sa Survivance et ses Manifestations" (published by M. Alcan of Paris). It is an excellent translation from the English work by Mr. F. W. H. Myers, the late well-known psychologist. We have no need to dwell upon it in this place, for your own Society for Psychical Research is far in advance of anything of a like nature which has been attempted in France along these lines.

THE NEW GOD

By CULTOR VERITATIS

"They chose new gods."- Judges v. 8.

THERE has been a bloodless revolution in the kingdom of heaven. Silently but no less surely the Puritan Divinity has evacuated the celestial throne and made way for a Deity of a more facile temperament.

So it was in Sicily in the days of Robert, brother of Pope Urbane. Unmarked and unnoted the angel of the Lord took up the administration of the island realm. Disguised in the semblance of the king the keen eyes of the courtiers detected in him nothing unusual. Only in the effects of his beneficent rule was there any evidence that a change had taken place. Only in the abnormally bounteous harvests and in the perennial buoyancy of the Stock Exchange was there ground for suspicion that the reins of government were in other than mortal hands.

Neither did we note when the transfer of power took place in the Eternal Realms. No newspaper boys proclaimed it in strident tones through the public thoroughfares. There were no cries of "Le Dieu est mort, vive le Dieu" to awaken our sleeping spirits to the altered outlook. Only by-and-bye we noted that the yoke of the kingdom of heaven weighed upon our shoulders less heavily. Only we observed that the demands made upon us by its officials on earth were less exacting, that the dues were collected less rigorously. Only in the relaxation of the fetters with which the human intellect lay bound, did we realise that, unsuspected by us at the time, an event had occurred in heaven fraught with the most momentous consequences for the children of men.

There was nothing in common between the easy opportunism of the new reign and the stern orthodoxy of its predecessor. The "fiend with names divine" that haunted the puritan's nightmare had gone for ever. In his stead reigned the new God, of whom his worshippers might reflect in the consoling words of the old Persian poet that

He's a good fellow and 'twill all be well.

There never was an age more tenacious of the name of Christian than our own or more indifferent to the main dogmas of

Christianity. There never was an age with a greater passion for critical analysis or a sublimer faith in vague generalities.

We reject piecemeal the very basis of our belief, only to reassert it comfortably enshrined in the ambiguous phrases of the philanthropist or metamorphosed by the allegorical interpretations of the Christian mystic.

This change in our attitude towards religion, carefully veiled though it be by the retention of old names that have lost their meaning, is the measure of a revolution in the mode of thought of man which is in process of transforming all departments of our mental activity. In attempting to shut our eyes to its import we are only darkening counsel and giving rise to needless misconceptions through fear of calling things by their real names. The medicine is changed. The label on the bottle remains as before.

This unwillingness to look facts in the face, disguise it how we may, is undoubted evidence of that loss of mental and moral virility which is so constantly associated with periods of intellectual change and transition.

The dangers with which we are threatened to-day are not those which confronted our fathers. They were in danger of believing in absurdities through sheer force of habit: we are in danger of believing in shadows. They were menaced by dogma: we are menaced by our own open-mindedness. Their danger lay in the strength of their convictions: ours in the fact that we have no genuine convictions at all. Nothing could penetrate the brazen cloak of their obdurate prejudices: we are receptive mediums for every passing wind of opinion. We have no original thoughts, no ideas to give us individuality, but every suggestion that is floating in the air finds a ready harbourage in our brains. We have ransacked the centuries in search of the opinions, the religions, the principles, the arts of our forefathers. Ours is the great age of revivalism. We are all bent on making the past live again. What matters it what it be? The spirit of the architecture of the past, the spirit of a smouldering Roman Catholicism brought back to life, the spirit of the East, mystic and measureless, the spirit of mediæval Italy, the spirit of early Christianity and early Christian socialism, we would fain revive them all—anything and everything that might give a spurious life to the dead present. We are never weary of harking back, never weary of plundering our forefathers' fields of their rich harvests, never troubling to plant our own for future generations to reap. It

is not our forefathers who are dead, it is we. Like Hannibal's soldiers after crossing the Alps, we may well be described as "imagines immo umbræ hominum." Lacking in purpose, in intensity, in sincerity, in all that goes to make up character, we are but the vehicles for the opinions of others, the actors of other men's parts. True, we live in an age of mechanical ingenuity and political experiment, but is this sufficient compensation for our lack of individuality? Is this sufficient atonement, when we reflect that we have nothing left that we can call our own, if it be not the smoke of our manufactories and the stupendous complexity of our social life?

We have sapped the foundations of the faiths of our forefathers, but the whole atmosphere of our thought and feeling is steeped in the glamour of the sunset glow of dead or dying creeds. We still cling tenaciously to the corpses of our dead faiths, to the forms and ceremonies which were once animated by a living and life-giving belief. What would the zealot of the past find left of his dogmas if he cross-examined us on our articles of faith? How much that was solid ground and not shifting sand? He would find not Christianity at all, but aspirations after high ideals; not faith, but philanthropy; not the acceptance of what our fathers held to be deep religious truths, but a love of old forms and ceremonies and a tenacious conservatism. He would detect an infinite capacity for explaining away the essentials of Christianity and, to parody the poet's phrase,

Religion slowly watered down
From sentiment to sentiment.

There is so much that is good (they tell us nowadays) in all the religious systems of the world; there is so much that is accidental in the particular form that our or our neighbour's religion may happen to take that it would really be impertinent in us to say definitely that ours is better than anybody else's. We are freely assured that they are all equally true, but that this truth expresses itself to divers national temperaments in divers and various ways. And it adds a sense of comfort to our devotions to reflect that everybody has thought and has meant the same as we do all along, and that it is only their way of putting it that has been somewhat different. We are told that names are quite immaterial, and that what we mean by Christ the Buddhist means by Buddha; and we feel that all religions are the expression of the realisation that there is something mysterious beyond us and above us after which we are all yearning.

This is what makes us so cosmopolitan in our appreciation and so universal in our receptivity, for we have learnt to recognise the Truth of Falsehood and the Falsehood of Truth and to see (doubtless as through a glass darkly) that alike in Truth and in Falsehood, Falsehood and Truth are about evenly divided.

We feel that the golden age of Theology is at hand when the lion will lie down with the lamb, the Roman Catholic and the Protestant and the Buddhist together, and we cannot help thinking how nice this will be.

Perhaps, however, we are congratulating ourselves somewhat prematurely, for it does not require a very shrewd eye to appreciate the fact that the majority of the dogmas of Christianity occupy a position in religion to-day analogous to that of the Turk at Constantinople. They are in as caretakers, and liable to receive notice to quit at any moment. Even the more advanced of the clergy admit this from their pulpits. The only difficulty is that we do not know what to put in their place. Can we suppose that this difficulty is capable of solution? Most people to-day would answer "No." It may be, however, that a later generation, for whom psychical societies will not have worked in vain, will be able to substitute something more credible, more authoritative in tone, for the worn-out dogmas of the past. It may be that evidence will be forthcoming which will establish on the impregnable rock—not of the Holy Scriptures, but of Science—such facts as shall constitute for us a sure and certain hope in that which "eye hath not seen, neither hath ear heard, neither hath it entered into the heart of man to conceive." It may be that scientific investigation will point the way to a truer conception of the essence of religion, and that through this purer channel rather than through disputing over old manuscripts of doubtful authenticity we shall learn to realise the existence of living truths, deep and mystical, the evidence for which among us, above us, beneath us, and around us is the breath of the universal Spirit of Life transforming itself into innumerable forms of beauty or of dread, permeating every pore of earth and air, ever ready when least suspected to spring forth into some new shape of consciousness from its chrysalis sleep—life unconquerable, immortal, protean!

It may be we shall at length recognise that at the source of all religions and all superstitions of all time, as an explanation and clue to every beginning of worship or of faith, there lay the faint suspicion of a consciousness of the supreme significance of

this mystery which religion after religion has admitted, caricatured, and forgotten in turn.

Meanwhile, there are and must remain many among us who live in an atmosphere of permanent regret for lost religious ideals. These people, whose own soundness of judgment is to them a source of perpetual sorrow, turn upon the profane scientist not with the righteous indignation of the orthodox against the enemies of religious truth, but with the petulant temper of one who has tried to nurse an illusion into reality, and is confronted by Science with its brutal facts just when he begins to think that he has almost succeeded. There is no compensation to be obtained in our courts of law for injury done to cherished illusions, however irretrievable it may be, and the victim of Science not unnaturally thinks himself aggrieved by what he puts down as so much pure loss instead of being grateful to her for saving him from himself. But the edict has gone forth, "Take from him even that which he seemeth to have," and the scientific police act up to their instructions. And rightly. For our own judgment will be falsified and our own method of living will be distorted and rendered untrue should we base it upon an admittedly false assumption leading in practice to an untenable position and to actions whose only justification is a fiction of fancy.

Whatever opinions we may hold, we cannot live truly if we are afraid to look facts in the face, if we are afraid to recognise reality and prefer to nurture our illusions even when we know them to be unreal.

Surely the time is past for longing after lost ideals and worshipping at the shrines of deities in whose power to aid we have no longer faith. Surely we can better occupy ourselves with the stern facts of to-day than with the glowing fictions of yesterday. To abandon the beliefs of our childhood is not necessarily to abandon faith in a world unseen which may be as scientifically true and as scientifically provable as that which meets our material vision. Agnosticism cannot place a limit to our knowledge, and the last word of Science, with all deference to Dr. Haeckel, was not spoken in the last century.

THE LIFE OF THE MYSTIC

By A. E. WAITE

THERE are certain conventional terms which, on the one hand, do not accurately represent the construction placed upon them along a given line, but that construction has been accepted so long and so generally that the defect in the application may be regarded as partially effaced; and, on the other hand, there are also conventional terms between which a distinction has come into existence, although it is not justified by their primary significance. As regards the first class, the very general use of the term "occult movement" may be taken as an example. It is inexact after two manners: in involves at once too much and too little—too much, because it has served to represent a good deal that is not at all of the occult order; and too little, because a slight change in the point of view would bring within the range of its meaning many things which nobody who now uses it would think of including therein. The doings of more than one great secret political organisation might, in the full sense of the words, require to be classed as part of the occult movement, though no one will need to be informed that the latter is not political; while certain events which have occurred and are occurring in the open day, and have all along challenged the verdict of public opinion, cannot strictly be included in occultism, as they betray none of its external characteristics. I refer to the phenomena of animal magnetism, hypnotism, spiritualism and all that which is included in the field of psychical research. In respect of the second class, a very clear differentiation now exists between the terms "occult" and "mystic," and it is one also which it is necessary to recognise, though, fundamentally speaking, the two words are identical, differing only in the fact that one of them is of Latin and the other of Greek origin. [By the occultist we have come to understand the disciple of one or all of the secret sciences; the student, that is to say, of alchemy, astrology, the forms and methods of divination, and of the mysteries which used to be included under the generic description of magic.] [The mystic is, at the first attempt, perhaps more difficult to describe, except in the terminology of some particular school of thought; he has no concern as such with the study of the secret sciences; he does

not work on materials or investigate forces which exist outside himself ; but he endeavours, by a certain training and the application of a defined rule of life to re-establish correspondence with the divine nature from which, in his belief, he originated, and to which his return is only a question of time, or what is commonly understood as evolution. The distinction between the occultist and the mystic, however much the representative of physical science at the present day might be disposed to resent the imputation, is therefore, loosely speaking, and at least from one point of view, the distinction between the man of science and the man of introspection. The statement, as we shall see, is not exhaustive, and it is not indeed descriptive. It may be said more fully, in the words of the late Edward Maitland, that the occultist is concerned with "transcendental physics, and is of the intellectual, belonging to science," while the mystic "deals with transcendental metaphysics, and is of the spiritual, belonging to religion." Expressed in modern terms, this is really the doctrine of Plotinus, which recognises "the subsistence of another intellect, different from that which reasons, and which is denominated rational." Thus, on the one hand, there are the phenomena of the transcendental produced on the external plane, capable of verification and analysis, up to a certain point ; and, on the other, there is the transcendental life. "That which is without corresponds with that which is within," says the most famous Hermetic maxim ; indeed the connection suggested is almost that of the circumference with the centre ; and if there is a secret of the soul expressed by the term mysticism, the phenomena of the soul manifesting on the external plane must be regarded as important ; but these are the domain of occultism. The importance must, of course, differ as the phenomena fall into higher and lower classes ; the divinations of geomancy carry an appearance of triviality, while the design of ceremonial magic to establish communication with higher orders of extra-mundane intelligence wears a momentous aspect ; but both are the exercise of seership, and this gift, as a testimony of the soul and her powers, is never trivial.

Assuming therefore a relationship subsisting between occult practice and the transcendental life of the soul, it seems worth while to contrast for a moment the work of the mystic with that of the disciple of occult science ; so as to realise as accurately as possible the points of correspondence and distinction between Ruysbroeck, St. John of the Cross and Saint-Martin, as types of

the mystic school, and Arnoldus de Villanova and Martines de Pasqually, as representing the school of occult science. The examples of such a contrast must naturally be sought in the past, because, although occult science is pursued at the present day, and by some ardently, it can scarcely be said to have votaries like those who were of old. The inquiry belongs also to the past in respect of the mystic, for, to speak plainly, the saint belongs to the past. So far as the life of the outside world is concerned, there is little opportunity amidst mundane distractions for the whole-hearted labours of the other centuries. The desire of the house is indeed among us, but the zeal of it is scarcely here, not, at least, in the sense of the past.

The distinction in question is more than that which is made between the man of action and the man of reflection ; it is not that which we have come to regard as differentiating the man of science from the philosopher. There are many instances of synthetic occult philosophers—among them Cornelius Agrippa and Robert Fludd—who neither divined nor evoked—who were not alchemists, astrologers or theurgists—but rather interpreters and harmonisers ; and yet these men were not mystics in the proper sense of the term. Nor is the distinction quite that which constitutes the essential difference between the saint and the specialist, though the occult student of the past was in most cases a specialist who was faithful to his particular branch. The activity and the strenuousness of the life was often greater with the mystic than in the case of the man who was dedicated to some particular division of occult knowledge, though alchemist and astrologer were both laborious men—men whose patience imbued them with something of the spirit which governs modern scientific research. The ground of the contrast is in the purpose which actuated the two schools of experience. The crucible in which metals are transmuted, on the assumption of alchemy, is still a crucible and the converted metal is still a metal ; so also the astrologer may trace the occult and imponderable influences of the stars, but the stars are material bodies. The practical work of the mystic concerned, on the contrary, the soul's union with God, for, to state it briefly, this, and this only, is the end of mysticism. It is no study of psychic forces, nor, except incidentally, is it the story of the soul and her development, such as would be involved in the doctrine of reincarnation. [It is essentially a religious experiment and is the one ultimate and real experiment designed by true religion.] It is for this reason that in

citing examples of mystics, I have chosen two men who were eminent for sanctity in the annals of the Christian Church, for we are concerned only with the West ; while the third, though technically out of sympathy, essentially belonged to the Church. I must not, therefore, shrink from saying that the alternative name of the mystic is that of the saint when he has attained the end of his experiment. There are also other terms by which we may describe the occultist, but they refer to the science which he followed.

The life of the mystic was then in a peculiar sense the life of sanctity. It was not, of course, his exclusive vocation ; if we are to accept the occult sciences at their own valuation, more than one of them exacted, and that not merely by implication, something more than the God-fearing, clean-living spirit, which is so desirable even in the ordinary business man. He who was in search of transmutation was counselled, in the first instance, to convert himself, and the device on the wall of his laboratory was *Labora* but also *Ora*. The astrologer, who calculated the influences of the stars on man, was taught that, in the last resource, there was a law of grace by which the stars were ruled. Even the conventional magician, he who called and controlled spirits, knew that the first condition of success in his curious art was to be superior to the weakness of the inconstant creatures whose dwelling is amidst the flux of the elements.

I have said that, in most cases, the occult student was, after his manner, a specialist—he was devoted to his particular branch. Deep down in the heart of the alchemist there may have been frequently the belief that certain times and seasons were more favourable than others for his work, and that the concealed materials which he thought of symbolically as the Sun and Moon, as Mercury, Venus or Mars, were not wholly independent of star and planet in the sky ; and hence no doubt he knew enough of elementary astrology to avoid afflicted aspects and malign influences. But, outside this, the alchemist was not an astrologer, and to be wise in the lore of the stars was an ambition that was sufficient for one life, without meddling in the experiments of alchemy. On the other hand, the mystic, in common with all the members of his community, having only one object in view, and one method of pursuing it—by the inward way of contemplation—had nothing to differentiate and could not therefore specialise.

Again, occult science justifies itself as the transmission of a

secret knowledge from the past, and the books which represent the several branches of this knowledge bear upon them the outward marks that they are among the modes of this transmission, without which it is certain that there would be no secret sciences. The occult student was, therefore, an initiate in the conventional sense of the term—he was taught, even in astrology. There were schools of kabalism, schools of alchemy, schools of magic, in which the mystery of certain knowledge was imparted from adept to neophyte, from master to pupil. It is over this question of corporate union that we have at once an analogy and a distinction between the mystic and the occultist. The former, as we find him in the West, may in a sense be called an initiate because he was trained in the rule of the Church ; but the historical traces of secret association for mystic objects during the Christian centuries are very slight, whereas the traces of occult association are exceedingly strong. [The mysteries of pre-Christian times were no doubt schools of mystic experience.] Plato and Plotinus were assuredly mystics who were initiated in these schools. Unfortunately the nature of this experience has come down to us, for the most part, in a fragmentary and veiled manner. But, outside exoteric writings, it has in my belief come down, and it is possible to reconstruct it, at least intellectually and speculatively, for it is embedded in the symbolic modes of advancement practised by certain secret societies which now exist among us. A transmission of mystic knowledge has therefore taken place from the past, but the evidence is of an exceedingly complex nature and cannot be explained here. Nor is it necessary to our purpose, for western mysticism is almost exclusively the gift of the Church to the West, and the experiment of Christian mysticism, without any veils or evasions, is written at large in the literature of the Church. It may call to be re-expressed for our present requirements in less restricted language, but there is not really any need to go further. "The Ascent of Mount Carmel," "The Adornment of the Spiritual Marriage," and "The Castle of the Inward Man," contain the root-matter of the whole process. I have also found it well and exhaustively described in obscure little French books which might appear at first sight to be simply devotional manuals for the use of schools and seminaries. I have found it in books equally obscure which a few decades ago would have been termed Protestant. There is the same independent unanimity of experience and purpose through all which the alchemists have claimed for their own literature, and I have no

personal doubt that the true mystics of all times and countries constitute an unincorporated fellowship communicating continually together in the higher consciousness. They do not differ essentially in the East or the West, in Plotinus or in Gratra.

In its elementary presentation, the life of the mystic consists primarily in the detachment of the will from its normal condition of immersion in material things and in its redirection towards the goodwill which abides at the centre. This centre, according to the mystics, is everywhere and is hence, in a certain sense, to be found in all ; but it is sought most readily, by contemplation, as at the centre of the man himself, and this is the quest and finding of the soul. If there is not an open door—an entrance to the closed palace—within us, we are never likely to find it without us. The rest of the experiences are those of the life of sanctity leading to such a ground of divine union as is possible to humanity in this life.

In the distinction—analogue, as already said—which I have here sought to establish, there lies the true way to study the lives of the mystics and of those who graduated in the schools of occult science. The object of that study, and of all commentary arising out of such lives, is to lead those, and there are thousands, who are so constituted as to desire the light of mysticism, to an intellectual realisation of that light. The life of the mystic belongs to the divine degree, and it would be difficult to say that it is attainable in the life of the world ; but some of its joys and consolations—as indeed its trials and searchings—are not outside our daily ways. Apart from all the heroisms, and in the outer courts only of the greater ecstasies, there are many who would set their face towards Jerusalem if their feet were put upon the way—and would thus turn again home.

ANCIENT BELIEFS AND MODERN NOTIONS

By WALTER GORN OLD

I. STELLAR INFLUENCE IN HUMAN LIFE

IN the course of the series of articles in which I am about to engage it is proposed to show the existence, at a very early date in human history, of an ancient science based upon astronomical knowledge and pursued by empirical methods into the domain of what—for want of a more exact term—may be called the “occult.” It will be shown, further, that this gnosis was anciently applied to principles of government and civil administration ; and that the neglect of this gnosis was followed, as a matter of fact, by the collapse of those dynasties and the disorganisation of those communities which had moulded their principles upon it.

To reach back to the earliest historical times of which we have authentic record it is necessary to refer to the Far East, where, some forty-two centuries ago, there existed a vast multitude of people known as the black-haired people of Hwa, the progenitors of the modern Chinese. These people of the Yellow Empire, under the government of a patriarchal dynasty, inhabited that territory comprised between the main streams of the Yangtze-kiang and the Hwang-ho, known as the Chung-kwo or Middle Kingdom. We first come upon these people through “The Shu-king” * (The Historical Classic) in the days of the Emperor Yaou (B.C. 2356). Tradition does not extend further back than some seven hundred years before this date, when Fuh-hi, the “Adam” of the Mongolian race, is said to have brought fire from heaven to illumine and guide mankind in much the same manner as did Prometheus in the Greek mythos. Fuh-hi and his spouse Niu-wo are sometimes spoken of as the spiritual progenitors of the race of Celestial kings.

Putting tradition aside we may take up the record where it presents marks of authenticity, and in the very earliest pages of the “Shu-king,” a history which is handed down to us on the

* “The Shu-king.” London : The T.P.S., 161 New Bond Street, W.

authority of the great historian Confucius, we find abundant evidence of an already developed civilisation, a wide display of industrial arts, an extensive commerce, a more or less complete political organisation, and a considerable degree of scientific knowledge. Hieroglyphic writing was in use, and records appear to have been kept with care and precision. There were statute and civil laws, together with a penal code; while on the one hand the Ministers of Agriculture, of Public Instruction, of Public Works, and others, acting under the direction of a Prime Minister, dispensed the affairs of government; literature and science, on the other hand, were pursued by a considerable body of men under the protection and patronage of hereditary earls, marquises, viscounts, and barons. A religious system had already been adopted, wherein the spirits or manes of the departed formed the channel of communication between the Supreme Ruler (Shang-ti) and embodied man.

Permeating the whole of this civil, political and religious structure we find an authorised use and practice of what are now popularly known as the Occult Sciences. In pursuit of the main object of this essay, it will be convenient to deal in the first place with the traditions of a scientific empiricism, and afterwards with other phases of belief and practice which form the superstructure of this ancient body of teaching. I shall show in the course of this study that both tradition and practice have survived until the present day, and are now, under modified forms, extensively studied and believed in. In this I shall give the foremost place to the ancient science of Astrology, as being at the root of all other aspects of occult tradition, and finding reflection in every craft and gnosis which at any time have constituted a doctrine of human thought and belief.

The Chinese record, then, refers to the days of Chuen-hio, who, about the year B.C. 2448, reformed the calendar, and fixed the beginnings of the four seasons by reference to the sun's progress among the constellations. These latter were divided by him into twenty-eight asterisms by the mean daily elongation of the moon, and then comprised in four quarters of seven asterisms each, called respectively the Red Bird, the Azure Dragon, the Black Warrior, and the White Tiger. All this was done with a view to the proper government of the people, and Ministers were appointed to dispose agricultural and other work in accord with the celestial dispositions, the increase and decrease of the moon, and the aspects of the heavenly bodies. The same con-

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siderations marked the regulation of all religious and State ceremonies.

Thus we read in the "Shu-king" that the Emperor Yaou commanded Hi and Ho (the astronomical observer and recorder) to "determine and portray the courses of the sun, moon and stars among the asterisms, and duly to inform the people concerning the seasons." * These, with their juniors, were appointed to observe whether, at the commencement of the seasons, the culminating star at sunset was in agreement with the record of Chuen-hio, and accordingly to regulate the various labours of the people and the functions of the mandarins. The Emperor further instructed the astronomers that the difference between the lunar and solar years amounted to just seven moons in nineteen years, for the regulation of which he prescribed the intercalation of seven months in the course of that period, at the end of which the months would again begin on the same days and coincide with the conjunctions of the sun and moon. This statement is in itself sufficient evidence of the existence, even in the days of Yaou, of a body of traditional knowledge and astronomical learning to which succeeding rulers had access.

The three orders of "lights" mentioned in the history are *jih* (the sun), *yue* (the moon), and the *wuh-sing*, or five planets. Collectively they are referred to as the *ki-cheng* or "seven controllers."

On the accession of Shun to the throne vacated by Yaou one hundred years later, the monarch is reported to have "examined the pearl-studded sphere and the jewelled scale in order to verify the positions of the seven controllers." The pearl-studded sphere was a hemispherical plan set with pearl studs in imitation of the various constellations in the visible heavens, which could be consulted at night as well as by day. The jewelled scale was a tube mounted upon a quadrant similar to the sextant of to-day, and was employed in finding the altitudes and declinations of the celestial bodies. Thus they traced the course of the sun, moon, and planets among the constellations, making all these observations for the purpose of controlling the various industries and the several functions of the State. It is affirmed that the sun was related to the male principle in nature (*yang*) and the moon to the female principle (*yin*); the sun governed life and time while the moon controlled work and place. The planets ruled over the *wuh-hing*, or five commodities, earth, wood, metal, fire,

* "Shu-king," Book I. sec. 1.

and water. Saturn ruled over earth, Jupiter over wood, Venus over metal, Mars over fire, and Mercury over water. They called the planets by these names: *tu-sing*, the earth-star; *wu-sing*, the wood-star; *kin-sing*, the metal-star; *ho-sing*, the fire-star; and *shui-sing*, the water-star. By this "ruling over" the five useful things is to be understood a certain natural correspondence presumed to exist between the things of the greater world, or macrocosm, and those of the lesser world, or microcosm. It is the doctrine of correspondence, thus referred to in the classic:

"The heavens are the cause of action and men are only the agents. The celestial disposition of things is the law by which to regulate our five statutes and to establish the five standards of relationship. There is a correspondence between the higher and lower worlds."

The five relationships were those which existed between parents and their children, rulers and their subjects, masters and their servants, husbands and their wives, friends and their associates. There were also five degrees of rank, represented by the five sceptres, namely, dukes, marquises, earls, viscounts, and barons. All these groups of fives correspond to the five planets. The Emperor was represented by the sun and the populace by the moon. The establishing of government was, therefore, "after the pattern of things in the heavens," as St. Paul observed concerning some Jewish institutions.

This system of correspondence between mundane and celestial things is still further developed in the Great Plan of Tao, which was handed down as a model of government from one Emperor to another. It is also called the Eightfold Path of Imperial Perfections. It was inscribed on the back of the Great Tortoise, which, on account of its longevity and amphibious nature, was a most suitable depository of permanent records and plans. The plan was lost during the period of the great floods which began in the year B.C. 2348—in strict agreement with the Hebrew account of the Noachian deluge—but was afterwards found when the great administrator, Ta-yu, undertook the work of draining the land and embanking the rivers. Having been found in the Lo River, it came to be known as the Lo Book, and is incorporated in the book of divinations known as the "Yih-king," or Book of Changes, which is one of the five classics of China, and of which the great Confucius said that if he lived to one hundred years he would spend fifty of them in the study of the "Yih-king."

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I shall have occasion in another place to speak more fully of this remarkable work. But as regards its bearing on the astrological idea with which we are now concerned, it is said that the king corresponds to the year, the nobility to the months, and the officials to the days. In other words, the king is the sun, which determines the year; the nobility are denoted by the moon, the chronocrator of the month; and the planets, which give their names to the days, are the officials. The people, it is said, are indicated by the stars, among which these bodies move as they pursue their appointed orbits. In this connection it should be observed that the nobility and the people are in a sense equally denoted by the moon, inasmuch as, in those days, the nobility were the representatives and protectors of the people and had common duties among them.

Very early in the history we find much regard paid to the phenomena of eclipses, especially those of the sun. The earliest record is in the year B.C. 2154. I have verified this eclipse by retrogressive calculation, and find that it took place in the morning of October 12 (O.S.) in the constellation Fang, *i.e.*, Scorpio of our zodiac. The text says that it occurred in the hour "shin," *i.e.*, between six and eight in the morning. My own calculation brings it out at 7.34 A.M. ("Shu-king," p. 73). At that time the hereditary Hi and Ho, who represented the theory and practice of astronomy, were neglectful of their duties and failed to give warning of this eclipse, so that of a sudden the Imperial City was thrown into confusion. The penalty attaching to this neglect of official duties was death, so that it may be inferred that considerable accuracy of prediction was attained by Chinese astronomers over forty centuries ago. The Chinese early recognised the scientific importance of eclipses and made observation of the effects which followed them and which they were held to portend. Thus they had prescience of the occurrence of insurrections, earthquakes, floods, droughts, destruction of crops and political changes. They argued from physical causes to moral effects, and from moral causes to physical effects, and held a rational astrology as an essential part of their system of government. The princes made particular study of the celestial laws, we are told, and attained to "clear illumination." ("Shu-king," Book I. sec. 4).

The Indian record does not present the same degree of authenticity as is to be found in the Chinese history, but their sacred writings extol the names of such men as the Rishis (sages),

Narada, Garga, Paràshara, and Varaha Mihira. The former flourished as one of the seven spiritual progenitors of the Aryan race in the early days of the *Kaliyuga* or Dark Age, which began in the year B.C. 3102. Mihira lived about the fifth century of the present era. Like the Chinese, they have their sixty-year cycle, and also divide their zodiac in the same manner, into twelve signs comprising twenty-eight constellations, and like the Chinese they begin their months at the New Moon. In their astrological system they employ the same factors, the sun, moon, and five planets, taking account also of the position of the moon's nodes, which they call Rahu and Ketu, the dragon's head and tail. This introduction of the dragon into what is otherwise an universal system strongly suggests a Mongolian tradition. The important part which this system of celestial observances occupies in the daily life and national ceremonies of the Hindus is clearly set forth in the Institutes of Manu, upon which every Brahmin models his life from first to last. This ancient book, which is ascribed to the Manu or Grand Patriarch of the Aryan race, is in many respects akin to the Levitical Book of the Pentateuch. It wholly concerns the duties (*dharma*) of the Four Castes. There are observances which depend on the moon's changes, and others which are regulated by the moon's passage through the constellations, while others again are related to the beginnings of the solar months and periods of eclipse. In the Brihat Jātaka, Mihira delivers the whole of the traditional knowledge concerning nativities, while in the Brihat Samhitā he displays the system of State astrology which has regard to the various departments of civil, religious, and political life. At this day there are scores of Jyoshis (astrologers), good, bad, and indifferent, and many of the Rājas and Zemindars have their Court astrologers, some of whom are capable and learned exponents of jyotish shāstra.

That astronomy, as a means to astrology, was very anciently studied by the Hindus we learn on the authority of Mihira, who called attention to the precession of the equinoxes in these words :

“At present the summer solstice is in the first point of Kātakam (Cancer), and the winter solstice in Makaram (Capricorn), but at one time the summer solstice was in the middle of Aslesha, according to former shāstras.”

In this passage Mihira is referring to writings which recorded observations made over three thousand years before his time, that is, about B.C. 2600, and as it is quite exceptional for an exclusive Brahmin to quote any other writings than those of Aryan

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authority, we may credit the Hindus with this ancient observation.

Passing on to the Hebrew record, we find in the earliest passages of the Scriptures a statement that the celestial bodies were made "for signs and for seasons, for days and years, together with the stars." This othic attribute of the moving bodies of the visible heavens imports nothing else than that they were portents of things to come. Their use as chronocrators or time-makers is separately referred to in the words: "*And* for seasons, for days and for years." The word *shemayim* (translated "heavens") means literally the disposers or controllers, making of the celestial bodies to which this term is applied nothing less than causative agents under the Divine Will. And that this was the current belief in regard to them we learn from the exultation of Deborah, who sings: "They fought from Heaven. The stars in their courses fought against Sisera!"

(To be continued.)

THE PRESENT ASPECT OF THE CONFLICT BETWEEN SCIENTIFIC AND RELIGIOUS THOUGHT

By W. L. WILMSHURST

. . . And He made of one every nation of men, . . .
having determined their appointed seasons, . . . that
they should seek God if haply they might feel after
Him and find Him,—though He is not far from each
one of us. ST. PAUL.

So much more near than I had known,
So much more great than I had guessed ;
An' me like all the rest,—alone,
But reachin' out to all the rest. KIPLING.

I. THE PARTING OF THE WAYS

IN 1893 the present Prime Minister, speaking at a Royal Society dinner, used these words : " My friend Lord Kelvin has often talked to me of the future of Science. He has told me that to the man of science of to-day it appears as if we were trembling on the brink of some great scientific discovery which should give us a new view of the forces of Nature among which and in the midst of which we move." This peep into the private reflections of the greatest scientific mind since Sir Isaac Newton was a matter of much more than ordinary interest. As a Frenchman would say, it "gave one furiously to think." To the observant watcher of events the announcement was in the first place exciting, for it implied that at the end of a century, the richest upon record in the discovery of the processes of Nature, the foremost scientific genius of our time, who had lived through the longer part of that astonishing period, who from the pinnacle of his own great intellectual eminence had watched the gradual unfolding of the secret volume, and had himself, in ample measure, contributed both to the discoveries and to the practical application of some of the newly acquired knowledge to the service of his fellow men, seemed to regard these inestimable gains as but the prelude to a revelation in comparison with which they would pale into insignificance. And in the second place it was disquieting ; for past experience has taught us that any great revolution

in the point of view from which we must look out upon the universe is liable to produce considerable reaction upon religious faith, and there is trouble until we grow used to the altered conditions. Old ideas become upset ; cherished preconceptions are dislocated ; new demonstrations of science not squaring with ancient beliefs play havoc with both the private and the public conscience ; scientific theory falls foul of religious dogma ; and, our minds being probably made up and our convictions settled upon the deeper things of life, either we have to put up with an intellectual plant more or less old-fashioned, trusting that it will last out during our time, or else at some mental cost and pain throw it into the scrap-heap of worn-out ideas and formulate our views afresh.

Take an illustration. Imagine the outlook upon the world of a Christian man 400 years ago. For him no principle was more settled, sure and irrefragable than that the earth was the centre and chief fact of the Universe, that it was immovable, that it was flat, and that the sun and all the stars had been fashioned for the exclusive performance of certain functions for the convenience of man. For him the Scriptures contained the sum of all knowledge and the authority of the Church discouraged any independent investigation of Nature. If by chance a passing interest was taken in some physical question, it was settled by a reference to the Bible or patristic literature, not by an appeal to phenomena. So great was the preference given to sacred over profane learning that Christianity had been in existence 1500 years without producing a single man of science in the ordinary acceptation of that term. Suddenly there came announcements tending to shake established ideas to the roots, and then began the conflict between scientific and religious thought which has waxed fiercer and fiercer until our own day. To begin with, Ptolemy's old geographical scheme of the world with which men had been content for more than a dozen stay-at-home centuries, was shattered into bits by the prows of the tiny vessels with which Columbus lighted on his New World, by the doubling of the Cape of Good Hope and the opening of a sea route to the east by De Gama, and by the triumphant circumnavigation of the globe from west to east by Magellan. When the *San Vittoria* dropped anchor near Seville in 1522 after her three years voyage the theological doctrine of the flatness of the earth was irretrievably overthrown. The scientific reasoning of three sailors had in twenty years upset the faith of fifteen centuries in regard to the form and size

of the earth. In another twenty years a still more momentous announcement was forthcoming respecting its position with regard to the sun and the planetary bodies. Copernicus amid the denunciations of the Church propounded the heliocentric theory. He showed that the earth is a mere point in the heavens, revolving round the sun which itself with its concomitant planets is wheeling at inconceivable speed, through ghastly vacuities of space, among other sidereal systems compared with some of which ours is a trifle. Then indeed were the vials of orthodox wrath opened. What happened is a familiar story. Time has withered most of the romance out of it, but the imagination will always interest itself in contemplating the history of the days when natural science first ran at full tilt against religious authority. It is almost impossible now to realise the dismay, the disquietude and the anxiety with which such a proposition must have been listened to 400 years ago. We, living in an age of discovery, instead of being lost in wonder at new disclosures, have almost lost our wonder altogether, and can hardly realise the effect that must have been produced upon a thinking mind four centuries ago by scientific revelations which displaced all previous ideas of man's place in the Universe; affected, apparently, the relationship between him and his Maker, and plied him with many obstinate and pitiless questionings. To dethrone the earth from her central dominating position, to give her many equals and not a few superiors, seemed to diminish her claims upon the divine regard. If each of the countless myriads of stars was a sun, surrounded by revolving globes peopled with responsible beings like ourselves; if we had fallen so easily and had been redeemed at so stupendous a price as the death of the Son of God, how was it with them? Of them were there none who had fallen or might fall like us? Where, then, for them could a Saviour be found? Thus was cast the first shadow of doubt and scepticism upon the pages of Holy Writ wherein were contained not only the law and the gospel to guide man's faith and morals, but also, as was supposed, whatsoever things were true and worthy to be believed in matters of natural science.

The establishment of the heliocentric theory, then, was the first great achievement won by natural science at the expense of theological teaching. Propounded by Copernicus it came to be established by the astronomical researches of Galileo, Tycho Brahe, and Kepler. The Church fought against the heresy with all the furious vengeance of the Inquisition and the Index. It imprisoned

Galileo ; it murdered Bruno. The truth it could not kill. Then, fortunately for every one, occurred the Reformation, securing comparative liberty of thought and weakening many of the old ecclesiastical bonds. Under its liberal influence occurred the next great epoch not only in European science but in the intellectual development of man. Newton,

with his prism and silent face
Voyaging through strange seas of thought alone,

presented the world with the "Principia," confirming the pronouncements of his astronomical predecessors, and establishing the theory of gravitation. The "Principia" established for the first time the presence of the operation of law in the physical universe. It not only accepted the heliocentric theory but showed it to be a mathematical necessity, and demonstrated the impossibility of things being other than they are ; that the solar and starry systems are not, as ecclesiastical authority alleged, brought into existence by arbitrary fiats and controlled by periodical providential interventions, but are under the government of irreversible law—of law that is the issue of mathematical necessity. The outcome of Newton's teaching was the development of the nebular hypothesis of Laplace which explains, upon the basis of the perpetual operation of law, the genesis, progress and decay of the members of the sidereal systems. Upon this hypothesis is based the whole fabric of modern astronomy. It stands in direct conflict with all that ecclesiastical authority held true as to the creation of the earth. In the light of it the literal construction of the first chapter of Genesis, which theretofore had been the sole explanation of the creation of the world, led to palpable untruth. In the place of the creative fiat of the Deity, bidding this world and starry firmament suddenly to be, it disclosed that going on through illimitable space was a mechanical process by which nebulous gaseous mists coalesce into vast masses of matter at a temperature of incandescence ; that cooling and radiation are necessary incidents ; that the nebulae break up into fragmentary planets with a decline of heat and form themselves into organised solar systems, such as that of which we form a part, and that they eventually lose heat, decay, and become destroyed. So far had astronomical science come into conflict with the Scriptural cosmogony. But other sciences came forward to reinforce the conclusions of astronomy. Geology and palæontology furnished evidence of the far greater antiquity of the earth and of man than

Scripturalists taught ; biology accounted for the development of organic life of every type by a far different method than that of special creation offered by the Bible. The doctrine of the fall of man, which was the very bedrock of the Christian scheme of salvation, was met point blank by evidence of the rise of man from sources much humbler than his present state. The converging testimony of a score of distinct departments of knowledge pointed to a principle underlying all organic and inorganic nature—the principle of evolution. There are *lacunæ* in the chain of knowledge, the most conspicuous being the gap, yet to be bridged, between inorganic matter and living organisms. But the cumulative evidence in favour of the evolutionary process from the lowest form of matter to matter charged with and exhibiting the highest functionings of mind is well-nigh irresistible.* From the nebula to the gaseous sun, from the sun to the separated planet, from the molten planetary mass to the vaporous and solidifying stages, from the decomposition and re-arrangement of particles of inorganic matter to the germination of rudimentary life, from the simple organism to the complex, from the brute to man, from barbaric man to civilised and social man, from the homogeneous to the heterogeneous in every department and phase of existence ; such was found to be the process of creation.

From harmony to harmony this universal world began,
 When Nature underneath a heap of jarring atoms lay . . .
 Then cold and hot and moist and dry in order to their stations leaped . . .
 From harmony to harmony, this universal world began ;
 Through all the compass of the notes it ran,
 The diapason closing full in Man.

Thus did the muse of Dryden anticipate the conclusions of modern Science.

To sum up ; the teeming discoveries of modern natural science have resulted in the formulation of three fundamental principles

* "Already in Germany have inorganic and artificial substances been found to crawl about on glass slides under the action of surface-tension or capillarity, with an appearance which is said to have deceived even a biologist into hastily pronouncing them living *amœbæ*. Life in its ultimate element and on its material side is such a simple thing ; it is but a slight extension of known chemical and physical forces. . . . I apprehend there is not a biologist but believes (perhaps quite erroneously) that sooner or later the discovery will be made and that a cell having all the essential functions of life will be constructed out of inorganic material."—Sir O. Lodge, "Hibbert Journal," 1902, p. 59.

which, so far as can be seen, must be rooted for ever as cardinal concepts in our apprehension of the Universe; principles to which all ecclesiastical teaching, whatever else it may inculcate, must henceforth conform. They are these :

(1) The presence of Law, operating in a diversity of ways, but persistently, not sporadically, throughout the Universe.*

(2) Creation by means of Evolution, a perennial process operating *nunc, semper et ubique* by means of gradual development and selection; as opposed to creation by arbitrary fiat and instantaneous manifestation.

(3) The existence of the Ether, a tenuous fluid embracing the whole Universe and uniting its parts into (so to speak) solidity; saturating its minutest atomic constituents, making our world brother to the remotest stars and one with interstellar space; (a sublime conception which, by demonstrating the earth's relation to the All, invalidates the idea of its comparative insignificance when measured by the scale of cosmic vastness).

The crowning achievement of the nineteenth century is to have ascertained and formulated these fundamental principles of the objective Universe. And now at the end of it, with this tremendous addition to our stock of knowledge, and after we have been obliged to reformulate our ideas upon the majority of matters, we are told in "bated breath and whispering humbleness" by the most eminent of our scientists that after all we are trembling on the brink of some further great discovery that shall give us a new view of the forces of Nature! What will that discovery reveal? Past experience tells us it will disclose something lying very close to us, sealed from us only by our ignorance or the undeveloped state of our faculties; that it will be some important factor in the mechanism of the Universe of which we are at present unconscious, but which all the time is

So much more near than we have known,
So much more great than we have guessed.

It is too early to say with any definiteness what it will be found to be; but as we scan the scientific horizon and watch the accumulating portents of the times, as we piece together fragments of new knowledge that are coming out of the laboratories, and study the deductions that speculative thought is drawing from that new knowledge, it is possible to venture upon, at all

* Compare 1 Cor. xii. 5-6.

events, some provisional forecast. And what will be the effect of the new disclosure upon religious thought and belief? Will it tend, as the increase of scientific knowledge has hitherto done, to the further disintegration of ideals of faith? Or will it tend to restore and strengthen them? These are questions upon which I hope to throw a little light before the conclusion of this essay. For the present it is advisable to go back a little and see how the conflict has developed and what issues are at stake.

(To be continued.)