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THE SCIENCE OF PSYCHOMETRY.

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SEVEN years' investigation of Nature's greatest mysteries, the soul, the brain, the head, and the body of man, beginning in 1835, resulted in the development of a new science beyond the recognized limits of sciences, and therefore without a name. Hence the necessity of coining for a name the new word PSYCHOMETRY.

PSYCHOMETRY sprang, as Minerva from the brain of Jove, from the ample science of ANTHROPOLOGY, of which it was the most brilliant intellectual portion, anthropology itself being an original science, based upon experiments on the brain—being in part the first presentation of anything that could properly be called anthropology—a science which can deserve such a name only by making us acquainted with the structure, functions, powers, and inter-relations of soul, brain, and body. I therefore date the origin of anthropology from 1842; for the scattered physiological, ethnological, and so-called anthropological material then in existence could no more be called anthropology than the scattered wagon-loads of brick, stone, mortar, and timber could be called a college edifice. I do not in this brief statement, hastily prepared, propose to describe the seven years' investigations, dissections, and experiments, which resulted in the establishment of psychometry as a science (which is now extensively in use in this country), but merely to state its principles, its phenomena, its utility, and its claims upon all who love the profundities of science, and who desire to stand in the front rank of intellectual progress.

Psychometry etymologically signifies soul-measuring. What is it that measures? We measure objects by the eye and sounds by the ear; but eye and ear are only instruments. The conscious

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soul uses both and judges what they yield by its own innate power. The soul of man, therefore, measures all things, physical, conditional, or rational. But we do not need the word "psychometry" for these familiar processes, as they are already designated by the words observation, sensation, memory, and judgment or reason. It is apparent (at least to those who have a definite knowledge of the brain) that in these processes we use the nerves of the external senses and certain organs in the frontal or intellectual region of the brain, where vivisectors have sought in vain for animal functions. But psychometry affirms and proves that we have other intellectual powers than these; that there is in man a faculty which may discover and know things not revealed by the senses or the reason — things which have never been seen, felt, heard, or heard of, but which may become known readily to the gifted individual who in silence and solitude may discover things which no one else knows or suspects, and thus become an oracle to those who know only what reaches them by their observation and reason or by communications from others.

This power, like all other powers, depends of course upon the brain, and it was by the study of the brain that I was enabled to discover and to locate it. Its organic apparatus is situated at the interior inferior aspect of the front lobe, extending so far as to include the *septum lucidum*, and at the location in the temples where the front lobe and the anterior part of the middle, or temporo-spheroidal lobe, come together. In the highest manifestations of the psychometric faculty we need both regions in good development, the internal and *external* aspects of the front lobe. In many morbid conditions, especially the febrile, the heat and circulation in the regions mentioned produce an evolution of the psychometric and clairvoyant faculties. The phenomena of these faculties have always existed and been in operation, but had never been studied and traced to their cerebral source, for the same reason that the phenomena of electricity remained so long unknown — an indolent indifference to profound knowledge and unwillingness to engage in the experimental investigation of nature. Gilbert, Galvani, Volta, and Faraday are the names of the eccentric inquirers who made the investigations which ought to have been long ago the pleasure of all students of the physical sciences, and would have been, if they had been educated to study nature instead of relying on old text-books. The same indifference and aversion to truly original research still exist among the great mass of the educated. Their research is generally limited to the fields which their predecessors have already opened and cultivated. Hence I remain the only living representative of this science, since the decease of my able coadjutor, the gifted scientist, Professor Denton.

The psychic faculties concerned in psychometry are the sensitive and intuitive — the former developed in the temples at the distance of an inch behind the external angle of the brow, and the latter at the internal aspect of the front lobe. These faculties are well developed among refined persons in whom the amiable qualities predominate. In such persons a medicine held in the hand passively exerts an influence on the nervous system, which it has heretofore been supposed depended upon the absorption of the substance after it had been swallowed. That was a very crude conception, for the effect of a powerful medicine when swallowed is instantaneous. There is no reason why medicines should be more effective in contact with the interior of blood vessels after absorption than when in contact with the mucous membrane of the alimentary canal. The impression results from *contact*; and if the nerves are sufficiently sensitive, contact with the external surface may be as effective as contact with the internal surfaces.

This my experiments fully prove. They show that from the surface of contact an impression begins which extends and is felt throughout the nervous system, producing different effects as it reaches different organs. Reaching the gustatory nerves and gustatory region of the brain, it produces a sense of taste. Any one who will make a few careful experiments in this way will find many persons who, after sitting a few moments quietly, can taste any sapid substance held in the hand. My first experiments in 1841 were with metals, finding many who could distinguish metals by their impression and taste when they were held in the hands behind their backs. Salt, sugar, spices, etc., were readily recognized, and medicines were distinctly felt and appreciated. The same persons in business might handle the medicines without being aware of any influence, as the contact is not long continued, and impressions on the nervous system are resisted by the activity of the muscular system. But when they sit passively with their attention concentrated on the object, they soon feel its properties almost as intensely as if swallowed, for emesis or catharsis may thus be induced.

The supposition readily arises that the medical effect may have been accelerated or caused by the smell or sight of the substance or by some infinitesimal absorption through the skin. Hence my experiments were generally made with medicines concealed from the knowledge of the subject by being wrapped in paper which seemed to offer no hindrance, or by using strips of paper upon which a medical tincture had been dried. When the psychometers thus tested possessed the requisite impressibility and intelligence, their descriptions of the medical properties would be wonderfully accurate. The best psychometers describe reme-

dies with more accuracy than our dispensatories, correct the errors of authors, and often discover new properties in remedies that had not been known.

In one who has been firmly impressed with the old mechanical conceptions of vital matters, it is difficult to realize that conceptions so vivid and profound can arise through the sense of touch when the object described is not even in contact with the fingers, is entirely unknown, and is thoroughly separated from the hand by the intervening paper. But facts pay no respect to our pre-arranged theories and after fifty years' repetition of such experiments and teaching them to great numbers who have been continually repeating them, I can say that it is as certain as any fact in physical science that medical influences do thus pass; and, indeed, with some psychometers of delicate constitutions I have to be careful as to the quantity of medicine or of medicated paper that I use, lest I should produce pathogenetic instead of endurable effects.

The medical potency of a remedy arises from its occult relations to our nervous system — an ultimate law not yet subject to explanation. My experiments have been demonstrating for half a century that medicines require neither an interior position in the body nor even contact with any part of its surface to be effective. Whether the medicine has an aura which makes a sphere around it capable of affecting our nerves, or whether our nerves have a psychic atmosphere around them capable of being affected by whatever enters it, is a speculative question which the facts suggest. We may even entertain another view, that the action is like the emanations of light and caloric, of gravity and of magnetism, capable of penetrating space with a power diminishing as the distance increases.

But casting aside speculations, let us adhere to facts. I know by countless experiments that the medical influence of any drug may occupy a considerable sphere, and may pass through objects that would be supposed impenetrable or non-conductors. Thus my method has often been to use a well-sealed vial containing any fluid extract, place it in the hands of Mrs. B. or any other good psychometer, and receive a report on its properties generally more accurate or complete than the knowledge of the physician who has been using it.

If the potency can so easily pass through glass, what is to hinder its transfer to other bodies — what our homœopathic friends would call a "contact potency"? This is practicable, and it accounts for the value of a sugar of milk trituration with a very small portion of medicine, and for the great value ascribed to mineral waters which may have held for centuries a minute portion of some medicinal salt.

Contact potency is the foundation of electric action in the galvanic cell and of catalytic processes when substances are mixed. The potency of contact is a law of nature, and so is the potency also of proximity. At what distance a sensitive could feel a medical impression from any substance depends upon the psychic endowment, and this, I may say, is unlimited.

With the apparatus that I use in my lectures, medical potencies can be transmitted, not only across a room, but to distant places, for the aura or potentiality of a medicine is as much a reality as a gas or a fluid. There is a world of undeveloped science between gross matter and the higher psychic realm, in which we have not only the imponderables but many other intangible things which intermediate between the psychic and the physical.

In these brief remarks I am but rehearsing an old story—the truth which I have been teaching and demonstrating in medical colleges and elsewhere since forty-five years ago. This is the first lesson in psychometry with which I introduce my pupils to its mysteries. When this first step has been securely taken, there are four other steps of advancing science which carry him to an empyrean height and enable him to realize, when this power is applied to psychic investigations, how much of divinity there is in man, and to realize that psychometry brings us to the dawn of true enlightenment and the possibilities of a higher wisdom than the earth has yet realized.

Emancipation from gross materialism is necessary to enable man to reach his highest enlightenment, and in the simple experiments I have just mentioned we cross an ancient barrier as Columbus crossed the Atlantic. How grand a continent we reach may be stated hereafter.

SOME CASES OF PSYCHICAL DIAGNOSIS.

BY L. A. PHILLIPS, M. D.*

THE first step in psychical investigation must necessarily be the establishment of the *fact* that phenomena are produced which are not and cannot be explained without granting the existence of some power or faculty which transcends those ordinarily recognized as belonging to human nature. The reports furnished by Rev. M. J. Savage and others have been of great value and interest as demonstrating this fact. It may be that for this purpose no more is needed; but as a physician I have been especially interested in the application of psychical powers to the investigation of professional questions, as furnishing not only excellent tests of those powers, but also as indicating possible means of acquiring vital information relative to physical, mental, and moral conditions in obscure cases which we cannot otherwise obtain, and which if it could be trusted, might be a key to the relief of much suffering and even to the saving of valuable lives.

In reporting some of these cases, it is to be regretted that the names of parties concerned cannot be given, on account of the greater weight they might thus possess, as evidence to questioners and doubters. This cannot be, however, as not only must patients always be protected from any exposure, but, because of the general prejudice against clairvoyants (which we must allow is not without very considerable excuse), the physicians who have been connected with the different cases would suffer in both public and professional estimation if identified with these experiments. Therefore I can only state the facts as I have myself proved them, or as certified by reputable and competent physicians. I also wish to explain that in every one of the instances I shall present, the sensitive or psychic was a thoroughly educated, practising physician, though not the same one in all cases.

That much greater accuracy and reliability may be expected from such than from those wholly ignorant of physiological and pathological conditions seems to me perfectly reasonable, whatever be the hypothesis upon which may be based the explanation of how it is done. If considered simply a heretofore un-

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recognized or sixth sense, surely the education of the other senses or faculties is necessary to its intelligent and effective use or application ; while if it is assumed that some other intelligence controls and uses the psychic, still we must grant that the man with mind and senses well trained, and thus made familiar with subjects and materials to be examined, must be a much more efficient instrument in the hands of any controlling power than one whose faculties, both physical and mental, are untrained in this direction. In this may, perhaps, be found *one* reason for the unreliability of clairvoyant examinations in general, and the consequent extreme prejudice which is so almost universally felt against them.

Case I. A few months ago a lady called at my office for advice, and in the course of conversation expressed a wish to have a psychical examination, if I knew of a trustworthy person whom I could recommend. I gave her the address of a psychic, whom she visited, telling him only that she was sent by me for examination. I had myself at this time learned only her name and address, and that she was suffering from what she supposed to be rheumatism.

In his report to me he gave the lady's name and age, described her place of residence, the situation of her house, the furnishing of her apartments ; said that though a married woman, she was not living with her husband, and, he thought, was seeking a divorce ; that she had been under great mental and nervous strain, and was now suffering chiefly from a neurasthenic condition, due to this cause. The insomnia, or sleeplessness, and the neuralgic pains, which she supposed to be rheumatic, were also due to this condition.

The kidneys and bladder were said to be hyperæmic, the womb and left ovary much congested, and the Fallopian tubes, especially the left, much inflamed. With the exception of a few other statements, of a purely private character and not material to this report, this was the result of his examination. But little of this was told my patient by the psychic ; in fact, only the physical and mental conditions, and of these only the nervous strain, the neuralgic pains, and the habitual sleeplessness were recognized by her as correct. As I have said, I knew previously practically nothing of the case, but upon inquiry I found his description of her house and life correct in every particular. Examination of the urine verified his diagnosis in that direction, while the most singular fact in the case was the development in the following three months of the pelvic difficulties described, and of which there had previously been no symptomatic indication. These have, however, caused so much discomfort of late that a physical examination was consented to, and confirmed the diagnosis of

three months previous. Had an examination been allowed at the time, I am of opinion that little if any pelvic trouble would have been found; and had sufficient confidence been felt in the psychical diagnosis to have made it the guide to treatment, it is also quite probable that this trouble might have been averted.

Case II. A lady from a distant city, who had for years been under the care of different noted and skilful physicians and surgeons, but who had recently been given an examination by one or more physicians in Boston whose diagnosis was contradictory to that previously made by experts, desired and obtained a psychical examination, in which two fibroid tumors of the uterus, inflammation and enlargement of the left ovary, congestion of the lower lobe of the liver, as well as various nervous disturbances, were described and afterward, by most careful physical examination, confirmed, and found to be in perfect agreement with the opinions previously given her by the eminent authorities before mentioned. Furthermore, and it seemed to me most remarkable, she was told that nine or ten years ago she had been dangerously ill with cerebro-spinal meningitis, from the effects of which she was still suffering, and the initial attack or spasm was accurately described, as her sister, who was with her at the time as also during this examination, testified. Pains, which she then and afterward suffered, were insisted upon by the psychic, though denied by the patient till recalled to her memory by the sister, who said he was quite correct.

The after examination discovered the right kidney to be movable or floating, though when on her back, as during the psychical examination, it was in its normal position. For this reason, perhaps, it was not observed by the psychic and had not been by previous examiners with one exception. The enlargement of the lower lobe of the liver, which was at the time of our examination causing much discomfort, had not been previously diagnosed, and may have been a more recent development, and not in existence when other examinations were made. These cases are among those I have personally seen and known.

Case III. By way of variety, I will give a report of a psychical experience of a physician of my acquaintance who is surgeon to a railroad corporation. While in a semi-conscious state one night, he saw or dreamed that he saw a train of cars go through a bridge or trestle-work. Then he saw the injured brought out and laid on the grass. His attention was so particularly directed to a man whose leg was badly fractured that he could describe him accurately. He awakened his wife and told her of his dream in all its details. He was not a little startled next day, when summoned to a wreck on their road, to find exactly the scene of which he had dreamed and which he had described the

night before, and especially when the very man he had seen with the injured limb was brought to him for treatment. This vivid picture having been presented to him before the occurrence of the accident, the question arises, Might not this have been avoided, and life and limb protected by this means, had he felt sufficiently impressed to have acted upon it? and may it not be possible to so develop and cultivate psychical powers as to render them trustworthy and of great value? I will now report two cases which seem to me quite remarkable, of which I have no personal knowledge, but, having the report from the psychic, corroborated by the physicians in charge, can vouch for their reliability.

Case IV. A gentleman of middle age had suffered long and continuously with great distress in the region of the stomach, which the best efforts of his physician, together with the advice of skilled consultants, had been unable satisfactorily to explain or relieve. It was to learn, if possible, the cause of this distress that a psychical examination was sought, but with little faith in it. The fact that there was a partial paralysis of one side of the face, with ptosis or drooping of the eyelid, was unknown to the psychic, inasmuch as the examination was made under conditions which rendered it impossible for him to see the patient or learn anything of his condition by other than psychical means. His diagnosis was that the seat of disease was in the brain; that there was an atheromatous condition of the artery in the left Fissure of Sylvius, and that he was in imminent danger of a hemorrhage by rupture of the vessels in that region. Within three days after this, the man died from apoplexy, i. e., rupture of a blood vessel in the brain, and I have the statement of the attending physician in writing regarding the autopsy, as follows: "Atheromatous degeneration of the left middle cerebral artery, and a hemorrhage in the Fissure of Sylvius on the left side. There was considerable destruction of the brain substance resulting therefrom. The immediate cause of death was due to another hemorrhage taking place in the medulla, which succeeded by two or three hours, apparently, the hemorrhage mentioned in the Fissure of Sylvius."

As would be the case with the profession generally, the attending physician had no confidence in or respect for the psychical examination, and it was denounced as sensational and not to be regarded; but after the above statement he writes: "The atheromatous condition of the vessels in the region of the Fissure of Sylvius before mentioned was suggested by Dr. — about sixty-four hours before the attack causing the death of the patient." Had so definite and exact a diagnosis been made in any other manner or by some learned professor, is there any doubt that it would

have been accounted a marvellous evidence of knowledge and skill?

Case V. A man about thirty years of age was brought to Dr. — to see if by psychical examination a cause could be found for constant and persistent headache and excessive and uncontrollable passion. Upon examination he was told that he had epilepsy. Both the man and his physician were very indignant at the suggestion of such a dreaded disease, and declared it simply absurd, as no possible sign or symptom of epileptic fits had ever been known to him. However, within forty-eight hours he had such a fit in the daytime, and has since had as many as three in a single day. Now, if anything of the kind had occurred previously, it must have been at night when it could not be known to others, and was not realized by the man himself.

These reports are by no means sufficient to establish a claim to reliability and accuracy in diagnosis by psychical means, but they seem to me sufficient to warrant and justly command a respectful and honest investigation, which it is my purpose to pursue.

THE TOTALITY OF THE INDIVIDUAL MIND.

BY B. F. UNDERWOOD.

THERE are facts which go to show that the ordinary self — the self to which belong the conscious will and conscious memory, the self which we are accustomed to regard as the totality of the individual mind, is not our complete being. Below the threshold of the habitual consciousness, below the surface of the ordinary working life, is the sub-conscious part of our nature, — thought, feeling, and will, which are not consciously recognized by the self of common experience, — an unknown category to which may be referred telepathic and clairvoyant impressions. These impressions are conveyed in a peculiar manner to the ordinary consciousness by the consciousness beneath the threshold, — the subliminal consciousness, as it has been very appropriately called by Mr. F. W. H. Myers.

The ordinary consciousness is evidently but one of several elements which constitute the complete consciousness. Two or more distinct trains of memory, feeling, and will, as is well known, may co-exist in the same individual. In some cases the secondary consciousness is more continuous than the primary consciousness. The hypnotic trance and double consciousness are probably the disordered workings of a stratum of self which is essential to the complete individuality.

To what extent does the sub-conscious or subliminal self influence direct us? Awakened from the hypnotic trance, a subject in a perfectly normal condition will do what he was directed to do in the trance, never doubting that he is acting from his own volition. May not a man's acts, those determined upon and performed by his ordinary self, be initiated by some stratum of self which lies outside the conscious will, which forms no part of the stream of consciousness in which he habitually lives? This stratum of self is probably just as actively conscious as is the self of conscious experience, and exists, we may suppose, in some kind of co-ordination with the organism, and forms a part of the total individuality.

Is it incredible that the subliminal consciousness, acquiring knowledge by supernormal means, by telepathy, clairvoyance, etc., should communicate to the ordinary consciousness knowl-

edge, which to it is new and sometimes surprising, and apparently miraculous?

We know that communications are written without the conscious origination of the person whose hand makes the letters. The supernormal process known as automatic writing is but one of a series of kindred processes—word-hearing, word-seeing, and word-uttering. To take one of these processes of automatic verbalization: “the hearing of voices” is a phenomenon which has been noted in every age, and one which has played an important part in the religious history of man, exerting no small influence in the formation and progress of religious beliefs.

Not infrequently the voices have been, in thought and moral tone, above the normal level of those who have heard them. Some have heard them from infancy all through their lives, and in adversity or danger more distinctly than at other times. The utterances have been words of warning, of monition, of instruction. What is the explanation? It is easy in all such cases to allege insanity, but what kind of insanity is that in which its only indication is that the person automatically, as it were, hears a voice which he comes to know by experience expresses a higher wisdom than he is conscious of possessing?

By such a monitory voice was Socrates, the wisest man of the ancient world, guided in the affairs of life. He was a man of robust constitution, physical health, and moral balance. In discussing freedom of thought and speech, in his admirable work on “Liberty,” John Stuart Mill says of Socrates: “Born in an age and country abounding in individual greatness, this man has been handed down to us, by those who best knew both him and the age, as the most virtuous man in it; while we know him as the head and prototype of all subsequent teachers of virtue, the source equally of the lofty inspiration of Plato and the judicious utilitarianism of Aristotle, *i maestri di color che sauno*, the two head-springs of ethical as of all other philosophy. This acknowledged master of all eminent thinkers who have since lived,—whose fame, still growing after more than two thousand years, all but outweighs the whole remainder of the names which make his native city illustrious,—was put to death by his countrymen, after a judicial conviction, for impiety and immorality. Impiety, in denying the gods of the State; indeed, his accuser asserted (see the ‘Apologia’) that he believed in no gods at all. Immorality, in being, by his doctrines and instructions, a ‘corrupter of youth.’ The tribunal, doubtless, honestly found guilty of the charges preferred, and condemned the man who probably of all then born had deserved best of mankind, to be put to death as a criminal.”

Both Zenophon and Plato, who were intimate friends of Soc-

rates, vouch for what he said in regard to his *dæmon*,— whose voice was always one of warning and restraint, whose silence meant approval of the philosopher's course. The voice gave proof of sagacity, which Socrates always recognized as wise, and of knowledge greater than he possessed, and not dependent upon his observation and experience.

During the series of events that resulted in Socrates' death, the monition was one of silence, except once, when it interposed to check his design to prepare a speech in his defence. By sustaining silence the *dæmon* approved those courageous acts and words, since admired and praised by millions, which brought upon him the extreme penalty inflicted by the *Dikastery*— a penalty which, with but little temporizing, he could easily have escaped.

In his last speech Socrates said : " There has happened to me, O my judges, a wonderful thing. For that accustomed divine intimation in time past came to me very many times, and met me on slight occasion, 'if I were about to act in some way not aright ; but now this fate which ye behold has come upon me, this which a man might deem and which is considered the very worst of ills. Yet neither when I left my home this morning was I checked by that accustomed sign, nor when I came up hither to the judgment hall, nor at any point in my speech as I spoke. And yet in other speeches of mine the sign has often stopped me in the midst. But now it has not hindered me in any deed or word of mine connected with this present business. What, then, do I suppose to be the reason thereof? I will tell you. I think it is that what has happened to me has been a good thing; and we must have been mistaken when we supposed that death was an evil. Herein is a strong proof to me of this, for that accustomed sign would assuredly have checked me, had I been about to do aught that was evil."

Shall it be said of Socrates, the greatest combination of intellect and virtue of the ancient world, whose profound wisdom during his life and whose philosophic fortitude and serenity under the sentence and in the hour of death have commanded the admiration and praise of countless millions who have lived since he passed to the silent realm, that he was a victim of hallucination? Were his words and acts, that have been thus eulogized, those of a man insane? Is it not more reasonable to believe that his "*dæmon*" represented a higher intellectual and moral plane than that of the conscious life which was guided and directed by the mysterious voice which he obeyed and always wisely, even in the face of physical death?

Mr. Myers, who has treated the subject of subliminal consciousness in a manner at once original and brilliant, after defining

genius as "A mental constitution which allows a man to readily throw forth into conscious life the products of unconscious thought," refers to the story of Socrates as "Rich in psychological suggestions of the possibility that the messages which are conveyed to the conscious mind from unconscious strata of the personality, whether as sounds, as sights, or as movements, may sometimes come from far beneath the realm of dream and confusion, from some self whose monitions convey to us a wisdom profounder than we know."

When it is considered that in the life of Socrates were periods of "Immobility frequently lasting for hours, and once, as reported, for a consecutive day and night, when he was inaccessible to any outward stimulus, and remained fixed as in a deep contemplation," and this without any suggestion of epilepsy or previous hysterical disturbance, the conviction is increased that the monitory voice and the monitory silence came from a supernormal source. If from his own sub-conscious nature, as it seems to me probable, what an unexplored and unknown domain of being is implied, in opposition to all materialistic theories of the human mind.

To me is suggested by the facts mentioned a larger form of life in which the different consciousnesses are merged, — a wider and more comprehensive consciousness that transcends any analogies or comparisons we may use. The human mind has powers and capacities not dreamed of in the old philosophies and psychologies, and the movements in which some of them are externalized, although apparently automatic to the ordinary consciousness, are nevertheless conscious and volitional to the stratum of intelligence from which they originate, and all the conscious states are probably comprised in the human mind, which, though it seems to be made up of a whole platoon of personalities, is an indivisible, individual unity, having its basis, not in the fleeting world of phenomena, but in the world of reality, which underlies all the changing scenes of nature, in the noumenal world. Thus on one side man is linked to that which is permanent and eternal; on the other, to that which is phenomenal, relative, and transient.

So taught Plato of old, and such is the implication of the modern philosophy represented by Spencer, in spite of the materialistic views wrongly attributed to him, and in spite of inconsistent statements or inadequate exposition of his thought in some of his earlier works.

PREJUDICE AND PSYCHICAL RESEARCH.

BY REV. T. E. ALLEN.

IT needs only to be asserted that prejudice is one of the greatest banes of psychical research, for all investigators, even tyros, to agree that this observation is correct. It has seemed best, then, in preparing a series of papers for THE REVIEW designed to treat of the application of the scientific method to psychical phenomena, to begin with prejudice, which, though an obstacle to progress in many departments of thought, nowhere exhibits a ranker growth or more persistently chokes the development of the grain of truth than in psychical research.

In order to see clearly what prejudice is, how it prevents us from finding the truth, and what its moral aspects are, we must lay down a few definitions and trace briefly the genesis and development of intelligence in a child from birth. Truth, as an ideal, is a perfect correspondence of thought to the co-existences and sequences of the universe expressed in terms of appropriate, though arbitrary, standards of measurement. A definition of truth *as a personal possession*—what is truth to you? and that different set of ideas, more or less organized and coherent amongst themselves, which form the contents of what I call truth,—such a definition will be presented further on.

A child is born with absolutely no knowledge, but begins at once to accumulate a stock of ideas. At first his knowledge is derived directly from things. Soon he is guided somewhat by gesture and speech; gradually learns the meaning of words; and then information which he takes upon authority is added to his thought, for it is his nature to trust. Later, the reasoning process asserts itself, and out of immediate experience and ideas absorbed from others, a new tributary swells the current of thought life. While it is probably true that many of the first-hand impressions received by the child from the world about him need to be supplemented by new impressions which verify or amend earlier ones, partially through a more acute perception, to give rise to the more serviceable knowledge of mature years, still, it is the brook of authority that carries in the bulk of the suspended matter that makes the stream turbid. The only primary source of knowledge is the testimony of the senses and of states of consciousness (if there be such, as now seems probable) which result from the operation of forces through sensitive

channels outside of the five senses, but belonging to the same category with them, since they serve to connect the mind with its environment.

The reasoning process, vastly important as it is, yet in a certain sense adds nothing to our knowledge. You write down a dozen amounts on a slip of paper with the intention of finding their sum. Before you perform the addition, their total is inflexibly fixed by the number of units in the several items. The process of addition enables you to combine a number of details in a single notion as you could not otherwise. The change is in your consciousness and not in the units involved. In a similar way, but covering a broader field, the reasoning process draws out from the impressions made upon the mind, through its sensitive channels, certain truths which are not perceived by the mere act of attending to those impressions separately when they first occupy consciousness. Given a mind perfect in its action, and a limited stock of impressions, and the ideas of the universe, what is truth to that mind is rigorously determined in number and breadth and depth, and can no more be transcended than a man can lift himself by his bootstraps. Reason is a mill; impressions are the grist upon which it acts, changing the form of the material, but creating nothing.

The thought of Mr. W. S. Jevons is in accord with the views expressed above. He says:* "All our knowledge of natural objects must be ultimately derived from observation; and the difficult question arises, How can we ever know anything which we have not directly observed through one of our senses, the apertures of the mind? The utility of reasoning is to assure ourselves that, at a determinate time and place, or under specified conditions, a certain phenomenon will be observed. When we can use our senses and see that the phenomenon does occur, reasoning is superfluous. If the senses cannot be used, because the event is in the future or out of reach, how can reasoning take their place? Apparently, at least, we must infer the unknown from the known, and the mind must itself create an addition to the sum of knowledge. But I hold that it is quite impossible to make any real additions to the contents of our knowledge except through new impressions upon the senses or upon some seat of feeling. I shall attempt to show that inference, whether inductive or deductive, is never more than an unfolding of the contents of our experience, and that it always proceeds upon the assumption that the future and the unperceived will be governed by the same conditions as the past and the perceived, an assumption which will often prove to be mistaken. In inductive, as in deductive reasoning, the conclusion never passes beyond the

* "Principles of Science," Macmillan & Co., 1887, p. 218.

premises. Reasoning adds no more to the implicit contents of our knowledge than the arrangement of the specimens in a museum adds to the number of those specimens. Bacon's first aphorism holds perfectly true, that man knows nothing but what he has observed, provided that we include his whole sources of experience and the whole implicit contents of his knowledge."

Harmony is the final test of truth, and so we accept as true those statements that harmonize with what we already believe to be true and reject those that do not. It happens, then, that all children absorb from their parents and others detached ideas and even systems of thought, which, becoming fixed as a part of the mental structure, determine the acceptance or rejection of many other ideas either through life or until there is a mental revolution. In fact, in the case of much religious teaching where the thought is presented with care and the impression deepened by constant repetition, the furrows made, though to an extent not corresponding to the facts and laws of the universe and therefore false, nevertheless persist through life and prevent the holding of truer views.

In the domain of religion, where ideas antagonistic to a person's belief are presented, prejudice is very marked. There is a special reason for this, too, in that the idea that it is wicked to doubt or that the soul will be endangered by a change of belief frequently forms a part of dogmatic teaching. As a logical consequence, a disposition is formed which leads many to turn a deaf ear to views inconsistent with their own; while along with this, due somewhat to intellectual inertia and to defective theories of knowledge and of the place of truth in religion, there grows up a corresponding disposition to "respect" the views of others, as it is called, which deters those with whom one comes in contact from expressing their opinions. As a result, systems of religious thought which are really indefensible maintain their hold upon millions of minds. The new opposing thought may contain so much more of truth that it ought, by the law of the survival of the fittest, to drive out the older views; but unfortunately many times it does not get a fair chance. A ten-pound weight might grow conceited, and think itself too heavy to be raised from the counter were a succession of eight-pound packages to be placed in the second pan of the balance, all unmindful of what might happen should one or more packages be added to the first. So considerations which, if allowed to accumulate and exercise their full weight, would greatly change one's thought, are often brushed aside as false when presented separately at different times.

It has been stated that "harmony is the final test of truth," but this needs to be explained. Now, what one believes at any given

time is truth to him, and so it might be supposed that the harmony referred to is a certain agreement of the proposition offered for judgment with what he already believes. With most persons this belief is treated as the standard of judgment; but there is a higher ground. The real question is, Does the person to whom a proposition is presented possess sufficient knowledge, either at first-hand or based upon good authority, *of the data essential to the formation of a reliable judgment?* If he does, a rational view of how to use the mental powers to find the truth will justify him. If he does not, even though he may form a judgment and may not have the least suspicion that his procedure is faulty, his proper course is to refuse to decide on account of lack of information, or to hold his mind in suspense until he acquires a knowledge of the essential data mentioned above. It is in the manner just pointed out that we find one of the most important manifestations of prejudice. Some of the considerations insisted upon may seem very obvious or commonplace, but in venturing upon ground more or less novel it is best to start from accepted truths.

It will be well to apply these ideas to some of the leading types of thought with a view to bringing out in a clear light their relations to psychical research and the effects of prejudice. It will serve my purpose to divide Christians into two classes, dogmatic and rational. All who accept the Bible or a church, whether the Roman or another, as the seat of authority in religion, with no attempt to prove that the one or the other should be so accepted, or who receive these standards by virtue of arguments based upon external evidences, evidences which, from the nature of the case, can have no real logical force—all such are dogmatic Christians. All, on the other hand, who believe that these and any and all other standards are to be accepted only so far as they can bear the test of reason, or who, in other words, believe in the supremacy of reason in religion—such are rational Christians.

1. The attitude of Dogmatic Christianity. Speaking of the meaning of the term "miracle" as laid down by orthodox Christianity, James Freeman Clarke says: "The two essential points of the definition are, that a miracle is *contrary to the laws of nature*; and that it is *the only logical proof of the divine authority of the miracle-worker.*" The orthodox Christian who believes in the standards of any evangelical sect—it is necessary to be explicit in these days of heretical orthodoxies—has an instinctive and well-grounded fear of psychical research. He is ready with texts from the Bible which show that he ought not even to enter upon such investigations. Indeed, he is in a dilemma; for if he really wish to find the truth and decide to investigate, he necessarily assumes that the phenomena are controlled by law, otherwise his

labors could not bear fruit, and this assumption contradicts his conception of miracle and threatens the all-important "logical proof of the divine authority of the miracle-worker." On the other hand, if he enter upon his task for the purpose of proving that all phenomena are fraudulent, or that they are caused by the devil, his bias is liable to interfere with his finding the truth.

As a rule, Christians of this type consider that they have sufficiently answered the appeal of psychical research to them or to the world by the citation of texts or by a dogmatic exegesis of the Bible. They are prejudiced in that they set aside the necessity for and value of psychical studies by the use of *a priori* arguments based upon a book *assumed* to be a final criterion of the truth, whereas the only proper course is either to confess ignorance and say nothing, or base their judgments upon those data which careful psychical studies may authenticate. Those who are entirely sincere in this attitude, as the great majority are, are not to be adjudged morally deficient upon account of it. They are simply carrying to its logical consequences a system of thought which they believe to be true. Nevertheless, what has been said shows that most Christians of this class are incapable of dealing justly with the issues involved in psychical research. Much the same argument, with change of terms, will apply to the position of Romanists and of others who recognize in a church the supreme authority.

2. The attitude of Rational Christianity. Amongst a class of thinkers where there is so much scope for independent thinking it is not possible to cover the ground exhaustively. At the same time, some of the types of thought which prevail can be photographed and criticised.

The Dutch school of theologians practically explains away many of the cures and, perhaps, all of the other marvels recorded in the New Testament. The "Bible for Learners" says of the rescue of Peter from Prison,* related in the twelfth chapter of Acts, that it "is, of course, fabulous." It further asserts that "the resurrection of Jesus is not an external fact of history, but simply a form of belief assumed by the faith of his friends and earliest disciples." † And again, "The return to earth of one already dead and glorified, or the veritable apparition of a spirit, is a thing which far transcends the limits of credibility. And besides, we know that the Israelites, though well aware of the difference between a vision and something seen under ordinary conditions, were yet firmly convinced that what they saw in the ecstasy of a vision had an objective reality corresponding to it. . . . With regard to each of the separate appearances," the authors continue, "for which

* Vol. III., p. 501.

† Ibid, p. 463.

the Apostle [Paul] vouches, we may note that even the one witnessed by five hundred believers offers no insuperable difficulty; for when we remember how infectious the excited condition favorable to visions sometimes is, it seems far from impossible that the whole of a numerous gathering of disciples might believe themselves to see the Master."*

We see, then, that according to the views of this school, no one received a particle of evidence going to show that Jesus rose from the dead, since, even if we grant that the apostles and others did have experiences which led them to believe that they had seen Jesus, both causes and effects were confined within the minds of the observers collectively considered, and furnished no evidence whatever of the objective existence of Jesus, and leaves no evidence that man exists after death. How any man can have the hardihood to talk of anything which might occur in the phenomenal world without violating the fundamental laws of thought, as transcending the limits of credibility; or to pronounce anything impossible which does not contradict those laws, or certain demonstrations such as the impossibility of squaring the circle or constructing a perpetual motion, passes my comprehension. The limits of the possible, as laid down by some scientists, have been transcended time and time again, and the process will go on, not only until men accept the scientific method theoretically, but apply it in all their thinking and to every kind of problem. It is evident that the strict followers of this school are biased against psychical phenomena, because the majority of Christians have so readily accepted as true many so-called miraculous stories solely upon the authority of the Bible, when the proper course was to base a judgment of the probability of their truth upon data obtained by the study of the psychical powers of man. Because of this, some rational Christians inconsiderately fly to the other extreme, say that all such accounts are incredible, and then placidly proceed to embody their mood in a dogma whose only foundation is pure assumption or the fallacious use of *à priori* arguments.

"A personal immortality has been one of the most cherished teachings of Christianity, and it is often dwelt upon as one of the great advances made upon Judaism. Now, what proof have we of immortality? A prominent Unitarian clergyman once said, 'The resurrection of Jesus is enough,' i. e., sufficient proof. This is a great mistake. If Jesus was superhuman in nature, it does not follow that because he rose from the dead, *non-superhuman* beings will rise from the dead; and if Jesus was human in nature and rose from the dead, he did so under

*Ibid, p. 468.

laws now operative; and, then, the most satisfactory evidence to modern men and women that it was possible for him to rise must come from the domain of psychical science. If it can be shown that men rise from the dead in our time, it becomes reasonable to believe that Jesus rose from the dead; and if, on the other hand, theologians are so anxious to make the case of Jesus the only one in history, it is not remarkable that unnumbered thousands of people should have disbelieved it altogether, and that some within church lines should have denied its value as evidence. . . . Again, historical evidence, however good, is, when measured upon the scale of probability, inferior in value to experimental scientific evidence which can be verified repeatedly.*

Now, the truth is that psychical phenomena, ancient and modern, recorded in the Bibles of the world or in profane literatures, must, so far as they are genuine, hang upon the same thread of law. So far as the assertion, "The resurrection of Jesus is enough," represents a bias, it is negative in character. It says, we have the truth already, why seek further? The scientific consciousness of many people is undergoing such a development, however, that they can no longer rest content with *mere* belief. The drift will be more and more to occupy the position of the Dutch school, with no phenomenal basis whatever for the belief in immortality, or, on the other hand, to look to psychical science for data which may throw positive light both upon the problem of the resurrection of Jesus and upon the great question of man's immortality. The two problems are, in fact—the former being divested of its historical coloring—one. Sooner or later the churches must squarely face this tendency of our time; one door is marked "Denial," the other, "Scientific Demonstration," while a few may stand in the passage, "Suspense."

3. The attitude of Science. This line of thought has been sufficiently dwelt upon in my paper, "Psychical Research and Science."† The general effect of scientific prejudice is to lead one afflicted with this malady to turn away from the subject of psychical research in disgust, and to cause him to feel contempt for those interested in such investigations. It is needless to say that the scientist's own acknowledged principles rise up in judgment against him. The *à priori* reasonings upon which he relies are totally inapplicable to the case.

Truth, as a personal possession, is the more or less organized and changing mass of conceptions which well up in consciousness, accompanied by a certain feeling of satisfaction, as the result of the threefold process of impression through all sensitive channels,

* From the author's tract, "A Problem Challenging Investigation."

† THE PSYCHICAL REVIEW, August, p. 52.

impartation from sources felt to be authoritative and inference from the other two. Its most prominent features are that it is *the result of a process*, and that the difference between what we call true and false, and between conceptions which we locate near one end or the other of the scale connecting the just probable with the certain, is a difference of *satisfaction, of feeling*.

When a material body moves in space, every force exerted upon it, whatever its intensity, direction, and point of application, produces an effect upon its path. This inertia of matter is, at least from one standpoint, a type of what mental inertia ought to be — perfect receptivity to the forces which impart to and impress the mind. While this cannot be maintained without qualification, since we wisely try to make ourselves positive and shut out sights and sounds when circumstances force us into low company, nevertheless, through false education we may be, and all are in fact, led to shut out many things to which we ought to attend, which we really need to broaden our vision — prejudice as manifested when past education causes us to shut out impressions to which we ought to give attention. The question arises, Is one who thus excludes evidence to be regarded as worthy of blame? My answer is, No. It is probable that when his parents brought him up to be as nearly blind and deaf to some things as possible, they felt that they were exhibiting great virtue. There is nothing like bracing up the iron pillar of truth with straws!

As a result of what has been believed in the past and of the training transmitted by our forefathers, our mental constitutions are systematically deformed after the manner, as it were, of the flat-head Indians and the feet of Chinese girls. There is imparted to our thought a *set*, the effect of which is frequently, as intended, to cause us to feel satisfied with what we believe, particularly in the realm of religion. When one is satisfied that he already has the truth and feels in addition, perhaps, that any appreciable change of view means a falling into the moat of error if not, indeed, an actual placing of his soul in eternal jeopardy, can we wonder that his mind is not receptive? So, many a man clings to a belief as the very mainstay of his existence, which he is destined to discover later was but a shutter interposed to keep out the light of truth! Oh, how many poor souls there are who in perfect security clutch the pearl of great price, to find at last that it is but paste! Not only are we not to blame any one for being prejudiced, but no one is entirely free from this taint, and one of the peculiar difficulties connected with it is that we are blind to our own blindness. What, then, are we to do? Where is the avenue of escape?

There are two conditions that tend to broaden one's horizon. First, a dissatisfied feeling which prompts from within a search

for new truth; and, second, even with the paralyzing effect of entire satisfaction with self, to find one's self in a storm centre of contending opinions where, with the best intentions, some entering wedge of an idea *will* slip in and by spoiling it all compel a readjustment of thought. The two great natural parties in society are the conservatives and the progressives. Having the truth already, the former incline to sneer at the "cranky" notions of the latter. Now, what ought the progressive to do, the laws of mental action being what they are? He ought boldly to proclaim whatever he sees that the world denies or brands as false or fanatical! The inertia of the conservative is his misfortune, but it constitutes his essence. To an extent, he is incapable of helping himself, doomed to stay where he is until a force from without acts, until some progressive explodes, as it were, a bomb under him, cracks his shell, and lets in some light.

It seems to me that what I have said furnishes a clue to the remedy. To help his conservative brother, the progressive must see more of truth than he, be possessed of moral courage and enthusiasm, and finally persist in repeating things which, to the mind of the former, can lead only to destruction, in the face of opposition, persecution, misrepresentation, and ridicule. Not altogether a pleasing prospect, but history proves that I am right.

There are to-day thousands of people in this country who have had remarkable psychical experiences. Many say nothing for fear of being laughed at or thought not as "sensible" as they wish others to think them. I heard of a case not long ago where a lady possessed psychical powers and used them to a greater or less extent, and some of the members of her own household were ignorant of the fact! I believe that if all the psychical experiences which have occurred in this country during the last year could be recorded just as they really happened, eliminating all the fraud, that the array of eminent and intelligent witnesses and the great variety of phenomena presented would furnish data which would justify inferences of great value if they did not, indeed, prove man immortal! I say *I believe*; I cannot go so far as to say, I know. It seems to me that those who possess psychical gifts can in no way better serve humanity than by carefully recording their experiences and furnishing them to one of the psychical societies or, better still, by affording committees opportunities for studying their powers. Would that the shrinking psychics in private life, taking into account the sorrow and darkness in the world, might feel it a duty imposed upon them which they could not disregard, to offer their services to investigating committees that the great mystery—for it is such to the world at large and scarcely

less so to the more favored few — might be at least partially cleared up!

Would that the professional psychics would meet such committees half way and submit to experiments designed to increase the evidential value of results in order that the truth may be made manifest! A few of this class there are, to their everlasting honor be it said, who rise above mercenary motives, and, with a true ethical and religious consecration, give time and energy to the cultivation and exposition of psychical science, prompted by the desire to aid humanity. Others there probably are who have the spirit to give their time, but are too poor to do so. When ministers and missionaries are paid for *their* time, it is unjust to cast reproach upon such psychics because they accept or demand money in exchange for the exercise of their gifts. Of the sad drama of fraud being enacted about us, we know something, though we should not upon this account be led to judge any psychic too hastily and upon insufficient evidence. Dishonesty attaches, not to psychical power as such, but to human nature. We see it in business, in places of trust, in the professions. The average psychic does not pretend to be a moral or religious leader, and consequently I esteem his or her frauds, albeit often described as trafficking in the most sacred affections of the human heart, as less heinous than the act of a minister who teaches his people what he does not himself believe. Fraud, upon the part of psychics, is, however, none the less reprehensible because human.

One of the best ministries of the progressive to his conservative, and in certain real senses, weaker brother, lies in his insistence upon what he sees and believes to be true. This has been so nobly expressed — a clerical friend says the passage is *religious* in spirit — by Herbert Spencer that no apology is needed upon account of the length of the quotation I give. In the closing words of "The Unknowable" in his "First Principles," after pointing out that progressive as well as conservative thought must have free play, he says: —

Whoever hesitates to utter that which he thinks the highest truth, lest it should be too much in advance of the time, may reassure himself by looking at his acts from an impersonal point of view. Let him duly realize the fact that opinion is the agency through which character adapts external arrangements to itself; that his opinion rightly forms part of this agency — is a unit of force, constituting, with other such units, the general power which works out social changes — and he will perceive that he may properly give full utterance to his innermost conviction, leaving it to produce what effect it may. It is not for nothing that he has in him these sympathies with some principles and repugnance to others. He, with all his capacities, and aspirations, and beliefs, is not an accident, but a product of the time. He must remember that while he is a descendant of the past, he is a parent of the future, and

that his thoughts are as children born to him, which he may not carelessly let die. He, like every other man, may properly consider himself as one of the myriad agencies through whom works the Unknown Cause; and when the Unknown Cause produces in him a certain belief, he is thereby authorized to profess and act out that belief. For to render in their highest sense the words of the poet:—

— Nature is made better by no mean,
But nature makes that mean: over that art
Which you say adds to nature, is an art
That nature makes.

Not as adventitious, therefore, will the wise man regard the faith which is in him. The highest truth he sees he will fearlessly utter; knowing that, let what may come of it, he is thus playing his right part in the world—knowing that if he can effect the change he aims at—well: if not—well also, though not *so* well.

WHAT AND WHENCE IS THE INSPIRATION OF ART?

BY L. H. STONE, PH. D.

A WEEK ago I was spending an evening with some musical friends, when the subject of psychical research came up, and some phenomena being incidentally alluded to, the friend with whom I was conversing said to her husband, who is a musical composer and noted violinist in Chicago, "O J! tell Mrs. S. the story that you told us a little while ago about that last musical composition of yours."

She said that, two or three months ago, her husband had seemed to be wholly absorbed in the composition of a piece of music, more than she had ever seen him before, and she asked him one evening, when they were discussing some piece of music what he was doing that seemed of such absorbing interest to him; and after much urging he told her and their daughter the story of the music which had so occupied him and which seemed so intensely to interest him. He related the story with peculiar reluctance, said that he had never given the history of that piece of music to any one in his life, and when asked why, said there was something about it different from any experience which he had ever had. It was an experience of his own soul—something which seemed too sacred to tell any one; but he did so, and at his wife's urgent request repeated the story to myself and a few intimate friends. It was as follows:—

A few months ago, in looking over some old papers to which he was drawn by a special urgency of influence, as it seemed to him, he came across some musical notes, suggestions merely, for a composition to be elaborated. These notes he had made some thirty-five years ago. They were written on three pieces of paper, pinned together and carefully laid away. He said he did not think he had ever seen them since thirty-five years before. The date was upon the papers and a note of the circumstances under which the music was written. Seeing these notes on the old, yellowed paper brought all the incidents connected with them as vividly before his mind as though he had made them yesterday. There was something remarkable in this vividness, the minutiae of the time, place, and every surrounding circumstance; it was

as though he saw it all. At the time they were written, he was spending a month's vacation with some friends in the town of C. in Michigan. The mother, a very excellent, intelligent woman, and greatly revered by her family, was a spiritualist, though he did not know it until the events which followed revealed it to him. His acquaintance had been with the younger members of the family, with whom, as I understood him, music was the special bond of friendship.

One morning, Mrs. C., the mother, asked my friend, Mr. H., if he would be willing to sit alone with her in the parlor for a little while that morning, telling him that she heard, every morning at about ten o'clock, the sweetest and most delightful music she had ever heard, and as he had so fine an ear for music, she wanted him to sit with her at that time and see if he could hear it. The leading voice in this music, she was sure, was that of a niece of hers, who had died some time before. She said she had never heard a voice of such quality as that of her niece, and that she was sure that she recognized that voice in the music which she had been hearing daily for some time; she could not be mistaken about it. Mr. H. cheerfully complied with her request, entirely out of courtesy and respect for her, not at all believing in spiritualism and fully convinced that everything she fancied she heard was all the product of her own imagination. After they had been sitting quietly and alone for some moments, Mrs. C.'s face suddenly became transfigured with a radiance almost heavenly, as he described it, "suffused with an indescribable glow," and she exclaimed, "Oh, hear it! hear it! Its wonderful sweetness! Don't you hear it? *Can't* you hear it?" My friend said, "Really, Mrs. C., I cannot hear anything. I wish I could, but I can hear only the sound of our own voices." They sat some time longer, he still hearing nothing, and, to her disappointment, he withdrew to his own room.

The next day his hostess asked him if he would be willing to sit with her again, and this he was glad to do to please her. Soon her face became all aglow, as upon the previous day, at the sound of the music which she heard, and she joyously exclaimed, "Now, you hear it?" "Yes," he said, he did hear music. "I knew you did," she said; "I feel it all through me that you hear it." In relating it, he said, "I never heard such music before. I never heard anything comparable in sweetness and quality of tone. It surprised me, as I knew there was no music like that nor any one who could produce it in Michigan, though I hardly thought anything about its source. It came as in waves of the air or ether, always a *crescendo*, louder and fuller, the vibrations reaching farther and filling all the room. Nothing like it had I ever heard before, and soon another voice joined with the first, both making

a perfect harmony and swelling the volume of sound. It astonished and bewildered me." Upon going to his room he wrote down the music just as he had heard it, and made a note of the circumstances. Having determined to investigate the matter thoroughly, he took the opportunity in the afternoon to go all over the country neighborhood, entering various houses, to see if there were any musical instruments in any of them from which the sounds he had heard might have come, but there was nothing of the kind to be found.

The third day, at Mrs. C.'s request, he sat again with her at the same hour, when there came again the same wonderful voice that he had heard the second day, only fuller, sweeter, and richer than before, and this time he heard distinctly four voices, a perfect quartette, always, as he described, a *crescendo*, becoming fuller and richer and more complex toward the end. He went to his room and wrote this down also, exactly as he had heard it. This he is perfectly capable of doing, having so fine an ear for music that he can hold a pitch in his mind for any length of time and reproduce it as perfectly as he could make his violin accord with another instrument. He gave us some of the notes on his violin and the piano. He said he could never forget that music, it was so unlike anything he had ever heard before.

Coming upon his musical memoranda unexpectedly a short time ago, he was tempted to elaborate the theme so mysteriously heard. It seemed to him as though he had been led to the finding of these notes for this very purpose, and that he must do it. So he wrote three pieces of music just as he heard them, the first very simple and sweet, the second, the same motive more complex and difficult for two voices. The third, he said, was a difficult piece to execute, beyond the skill of all but a few musicians in our country to play well. He took the music to a quartette of Thomas' Orchestra, then in Chicago. They were surprised by it and charmed. It was wonderful, they said. They practiced it and had prepared to go to his house and surprise him and his family with their performance of it upon his seventieth birthday, which occurred a few weeks since, but they were suddenly summoned to join their company in New York, and thus they lost for a time—a birthday celebration, certainly—hearing performed, by the best musical talent in our country, a composition which, he said, would have taken them two hours to play and which he was impelled to call "Musica Mystera."

Mr. H. said (and he is a man of unaffected truthfulness) that he wrote that music under influences that were as new and strange as the music itself. He did not write it—it seemed to write itself. It did not tire him in the least. It seemed a sacred, almost holy occupation. His soul was filled with a spirit of

heavenly love, an exaltation which he could hardly interpret. It was "a sort of joyous worship," as one might say, that he had never before experienced. How he wrote it, he hardly knew, nor what powers came to his aid. The question is, How *did* he write it? Whence *came* the inspiration? What *produced* the music that he heard and thus elaborated? Who will explain?

Once when in Rome, I had been spending a morning in W. W. Story's studio, wandering at will, by permission, among the noble creations of his art, and sitting quite alone for an hour by the side of his "Saul" to study and compare his poem in marble—a wonderful creation it seems to me—with Browning's poem, in words, which I had taken with me. Both are portrayals, as each of these great poets conceived his subject of the first great king of Israel, after

"Error had bent the broad brow from daily communion."

Mr. Story then counted this his greatest work, though I thought his heart had somewhat declined upon his later-born "Cleopatra," an altogether different inspiration from his earlier statue, since it represented Egypt's classic queen in an entirely different mood and character from the former. A peculiar smile of satisfaction lighted the artist's face when he pointed out his latest group, which he called "The Guardian Angel," and which would seem to have leaped into full life from his brain, as did Athena from that of Jupiter; for though yet in the clay, it was ready to be chiselled in marble, and the group was not in his studio, nor even begun, when I was there some three or four weeks before.

It represented a beautiful young woman, descending into the valley and shadow of death, her feet just touching the cold waters of the dark river, but her face serene, peaceful, radiant, feeling the presence of the angel behind her, as she descends, taking away all fear, though she does not see it. Nothing more beautiful and spiritual was to be found among all Mr. Story's works, and I mention it because it seems to me to reflect a remark which he made to me as I left his studio. It was a morning never to be forgotten, though spent alone in stillness and quietude, yet among almost breathing life in marble, and when I was leaving and thanked Mr. Story for the great enjoyment I had had, he remarked that he was always glad to know that his works gave anybody pleasure, but that no praise ever flattered him in the least, for he knew that the best there was there was not his work at all—something outside of himself was the real artist; he was but a copyist when the best works in his gallery were modelled.

I said, "Mr. Story, I am glad to hear you say this. I know

you have said it in your poems. I have been reading what you say there, and it has always, from my first reading of it, somehow had the charm of highest truth to me. I have known your 'Contemporary Criticism' and your 'Leonardo da Vinci' almost by heart for years.

'For in its loftiest mood, the soul obeys
 A higher power that shapes our thoughts, and sways
 Their motions, when by love and strong desire
 We are uplifted. From a source unknown
 The power descends — with its ethereal fire
 Inflames us — not possessing, but possessed,
 We do its bidding; but we do not own
 The grace that in those happy hours is given,
 More than its strings the music of the lyre—
 More than the shower the rainbow lent by heaven.
 Nature and man are only organ-keys —
 Mere soundless pipes — despite our vaunted skill —
 Till, with its breath, the power above us fill
 The stops, and touch us to its harmonies.' "

"Yes," he said he knew, and every true artist knew, that his best work was not his own; there was a power beyond his consciousness that enabled him to fashion, "in joyous care," his fine creations. I have been told also (and I think it entirely reliable) that Mr. Story has spoken to others far more freely than this, and said that the original of a certain statue he was fashioning was just as objectively before him as a person sitting for a portrait, and that his work was really but a copy of what he saw.

Do these stories cast any light upon each other? — upon the question of what this influence is, whether in music or in other fine arts?

EXPERIMENT IN PSYCHOGRAPHY: SLATES SUSPENDED OUT OF REACH OF PSYCHIC.

BY RABBI SOLOMON SCHINDLER.

At a previous meeting I read a report embodying the experience of our committee with a slate-writing psychic, about the genuineness of whom great doubts were afterwards expressed. At that time I simply gave the occurrences as they were witnessed, not alone by myself, but by the rest of the committee, and my statements were corroborated by Professor Dolbear, Mr. Garland, and others. To-day I am again to tell you of an experience which may perhaps prove of greater interest to you, because the facts were obtained after doubts had arisen in my mind in regard to the former experiences. Nevertheless I am ready to subscribe again to every word of my last report; and although I have not become convinced as yet that at that time the whole committee were deceived, I went into the new research with still greater carefulness than at previous times.

I had been advised by some friends to see a psychic in Chicago, to whom I was entirely unknown. Having bought six slates, six by eight inches, the rims of the frames of which were covered with red flannel, I called upon her about three o'clock in the afternoon. I found her engaged, and was told that her forces were so exhausted that she could not give me a sitting; still, at my earnest solicitation, she consented to make a trial. The plan of the large back parlor where we sat, with the positions of the psychic and myself and the location of the furniture, is shown, according to my best recollection, in the accompanying diagram. My son was not with me on this occasion. We sat at a heavy mahogany table about four by five feet, with heavy curved legs. It was covered with a heavy tablecloth, which I removed in order to examine the table, finding nothing at all that looked suspicious. At that time there was nothing on the table except a large music-box and my slates, which I placed at the left-hand side, as shown in the diagram.

I stood at the table, G, and wrote four questions in English addressed to dead friends. During the whole time that I was

writing and folding the pellets, the psychic was in the adjoining room, which she entered through the doorway, D. The movement of my hand was shielded from her view by my body. After preparing the pellets I tore off sheets from the pad, perhaps a dozen, until no impression made by my writing remained. These I put into my pocket. We then took our seats, as shown in the diagram, less than two feet apart, and remained there until the end of the seance. Knowing that some psychics are accustomed to take the pellets in their hands, I paid particular attention to them. I placed them upon the table at my left side, about five feet from the psychic, and she did not touch or even ask to handle one of them. I cleaned one of the slates that I brought with me with a sponge given me by the psychic. She placed a small piece of slate pencil upon the top of it, and taking it in my right hand I placed it under the table, inside the curved leg, and rather more than six inches below the under surface. The psychic then took hold of the other end of the slate with her left hand, which, with her lower arm, was hidden from my view by the cloth as far as the elbow. She placed her right hand upon the table in full view. After the slate was in position, I picked up one of my pellets from the table, — I did not know which one, — and held it in my left hand above the table. Soon there was a grating sound, and after this ceased, the psychic released her hold and I placed the slate upon the top of the table. I found written upon it the correct answer to the very pellet I had been holding in my hand. During this and all the other experiments where slates were held by both the psychic and myself, I held the slate loosely, as it was small. So far as I could judge, she did not release her grasp until the experiment was finished. I do not think she could have done so without my knowledge. There was no chance for an exchange of slates, as I did not relax my hold during the experiment for an instant. Her slates were half an inch longer and wider than mine also, and had no flannel upon them. No person except ourselves was in the room during the seance. No more writing was obtainable, and I was told that the best she could do for me was to give me the first sitting the next morning. When I left, I took my slates with me, and destroyed the four pellets after I got away from the house.

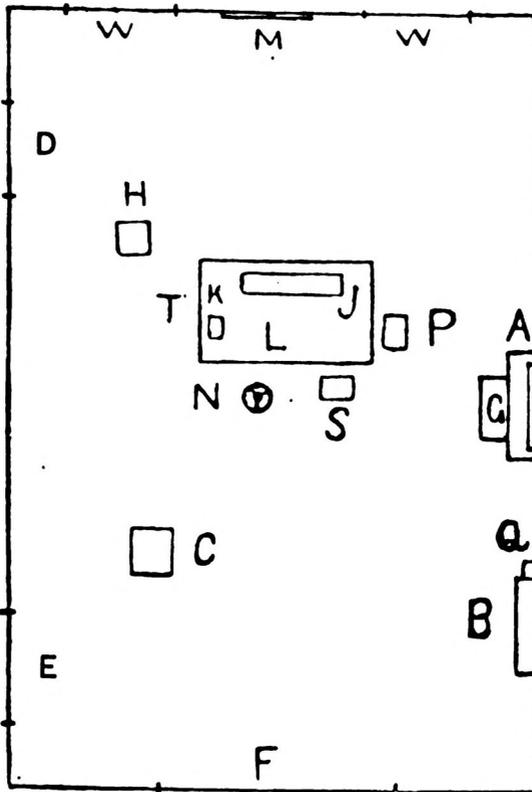
In order to be prepared for the experiments the next day, I wrote four questions at home; one in German, two in English, and one in the German tongue expressed in Hebrew characters. I folded these slips, as it is customary to do, into small pellets, and put them in my vest pocket. This time, my son, a young man twenty-two years old, was with me and was permitted to witness the proceedings. I laid my slates and pellets upon the table as upon the previous day, and we sat in the same places, my son

taking a position at my left and a few feet away in front of me, near the table, as shown. The location of the furniture was the same. No person except those mentioned was in the room during the seance. The psychic did not ask to touch either the slates or the pellets, and did not touch the latter at any time. She did not talk much, and, unlike some others, gave no unsolicited explanations as to the necessity for magnetizing slates or pellets. Before beginning operations, she told me that sometimes she had good results with slates which were suspended from the chandelier. As I intended to use my own slates for the experiments I had in mind, and only tried the experiment proposed by her as a kind of side-show, I bought two slates from the psychic, which she took from the pile, Q, at the end of the bookcase, B. These I examined carefully, cleaned with a damp sponge, tied them up in my handkerchief, stepped upon a chair, and hung them to the chandelier, where they remained constantly in my sight as well as that of my son. The part of the chandelier, which probably had three or four burners, where I attached the slates, was so high up that I could not reach it when standing on the floor with outstretched arms. My position was such that both the psychic and the suspended slates were constantly in my field of vision.

We now proceeded to try to get writing upon a slate held under the corner of the table, the process being precisely the same as the day before. She remained seated in the same chair throughout the experiments. In each instance I held one of my pellets, contents unknown, in my left hand; and at the close of the experiment, after reading it, put it into my vest pocket. In the first experiment a grating was soon heard, and when I took up the slate I found a message upon it. It was the correct and direct answer to one of my questions, with the name of the party signed. I at once opened the pellet which was in my hand, and it was precisely the one to which the answer had come. The same process was repeated with the second pellet in my hand, and I obtained the following answer: "The question in your hand is written in Hebrew. We will try to answer it in the same tongue on the slates that are suspended." It was signed, "Guide." I opened the paper and found that it was, indeed, the paper on which I had written in Hebrew characters. The third and fourth pellets were now answered in the same straightforward manner as the others had been. Then I stepped upon a chair and took down the slates tied up in my handkerchief, unfastened the latter, and opened the slates. There was a message written on one of them in the German tongue, but in Hebrew characters, corresponding to my pellet, and correctly answering my question. The music-box was playing most of the time during the experiments upon both days.

I have to add two other occurrences. I had placed upon a

small table, G, by my side, the slates that had been written upon ; but when afterwards I intended to pack them away to take with me, I found that one of the slates, which formerly had been written upon only one side, now had writing upon the other also. The new writing, which must have occurred during the time that



A, mantel with mirror over it. B, bookcase. C, easy chair. D, door leading to side room. E, door leading to hall. F, closed folding door leading to front parlor. G, small table. H, chair occupied by Mr. Schindler's son. J, music-box. K, slates brought by Mr. Schindler. L, pellets. M, mirror. N, approximate location of one globe of chandelier from which slates were suspended. P, chair occupied by psychic. Q, slates belonging to psychic. S, chair occupied by Mr. Schindler. T, table. W, W, windows.

the slates were lying on the table, was a repetition of an answer which had been produced on some other slate. The same party seemed to have answered the same question again, and almost in the very same words. If fraud was intended, there would have been no reason why the psychic should go to the trouble of pro-

ducing the same answer twice, especially when the first had given perfect satisfaction. The other occurrence is the following: On the previous day, I had, among others, addressed a question to a certain party. On that day no answer came except the one of which I have spoken. After leaving the house, I had destroyed the pellets. Now, this day, after I had obtained replies to my questions, one slate, out of the five I brought with me, yet remained unused. It was proposed, as an experiment, to hold it under the table without any question, to see what writing would come. There was another and a very important change in the conditions this time. I held the slate under the table with both hands, while the psychic placed both of her hands upon the table. After a few minutes, without the psychic touching the slates, a short message came, followed by one of the names I had written on my pellets the previous day. I know that the psychic could not have had any knowledge of the names on the pellets. While holding the slate during this experiment, I felt a strong pressure upon it; and when the grating stopped, the pencil was dropped with some little force upon the slate.

I will make no further comments, and have drawn no conclusions as yet. I have merely endeavored to state what occurred, leaving you to judge for yourselves. So unusual were the results of my experiments that I would hardly give credence to them if a stranger told them to me. I cannot possibly expect that you should take my word, but I have told the truth and nothing but the truth.

AN EXPERIMENT IN PSYCHOGRAPHY.

BY HAMLIN GARLAND.

AT one o'clock P. M. I entered the room with my own slate marked by graven words upon the slate itself. Mrs. S. sat at a small table, which was simply a broad pine board with four slender legs set in the corners. It was draped with a red cloth cover, entirely without pockets or slits. It reached nearly to the floor.

She took my slate (which never left my eye at this stage), placed a bit of pencil upon it. She then took a common tumbler or water glass with standard and concave bottom, and placed it, partly filled with water, over the bit of pencil. There was no mark upon the slate at this time.

She then placed the slate on the palm of her right hand, and passed it under the table, asking that the control write upon it. She sat in full view, side to the table, her feet crossed, her knees entirely clear of the table cover, her left hand in full view.

After some time she took the slate out carefully, as if to preserve the glass in the same position in which it stood at the beginning. She then drew with her left hand a circle about the bottom of the glass to mark its position on the slate. Upon being lifted writing was seen within this circle. The words referred to my remark, that it was a long, cold ride across the city, and had no value as a message.

The psychic seems very willing to have a good test. After she had put the slate under the cloth again, I looked beneath and saw her hand holding the slate and half-filled glass of water balanced on her palm.

I then asked that the name "General Weaver" be written under the glass. The psychic, after waiting for some time, said: "He wants to know how to spell it." I spelled it, and after a long time the writing began; and while the sound continued the medium's left hand was in full view; so was her whole body, even the hand holding the slate and water glass.

Upon taking it out and, as before, encircling the standard of the glass with a line, we removed the glass and found these words written in a fair handwriting, "General Weaver is the man." This ended the sitting.

NOTES.—We had been discussing the People's Party and its part in the election, and the medium had said, "The People's Party is the coming party."

2. The psychic said that her right hand could hold the slate and glass three hours. (She was a slender, middle-aged woman.) She also said that she had no feeling in the arm while it was under the table.

3. She seemed anxious to give me the best test possible. She appeared to me as an uneducated woman of good character, rather serious, and quite original.

4. She said the plan of using the water glass was her own. She said, "I wanted to put an end to the talk about turning the slate over and writing upon it with a pencil or finger-nail."

FINAL NOTE.—Not a particle of clairvoyant power was manifested; I asked for none. I felt that she was herself uncertain how to spell Weaver's name. Observe this.

The above interesting experiment has just come to hand from President Garland. It will prove interesting to our readers and valuable as furnishing additional testimony on the subject of independent writing. — ED. REVIEW.

REVIEW OF THE REPORT OF THE COMMITTEE ON SPIRITUALISM OF THE LONDON DIALECTICAL SOCIETY.*

BY CALVIN W. PARSONS.†

At a meeting held on Jan. 26, 1869, on motion of Dr. Edmunds, a committee was appointed to investigate so-called spiritual manifestations. The committee included thirty-four persons, two of whom were ladies. Several members were civil engineers, four were physicians, two were Fellows of the Royal Chemical Society, two were Fellows of the Geographical Society, a large number were barristers, and the remainder were gentlemen of social distinction.

The general committee held fifteen meetings, at which they received oral testimony from thirty-three persons, several of whom were eminent scientific men, and many persons of high social rank. The witnesses generally were cross-questioned in a manner likely to disclose any circumstance which would afford a chance for imposture on the part of the psychics. A large majority of the committee were strongly sceptical and a few hostile. The presence of these hostile members at seances seemed to operate as a damper to the manifestations.

To facilitate the operations the general committee resolved itself into six sub-committees, which held separate sittings and made independent reports. The final report of the committee to the society was of such a character that the society refused their request to publish it, being unwilling to endorse or countenance the findings of their own committee! H. G. Atkinson, F. G. S., Charles Bradlaugh, Rev. C. Maurice Davies, D. D., E. W. Cox, sergeant-at-law, and Alfred Russel Wallace, F. R. G. S., were conspicuous members of the committee. Professor Huxley and George Henry Lewes were invited to sit with the committee, but both refused, because they were confident that there was nothing to be gained by doing so. Professor Crookes, although mentioned on several occasions, does not seem to have participated in the investigation. In consequence of the refusal of the

* Longman, Green, Reader & Dyer, London, 1871.

† Read before the American Psychical Society Oct. 26, 1892.

society to publish the report, the committee unanimously determined to print it upon their own responsibility.

Five of the six sub-committees carried on their experiments at the private residences of members of the committee, to preclude the possibility of pre-arranged mechanism or fraud. They employed no professional psychics, and depended solely on the development of the psychical powers of their own members. They held some meetings from which their newly developed psychics were absent, and they report that they were unable to secure or produce anything at all resembling the manifestations which occurred when a psychic was present. Most of the meetings were held in the evening by bright gaslight, and the apparatus and furniture were carefully scrutinized upon each occasion. The tables used were heavy dining-tables, the smallest being four feet wide by six feet long, and the largest four and a half feet by nine and a quarter feet, of proportionate weight. The sixth sub-committee devoted their attention to the famous psychic Daniel D. Home.

Notices were printed in the daily papers inviting all interested persons to meet the committee and testify to events within their own knowledge, and especial invitation was given to all who had detected fraudulent manifestations or had seen such exposures, or who knew of any ways and means of detecting or of perpetrating frauds of that kind. Of the latter class of witnesses none appeared, except one man who attempted to prove by *à priori* reasoning that the manifestations were of the devil and were necessarily fraudulent! One letter was received from Professor Huxley saying that the only alleged spiritual phenomenon which had come under his notice was a gross imposition; but he gave no information as to the circumstances or the means employed for exposure. Practically no evidence was offered against the reality of the phenomena. An argument was presented by letter, by the famous Dr. William B. Carpenter, to prove that no external force or intelligence was concerned in the production of the phenomena in question, and that all could be accounted for by the automatic action of the brain, or "unconscious cerebration." He disposed of all phenomena to which this theory did not apply by considering them intentional impostures or self-delusions. In view of the facts occurring within the knowledge of the committee, the inadequacy of his theory is striking.

In conducting such an inquiry as this two principal objects must be kept in view: First, to determine the reality of the phenomena; and, second, to determine whether the phenomena are controlled or influenced by beings whose bodies have undergone the process of physical death. To attain these objects, the mental condition of the observers must be noted, and it must be made

clear that their faculties are in normal, good working order. A constant watch must be kept upon each other to detect the development of any abnormal or hysterical condition, which would render the observer liable to distorted impressions or delusions. Next, the apparatus and all the furniture of the room must be examined to see that no fraudulent devices are employed, and lastly the conditions under which the phenomena appear, must be made such that no one of the observers can devise a method by which the appearances could be closely imitated under similar circumstances. The minutes of the committees show that these precautions received careful attention.

The phenomena occurring in the presence of the committees were limited to rapping, table-moving, and the reception of messages and communications by the slow process of repeating the alphabet and noting the letter at which the table tipped or raps occurred. The character of the table-moving actually witnessed by the committee can best be shown by quoting the letter of Edward William Cox, sergeant-at-law, to the general committee, of which he was a member. The letter is in the nature of an independent report. He says:—

In concluding this memorandum, it may be as well to add that the most remarkable experiment we witnessed chanced, strangely enough, to have been tried at Dr. Edmunds' house, on the 3d of March, 1871, in the dining-room, with a dining-table twelve feet long by five feet wide, and unusually heavy. After several violent motions made while our hands were upon it, the experiment was tried of motion without contact. To secure this condition all present turned the backs of their chairs to the table, and knelt upon and placed their hands on the backs of the chairs so turned. Gas was burning brightly above the table. In this position, which made contact by any person impossible without detection by the others, the table lurched *five* times over spaces varying from two to six inches, the hands being held further from the table at each experiment, until they were placed *three* feet from it. The party then stood round the table, all holding hands, and at each trial withdrawing farther from it, until they finally stood at a distance of nearly *four* feet from the table. Again it lurched at each trial, over still greater spaces. The extent of these motions will be understood when it is stated that at the close of them, *the table was turned completely round*, that is to say, the end that was at the bottom of the room at the beginning of the experiment was at the head of it at the close, a space of not less than *twelve* feet having been thus traversed by this unusually ponderous table, in full light, and when no person present could by any possibility have touched it. It is certainly remarkable that the most conclusive evidence myself and the scientific investigators have yet had of motion without contact should have been obtained in that house, where we had of course the most perfect assurance that no deception by prior arrangements of mechanical contrivance could be suggested as an explanation of this decisive experiment.

EDW. WM. COX,

36 Russell Square.

Notwithstanding this and other marvellous performances, Dr. Edmunds, the chairman of the committee, concludes his public

letter thus: "But at present I can only arrive at the conviction that they [the phenomena in question] have their origin in unconscious action or self-delusion, unless they are the result of imposture. Certainly they are mischievous and delusive to the last degree." He bases his convictions upon theoretical considerations of what may be briefly termed the "Credibility of the Incredible," that no matter how many witnesses testify to an incredible thing, its inherent incredibility remains unbroken! This eminent doctor, while basing his argument on strict *logical* deductions, presents an impressive illustration of that strange phenomenon which weakens the force of and often nullifies the most direct and positive testimony, which may be called mental, or, more accurately, emotional inertia; that is, the inability of the hearer or observer to control his emotions and compel them to conform to his intellectual impressions. Prejudice, hostility, and unbelief commonly persist long after the reason or intellect has been overborne by unimpeachable evidence, and persons who can promptly adjust their emotions to their perceptions are not often to be found.

The oral evidence taken by the committee covers about one hundred and twenty large octavo pages of fine print. The phenomena alleged to have occurred in the presence of the various witnesses were of the most varied and remarkable description. The common physical manifestations, such as rappings and movements of furniture, were observed by almost every witness. One gentleman testified that on a certain occasion, when no psychic was present and no one was thinking of it, a long dinner table rose up on its two end legs and remained suspended at an angle of forty-five or fifty degrees. At the request of the gentleman of the house, the table lowered itself gently upon his hand, which was placed upon the carpet, and pinned it to the floor without hurting him; then it rose enough to release his hand, and settled back into its accustomed place.

Another gentleman testified that in his own house, in a large drawing-room, sixteen by thirty-four feet, under bright gaslight, a circle was formed around a heavy round table, four and a half feet in diameter. Ten chairs were placed around the table; the psychic and six members of the family were the only persons present. The other three chairs were for the mother, a son, and a daughter who were dead. Each of the three vacant chairs was occupied by clothing which had been worn by the deceased. An accordion which was lying at one side, out of reach, began playing a tune well known to the family. When the music ceased it was placed upon the table, when it rose four inches in the air and floated three feet across the table, no person touching it. Next the family sang a hymn; and while singing the aged

grandmother, together with her chair, was raised in the air until her knees were level with the top of the table, without human agency. Next the cloths of the dead members of the family rose and floated around and seemed to caress the living ones, and the vacant chairs moved about and changed their places at the table. The manifestations ceased with another outburst of music from the accordion.

A third gentleman testified that while he, with his wife and daughter, was staying with a friend at Malvern, a noted psychic arrived in the place. While he was away with his family, this psychic was invited to the house, and for the first time the host and his family beheld spiritual manifestations. This occurred in the afternoon; and later in the evening, long after the psychics had gone away, three of the ladies thought they would try the table and see if it would move for them. To their astonishment it moved and communicated very freely. About this time the witness and his family returned to the house and went to their rooms. Half an hour afterwards the gentleman of the house came running to the witness and begged him to come downstairs and help them, for the ladies were in hysterics. He says (p. 141): "I followed him at once, and upon entering the room a small three-legged table met me at the door, *no one touching it*, and made a graceful bow as if to say, "How do you do?" One of the ladies was on the sofa screaming, and the other two were throwing themselves about in a state of great distress. I went up to the other end of the room to Miss Lee, the table following me and standing by my side whilst I endeavored to calm her. I had nearly succeeded in doing so when the table made a jump at her and threw her again into violent hysterics; her screams were responded to by the other ladies. Matters looked so serious that I felt it necessary to take a decided part with the table, and seizing it with both hands, I lifted it into the centre of the room, and said, 'Now spirits, you have done quite enough; I command you to leave this place in God's name.' They appeared to obey my injunction, for nothing further took place." When the ladies recovered their composure, they said that the table behaved properly for some time, giving truthful answers to many questions, but afterward became so violent as to frighten them all, and then it chased them about the room until they screamed with terror.

The committee which met the famous psychic Home saw very little of note, because Mr. Home was sick and unable to endure the fatigue. A local committee composed of newspaper editors and lawyers afterward interviewed Mr. Home and witnessed some wonderful performances. Mr. Benjamin Coleman of Upper Norwood testified that he was walking around his neighbor's

garden one fine summer evening, in the light of a brilliant full moon; Mr. Home was visiting there, and said he felt that something remarkable was about to happen, and proposed a sitting. A circle was formed of seven persons in the library, which was lit up by the moon. Mr. Home placed his hands in those of the witness, who held them throughout the seance. The children had been playing with Mr. Home, and had put a wreath of flowers on his head a short time previously. Soon after forming the circle the wreath slowly rose from Mr. Home's head, and floated around without any visible support, and finally came up to the witness, who took it and kept it for a long time afterward. The table then began to rise and continued to ascend until it touched the ceiling, and was out of reach of all except the witness, who was a very tall man; it then gradually descended — all without the slightest sound.

A lady testified that she saw Mr. Home at Stockton, at the house of one of her friends. At about 8 p. m. Mr. Home seemed to feel quite ill and stepped out upon the veranda. He was carried from there through the air to a flower bed fully one hundred feet away, and a few minutes afterward floated back to the veranda, which was fully ten feet above the ground. Although rain was falling at the time, his clothing and shoes were perfectly dry.

Another gentleman read a paper before the committee, in which he asserted that he, in company with about fifty others, had seen and measured the wonderful expansions and contractions of Mr. Home's body, at the residence of a certain doctor well known to the committee and at various times. The expansion usually took place at the hips and measured "a span" — that is, nine inches. His body was also elongated at one instance eight inches, and again was shortened from about six feet to nearly five feet, a distance of eleven inches. Another psychic, a young lady, was elongated, at the same time and place.

Lord Lindsay testified to similar distortions of Mr. Home's body. He took dinner at the house of a mutual friend with Mr. Home. While at dinner, in full daylight, a chair rushed up to the table from fully twelve feet away, disconcerting the whole party and agitating Mr. Home so much that he retired. Being questioned about the details of the elongations, he said the greatest elongation that he had witnessed was eleven inches. A friend, Lord Adare, placed his foot on the instep of Mr. Home, who stood against the wall, and the witness marked the top of his head on the wall. Another time Mr. Home lay upon the ground with the two men at his head and feet. He seemed to grow at both ends, and pushed Lindsay and Adare apart. The vertebræ of the spine did not seem to separate, but the separa-

tion seemed to be between the top of the hip bone and the short ribs. The chest was not unusually inflated, the shoulders did not move. Home looked as though he was pulled up by the neck; all the muscles seemed to be stretched. When the elongations occurred, a space became visible between the vest and trousers, showing that the clothes were not affected. Lindsay also testified to seeing Home rise in the air with an arm chair by which he had been standing, and float around the walls of a large high room, "shoving the pictures out of their places as he passed." At another time, in Victoria Street, he saw Mr. Home float out of a window of the room in which the company were sitting, and in at another window in the next room. Both windows were eighty-five feet from the ground, and a small plant stand stood in each window. There was no balcony or other connection between them by which a human being could possibly make the passage. The same witness testified that on one occasion, in full gaslight, music was played on a piano which was closed and locked. Many instances were given of music being produced upon instruments which were in plain sight, where the motions of the keys, etc., could be plainly seen. Several instances were given of singing by unseen beings, accompanied by music from an accordion played by unseen hands. No instance is noted of instrumental music without a real visible instrument.

Another class of manifestations, now called "Precipitations," was presented by many witnesses. These consist of the production of flowers, fruit, perfumes, and paintings, ostensibly out of air or other intangible substance. One witness testified that he had seen two colored drawings, one of an iris and the other of autumn leaves, which were made by Mrs. Mapes, the wife of the well-known chemist of New York, Professor C. V. Mapes, in one hour, which competent artists declared could not be copied in less than two days. He also had in his possession several other drawings in pencil and in colors, which were made in his presence in New York, in times varying from ten to fifteen *seconds!* These pictures were certified by the signatures of several eminent Americans who witnessed their production. He had on several occasions marked the paper so that the identification was most positive. Several other witnesses corroborated his testimony, and testified to "spirit" writing upon pieces of marked paper, under conditions which they thought made fraud impossible. Many samples were exhibited to the committee.

Miss Houghton testified that she attended a dark seance at the house of a friend, Miss Nichol, who afterward became the famous psychic Mrs. Guppy. Eighteen persons were present, with all of whom she was acquainted. The raps informed her that she might wish for fruit. She wished mentally for a banana, which

was instantly placed in her hands. The raps then indicated that all might wish in succession. Some of the wishes were refused, but most of them were granted. The list included bananas, two oranges, a bunch of white grapes, a bunch of black grapes, a cluster of filberts, three walnuts, a dozen plums, a slice of candied pine-apple, three figs, two apples, an onion, a peach, some almonds, three dates, a potato, two large pears, a pomegranate, two crystallized greengages, a pile of dried currants, a lemon, and a bunch of raisins. The dates, figs, and raisins were quite plump, as if they had never been packed. At other sittings *fresh* flowers were showered down in abundance. Signor Damiani testified to similar occurrences. In one remarkable case, the psychic, Mrs. Guppy, had been present with the company for fully two hours previously, yet the flowers were noticeable for their *evident freshness*. He closely examined the flowers, and noticed that the ends of the stems were blackened or charred. On asking the "spirits" about it, he was informed that electricity had been employed to cut the flowers from their stems. In one case very fragrant flowers were produced an hour and a half after the beginning of the seance, and it was asserted that if the flowers had been concealed in the room their strong odor would have betrayed them. All of these seances were held in the dark with locked windows and doors. At many of the seances, both dark and light, strong perfumes seemed to be sprinkled upon the sitters; on one occasion a different perfume was developed for each person, all at the same instant.

At one seance held in Florence in the presence of several eminent literary gentlemen, many flowers were produced, and more than an hour after the beginning of the seance a large lump of ice, about a foot long and one and a half inches thick, fell from the ceiling upon the table with a crash. The room was dark and very warm, and the ice would have melted if it had been concealed in the room so long.

At a private seance at the house of a titled lady living near London, the atmosphere suddenly became very cold, or as the Hon. Mrs. ——— declared, "fearfully cold." At another seance in the same house, the psychic, D. D. Home, removed the glass globe from a large lamp which was burning brightly, and took off the hot glass chimney and handed it to the witness, saying that she need not fear to take it. She took it in her hands and found it barely warm. Another lady felt of it and found it the same. Mr. Home then held out the chimney and told one of the gentlemen to touch it, saying it would burn him; he touched it and received a severe blister. The chimney was then placed in the fire, which was glowing in the grate, where it lay for five minutes. He took the red-hot chimney from the fire, holding it

with his bare hands, and thrust the end of it into his mouth and held it there a minute or more. One of the gentlemen touched a match to it, which was instantly ignited. Mr. Home then took a red-hot coal, put it in the chimney, walked over to the witness, and dropped the coal on her dress. Although the dress was made of finest white muslin, it was not scorched or marked in the slightest. He then took a flower from a bouquet standing upon the table, and, after breathing upon it, passed it several times through the flame of the lamp; and not satisfied with that, he took it to the fire and passed it about through the gas and flame from the coals; then, the witness says, "there was no smell of smoke or burning about it, and it was precisely in the same state as when he first plucked it."

The same witness testified of another occasion when Mr. Home was present. The room was about half dark, and Mr. Home was walking about in a trance condition. Several apparitions floated in at the window. They were of various degrees of distinctness and of several sizes. One was eight feet high; the features of several were recognized. At a remark made by one of the party, the "spirits" *laughed aloud with joy!* "The sound was indescribably strange, and seemed to come from the floor." Many other witnesses testified to similar apparitions. The revelation of secrets, the giving of information about lost documents, and the whereabouts of long-sought persons was testified to by several prominent people. The physiological phenomena made known were of great interest. Signor Damiani said he knew a lady in Bristol who was so extremely near-sighted that even with the aid of very powerful glasses she could see but poorly. The "spirit" of her mother advised her to discard glasses, and assured her of perfect recovery of her sight. She laid them aside and did recover her sight *in a few days*. This same lady had her upper front teeth nearly forty-five degrees out of the perpendicular. The same spirit told her that if she would "have faith" her teeth would become straight. *They did do so*, within a few days and without the aid of a dentist. This circumstance was attested by three other gentlemen. Mr. J. Murray Spear, of Boston, Mass., testified that one day his own hand was moved to write, "Go to Abington and see David Vining." The place was twenty miles away, and the name was utterly strange to him, but he went. He found a very sick man, and was impelled to point his hand at him, without touching him. "The pain was all driven from his system, and he soon sank into a quiet sleep." Mr. Spear performed many other similar "acts of mercy."

Cromwell Varley, the famous electrician of the Atlantic telegraph cable, gave evidence of a very peculiar character. He

investigated many cases of "spirit manifestations" and could discover no sign of electricity. He developed mesmeric healing power, which he used one day to relieve a severe nervous headache in a young lady who afterwards became Mrs. Varley. While he was sitting beside his entranced patient, and was questioning in his mind what to do to effect a cure, to his amazement she spoke to him and told him how to proceed, which was by inducing the headache out of its regular time or period. The disturbance created in the system by doing this seemed to break up the tendency, and she was permanently relieved.

One night, after the birth of his first son, he was aroused by loud raps. The spirits directed him to go to his wife. He did so and found the nurse intoxicated, and Mrs. Varley rigid, cataleptic. In another case he went with his wife to see a sick sister, supposed to be dying of heart disease. In the night he had a violent nightmare, and was utterly helpless. While in that state he saw the "spirit" of his sick sister in the room, although perfectly certain that she could not leave her bed. She said, "If you do not move you will die; if you let me I will frighten you so that you can arouse." Her first efforts did not succeed; but when his heart stopped beating she screamed, "Oh, Cromwell! I am dying." This startled him from his stupor and he awoke in the ordinary way. His shouts aroused Mrs. Varley, to whom he related what he had seen, and cautioned her not to mention it, but to wait and see if the sister knew anything about it. This occurred at 3.45 A. M. When they went to the sick woman in the morning, she proceeded to tell them *exactly the same story*, giving the time as between three and four in the morning. The striking feature of this case is that neither of the two was dead, — both were living persons.

While carrying on some chemical operations he inhaled some corrosive fumes which caused spasms of the throat for a long time afterward. He kept chloroform by his bedside to relieve the spasms which frequently waked him. One night, after inhaling the chloroform, he rolled over the wrong way and the sponge remained at his nostrils. After a while he became conscious and seemed to be out of his body, which he clearly saw lying on the bed in imminent danger of death. He passed into the next room where his wife was nursing a sick child. He made several strong efforts to attract his wife's attention, and finally succeeded. She suddenly started up, went to his bed, and, quickly perceiving the state of affairs, applied restoratives.

He had occasion to go to Halifax, N. S., and was received with a public banquet which kept him up until a late hour. He was obliged to wake early to catch the steamer, and was worried by the fear that he would miss it. Morning came and he found

himself fast asleep. He saw his body lying on the bed wrapped in deep slumber, and tried to arouse the sleeper by exertion of his will. All to no purpose. He looked out of the window into the next yard, where some men were engaged in stacking lumber. Two men were carrying a heavy plank. It occurred to him to make his body dream that a bombshell with a burning fuse had dropped in front of him, and that when the workmen dropped the plank the concussion should appear to the sleeper as the explosion of the shell. The scheme worked excellently, and he awoke. He retained a vivid recollection of what he had been doing, and promptly jumped from the bed and looked out of the window. There before him was the yard, the lumber, the two men and the plank, exactly as he had seen them. He had never seen the premises before, and had no knowledge whatever about the lumber yard. He caught the steamer.

One of the sub-committees reported that the manifestations witnessed by them seemed to depend upon the presence of a certain lady member. Suddenly her psychical powers ceased for nearly a year, but upon the birth of her child returned. Many witnesses testified that lights of various intensities were seen upon the heads of sitters in the seances, and they were frequently observed radiating from the bodies of the psychics. Sometimes they detached themselves from the psychic and floated away.

In the opinion of the committee, the high character of the witnesses, and the nature of the circumstances under which the phenomena recorded were asserted to have occurred, made the testimony published by them unimpeachable. Probably the most important testimony was that of Mr. Varley. It goes to show the possibility of a separation between the human body and its tenant, of more or less completeness, and it appears to warrant the conjecture that the difference between the state in which he found himself at times, and that of death, is one of degree principally. Probably the separation is so complete in the latter case that the chemical activities which had maintained the body theretofore, in consequence of the abandonment by and withdrawal of some modifying influence, began decomposition, and soon made a barrier which effectually prevented the spirit from coming back and resuming its old functions. But the evidence given in this report does not clearly indicate whether the intelligent influences which seem to control the manifestations, and which seem to be distinct and separate from the witnesses, belong to living persons or to those who have passed through the change called death. Further investigation is needed to clear up this question.

The evidence here presented in this large book of four hun-

dred pagesis of a quality as high, probably, as will ever be found; yet the inclination of all, except believers in spiritualism, is to pigeon-hole the whole affair and indefinitely suspend judgment. This fact goes far to show the futility of that method of investigation which consists mainly in the compilation and authentication of evidence. Experimental investigation, on the contrary, is far more effectual and impressive, and it also holds out to the investigator the constant and great inducement of making new discoveries. The prospect of determining some new form of force or energy, and of making it serviceable to the needs of the human family, is so great a charm that few persons having once felt its influence will ever quite relinquish the hope of success.

CEREBRAL RADIATION.

BY PROFESSOR EDWIN J. HOUSTON.*

I HAVE thought it possible that it might interest you to consider some rather wild speculations in which I have indulged for a number of years past, but which I have heretofore refrained from publishing. In these speculations, to which I was first led by a suggestion from a friend, I have endeavored to correlate, to some extent, the phenomena of thought with grosser physical phenomena. Although the suggestions I have to offer as a basis for a hypothesis of the mechanism of cerebation are confessedly incomplete and perhaps improbable, yet I have concluded to place them on record as of possible interest to the scientific world.

I am, of course, aware of the fact that the psychical operations of the brain are by no means understood. It is generally believed, however, that the seat of psychical activity is the cerebrum. The manner in which the brain acts to produce, record, and reproduce thought is unknown, and will probably remain unknown. On the single assumption, however, that cerebation or thought, whatever may be its exact mechanism, is accompanied by molecular or atomic vibrations of the gray or other matter of that part of the brain called the cerebrum, I would propose the following hypothesis to account for telepathy, mesmerism, thought transference, hypnotism, and other cognate phenomena. Postulating the existence of the universal or luminiferous ether, which is now generally accepted in scientific circles, and bearing in mind the fact that this ether passes through even the densest matter as easily as water through a sieve, it follows that the brain atoms or molecules that are here assumed as the cause of cerebation are completely surrounded by the ether. Now, since the ether is a highly elastic, easily movable medium, it would follow that thought or cerebation, if attended by vibrations, must necessarily develop in the ether wave motions, which have the brain atoms or molecules for their centres. In other words, the act of thought or cerebation necessitates an expendi-

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ture of energy, because it necessitates the setting in motion of these assumed atomic or molecular brain particles.

The exact nature of the motions that are assumed to attend an active condition of the brain must necessarily remain unknown as long as we are ignorant of the exact nature of the mechanism that is moved. But if an active brain evolves thought because something is set in motion, it of course follows that a brain absolutely free from producing thought must be at rest so far as that kind of motion is concerned. An absolute freedom from thought in a healthy brain is most probably a condition that seldom exists; relative rest, however, must be quite common. That the brain cells of the gray or other matter involved in the production of thought can be caused to assume certain groupings or relations towards one another, would appear to follow from the ease with which that curious function of the brain called memory permits it to readily recall past peculiarities in the to and fro motions. By continually repeating certain trains of thought, as in study or repeated observations, the peculiar motions required to produce such thought are probably given a set or tendency to form more or less permanent groupings. When, therefore, the brain is moved or played upon, so to speak, these motions recur and certain memories are awakened. How may these motions be produced? The answer would certainly appear to be both from within and without. It is perhaps possible that the flow of blood to an active brain, which, as is well known, attends all active cerebration, is not only for the purpose of nourishing and rebuilding the organ, but also for affording the purely mechanical force, that needs but to touch this marvellously attuned organ to awaken the thoughts already impressed thereon, or to sit in judgment on new combinations never before presented to it. I will suggest an explanation later on as to how these impressions may possibly be excited from without.

Whatever be the origin of these vibrations, or however excited, energy is required to be expended in producing them; and as the brain worker will readily acknowledge, the expenditure of such energy often calls for an enormous expenditure of nervous force. Cerebral energy, or energy thus expended in producing thought, is dissipated by imparting wave motions to the surrounding ether, and such waves are sent out in all directions from the brain, possibly in greater amount, or of greater amplitude from some of the brain openings, as, for example, those of the eyes.

Although there are no absolute proofs of the existence of the molecular or atomic vibrations of the brain particles which I have assumed, such a movement, however, is far from being

improbable, and, indeed, some facts known to the medical profession are far from being at variance with such an assumption. A certain amount of pressure on the brain, arising from the pressure of the blood, is necessary for its proper action. If this pressure increases beyond a certain value, as for example, in cases of fractures of the skull, where a portion of the bone is depressed by the fracture, thereby producing a compression on the brain material, all thought or cerebration instantly ceases; but when this pressure is relieved by the act of trephining, cerebration not only begins, but, curiously enough, generally goes on from the point where the patient left off when the injury occurred.

Let us assume, then, that cerebral radiations or waves are given off from every sentient or active brain, and that these waves pass into the space around the brain something like the waves that are imparted to the air around a sounding tuning fork. The cerebral radiations are not so gross as those of sound. Their wave lengths are almost certainly much shorter. They are imparted to the universal ether. If such waves, which I would call thought waves or cerebral waves, be present in ether that fills all space, it will be interesting to inquire what phenomena they might be expected to produce. It being assumed that these vibrations take place in the ether itself, there need be no doubt or speculation as to the general nature of the waves themselves. They would presumably partake either of the nature of transverse or torsional vibrations. The commonest character of the vibrations which occur in the universal ether are the vibrations which are now generally recognized as transmitting the phenomena of heat, light, electric or magnetic radiations; viz., of transverse or torsional vibrations.

An active brain may, therefore, be regarded as moulding the ether around it into thought waves that are spreading outward from it in all directions. In this respect it is not unlike a conductor through which an oscillatory discharge is passing, producing those waves which Hertz has so beautifully demonstrated as resembling the vibrations that produce light. Assume, then, that the cerebral radiations partake of the nature of thermal, luminous, electric or magnetic radiations, and the following explanation of telepathy, or thought transference, is, to say the least, not improbable. I would explain the possibility of the transference of specific cerebral vibrations from an active brain to a passive or receptive brain, by the simple action of what is known in science as sympathetic vibrations. Take the case, for example, of a vibrating tuning fork that is sending off its waves across the space which separates it from a second tuning fork, not as yet in motion, but tuned so as to be able to vibrate in exact

unison with it. As is well known, the exact correspondence between the period of the active or the transmitting fork, and the passive or the receptive fork, is such that the vibrations of one fork are gradually taken up by the other fork, so that the energy of the motion of the one is transferred or carried across the space existing between them by means of pulses or waves set up in the air which surrounds them. As is well known, such sympathetically excited vibrations can be produced in a fork situated at a considerable distance from the exciting fork.

Or, similarly, take the case of the sympathetic vibrations excited by waves of light. Solar energy is radiated or transferred across the space existing between the sun and the earth by waves or oscillations in the luminiferous ether. These waves, falling on the delicate structure of a leaf, suffer a species of selective absorption, certain wave lengths being absorbed and others thrown off. The absorbed waves excite or produce sympathetic vibrations in the molecules of carbon dioxide present in the leaf, and cause the atoms of carbon and oxygen in such molecules to move towards and from one another in interatomic vibrations, which increase in amplitude or violence until their chemical affinity or atomic attraction is overcome and dissociation occurs. The oxygen is then thrown from the leaf into the air, and the carbon is retained in the structure of the plant.

Or, take the still more interesting case of what Hertz calls electric resonance. As already mentioned, it is now generally recognized by electricians that a conductor, which is the seat of an oscillatory electric discharge, is sending into the space around it electric waves or oscillations which travel with the velocity of light, and which are, in fact, of exactly the same nature as light itself. If these electric waves meet a circuit so tuned as regards the period of oscillation of the circuit in which they originally occurred as to be in consonance with them, electric oscillations will be set up in this circuit of exactly the same nature as those exciting it. In view of these facts it does not seem improbable to me that a brain engaged in intense thought should act as a centre of cerebral radiations, nor that these radiations proceeding outwards in all directions from such brain should affect other brains on which they fall, provided, of course, that such brains are tuned to vibrate in unison with them. In such cases the absorption of energy by the recipient brain may be either a species of selective absorption, in which its train of thought is only modified, or it may be absolute, in which case the recipient brain has excited in it an exact reproduction of the thoughts of the exciting brain.

Such a hypothesis is far from improbable; on the contrary, it would appear to be carried out by a variety of curious circum-

stances, which have only wanted some general hypothesis to properly correlate them. If such a hypothesis be true, then these cerebral vibrations or radiations must travel through space with exactly the same velocity of light. This is of course on the assumption that the vibrating or oscillating brain molecules or atoms set up vibrations similar to those of light. Of course this equality between the velocity of cerebral wave propagation and that of light is true only for free ether. In the ether which fills the interatomic or intermolecular spaces of gross matter, or, as it is technically called, combined ether, the velocity of wave propagation varies according to the particular character of the matter with which it is associated. A retardation or decrease in the velocity of the assumed cerebral waves would doubtless be experienced while passing through the materials of the skull and head. If thought travels along waves in the ether similar to waves of light, it would be able to travel along any path by which rays of light can pass. It can therefore travel along rays of light; i. e., along paths in the ether through which rays of light are moving.

There is a well-known experiment in hypnotism, in which the patient, placed in a state of semi or complete unconsciousness, has his brain called into a more or less active condition by the suggestions of the hypnotizer, which might seem to somewhat favor the hypothesis of cerebral radiation. It might be interesting, in view of the above suggestions, to see whether a hypnotizer, placed in such a position as regards the hypnotized that flashes of light falling on his eyes shall afterwards fall on the eyes of the patient, to observe whether or not acts of suggestion are more readily perceived by the brain of the hypnotized along such rays of light than without the aid of such rays. If the preceding speculations be regarded as wild, — and that this is true I have already granted, — what may not be said as to the following?

If thought radiations partake of the nature of ether waves, then there should presumably exist in the thought radiations or waves phenomena corresponding to the various phenomena of thermal, luminous, electric, or magnetic radiation; even the phenomena of reflection, refraction, and possibly even of dispersion of such waves would appear to be a possibility. In this connection it is of interest to imagine the analysis or separation of a complex wave of thought into its component or elementary waves, corresponding to the separation of a beam of light, by means of a prism. In this connection there would be a new significance in the phrases "radiant with thought, or to concentrate one's thoughts on a subject."

If thought radiations or waves partake of the nature of light, then it would seem among the remote possibilities of science

to obtain — say by means of a lens — a photographic impression of such thought waves on a suitably sensitized plate, somewhat after the manner of the ordinary photographic picture. Such a thought record, suitably employed, might be able to awaken at any subsequent time in the brain of a person submitting himself to its influences, thoughts identical to those recorded. Of course I am aware of the improbability of such a record being obtained in the near future, and of the exceeding difficulties that would seem to stand in the way of ever obtaining it. Until we know something more definite concerning the nature of these assumed cerebral vibrations and of their lengths, we must necessarily be seriously handicapped as to how best permanently to fix them on a suitable record surface, and how afterwards to cause such record surface to interpret its peculiarities to the brain. I merely throw it out as a possibility of what science may have in store for those who come after us. I would suggest, in this connection, that one hundred years ago it would probably have been regarded as quite impossible that the telephone or the phonograph could have been produced.

Such a thought record, however, if obtained, would not be an image of the thought itself, or of the particular groupings of the particles, whose to and fro movements attend or produce thought, any more than the tracings of the phonograph record form an image of the spoken words. They would merely represent the to and fro motions of the ether set in motion by the thought or cerebrations. An eye looking at such an image would not be influenced thereby. If, however, ether waves similar to those recorded could be reproduced by causing light to pass through such photographic images of the to and fro motions of thought waves, such waves might be caused to influence the brain and thereby awaken thoughts similar or identical to those recorded.

I have often amused myself with picturing a possible thought-recording machine, whereby the thoughts of an active brain might be continuously and permanently recorded on a moving sensitized film, the exposed surface of which was placed at the focus of a large lens placed in front of any one engaged in intense thought. If, like the cylinder or plate of a phonograph or gramophone, such a record were afterward rotated at the same speed as that at which it received its impressions, under circumstances in which light passing through it is moulded into waves similar to those recorded on it, such waves, when caused to act on a receptive brain, should, it would certainly seem, excite therein thoughts identical to those recorded as its record surface. Of course it is needless for me to say that such a machine has never been actually constructed, and is still as substantial as are the speculations which I have offered you. Indeed, the probabilities

against its being produced are so great that I have hesitated even to mention it.

Some experiments might be tried in a similar manner in thought transference, by holding large lenses in front of the eyes of a hypnotizer at such a distance as to converge the assumed cerebral radiations on the eyes of the hypnotized. These experiments might be tried either along with light or independent of it. I know that many points of the hypothesis which I have suggested are quite improbable, and that I may and probably will be misunderstood by some as putting forward facts rather than a bare hypothesis. Probably one of the most serious objections to the hypothesis is to be found in the fact that the phenomena of telepathy and thought transference are not of more frequent occurrence. This I must frankly acknowledge to be a most serious objection. I would suggest, however, that the comparative infrequency of the phenomena may possibly be explained by the presence in the human body of a shield which protects the brain or the nerve centres from the effects of cerebral radiations. It is not impossible the sheaths of the nerves act as screens to prevent the reception by the brain of these thought radiations.

Professor Tyndall, in his work on sound, alludes to the well-known fact that when sympathetic vibrations are being excited by a sounding tuning fork in any body near it, that there is a greater rapidity of expenditure of energy of the fork's motion than when it was not exciting such waves. The analogue of this phenomena exists, perhaps, in the case of the assumed thought transference. Mental energy is presumably expended at a greater rate when it is exciting thought waves in this manner than when such are not being excited. There has often been experienced by me as a teacher a feeling of great exhaustion in taking charge of or watching a room in which a number of bright students were undergoing an examination. It is possible that the cause of this exhaustion is the rapid dissipation of energy by the cerebral radiations being absorbed by the receptive brains of the examinees. I am informed by certain physicians that a feeling of great exhaustion is experienced by them in the treatment of some cases.

If there be any truth in the hypothesis I have briefly outlined, there should be what I would term a kind of vital radiation going on and passing outwards from the body of a healthy person, which may not improbably excite by sympathetic vibrations in the bodies of weaker persons around them vibrations of a normal or more healthy type than those present in the sick person. If this be true, the old belief of the efficacy of the laying on of hands, or of magnetic healing, may find some foundation, in fact, apart from what is most probably the general explanation of such causes; viz., hysteria.

I have thrown out the above hypothesis of cerebral radiations with considerable doubt and hesitation, as a suggestion only to those working in the field of telepathy or thought transference, in the hope that I may thereby call the attention of such investigators to some phenomena in this very obscure field of research.

PSYCHICAL CASES AND REFLECTIONS FROM PERIODICAL LITERATURE.

PSYCHOMETRY.—CHARACTERISTICS AND STATE OF HEALTH OF A
GENTLEMAN TOLD BY HOLDING A LETTER WHOSE CONTENTS
WERE UNKNOWN TO THE PSYCHIC.*

THERE is a certain class of sensitives or psychics who claim to possess what is called psychometric power. Suppose it is a lady. She will take in her hand a letter, and, without reading a word of it or even looking at it, she receives from it certain impressions, which she states. Sometimes she goes into such detail as to the contents of the letter and the character and personality of the writer as is utterly impossible on any theory of guess-work. Neither, in my judgment, is it to be classed with clairvoyance; for she does not read the letter nor even seem to see the writer. These phenomena of psychometry seem to constitute a class by themselves. At times it is not a letter that the lady holds in her hands, but any article or substance whatever. But in any case, the article so held appears to give impressions of so precise a nature that the psychic reads the story of its past, calls up distant persons and scenes—distant both in space and in time. In presence of such facts, one finds himself wondering if even inanimate nature—if any part of nature *is* inanimate—does not carry with it a record or memory of all that ever concerned it. But I will suppress any tendency to dream, and turn to my fact.

On a certain morning I visited a psychometrist. Several experiments were made. I will relate only one, as a good specimen of what has occurred in my presence more than once. The lady was not entranced or, so far as I could see, in any other than her normal condition. I handed her a letter which I had recently received. She took it, and held it in her right hand, pressing it close, so as to come into as vital contact with it as possible. I had taken it out of its envelope, so that she might touch it more effectively, but it was not unfolded even so much as to give her an opportunity to see the name. It was written by a man whom she had never seen, and of whom she had never heard. After holding it a moment, she said, "This man is either a minis-

* Rev. M. J. Savage, *Arena*, September, 1892.

ter or a lawyer; I cannot tell which. He is a man of a good deal more than usual intellectual power. And yet, he has never met with any such success in life as one would have expected, considering his natural ability. Something has happened to thwart him and interfere with his success. At the present time he is suffering with severe illness and mental depression. He has pain here (putting her hand to the back of her head, at the base of the brain)."

She said much more, describing the man as well as I could have done it myself. But I will quote no more, for I wish to let a few salient points stand in clear outline. These points I will number, for the sake of clearness:—

1. She tells me he is a man, though she has not even glanced at the letter.

2. She says he is either a minister or a lawyer; she cannot tell which. No wonder, for he was both; that is, he had preached for some years, then had left the pulpit, studied law, and at this time was not actively engaged in either profession.

3. She speaks of his great natural ability. This was true in a most marked degree.

4. But he had not succeeded as one would have expected. This again was strikingly true. Certain things had happened—which I do not feel at liberty to publish—which had broken off his career in the middle and made his short life seem abortive.

5. She says he is ill as he writes. At this very time he was at the house of a friend, suffering from a malarial attack, his business broken up, and his mind depressed by the thought of his life failure.

Now this lady did not know I had any such friend; and of all these different facts about him, of course she knew absolutely nothing. She did not read a word of the letter. But (note this carefully) even though she had read it all, it would have told her only the one fact that, as he wrote, he was not well. It contained not the slightest allusion to any of the others. This case cannot be explained by clairvoyance, for the lady did not possess the power. Was it guess-work? One case might be so explained. But one does not guess after this fashion very often. So, as I put this case alongside the many others which I know, the guess theory becomes too improbable for one moment's serious consideration.

TRANCE.—PERSONATIONS AND STATEMENT OF A FACT UNKNOWN TO PSYCHIC OR SITTER.

I will now relate a very slight incident, but one which I should like to have somebody explain. The psychic, in this case, was

not a professional. She is a personal friend of many years' standing. Most of her friends do not know that she ever has any such experiences. While interested in these matters, she is modest and undogmatic, and as much an inquirer as I am myself. Her present husband (she has been twice married) is a student in these directions, and so encourages her in such investigations. One day at a little quiet sitting, she unexpectedly became entranced. It was only occasionally that this occurred, the "influences" commonly working in some other way. While thus entranced, she personated half a dozen different people, ranging from a little girl to an old man. Her facial expression, voice, gesture, and whole being took on and expressed the particular character in each instance. All this was utterly unlike her ordinary demeanor, for in her normal condition she is unusually shy and diffident. She would have needed the art of the actress to have purposely assumed and played these various parts.

But only one incident of this sitting will I now dwell on. Her first husband claimed to be in control and to be speaking to me through her. He talked over many things of which I knew nothing, and left messages, the purport of which were "all Greek" to me, but which were full of significance to her as I related them when the trance was over. Among other things, he said, "Tell my wife that the friend she is expecting to visit her will come on Saturday." Then he added, laughingly, "She won't believe that." I knew nothing of any particular friend who was coming to visit her on Saturday or any other day; so all this meant nothing to me. But when I gave her the message, she smiled and said, "That is surely a mistake, for I have just received a letter from this friend (a lady in New York), saying that I am to expect her next week Tuesday." This sitting was on Wednesday morning. In my next day's mail came a letter from my friend, in which she told me that, on reaching home, she found another letter from New York telling her the plans had been changed, and the visitor would arrive on Saturday. I leave the explanation of this to the wise.

TRANCE.—FACTS GIVEN WHICH WERE UNKNOWN TO PSYCHIC
AND SITTER.

I wish now to tell some parts of an experience which a young lady friend of mine had with Mrs. P. (a psychic widely known amongst psychical investigators in England as well as America). This young lady is remarkable for her level head, clear thought, and self-control. She and Mrs. P. had never met. A sitting was arranged, Miss S. (the young lady) writing and

making the appointment under an assumed name, and giving the address of a friend instead of her own home: so anxious was she that there should be no clue to her personality. She carried a book, and in it three envelopes containing three locks of hair. One of these locks was from the head of her mother, but concerning the other two she knew nothing. They had been given her by a friend to be used as a test. When Mrs. P. had become entranced, Miss S. gave her one of the envelopes containing a lock of hair. Immediately her "control" began talking about it. She told whose head it was from, gave the name, and not only this, but the names of other people connected with this one, and described their characteristics and the relations in which they stood to each other.

Meantime Miss S. was in entire ignorance as to the correctness of the statements being made. She however made a careful record of them all, and afterwards found that all which had been said was true in every particular. Now this case is not like the psychometric one mentioned above; for here the psychic is entranced, and it is the "control" that speaks. In the other case, it is the conscious psychic herself. What happened in regard to this one lock of hair happened concerning them all. In each case names were given, facts referred to, persons described, and all with complete accuracy. I state the case in this brief and general way; but I have in my possession all the particular facts written out at the time.

APPARITION SEEN AND HEARD BY A GIRL ELEVEN YEARS OLD
CORRESPONDS WITH THE DESCRIPTION OF HER GRANDFATHER.

I am now to relate the story of three most remarkable psychic experiences occurring in the life of the same person, then a girl not more than twelve years of age. The lady in whose girlhood they happened has written them out for me, and they are corroborated by witnesses who had full knowledge of the facts, so that they would constitute evidence in a court of justice. Following the method I have uniformly pursued so far, I will tell the stories in my own words. I do this for the sake of simplicity; but the autograph documents are in my possession.

When the first instance occurred, Miss D. was about eleven years old. She was an extremely nervous, sensitive child, afraid of the dark, always hearing strange sounds, and never willing to go upstairs to bed alone. Her father was an educated man, a Harvard graduate, and at this time was teaching a class that met in one of the rooms on the second floor of the house in which they then lived. On this particular evening, just after supper, her father sent her up to this classroom to remove the blower

from the Franklin coal stove. This she did, and then started for the sitting-room below again. As she reached the top of the stairs, she saw what appeared to be a very tall man coming up, and he had nearly reached the top. She stepped aside to let him pass; and as she did so, she lifted her head and looked him full in the face. He looked down in her face for a moment, spoke to her, and said, "I watch over you," and then vanished as if into the side of the wall. He was unusually tall, over six feet, and Miss D. says she remembers his face now more distinctly than any other face she ever saw. She knew at once that she had seen him by virtue of some strange inner sight. So far the word "hallucination" would easily explain it all, but let us go on.

She went on downstairs, and spent the evening quietly with the family. She said nothing that night to any one of what she had seen, only all fear of the dark had gone; and when bedtime came, and they asked her if some one should go with her, she answered "No." From that time forth all the old timidity had ceased. Instead of being frightened, as at a ghost, she felt cared for and guarded by a loving friend. The next morning she went to her mother and told her what she had seen, adding, "I think the man I saw was my father's father." This grandfather had died when her father was a boy of only eleven. There was no likeness of him in the family, and her father remembered him only as being a very tall man. When her father heard her description, he said that it was, so far as he knew, a faithful likeness. The grandmother was still living, but, being a very strict Baptist, knew nothing whatever of these psychical matters; but she declared that she could not herself have given a better description of her husband than the one her granddaughter gave, from having seen this figure on the stairs. And she always believed that, for some special reason, this visit from the unseen had been permitted.

CLAIRVOYANCE AND IMPRESSION.—FORM DESCRIBED AND FACTS UNKNOWN TO PSYCHIC GIVEN.

A short time after, this same little Miss D. was seated in her father's study one evening reading a book. After a while she looked up from her book, and said, "Father, there is some one here in this room, and she wishes to speak." Her father was writing at his desk in another part of the room, facing away from her. But as she spoke, he turned, and said, "If any one wishes to speak with me, she must give me her name, as I am busy." Then the little girl said, "Her name is Mary," and, waiting a moment, she added, "Mary Pickering." At once her father seemed greatly interested, and said, "If this is you, Mary, tell

me something by which I may know that it is you." Miss D. then said (the information seemed to come to her in some inexplicable way, for she heard no words with the outer ear): "She has been in the other life many years. She was from twenty-two to twenty-four when she died. She died quite unexpectedly, after a very short illness, of a fever. She lived in B——. You met her and became acquainted with her while teaching in that town, and boarding in her father's family, before you left college. You knew her before you went to the divinity school. She has been often, often to you, and *you have known it.*"

The father had been educated for the Baptist ministry, and at this time had no faith in the possibility of spirit's returning, so far as any of the family knew. But he asked his daughter if she could describe this Mary, saying, "She had marked peculiarities in dress and in the manner of arranging her hair." The daughter replied: "Yes, she has hair almost black, dark eyes, so dark you would call them black; but as you look closer, you see they are hazel. She wears this hair in *three curls* on each side of the face, and these curls reach down in such a manner that they make a frame for the face, while the rest of the hair is combed back and fastened by a comb in a twist at the back of the head. The last time you saw her she had on a cloth dress; it looks like a black wool, and is cut with a plain, full skirt, and a plain back to the body; but the front crosses one side over the other in three folds, and the sleeve has a look like a leg of mutton."

Then the father sat for a few moments in silence. But soon, taking his bunch of keys from his pocket, he unlocked a drawer in his writing-desk which his little girl had never seen opened before. From this he took a daguerrotype, and, passing it to her, he said, "This is a likeness of Mary Pickering; does she look like this?" Thereupon the little girl said, "Just like it; only what I see is spirit." The name of this young lady the little girl had never before heard. She did not know that such a person had ever lived; and no one in the family, except her father, knew that such a portrait was in existence; and only he knew of this episode in his past life. Yet everything that Miss D. had seen and said corresponded perfectly with the facts. This Miss D., now of course grown up, is a personal acquaintance, and her father testifies to the strict truthfulness of all that is here written down. And here, let it be remembered, is no experience with a professional. This lady lives in the quiet of a wealthy home; has never "sat" for psychical investigation, either for money or for any other reason. Only all her life long she has been subject to these strange experiences. Also it is worth noting that she is healthy and sane, and practical to an unusual degree.

CLAIRVOYANCE AND PAST EVENTS UNKNOWN TO PSYCHIC AND
SITTER VISUALLY REPRODUCED AND AFTERWARDS VERIFIED.

But now for one more experience out of her girlhood life. Again she was sitting with her father in his study. She was a great book-lover, and so his study was a favorite place with the daughter. This time it was a man she saw. So she said to her father, "There is a man here by the name of Rockwood." Her father said: "Yes, I knew a young fellow by that name once; but he has been dead for years now. Tell me where I knew him and how!" So she went on, and said, "You knew him in H., when you were attending the classical school then kept by G. R." Then she proceeded to describe the house in which he had lived and died. She told him it stood at the forks of the road, was a mile from the town; that the funeral was from the house, and not the church, as was the custom in the town at that time. She told the manner in which he had died.

Her father then said: "I do not know anything more than the fact that he died some years ago. If you can see all this," he added, "you certainly ought to be able to tell me where he is buried; and this I do not know any more than I know whether his funeral was in a church or in his own house." In a few moments she went on, "I can go over the entire ground." Then, mentally, she went into the house, saw the body as it lay in the coffin, saw the face, and told how he looked and what he had on. Then she saw them take the coffin from the front right-hand room, and put it into the hearse, and go slowly to the cemetery, which was a mile away. She also described how the bell in the Orthodox Church tolled all the time while the procession was on the way to the grave. She seemed to enter the cemetery by the middle gate. She described the lot as being on the left side of the main driveway, just before coming to the new addition to the cemetery at the farther side.

She had never been in this town in her life, and knew nothing about it. Her father knew nothing of the circumstances of the death or the funeral, or of there being any new addition to the cemetery. He however became so interested in the matter, that he asked her if she thought she could go unguided from the railway station to the cemetery, and then back to the house. She felt so sure that she could, that it was decided that a trial should be made. So one day they together visited the town. Her father kept behind, and let her go on alone. As stated above, she had never before been in the town, and he had not visited it for many years;

but she proceeded directly to the cemetery. When they reached the left-hand corner of the cemetery, she said, "I can go in here instead of going round to the main entrance, where the procession entered, and go straight to the grave." This she did, recognizing the place as the one she had seen mentally, and finding it as familiar as though she had known it all her life.

Now occurred a curious incident. At the grave they saw a strange gentleman neither of them had ever seen before. He was talking with the town undertaker. Seeing them come to this particular lot, he spoke to them. It turned out that he had married a sister of this Mr. Rockwood, by whose grave they were standing. After falling into conversation, Mr. D., the little girl's father, told him what had brought them there. He straightway became so interested in the matter that he begged them to go to the old home with him, and see if his wife confirmed the story as Miss D. had told it. He said he noticed them enter the cemetery; and though familiar with all the place, he could not surely have gone more directly to the grave. They accepted the invitation, and, her father having renewed his old acquaintance with what was left of the family, they spent the night there. The sister of Mr. Rockwood remembered all the particulars of her brother's death, and confirmed all that Miss D. had said. He had died in the chamber she had described; the funeral was in the house and not in the church; the bell did toll while the procession was in motion. In short, she had been correct in every detail.

This case seems to me a most remarkable one, and one not easily to be classified under any one head. She sees this Mr. Rockwood, and he tells her what she does not know. Her father knows a part of it, but by no means all. So, telepathy might help us in explanation of some of it; it does not cover all. Another part of it looks like clairvoyance; and yet clairvoyance, as ordinarily understood, sees only what is going on at the time. But here the past is resurrected; not only persons, but places and events. Let who can undertake to explain. All I will say is that it comes to me so supported by evidence, and first-hand evidence at that, that I cannot but accept it as true.

CLAIRVOYANCE AND CLAIRAUDIENCE.—PROPERTY SAVED:—
FACTS TOLD UNKNOWN TO ANY ONE PRESENT.

One more case shall close this already long story of psychic experience. It occurred on a certain evening in June in the year 1890. The place is a well-known town in one of the New England States. The psychic is a clergyman who gives

me the account, and it is confirmed by the autograph indorsement of the other principal man concerned. It seems to me to demand the presence and the activity of some invisible intelligence.

There were present Mr. and Mrs. B., two or three friends, and the clergyman. Conversation turned on this general subject, when Mr. B. remarked that he wished he could have a satisfactory test. The clergyman, Mr. L., thereupon felt a sudden and very powerful nervous shock. This always precedes, in his case, an experience of this kind. He describes it by saying that this strange sensation commences at the cerebellum, and passes down the spinal column, and thence branching to his feet. The feeling is very like that produced by the action of an electric current applied to the base of the brain, and passed downward, especially if the surface of the skin is lightly touched by the sponge. Immediately he saw (it was a subjective vision) the face and form of a gentleman who was a stranger to him. He bore a resemblance to Mr. B., who sat near. In this same subjective way, he saw the name of "Edward B." (I give only the initial of the last name, though the full name is in my possession). Then he seemed to have uttered these words: "Tell my brother that a piece of property which I once owned, and which by death fell to my heirs, and is now owned by my brother, is in danger of being lost to him. He must look after it at once, or it will pass out of his hands." The "spirit" was very urgent, and the psychic was very strangely thrilled and affected by his presence. Those in the room remarked on the changed character of the psychic's countenance, it being shining and apparently illuminated.

Mr. B. at once replied, however: "It is not possible that this can be true. I have all my tax bills on the various properties which I own in Nebraska. It is a mistake." This Mr. B. is a cautious and careful business man; so what occurred is all the more remarkable. He was not a spiritualist, but was a candid inquirer. In spite of the denial of Mr. B., the "spirit" was very urgent that the matter be looked up at once. A few days later, Mr. L., the clerical psychic (he is still in the active work of the ministry, and not making a profession of this strange power), sailed for a vacation trip to Europe. He was absent several months.

On his return he met Mr. B. one day, and he said: "Oh, about that matter in Nebraska. I looked over my papers soon after you went away, and found that one of my tax bills on a certain piece of property was missing. I felt sure that I had received it. But I found that I had been mistaken. I at once wrote to my agent (in Nebraska), and requested him to send the

tax bill to me. Several days elapsed beyond those required for an answer, but none came. I wrote again, and peremptorily, telling my agent that he could attend to the matter immediately, or I would transfer my business to another man. This letter brought a prompt reply. The agent wrote that, through his own oversight, the lessee had been allowed to pay the tax on the property, and had taken as security what is called a tax lien. *The payment of these taxes, and the taking of such liens for a certain length of time will, in the end, entitle the lessee to a warrant deed of the property.* This is Nebraska law; and many a dodge of this kind is resorted to as a means of swindling the real owner out of his property.

This seems to be a strikingly clear-cut case. At the time of this message, purporting to come from Mr. B.'s brother, no living man this side of Nebraska had any knowledge of the facts as stated. These facts proved to be correct in every particular. And here is one instance that a "spiritualist" might use in rebuttal of the common charge that the "messages" never tell anything that is of any value to anybody. In this case, certainly, a valuable piece of property was saved by the message, whatever may have been its source. The story is authenticated in such a way as would make it good evidence in the hands of any judge, or before any jury in Christendom.

PERILS OF INVESTIGATION.*

If one wants peace in this world, the "safe" thing is to stick to the old, reputable ways indorsed by the majority "common sense" of the place where he happens to live. Only, if everybody had always done that, humanity would never have got out of the jungles or into clothes. So, fortunately for mankind, there is always some restless fellow, like the character in Dickens, who "wants to know." He is willing to defy the "common sense" of the hour for the sake of trying to get his questions answered. But this same common sense of the hour is not going to be outraged unavenged. The man who dares to know more than the average has to pay for his temerity. And he will be very fortunate, indeed, if he do not have to pay toll (of heart-ache, loneliness, and reputation) in more directions than one. The wide field of thought thus opened is too large to be traversed in one newspaper article. But I have a special reason for wishing to say a few things as to the perils that beset investigators in the psychical field.

1. That one must dare the disapprobation of his "religious" friends who hold that all things are proper for anybody to

* Rev. M. J. Savage, *Religio-Philosophical Journal*, Aug. 6, 1892.

know are already "revealed," and that if there are any "spirits" they are sure to be evil ones — all this goes without saying.

2. Then there are the square-toed materialists who will have their shy at you. If the universe is purely a piece of mechanism, and as well regulated as a machine that has run so long might be presumed to be, is it not a little curious that out of this machine should have come so many supernormal fancies to disturb the orderly people who assume to have it in charge?

3. Then there are the friends who privately think you are a fool to want any more proof of immortality than the personal "consciousness" which they claim to possess that they are immortal.

4. Then, again, there are the ones who, on the basis of one unsuccessful sitting and a few newspaper "exposures," have come to "know" that the whole business is a humbug. The investigator must be content to have these people look down upon him with a sort of pitying condescension.

5. But there is one other thing that is harder to bear than either of these. And it is concerning this that I wish to free my mind a little through the columns of your paper.

I have never had any esoteric doctrines that I have supposed the world was not ready for. A noted clergyman once said to me, "What I think in my study is one thing, and what I think it is wise and best to give the people on Sunday is another thing;" and I have felt a contempt for this particular man ever since. Who am I that I should assume to be so wise that the Almighty has taken me into his confidence and trusted me with secrets that the world is not "ready for"? Poor world! That it should need to be fed on lies so long because of the weakness of its digestion! Poor God! That He should make so many things true that are not safe for people to know! I fear I am a poor person to intrust with this sort of secrets. If the Lord doesn't want me to tell anything that is true, He had better not let me find it out! It seems to me such a pitiful insult to God to suppose He has made a lot of things true, that at the same time are not safe.

Here comes in the point I wish to make. Every little while I come across an article in some spiritualist paper, written by a "friend" always and from a "friendly" point of view, informing the world that "Mr. Savage is really a spiritualist, only he doesn't think it wise and best as yet to say so openly." And in one case, not long ago, the writer went on to say that he approved of my course. He, the writer, was a spiritualist; but he thought that Mr. Savage could probably do "more good" by occupying his present position, and not risking a loss of standing by espousing openly an unpopular cause. If the writer really

thought so, it struck me as a curious way to help Mr. Savage keep the matter quiet. Now, if there is any type of character for which I have always felt a special contempt, it is the Nicodemus type, in the Bible or out of it. To serve a cause by wearing the uniform of its enemies—well, leave that to the spy. Here is one peril that besets the path of the psychical investigator. One more must be mentioned.

A clergyman in the West wrote me, not long since, saying that a palpably fraudulent spiritualistic "show" was occupying the attention of the town, and that I was being freely quoted as indorsing that sort of thing. When any one doubted, some one would say: "But there is Mr. Savage; he is a clear-headed and competent investigator, and he believes. Look at his published articles on the subject and see!" If only they would look at my published articles and see, and report only what I have really said! But this sort of abuse of my position has been reported to me from, not the interior of the country only, but also from the Pacific Coast. On a certain occasion, when a woman had made herself particularly disagreeable as a speaker in one of Mr. Beecher's Friday evening meetings, after she sat down, he looked up and remarked, with a twinkle in his eye, "Nevertheless, I still believe in women's speaking in meeting!" So, in spite of all the disabilities connected with it, I still believe in psychical research.

But some of my readers will perhaps say that, after all this talk, I have not told what my real position is. A gentleman was once asked as to his religion. He replied that it was "the religion of all sensible men." When asked what that was, he replied, "No sensible man ever tells." But notwithstanding this illustrious example, I am quite willing to tell.

1. I am an investigator. I want to know the truth, whatever it may be. I cannot understand how anybody should want anything else.

2. So far, I am in possession of certain facts that I do not know how to explain, except on the supposition that I have been dealing with some invisible intelligence. I hope this is true. If any one can explain them in any other way, I am quite ready to accept the explanation. In the meantime I propose to wait and study and not tell any more than I know.

SUMMARIES OF ARTICLES.

“CRITICAL STUDY OF MODERN MYSTICISM,” DR. P. ROSENBACH OF
ST. PETERSBURG, “REVUE PHILOSOPHIQUE,” AUGUST, 1892.

THE above article, which reviews and criticises the modern doctrines of spiritualism, monistic philosophy, etc., deserves to be summarized at some length for the benefit of the readers of THE PSYCHICAL REVIEW.

Beginning with a brief historical retrospect of the introduction of the belief in supernatural phenomena, which belief has increased during the last half-century in spite of the facts that the tendency of philosophy has been towards positivism and that scientific thought has become more exact than ever before, the author shows how the various doctrines have been derided and often disproved by the official representatives of the science of our time. He cites the instance that in 1784 the *Académie des Sciences* of Paris investigated animal magnetism, as practised by Mesmer, and concluded that he owed his success to imagination, imitation, and fraud, and that there was no such thing as animal magnetism. In this form the conclusion was incorrect, as we recognize now that the effects produced by Mesmer were due to hypnotic suggestion. The doctrine of “odism” of Baron Reichenbach was investigated by a commission composed of scientists, who were unable to find any phenomena corresponding to his statements. The existence of clairvoyance was assumed to be disproved, inasmuch as the *Académie de Médecine* of Paris in 1837 offered three thousand francs to any one who would read ordinary characters without having seen them; but during three years no one succeeded in so doing, and the *Académie* considered the question thus settled in the negative.

In spite of these seeming defeats, the partisans of the supernatural have been continually making new attempts to prove the existence of phenomena which allow no rational explanation by known laws, and the interest in the subject has drawn the attention of the public more or less during the last century. This has recently been especially the case in England, where the Society for Psychical Research was established in 1882. The official programme of that society is given at some length; this, however, is familiar ground to all interested in these subjects, and

may be passed by. I will now consider, therefore, the results of the commissions as stated by Dr. Rosenbach and his criticisms thereon.

The experiments of the commission of mesmerism are first described. Here certain sensations (taste, touch, etc.) were experienced by the patient in a state of hypnosis, the cause of the sensation not being applied to him directly, but to the "agent" or hypnotizer. The results of these experiments were good, but are deemed insufficient, as they were few and confined chiefly to one subject and one hypnotizer.

The commission on "odism" found that an electric current when passed through a magnet was visible in a dark room as a luminous fluid at the poles of the magnet, the light appearing and disappearing as the current was turned on or off. This faculty of perception was found to exist in three out of forty-five persons who tried the experiment, though these three only possessed the power at rare intervals. The commission is very reserved in its conclusions, on account of the meagreness of the results.

The opposite, however, is the case with the commission on thought transference, which has been very active. Experiments of various kinds were tried, the main principles of which were that one person, the "percipient," tried to guess various acts of a second person, the "agent," who in his turn endeavored solely by mental effort to convey the thought to the mind of the percipient, who tried to make himself as receptive as possible. These experiments were found to divide themselves according to their results into two distinct classes — those where the two persons were in the same room and those where they were in different rooms. When the two were in the same room, the number of correct answers given by the percipient when, for instance, a card was chosen by the agent which was not directly seen by the percipient, was much greater than could be accounted for by the theory of probabilities; yet Dr. Rosenbach considers the fact that this was not the case at all when the two concerned were in separate rooms, so important, that he attributes all the results to unconscious muscle reading or similar phenomena and says: "No one can doubt that the art of intense concentration of thought upon a certain object is always followed by an innervation of the muscles unconsciously produced, but which can serve as a clue to the observer. This is not only a question of a manifest contraction of muscles, but also of more subtle influences on the innervation of the muscles of sight or respiration, on the tension of the facial muscles, on the expression, the voice, etc. This reaction is stronger the more the nervous temperament of the subject is accentuated. The ability to detect this

involuntary action varies with different persons. Hence the difference in the degree of success attained with different subjects, and the great number of correct guesses made when the least contact, visual or otherwise, between the percipient and agent was allowed by the conditions of the experiment. Thus most of the experiments which gave results in favor of thought transference would belong to the category of muscle reading and allied phenomena which the commission themselves say need no explanation; on the other hand, when the conditions exclude all possibility of such contact, even when the experiments are made by persons strongly in favor of the theory of thought transference or clairvoyance, they gave either absolutely negative results or results which conform to the theory of probabilities."

The commission on haunted houses investigated most thoroughly all evidence concerning strange happenings in various localities. Sixty-five cases were examined, and in twenty-eight the reality of the phenomena as stated is in its opinion incontestable. No attempt is made at an explanation.

The cases of thought transference, or telepathy as it is called in ordinary life, are next considered. Several typical cases of presentiments, and "apparitions" of living persons, occurring in dreams or when partly or wholly awake, are taken from "Phantasms of the Living," the well-known work written by Messrs. Gurney, Myers, and Podmore, of the British Society for Psychical Research. Many cases of so-called hallucinations are here considered. Dr. Rosenbach says, in criticism of these cases: "Although the truth of the facts in all these cases has not been strictly proven, and several cases must be believed without evidence, yet most of them cannot be taken as fabulous or even doubtful; and as coincidence or chance cannot be admitted as an explanation, the society believes they cannot be explained except by the existence of a direct supernormal sense, which acts without the direct participation of the organs of sense; that is to say, by telepathy. They explain telepathy in this way: The experiments with mental transmission demonstrated that a supernormal telepathic action can act, not only on the thoughts of the percipient, but also on his sentiments and will; in these three cases we have to do with a purely subjective act. So the result of experimental telepathy is purely subjective when the percipient has received a concrete idea by telepathic sight. It is only necessary to imagine that the excitement of the senses is more intense during a telepathic experiment, and a so lively sensitive perception will be brought to the percipient that it can be externalized, and an hallucination which is a wholly subjective psychic act will occur. Thus apparitions are subjective images; they represent externalizations produced by spontaneous telep-

athy; in other words, they belong to hallucinations, with the difference that they have a real source hidden in the mind of another person." Dr. Rosenbach criticises this theory as follows: "Having shown that the experiments upon which this theory is based are fictitious, i. e., the experiments on thought transference (when no possibility of any kind of contact existed), that they have not given results in favor of the possibility of the supernormal action of one mind upon another, then, if this be the case, the deductions from these experiments are false, no matter how ingenious they may be. Moreover, the analogy between the telepathic transmission of an idea or an image and externalization or telepathic hallucination is not logical. It cannot be denied that telepathic phenomena, so called, can be more easily explained by materialization of spirits; and in that case there would be no need of excluding apparitions of the dead, which the commission on haunted houses apparently recognizes as authentic."

The Society for Psychical Research make some calculations to show that the number of these cases of so-called telepathy is not within the bounds of chance or coincidence according to the theory of probabilities. In this connection Dr. Rosenbach says: "But in this matter the society has not taken into consideration the very important fact that presentiments and dreams are of every-day occurrence in life, and hallucinations and illusions are very widespread phenomena even among the perfectly healthy. Yet the cases of presentiments, dreams, or hallucinations suggesting the idea of telepathy are an infinitely small part of the total number. If the presentiment is not realized, it is soon forgotten; but if the contrary happens even once, the rare exception, even through its rarity, makes a strong impression which lasts a lifetime. The seven hundred and two cases collected by the society thus represent a very small number; and even were there many more, they would only prove the extreme rarity of the phenomena in question; they are taken from the memories of correspondents from all parts of the world, who often speak of occurrences happening long ago, and often not to themselves but to others. If the cases not certified by witnesses, and those where the depositions are vague and not guaranteed against errors of memory were excluded, the number of these strange happenings would diminish most wonderfully. They make but a drop of water in the ocean compared with the negative cases which are furnished us every day of our lives." Dr. Rosenbach thus concludes this subject: "Not only does the doctrine of spontaneous telepathy fail to bear criticism, but the analysis of the facts, which it was invented to explain, shows that there was no need of inventing it."

Theosophy is next considered. The Theosophic Society and its doctrines are described at length, as well as the results obtained by the Commission of the Society for Psychical Research for investigating that society, which showed that the miraculous phenomena which were supposed to take place were a simple and systematic fraud without the slightest foundation of reality. Yet this form of mysticism still flourishes in many places, and more especially in Germany.

The "Monistic" theory of Baron du Prel is considered at some length. This theory is founded for the most part on the stories of sorcery, magic, black and white art, etc., of the Middle Ages. According to this theory the soul is not merely an abstract idea, but a substance differing from all other substances and much less coarse and heavy and more ethereal than the matter of the body. If it is admitted that the soul and the body are not separate things independent of each other, but that the soul is the principal "organizer" of the body (whence the name monistic philosophy, in opposition to the dualistic character of spiritualism and materialism), then it will be easy to understand that the soul can exist in space as a reality independent of the body. As it preserves its "organizing" faculty when separated from the body, it can also be incorporated in another form as desired. The form, however, which it most often takes is that of the body from which it came. The ancients recognized that there was another image made of an ethereal substance, besides the body, and the soul in this state was called the "astral body," and this name has been retained by Dr. du Prel. This corporeal soul can be separated at any moment from the body. Ordinarily this separation takes place only at death; but it can also leave the body while living and show itself to others. As the soul with its astral body is immortal, it can appear at any time after the death of the material body, and then we have a spirit or ghost. This apparition of the astral body can be invoked at the desire of the medium, which explains materializations of spirits and similar phenomena. The astral body on the one hand represents the image of the man with all its attributes; but on the other hand it is subject to the laws of gravitation, inertia, impenetrability, etc., to which ordinary matter is subject. The soul preserves its privileges even in the body; and although it does not always exercise them, it can do so at any time, — thus are explained the mystic and supernatural faculties of mediums and the sorcery of the Middle Ages.

The soul, as the transcendental ego, enjoys other and greater faculties of knowledge and sensation than the corporeal body; therefore, to have a correct idea of our psychic organization, we must pay attention to the manifestations of psychic life, which are

seen when the bond between the soul and the body is broken; when the transcendental ego is more or less disengaged from the carnal influences which hold it down. This happens in the states of somnambulism, ecstasy, sleep, delirium, insanity, and at the moment of death. Thus we should not be astonished that somnambulists, mediums, and sometimes idiots or the dying have the gift of prophecy or clairvoyance. That which appears to us supernatural is only a glimpse of the transcendental, and he who desires to attain true knowledge ought to catch at these glimpses and study them. The collection and co-ordination of such data are the object of the "hidden sciences," the so-called occultism. This is the Monistic Philosophy, as upheld chiefly in a German magazine, the *Shin*. Anything, no matter how absurd, provided it has a shade of mysticism or magic, finds a place in this publication. The conception which lies at the basis of this resurrection of mysticism is only a form of the old spiritual theories, and the inclination of this doctrine to Buddhism, especially to the doctrine of the reincarnation of the soul, makes it more an attempt to establish a new religion than a system of philosophy, and this renders all philosophical analysis of its ideas wholly superfluous. Dr. Rosenbach further demonstrates that Baron du Prel's attempt to show that Kant believed in mysticism is wholly without foundation.

In conclusion Dr. Rosenbach compares the two varieties of psychology, so called, which exist at present. We have on one hand societies of experimental psychology or psychical research, and on the other the true scientific psycho-physics or experimental psychology. Contemporaneous psychology of the latter variety has obtained a great number of facts by the aid of instruments of precision in special psychological laboratories. "It is remarkable that scientific experimental psychology and psycho-physics which are developed in the laboratories of our universities have discovered no new theory on the nature of the soul and the psychic life; and, moreover, they have not even attempted such problems. We find that their experiments have been on the duration of mental associations and their dependence on different conditions, on the subjective estimation of time, the connection between irritations and sensations, etc. These are wholly different subjects from those of the experimental psychology which has been considered here and found to be in part fictitious, and in part unfit for logical conclusions. Of course, whatever of the facts of this mystic psychology are true, ought not to be and cannot continue to be ignored; but as soon as such real facts are submitted to a scientific analysis, they immediately lose their magic aureola and no longer possess any mystic interest, nor the gift of penetrating the real nature of the human soul.

The change which has occurred in the view taken of hypnotism is a striking example of this.

“Psychology for centuries was a branch of philosophy; all representatives of philosophical thought have zealously cultivated psychological problems. But in spite of an infinite number of volumes on the soul written since antiquity, psychology as a science has made no progress. It would seem that a science cultivated by men of genius from Plato to Descartes ought to advance more rapidly than other less favored sciences; but it remained in the embryonic state and made no advances, until emancipated from philosophy. The philosophical study of psychological problems, starting from questions as to the nature of the soul, had of necessity a metaphysical character, and consequently could give no positive scientific results. Positive science has to do only with phenomena accessible to exact research. In the domain of psychology they consist of manifestations of the psychical life, and these are the objects of true scientific psychology. What is the soul? Is it an independent being? Does it exist at all or not? All these attractive questions are vain from this point of view. The experience of our day shows that the most profound meditations on these subjects produce nothing. This is why contemporaneous scientific psychology is justified in discarding them and studying concrete psychical phenomena. As to researches in mysticism, attempting to unveil the nature of the soul, even when they have a true experimental character, they are in fact only a masked return to metaphysical tendencies long grown old and useless.”

ARTHUR M. COMEY.

WHAT PSYCHICAL RESEARCH HAS ACCOMPLISHED, PROFESSOR
WILLIAM JAMES, “FORUM,” AUGUST, 1892.

“Soft-headedness and idiotic credulity” are not the bond of sympathy in the Society for Psychical Research. Among the leading members are men honored for their scientific capacity, and “hard-headedness and never-sleeping suspicion of sources of error” can be seen in the “Proceedings” in “full bloom.” “The rigorous canons of evidence applied a few years ago to testimony in the case of certain ‘mediums’ led to the secession from the society of a number of spiritualists. Messrs. Stainton Moses and Alfred Russel Wallace, amongst others, thought that no experiences based on mere eyesight could ever have a chance to be admitted as true if such an impossibly exacting standard of proof were insisted upon in every case.” The society was founded in February, 1882.

In his introductory address Professor Sidgwick “Insisted that the divided state of public opinion on all these matters was a scan-

dal to science, absolute disdain on *à priori* grounds characterizing what may be called professional opinion." In accumulating reports of sporadic phenomena, such as apparitions, the S. P. R. has "Done an immense amount of work. As an experimenting body it cannot be said to have completely fulfilled the hopes of its founders." The uncritical and practically worthless data found in the enormous extant literature of the supernatural makes the function of the society "Indispensable in the scientific organism" as a weather bureau, as it were, to report upon sporadic phenomena while they are fresh, even were no experimental work done. In the "Proceedings" quality has been mainly kept in mind. Witnesses have been cross-examined, collateral facts investigated, and "The narrative appears with its precise co-efficient of evidential worth stamped on it, so that all may know just what its weight as proof may be." In 1885 the "American Society for Psychological Research" was founded in Boston by Professor Barrett; it perished after five years, but most of its associates joined the "American Branch" of the English Society which was then organized. Its salaried secretary, Mr. Richard Hodgson, "Is the only individual connected with it who is able to make any solid contribution to its work. It requires, moreover, a large increase of membership to become self-supporting."

"One cannot by mere outward organization make much progress in matters scientific. Societies can back men of genius, but can never take their place. The contrast between the parent society and the American Branch illustrates this. In England a little group of men with enthusiasm and genius for the work supplied the nucleus; in this country Mr. Hodgson had to be imported from Europe before any tangible progress was made." Both Professor Sidgwick and his wife are remarkably qualified for their work, while to the confidence inspired by the former is due, more than to anything else, the continued life of the society. Edmund Gurney, a man of the rarest gifts, was the *worker* of the society. His two thick volumes, "Phantasms of the Living," were collected and published in three years. Mr. F. W. H. Myers is now the *ingenium præfervidum* [genius *par excellence*] in England. Mr. Hodgson, the American secretary, "Is distinguished by a balance of mind almost as rare in its way as Sidgwick's. He is persuaded of the reality of many of the phenomena called spiritualistic, but he also has uncommon keenness in detecting error; and it is impossible to say in advance whether it will give him more satisfaction to confirm or to smash a given 'case' offered to his examination."

The pages of the "Proceedings" for the first two years are chiefly filled with the results of experiments in thought transfer-

ence. At the time the society's observers, or some of them if not all, were convinced that the daughters of a clergyman named Creery had the power of guessing names and objects thought of by other persons. Two years later, however, the girls were detected signalling to each other, and Mr. Gurney withdrew his confidence from all of the previous results. Three other subjects were experimented with during this period. "It is the opinion of all who took part in these experiments that sources of conscious and unconscious deception were sufficiently excluded, and that the large percentage of correct reproductions by the subjects of words, diagrams, and sensations occupying other people's consciousness were entirely inexplicable as results of chance. The present writer confesses that the reading of the records leaves on him a similar impression." Since the first three years no new subjects have turned up who could afford the society opportunities for continuing the experiments in a satisfactory manner, though some scattering results were obtained; yet so well satisfied were the witnesses of the performances of the subjects, excluding the Creery girls, of the "Genuineness of the phenomenon, that 'telepathy' has figured freely in the papers of the 'Proceedings,' and in Gurney's book on 'Phantasms' as a *vera causa* on which additional hypotheses might be built. No mere reader can be blamed, however, if he refuse to espouse so revolutionary a belief until a larger bulk of testimony be supplied." Volume I. contains the only paper on the divining rod thus far published in the "Proceedings"; the results are inconclusive. Omitting papers on memory during hypnotism and others based upon an analysis of old facts, "We find that in the line of pure observation Gurney claims to have ascertained in more than one subject the following phenomenon, of which the theoretic explanation is doubtful: The subject's hands are thrust through a blanket which screens the operator from his eyes, and his mind is absorbed in conversation with a third person. The operator meanwhile points with his finger to one of the fingers of the subject, which finger alone responds to his silent selection by becoming stiff or anæsthetic, as the case may be. The interpretation is difficult; but the phenomenon, which I have myself witnessed, seems authentic.

"Another observation made by Gurney seems to prove the possibility of the subject's mind being directly influenced by the operator's. The hypnotized subject responds or fails to respond to questions asked by a third party according to the operator's silent permission or refusal. Of course, in these experiments all obvious sources of deception were considered. But Gurney's most important contribution by far to our knowledge of hypnotism was his series of experiments on the automatic

writing of subjects who had received post-hypnotic suggestions. For example, a subject during trance is told that he will poke the fire in six minutes after waking. On being waked he has no memory of the order; but while he is engaged in conversation his hand is placed on a *planchette*, which immediately writes the sentence, 'P., you will poke the fire in six minutes.' Experiments like this, which were repeated in great variety, prove that below the upper consciousness the hypnotic consciousness persists, engrossed with the suggestion and able to express itself through the involuntary moving hand.

"Gurney shares, therefore, with Janet and Binet, whose observations were made with widely differing subjects and methods, the credit of demonstrating the simultaneous existence of two different strata of consciousness, ignorant of each other, in the same person. The 'extra-consciousness,' as one may call it, can be kept on tap, as it were, by the method of automatic writing. This discovery marks a new era in experimental psychology; it is impossible to overrate its importance. But Gurney's greatest piece of work is his laborious 'Phantasms of the Living.'" Out of about seven hundred cases recorded in these volumes a large number are "veridical," in the "sense of coinciding with some calamity happening to the person who appeared. Gurney's explanation is that the mind of the person undergoing the calamity was at that moment able to impress the mind of the percipient with an hallucination. Apparitions, on this 'telepathic' theory, may be called 'objective' facts, although they are not material facts." Reports from twenty-five thousand people included in Gurney's "census of hallucinations" show that "one person out of every one hundred and forty in the community has had a veridical hallucination of some sort or other, vague or precise. The question is, Is this degree of frequency too great to be deemed fortuitous, and must we suppose an occult connection between the two events? My own position is still one of doubt, although I tend to accept the occult connection. In but few cases is the evidence as complete as one could wish, and the data themselves are all too crude for a mathematical computation of probability.

"The next experimental topic worth mentioning in the 'Proceedings' is the discussion of the physical phenomenon of mediumship (slate writing, furniture moving, and so forth), by Mrs. Sidgwick, Mr. Hodgson, and Mr. Davey. This, so far as it goes, is destructive of the claims of all the mediums examined. In the way of 'control,' Mr. Davey himself produced fraudulent slate writing of the highest order, while Mr. Hodgson, a 'sitter,' in his confidence reviewed the written reports of the series of his other sitters (all intelligent persons), and shows that in every case they

failed to see the essential features of what was done before their eyes. This Davey-Hodgson contribution is probably the most damaging document, concerning eye-witnesses' evidence, which has ever been produced." Mr. Hodgson also investigated the claims of Madame Blavatsky as a physical medium, and reported adversely upon them. Reports of sittings with Mrs. Piper in England and America give "proof (entirely conclusive to the present writer's mind) that this lady has shown in her trances a knowledge of the personal affairs of living and dead people which it is impossible to suppose that she can have gained in any 'natural' way. A satisfactory explanation of the phenomenon is yet to seek. It offers itself as spirit control; but it is as hard to accept this theory without protest as it is to be satisfied with such explanations as clairvoyance or reading the sitter's mind."

Another article is that of Miss X. on "'Crystal Vision.' Many persons who look fixedly into a crystal or other vaguely luminous surface fall into a kind of daze, and see visions. Miss X. has this susceptibility in a remarkable degree, and is, moreover, an unusually intelligent critic. She reports many visions which can only be described as apparently clairvoyant, and others which beautifully fill a vacant niche in our knowledge of sub-conscious mental operations. For example, looking into the crystal before breakfast one morning, she read in printed characters of the death of a lady of her acquaintance, the date and other circumstances all appearing in type. Startled by this, she looks at the *Times* of the previous day for verification, and there amongst the deaths are the identical words which she has seen. On the same page of the *Times* are other items which she remembers reading the day before, and the only explanation seems to be that her eyes then inattentively observed, so to speak, the death item, which forthwith fell into a special corner of her memory, and came out as a visual hallucination when the peculiar modification of consciousness induced by the crystal-gazing set in." Among papers based upon narrative there are a number of ghost stories. "As to the conclusions drawn, Mrs. Sidgwick is rigorously non-committal, while Mr. Myers and Mr. Podmore show themselves respectively hospitable and inhospitable to the notion that such stories have a basis of objectivity dependent upon the continued existence of the dead."

The most important part of the "Proceedings" is "the long series of articles by Mr. Myers on what he now calls the 'subliminal self,' or what I have designated above as the 'extra-consciousness.' The result of Myers' learned and ingenious studies in hypnotism, hallucinations, automatic writing, mediumship, and the whole series of allied phenomena is a conviction which he expresses in the following terms: 'Each of us is in reality an

abiding psychical entity far more extensive than he knows—an individuality which can never express itself completely through any corporeal manifestation. The self manifests itself through the organism, but there is always some part of the self unmanifested, and always, as it seems, some power of organic expression in abeyance or reserve.” The ordinary consciousness Mr. Myers likens to the visible part of the solar spectrum; the total consciousness is like the spectrum prolonged by the inclusion of the ultra-red and ultra-violet rays. In the psychic spectrum the “ultra” parts may embrace a far wider range, both of physiological and of psychical activity, than is open to our ordinary consciousness and memory. At the lower end, beyond the red, as it were, we have the *physiological* extension, mind cures, “stigmatization” of ecstasies, etc.; in the upper or ultra-violet region, we have the hyper-normal cognitions of the medium trance. Whatever the judgment of the future may be on Mr. Myers’ speculations, the credit will always remain to them of being the first attempt in our language, and the first thoroughly *inductive* attempt in any language, to consider the phenomena of hallucination, hypnotism, automatism, double personality, and mediumship as connected parts of one whole subject. No one seems to me to have grasped the problem in a way both so broad and so sober as he has done.

“One’s reaction on hearsay testimony is always determined by one’s own experience.” Most men when satisfied as to the verity of one species of supernatural phenomena, “Begin to relax their vigilance as to evidence.” To such a mind, the detail of the society’s work “seems insufferably tedious.” Taken by themselves the reports on phantasms seem devoid of meaning; of all the facts of nature “These alone are contextless and discontinuous.” The failure to conceive where there can be a place for such phenomena leads many honest scientists to loathe psychical research. Thus it happens that “between the spiritualists and theosophists, who have so much orbit that they are sickened by the methods, and the scientists, who have so little that they are sickened by the facts, of the ‘S. P. R.,’ the latter stands in a rather forsaken position. And yet it is a position of peculiar merit, as I think a little reflection will show.

“Orthodoxy is almost as much a matter of authority in science as in the church. We believe in all sorts of laws of nature which we cannot ourselves understand, merely because men whom we admire and trust vouch for them. If Messrs. Helmholtz, Huxley, Pasteur, and Edison were simultaneously to announce themselves as converts to clairvoyance, thought transference, and ghosts, who can doubt that there would be a prompt popular stampede in that direction? . . . Now, it is certain that if the cat ever does

jump this way, the cautious methods of the 'S. P. R.' will give it a position of extraordinary influence. . . . The present writer (not wholly insensible to the ill consequences of putting himself on record as a false prophet) must candidly express his own suspicion that sooner or later the cat *must* jump this way. The special means of his conversion have been the trances of the medium whose case in the 'Proceedings' was alluded to above. Knowing these trances at first hand, he cannot escape the conclusion that in them the medium's knowledge of facts increases enormously, and in a manner impossible of explanation by any principles of which our existing science takes account. Facts are facts, and the larger includes the less; so these trances doubtless make me the more lenient to the other facts recorded in the 'Proceedings.' I find myself also suspecting that the thought-transference experiments, the veridical hallucinations, the crystal-vision, yea, even the ghosts, are sorts of thing which with the years will tend to establish themselves. All of us live more or less on some inclined plane of credulity. The plane tips one way in one man, another way in another; and may he whose plane tips in *no* way be the first to cast a stone! But whether the other things establish themselves more and more, or grow less and less probable, the trances I speak of have broken down for my own mind the limits of the admitted order of nature. Science, so far as science denies such exceptional facts, lies prostrate in the dust for me; and the most urgent intellectual need which I feel at present is that science be built up again in a form in which such facts shall have a positive place. Science, like life, feeds on its own decay. New facts burst old rules; then newly divined conceptions bind old and new together into a reconciling law.

"And here finally is the real instructiveness of Messrs. Myers' and Gurney's work. They are trying with the utmost conscientiousness to find a reconciling conception which shall subject the old 'laws of nature' to the smallest possible strain. Mr. Myers uses that method of gradual approach which has performed such wonders in Darwin's hands. When Darwin met a fact which seemed a poser to his theory, his regular custom, as I heard an ingenious friend say, was to fill in all round it with smaller facts, and so mitigate the jolt, as a wagoner might heap dirt round a big rock in the road, and thus get his team over without upsetting. So Mr. Myers, starting from the most ordinary facts of inattentive consciousness, follows his clue through a long series which terminates in ghosts, and seeks to show that these are but extreme manifestations of a common truth, the truth that our normal conscious life is but the visible segment of a spectrum indefinitely long, of which the invisible segments are capable, under rarely

realized conditions, of acting and being acted upon by the invisible segments of other conscious lives. This may not be ultimately true (for the theosophists, with their astral bodies and the like, may, for aught I know, prove to be on the correcter trail), but no one can deny that it is *scientific*.

"Science always takes a known kind of phenomenon and tries to extend its range. Sensorial hallucination is a known kind of phenomenon; and it is also a known phenomenon that impressions received by the 'subliminal' (beneath the threshold) strata of consciousness may be hallucinatory in their intensity. Witness the phenomena of dreams and the hypnotic trance. Mr. Myers accordingly seeks to interpret mediumistic experiences and ghostly apparitions as so many effects of the impact upon the subliminal consciousness of causes 'behind the veil.' The *effects*, psychologically speaking, are hallucinations; yet so far as they are 'veridical,' they must be held probably to have an 'objective' cause. What that objective cause may be, Mr. Myers does not decide; yet from the context of many of the hallucinations it would seem to be an intelligence other than that of the medium's or seer's ordinary self, and the interesting question is, Is it what I have called the extra-conscious intelligence of persons still living, or is it the intelligence of persons who have themselves passed behind the veil? Only the most scrupulous examination of the 'veridical' effects themselves can decide. I do not myself see how any candid mind can doubt that Mr. Myers' scrupulous testing of the minutest cases is in the line of the best scientific tradition. I do not see, whatever prove the fate of his hypothesis, how his 'working it for all it is worth' can fail to mark a distinct step onward in our knowledge of the truth.

"I have myself during the past two years, as American agent for the census, collected some five hundred cases of 'hallucination' in healthy people. The result is to make me feel that we all have potentially a 'subliminal' self, which may make at any time irruption into our ordinary lives. In its lowest phases it is only the depository of our forgotten memories; in its highest, we don't know what it is at all. Take, for instance, a series of cases. . . A lady used to taking salicylate of soda for muscular rheumatism awakens one early winter morning with an aching neck. In the twilight she takes what she supposes to be her customary powder from a drawer, dissolves it in a glass of water, and is about to drink it down, when she feels a sharp slap on her shoulder, and hears a voice in her ear saying, 'Taste it!' On examination she finds she has got a morphine powder by mistake. The natural interpretation is that a sleeping memory of the morphine powders awoke in this quasi-explosive way. . . . Now, the *effect* is doubtless due to the sane hallucinatory mechan-

ism, but the *source* is less easily assigned as we ascend the scale of cases. A lady, for instance, goes after breakfast to see about one of her servants who has become ill over night. She is startled at distinctly reading over the bedroom door in gilt letters, the word 'smallpox.' The doctor is sent for, and ere long pronounces smallpox to be the disease, although the lady says, 'The thought of the girl's having smallpox never entered my mind till I saw the apparent inscription. Then come other cases of warning; e. g., that of a youth sitting in a wagon under a shed; he suddenly hears his dead mother's voice say, 'Stephen, get away from here quick,' and jumps out just in time to see the shed roof fall."

"After this come the by no means infrequent experiences, usually visual, but sometimes both visual and auditory, of people appearing to distant friends at or near the hour of death. Then we have the trance visions and utterances, which (as in the case of a circle of private persons with whom I have recently become acquainted) may appear astonishingly profuse and continuous, and maintain a superior level intellectually. For all these higher phenomena, it seems to me that whilst the proximate mechanism is that of 'hallucination,' it is straining an hypothesis unduly to name any ordinary sub-conscious operation, such as expectation, recollection, or inference from inattentive perception, as the ultimate cause that starts it up. It is far better tactics to brand the narratives themselves as unworthy of trust. The trustworthiness of most of them is to my own mind far from proved. And yet in the light of the medium trance, which *is* proved, it seems as if they might well all be members of a 'natural kind' of fact of which we do not yet know the full extent. Thousands of 'sensitive' organizations in the United States to-day live as steadily in the light of these experiences and are as indifferent to modern 'science' as if they lived in Bohemia in the twelfth century. They are indifferent to science, because science is so callously indifferent to their experiences. The essential 'point' I wish to make to my readers is that by taking the experiences of these persons as they come, and applying the ordinary methods of science to their discussion, the 'Proceedings' of the 'S. P. R.,' whatever be their theoretic outcome, form a department of empirical natural history worthy of all encouragement and respect."

The practical value of inquiries into the extra-consciousness is shown by the results obtained by M. Pierre Janet, a professor of philosophy who pursues his studies in the Paris hospitals. "He had a patient named Marcella, aged nineteen, turned over to him. Marcella was a melancholic girl, whose character had gradually become so changed for the worse as to become unrecognizable, and whose life was a picture of invincible apathy and inertia,

varied by occasional spells of violence, — a sort of case that in our asylum is generally 'let alone' as much as possible, in the hope that time may of itself effect a cure. M. Janet carefully studied all her symptoms, obtaining important clues from her while in the hypnotic state, and through automatic writing. Finally, through hypnotic commands and other psychical means, he succeeded in restoring her to a normal condition.

T. E. ALLEN.

EDITORIAL.

FIFTH GENERAL MEETING OF THE AMERICAN PSYCHICAL SOCIETY.

THIS meeting was held in the parlors of the Church of the Unity, upon Wednesday, October 26, at 2.30 P. M. In spite of the threatening weather it was attended by seventeen ladies and thirteen gentlemen. Vice-President Flower presided. After reading the minutes of the previous meeting, the secretary read a "Review of the Report of the Committee on Spiritualism of the London Dialectical Society," prepared by Mr. Calvin W. Parsons. Mr. Flower then gave some of the chief facts about the "Remarkable Psychical Properties of a Well in Virginia," stating that he had received letters from Colonel J. Deyer, the owner of the property on which the well is located, and from one or more others corroborating the statements made in the newspapers that what appear to be apparitions of persons and objects have really been seen by a large number of people. Colonel Deyer invited the society to investigate his well, and Mr. Flower said that he would subscribe twenty-five dollars toward a fund for the purpose if the balance could be raised. Since the meeting, the generosity of Mrs. Kate A. Molineux and her mother has placed in the treasury of the society the sum of two hundred dollars, a portion of which will be used, with other donations, to send two of the directors to Virginia.

A paper, by Professor Jos. Rodes Buchanan, M. D., "The Science of Psychometry," was then read by Mr. Allen; Dr. L. A. Phillips followed with an account of "Some Cases of Psychical Diagnosis." Mr. Allen stated that he had finally succeeded in getting the co-operation of a psychic with whose aid he hoped that results would finally be obtained with the psychograph, though it might take some time. The meeting then adjourned.

THE NOVEMBER REVIEW.

The contents of this issue are quite varied. The majority of our readers will look upon the paper of Professor Buchanan, "The Science of Psychometry," as a theorem, merely requiring the citation of the results of many experiments before they can see that the Q. E. D. follows. Nevertheless, conclusions based upon

an experience of half a century are worth our consideration. It is to be hoped that in the future he will describe the experiments made, and present the data and arguments upon which psychometry is based.

No one will deny the importance of a procedure that may, possibly, when better understood, enable at least some physicians to make more accurate diagnosis of diseases. Dr. Phillips has not, of course, gone far enough in his investigations, has not accumulated sufficient data, to warrant the drawing of positive conclusions. I hope that such an interest will be aroused in this class of cases that as many as possible of them will be reported to the A. P. S.

There have been published a few quite widely known reports of the results of investigations of spiritualism. One of these is that of the committee upon spiritualism of the London Dialectical Society, reviewed in this issue. Whatever the merit of that report, it certainly is of enough importance historically to justify a summary of it in the pages of *THE REVIEW*.

PLANS FOR THE FUTURE.

In the first issue of *THE REVIEW* it was stated that the editorial policy would be to make its work thoroughly constructive in character. While we may be hampered in the execution of our plans through the lack of facilities which demand the expenditure of more money than we can afford to appropriate for the publication of this journal, at the same time we shall do as well as we can under the circumstances. The following are some of the features we wish to add as soon as possible:—

1. Original verified cases. We have quoted most of the cases vouched for by Rev. M. J. Savage in his *Arena* articles. It is desirable that the unpublished cases to which our attention is called from time to time should be carefully weighed, the witnesses cross-examined, and the results presented. I have heard of a number which may prove of great interest and value, and it is probable that many might be obtained.

2. Index of current periodical literature. All persons who take a serious interest in any subject know how helpful it is to have access to a carefully prepared index which will call their attention to what has been published in the leading journals bearing upon that topic. One likes to feel that he can assure himself, with a minimum expenditure of time, that nothing of importance has escaped his notice. Realizing how widespread this feeling is, we shall shortly begin the publication—perhaps in the February issue—of an index of psychical articles in periodical literature compiled from the psychical journals and from a number of other sources.

3. A quarterly epitome of psychical work. Every one knows what a satisfaction it is to go to a friend who keeps himself in touch with the most important developments in a line in which he is interested, and receive in a few minutes the net result of a wide reading and of thought that has cost many hours of labor. This department is designed to do just this work, to be the friend who gives you the benefit of his gleanings. The two departments already established — the Psychical Cases and Reflections from Periodical Literature, where matter is printed *verbatim*, and the Summaries of Articles where an abstract is given — and the Index and Epitome proposed, form together a comprehensive scheme for placing before our readers, as proposed in our August issue, "A digest of the best results of psychical science all over the world." These features will make this quarterly the "*Review of Reviews*" of the psychical world, and make it indispensable to every psychical student.

Among the articles which will be planned and assigned to be written are: (1) A digest of the principal reports upon spiritualism thus far made; (2) a critical review of results obtained where apparatus was used; (3) a series of articles setting forth the facts found and the inferences drawn by the Society for Psychical Research; (4) papers upon the application of the scientific method to psychical phenomena; (5) critical discussion of evidence bearing upon different types of phenomena; (6) papers filling the gap between official psychology and psychical science.

In the execution of these plans which, I believe, will broaden and deepen as the work proceeds, we shall do the best we can, and this "best" will improve in proportion as earnest, thoughtful, and able men and women co-operate with us by preparing papers for *THE REVIEW*, and as those who have means contribute towards its financial support. Those who would like to write for our quarterly, whether along the lines suggested or upon other topics, are requested to address T. E. Allen, Grafton, Mass., giving their subject and a brief outline of the mode of treatment they propose to adopt.

TWO VIEWS OF THE OUTCOME OF PSYCHICAL STUDIES.

It so happens that the month of August witnessed the publication of two estimates of the results of psychical studies, one by Dr. P. Rosenbach, "Critical Study of Modern Mysticism," and the other by Professor William James, "What Psychical Research has Accomplished." Summaries of both articles will be found elsewhere in *THE REVIEW*. I shall emphasize and criticise a few of the more striking points.

Dr. Rosenbach concedes that the decision arrived at by the *Academie des Sciences* of Paris, that the results obtained by

Mesmer were due to "imagination, imitation, and fraud," is incorrect. It does not seem to me, in the face of this historic instance of reversal of an earlier scientific judgment, that he gives sufficient weight to the evidence accumulated by the Society for Psychical Research. The fact that no one gained the prize offered by the *Academie de Médecine* to the person who should read concealed characters, was no disproof of clairvoyance even though, upon the other hand, a successful attempt to do so would have furnished evidence of weight upon the other side. It is surprising that members of the *Academie*, professedly scientific men, should have fallen into the error of rendering such a decision when it is a well-established truth that negative evidence in such cases is worthless.

Dr. Rosenbach says that the experiments in thought transference which are not explained by muscle reading are either negative in results, or conform to the theory of probabilities, thus making them the result of chance. Professor James, upon the other hand, after pointing out that those who conducted the experiments were satisfied that they had eliminated sources of error, and that the results obtained were not results of chance, says that "the reading of the records leaves on him a similar impression." The former takes no stock in telepathy; the latter is still in doubt, but tends "to accept the occult connection."

The writer in the *Revue Philosophique* states that the workers in the university laboratories in the department of experimental psychology occupy themselves with such inquiries as "The subjective estimation of time, the connection between irritations and sensations, etc.," a wholly different class of subjects from those to which his paper is devoted. He thinks it "remarkable" that these scientists have propounded no new theory as to the nature of the soul, and then goes on to say that they have not even attempted the solution of such problems. It would be, indeed, remarkable if an astronomical observatory located in the Mammoth Cave failed to contribute its quota to the mass of observations upon which progress in stellar science depends! I am not here disputing the value of official experimental psychology, however; far from it. Let us learn all we can about "the duration of mental associations and their dependence upon different conditions," and about the qualitative and, as far as possible, the quantitative relations of all the elements whose interactions make up the subject matter of psychology.

"Positive science," Dr. Rosenbach says, "has to do only with phenomena accessible to exact research. In the domain of psychology they consist of manifestations of the psychical life, and these are the object of true scientific psychology." Thank you; this is all that any psychical researcher can ask, but he will accept

nothing less. "What is the soul? Is it an independent being? Does it exist at all or not? All these attractive questions," continues the critic of mysticism, "are vain from this point of view." Not so. Undoubtedly there has been and is a vast amount of thinking relative to the more obscure psychical phenomena that is metaphysical in character and critically worthless; doubtless, also, we are subject to some other limitations. It may not be reasonable, perhaps, to expect to go further in the direction of finding out what the soul is than it is possible to go along other lines to find out what matter is; but I see no satisfactory *à priori* reason why the process by which we infer the latter is not equally applicable to those "manifestations of the psychical life" which Dr. Rosenbach declares to be the "object of true scientific psychology." Is there a soul? and is the soul an independent being, or can it exist separated from the physical body?—the difficulty of obtaining a satisfactory answer to these questions appears to be less than that involved in finding out the nature of the soul beyond a certain point, the last word concerning which, as in the case of matter, may, from the nature of our knowing, always remain unspoken.

The reason why psychology as a science made no advance for centuries, though cultivated by men of genius like Plato and Descartes, is, contends Dr. Rosenbach, because as a branch of philosophy its method was not that of inductive science, but of metaphysics. After speaking of the questions already cited, about the nature of the soul, etc., he says: "The experience of our day shows that the most profound meditations on these subjects produce nothing. This is why contemporaneous scientific psychology is justified in discarding them and studying concrete psychical phenomena. As to researches in mysticism, attempting to unveil the nature of the soul, even when they have a true experimental character, they are in fact only a masked return to metaphysical tendencies long grown old and useless." Evidently the scientific method is the only one in which Dr. Rosenbach has any faith. So far, I agree with him. But does it follow because "the most profound meditations" (and those referred to must have been metaphysical, since the psychological science he commends has "not even attempted such problems") have produced nothing, that the application of the method he does believe in may not lead to something of value? No.

So far as the observations of mystics, spiritualists, and psychical students have been defective, their reasonings fallacious, their method not that of science, so far as they have generalized from insufficient data where they should have remained in suspense pending the accumulation of more data,—so far their results should be rejected. To remind them that they live in the nine-

teenth century is a wholly some thing; but to set before him all manifestations of "the psychical life," actual and potential, to plot out a boundary line determined mostly or solely by his personal predilections, and then to label one the legitimate field for the operation of experimental psychology and to give over the other to nescience forever, — in this Dr. Rosenbach is not justified. It seems to me that he does not stop short of what I have pointed out, when he speaks of researches in mysticism, "*even when they have a true experimental character*" as being "only a masked return to metaphysical tendencies."

The truth is, and it is needful to emphasize it at this point, that every *force* and every *influence* (or subtler form of force) which can act upon the mind of man furnishes a proper subject for investigation and one which, however tangled the web of which it forms a part, will fall gradually into order in the mind of the patient student who is true to the scientific method. There is but one field of psychology, and that includes *all* manifestations of the psychical life. Psychical research, so far as the term is used in contradistinction to psychology, refers to certain lines of study concerning which official psychology is generally so sceptical as to be lacking in that faith — even though comparatively small — necessary to stimulate to serious investigation. Later the discovery will be made that the true psychical researchers form a corps of scouts and a vanguard — the main army will shortly pitch their tents upon the same field.

Of the attitude of Professor James it is not necessary to speak at length. It is a matter for congratulation that a gentleman occupying his position, a professor of philosophy at Harvard University, — the focus of so many influences which whisper, "Keep within the pale of scientific orthodoxy," — should speak so emphatically in favor of psychical research, and insist upon its utility. His statement also that the trances of Mrs. Piper have broken down for his mind "the limits of the admitted order of nature," that science, so far as it "denies such exceptional facts, lies prostrate in the dust" for him, and that "the most urgent intellectual need" which he feels at present "is that science be built up again in a form in which such facts shall have a positive place" — such statements cannot fail to cause many people who are indifferent or opposed to psychical research to pause and ask themselves whether, after all, such studies ought not to be encouraged. While there is an unlimited amount of work to be done in the psychical field, it is probable that the worst of the days of proscription for the psychical student have passed.

T. E. A.

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