

THE
QUARTERLY REVIEW.

- ART. I.—1. *Experimental Investigation of the Spirit Manifestations, demonstrating the Existence of Spirits and their Communion with Mortals.* By Robert Hare, M.D., Professor of Chemistry in the University of Pennsylvania. New York, 1858.
2. *Quarterly Journal of Science.* London, July, 1871.
3. *The Spiritualist.* London, July 15, 1871.
4. *Table-Turning.* A Lecture by the Rev. R. W. Dibdin, M.A. London, 1853.
5. *Robert Houdin, Ambassador, Author, and Conjuror.* Written by himself. Paris, 1858.

A BELIEF in occasional direct communications between the disembodied spirits of the dead and the souls of the living, as well as in the possession of 'occult' powers of various kinds, derived from this intercourse with the nether world, by the individuals to whom such communications are vouchsafed, seems to have prevailed, under some form or other, from the earliest historic period. And at the present time it not merely lingers as a superstition among races that have made but slight advance on their primitive rudeness, but is extensively and seriously entertained in the very heart of nations that claim to lead the van of modern civilisation; being professed not only by the ignorant but by the well-instructed, and alike by those who avowedly trust—as to all that relates to the unseen—in Faith rather than in Reason, and by such as glory in their entire freedom from antiquated prejudices of every description.

For a time, indeed, the mental tendencies which lie at the foundation of this belief developed themselves in a different direction. The Witch Mania that had given occasion to frightful persecutions, under the influence of the most bigoted form of Roman Catholicism, in various parts of Continental Europe, and under that of a gloomy and fanatical Calvinism in Scotland and New England, had passed away by the middle of the last century. A more healthy Rationalism was beginning to grow up; the theory of Evidence was beginning to be better understood,

and its rules more strictly applied; and sober-minded people had come to be ashamed of the credulity which had subjected so many harmless victims to the most terrible tortures, and had caused the sacrifice of so many innocent lives. The ultra-Rationalism which, in the form of a sceptical and materialistic philosophy, held almost undisputed sway in France during the latter half of the eighteenth century, and was embraced elsewhere by many who welcomed it as releasing them from the trammels of slavish superstition, tended still further to throw discredit upon the narratives of spiritual visitations which had been previously received with a childlike trust. And the great scientific discoveries in which that epoch was so fruitful made its *savans* look to an increased acquaintance with Nature, rather than to supernatural agencies, for the explanation of phenomena that seemed beyond the scope of ordinary knowledge. Thus, shortly before the outbreak of the first French Revolution, we had Mesmer and his followers claiming to be the vehicles of a new force, allied to electricity in its potent action on the living body, and derived, not from communication with the spirits of the dead, but from their own intense vitality. The tremendous cataclysm which occurred soon afterwards, and the gigantic struggles which followed it, absorbed the attention of Europe for the next quarter of a century; but so soon as the general peace left the public free to think of other than great political and social questions, Mesmerism cropped up again, and soon underwent a development so remarkable as to gain for it a very decided hold upon the minds not merely of the credulous vulgar, but of men distinguished in various departments of science. In fact, there were few who had witnessed its phenomena who were not inclined to admit that there must be 'something in it,' though there was an entire want of accordance as to what that 'something' might be; until the researches of the late Mr. Braid, a surgeon of Manchester, on a form of artificial somnambulism which he found himself able to induce in a large number of subjects by a very simple process, gave a clue to the mystery. Of these researches, and of other enquiries in the same direction we gave an account in the pages of this 'Review,' exactly eighteen years ago; * essaying to guide our readers as to 'what to believe' in regard to Mesmerism, Electro-Biology, Odyism, Table-turning, and (we were 'almost ashamed to be obliged to add') Spirit-rapping and Table-talking. We have the satisfaction of knowing that our exposition was regarded as satisfactory, not merely by the highly intelligent class to whom it

* Vol. xciii. p. 501, seqq., October, 1853.

was immediately addressed, but by the ablest of our physiologists and psychologists who had given special attention to the subject. We were not sanguine enough to expect that it would exert the like influence over minds specially predisposed to a belief in 'occult' agencies; their want of scientific culture preventing them from appreciating the force of scientific reasoning, while their deficiency in practical good sense renders them liable to become the slaves of *dominant ideas*. 'Such persons,' we remarked, 'are no more to be argued with than are insane patients. They cannot assent to any proposition which they fancy to be in the least inconsistent with their prepossessions; and the evidence of their own feelings is to them the highest attainable truth. It is not to these that we address ourselves:—"Ephraim is joined to idols; let him alone."'

The eighteen years that have elapsed since we penned these words have given them a melancholy significance. Under the designation 'Spiritualists,' a great and increasing sect has arisen both in the United States and in our own country, which numbers among its members not only a large aggregate that may be considered as representing the average intelligence of our social community, but some of the most cultivated men and women of our time; whilst distinguished representatives of various departments of science have attested the reality of some of the most extraordinary manifestations of the occult power exerted through the chiefs of the sect, though without committing themselves to any hypothesis as to its source.

The fundamental tenet of the Spiritualists is the old doctrine of communication between the spirits of the departed and the souls of the living; but it now rests not upon vague accounts of ghostly visitations witnessed by a few individuals on rare and solemn occasions—as when a murder was to be discovered, or a hidden treasure revealed,—but upon the familiar converse held with departed relatives and friends by 'circles' sitting round a friendly table. For it was discovered, shortly after the publication of our former article, that the 'Table-talking' therein described, instead of being the work of *evil* spirits (as maintained by the Evangelical clergymen who first investigated it) furnished a means of ready communication with spirits of a more harmless and benignant character, who are always waiting about us for a little cheerful talk, and who, after signifying their presence by causing the table to move round or to tilt over, or by rapping sonorously beneath it, obligingly follow the directions of the individual who leads the conversation, and return answers according to any system of spiritual telegraphy which he may dictate to them. The following are the directions given to family

family parties desiring to profit by this method of satisfying themselves as to the reality of a 'spirit world,' and of putting themselves in communication with it:—

'1. Let the room be of a comfortable temperature, but cool rather than warm—let arrangements be made that nobody shall enter it, and that there shall be no interruption for one hour during the sitting of the circle. Wet, damp, and foggy weather is bad for the production of physical phenomena.

'2. Let the circle consist of four, five, or six individuals, about the same number of each sex. Sit round an uncovered wooden table, with all the palms of the hands in contact with its top surface. Whether the hands touch each other or not is usually of no importance. Any table will do, just large enough to conveniently accommodate the sitters. The removal of a hand from the table for a few seconds does no harm, but when one of the sitters breaks the circle by leaving the table it sometimes, but not always, very considerably delays the manifestations.

'3. Before the sitting begins, place some pointed lead-pencils and some sheets of clean writing-paper on the table, to write down any communications that may be obtained.

'4. People who do not like each other should not sit in the same circle, for such a want of harmony tends to prevent manifestations, except with well-developed physical mediums; it is not yet known why. Belief or unbelief has no influence on the manifestations, but an acrid feeling against them is a weakening influence.

'5. Before the manifestations begin, it is well to engage in general conversation or in singing, and it is best that neither should be of a frivolous nature. A prayerful, earnest feeling among the members of the circle is likely to attract a higher and more pleasing class of spirits.

'6. The first symptom of the invisible power at work is often a feeling like a cool wind sweeping over the hands. The first manifestations will probably be table tiltings or raps.

'7. When motions of the table or sounds are produced freely, to avoid confusion, let one person only speak, and talk to the table as to an intelligent being. Let him tell the table that three tilts or raps mean "Yes," one means "No," and two mean "Doubtful," and ask whether the arrangement is understood. If three signals be given in answer, then say, "If I speak the letters of the alphabet slowly, will you signal every time I come to the letter you want, and spell us out a message?" Should three signals be given, set to work on the plan proposed, and from this time an intelligent system of communication is established.

'8. Afterwards the question should be put, "Are we sitting in the right order to get the best manifestations?" Probably some members of the circle will then be told to change seats with each other, and the signals will be afterwards strengthened. Next ask, "Who is the medium?" When spirits come asserting themselves to be related or
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known to anybody present, well-chosen questions should be put to test the accuracy of the statements, as spirits out of the body have all the virtues and all the failings of spirits in the body.

‘Possibly at the first sitting of a circle symptoms of other forms of mediumship than tilts or raps may make their appearance.’

It is a very common thing, we are assured, for striking manifestations to be obtained in this way at the first sitting of a family ‘circle,’ even when no fully-developed ‘medium’ is present among those who have never obtained manifestations before; but for one successful new ‘circle’ thus started without a ‘medium,’ there are six or seven failures. When once manifestations have been obtained, however, they will gradually increase in power and reliability at successive sittings; and some one of the ‘circle’ will probably come to be selected by the spirits as the favoured ‘medium’ of their higher communications. The gifts possessed by these ‘mediums’ are various in their kind. Some, if they only sit and listen for spirit voices, will scarcely ever fail to hear them; and lively conversations then ensue between themselves and their visitors, who are not always, however, such as a well-regulated household would welcome as its guests, being sometimes found out to be ‘evil spirits’ full of deceit and all manner of wickedness. Others are made aware of the presence of the spirits of their departed friends by the gentle contact of spiritual hands and the fond kisses of spiritual lips; though the rougher handlings of unfriendly spirits sometimes take the place of these pleasant caresses. Then there are ‘writing mediums,’ who, at the dictation of their spiritual instructors, ‘give warnings of a personal and relative character, and inculcate purity of life and prayerfulness of inclination; the person acted on simply consenting to let the hand be used, but being totally unconscious of what is to be produced.’ Sometimes, instead of holding the pencil between their own fingers, the ‘medium’ makes use of a little platform running upon castors, which is called a *planchette*; the pencil is fixed to the under-side of this platform, and moves over a piece of paper placed beneath, the hands of the ‘medium’ being simply laid upon its upper surface, and (as is asserted) communicating to it no motion whatever. Another mode of using the ‘planchette’ is to attach to its farther side an index, which spells out words by pointing downwards to their component letters in succession, upon an alphabet-card placed under its extremity; this method, however, which was the one first devised, is now generally discarded in favour of the more simple and direct *planchette*-writing. Others, again, are ‘drawing mediums;’ sometimes delineating the portraits of departed relatives

tives or friends, even though they have never been known to the medium in life; sometimes manifesting their power in the production of strange many-coloured designs, having no prototypes in anything we know either 'in heaven above, or on the earth beneath, or in the waters under the earth;' but having a spiritual significance which may either be revealed through the individual by whom they are executed, or made known through some other interpreter. Then, again, there are the 'medical mediums,' who may be presumed to be animated by the spirit of departed doctors, possessing a deeper diagnostic insight and greater therapeutic powers than they enjoyed on earth; for they either 'cure the sick by the hand of the medium being floated to the patient by a power felt but not seen, and placed on the diseased part of the body, the medium till then not knowing where the diseased part is,' or they dictate prescriptions for material medicines to be made up by the family druggist, and used 'as directed.'

In all these forms of communication the 'medium,' if not altogether wide-awake, is, at any rate, not asleep; and though the spirits do not always attend when summoned, the receptive powers of the 'medium' do not seem to be ever wanting. In the case of the 'trance-mediums,' however, it is different. They pass into a state which, as regards the outer world, is one of complete unconsciousness; and in this condition they manifest far more extraordinary powers, of which the pouring forth of 'some of the purest and most magnificent poetry the world has ever seen' is one of the least. The spiritual revelations made by these trance-mediums are to serve as the foundation of the 'religion of the future.' A new set of Ten Commandments has already been issued by Mrs. Emma Hardinge; and the two great Christian precepts on which 'hang all the Law and the Prophets,' will, doubtless, be soon superseded by the higher teaching of some yet more enlightened Spiritualist.

But as there are obstinate sceptics, who are prejudiced enough to affirm that all these extraordinary communications represent nothing more than the ordinary workings of the minds and bodies of their supposed recipients, under conditions well understood by physiologists and psychologists, the spirits occasionally vouchsafe to manifest their presence by their direct action on material bodies, inanimate as well as animate. Chairs and tables are lifted into the air, or drawn along the floor, without the contact of human hands; exquisite melodies are given forth by pianos, accordions, and guitars, without the instrumentality of any but invisible performers; and—wonder of wonders!—living men and women are 'caught up' from the ground and borne aloft in the air: sometimes floating between the heads of the

the 'circle' and the ceiling of the apartment in which they were sitting together; sometimes being carried through open windows into another chamber of the same house; but sometimes being transported from one house to another at miles' distance, and entering chambers of which the doors and windows are firmly closed; so that the only mode of accounting for their ingress is to suppose that the ceiling has dissolved itself into its constituent atoms, to allow the fleshly—not the spiritual—visitor to enter, and has then closed together again into its pristine continuity. This, be it observed, is the explanation offered, in sober seriousness, by spiritualists themselves. All these wonders we are gravely called on to believe on 'the testimony of multitudes who *know* them to be true;' and we are assured that their purpose is 'to convince an unbelieving world that the dead still live, and hold direct communication with those whom they have left behind them on earth.'

Now, with regard to a large part of the phenomena which fall under the first and second of the above categories, we are ready to admit, *in limine*, that they may occur independently of any intentional or consciously-exerted agency on the part of the individuals who manifest them, and that they are, *to that extent, genuine*. We are intimately acquainted with 'writing' and 'drawing mediums,' whose honesty we regard as beyond all question, and who assure us most positively that the products of their pencils are not knowingly or designedly executed by them; their hands being guided, not by any will of their own, but by some power altogether independent of it. And we have 'assisted' at spiritual *séances*, at which answers have been given, by the tilting of tables, to questions addressed to the supposed spiritual visitants; and have had reason for accepting, with the fullest confidence, the assurance of our coadjutors that they had no more consciousness of having been in any way parties to the movements than we had ourselves. Of course, there are pretenders to the possession of these as of other 'occult' powers, who, either for gain or for amusement, practise on the credulity of the public. We put such out of the question for the time, and address ourselves to the consideration of the phenomena which have presented themselves within our own experience, under conditions which satisfy us that, although the performers are wrong in assigning them to 'spiritual agency,' they are quite justified in affirming their own unconsciousness of any active participation in their production.

Our position, then, is that the so-called spiritual communications come from *within*, not from *without*, the individuals who suppose themselves to be the recipients of them; that they
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belong to the class termed 'subjective' by physiologists and psychologists; and that the movements by which they are expressed, whether the tilting of tables or the writing of planchettes, are really produced by their own muscular action, exerted independently of their own wills and quite unconsciously to themselves. And of the truth of this position we hope to be able to satisfy every unprejudiced reader, though we entirely despair of convincing such as have already surrendered their common sense to the delusions of a credulous imagination.

The doctrine of 'unconscious muscular action' is not, as the spiritualists allege, a 'hypothesis' invented for the occasion, but is one of the best established principles of physiology, having its basis in daily and hourly experience, the only question being as to the extent of its applicability. What is the 'beating of the heart' but unconscious muscular action? our consciousness being only affected by the movement when it makes itself felt by undue violence. What is the 'drawing of the breath' but involuntary muscular action, of which we only become conscious when we direct our attention to it? That which is true of these instinctive or *primarily*-automatic movements is no less true—as was shown a hundred years since by Hartley—of many others, which, learned in the first instance by voluntary effort, become '*secondarily*-automatic' by habitual repetition. Has it never occurred to one of these objectors to be carried along by the 'unconscious muscular action' of his legs, whilst either engaged in an interesting conversation with a friend or deeply engrossed in a train of thoughts of his own, so that he finds himself at his destination before he knew that he had done more than set out towards it? Could not almost any of our fair readers remember to have played a piece of music, under circumstances so distracting to her thoughts and feelings that she has come to the end without 'the least idea of how she ever got through it'? And has not the like experience occurred to many a member of the stronger sex, who has been called on, under similar circumstances, to read aloud, or to go through a public recitation? The celebrated *prestidigitateur* Robert Houdin, whose entertaining autobiography affords many valuable lessons in psychology to those who know how to profit by them, tells us that in early life he trained himself to read a book with attention whilst keeping *four* balls in the air; and that he so far retained this power, after an almost entire disuse of it for thirty years, as to be able still to read with ease whilst keeping up *three* balls. He had also trained himself to solve mechanical problems whilst exhibiting conjuring feats that would seem to require the most intense and unremitting attention. We have been assured by an intimate

intimate friend of the late Albert Smith that he frequently went through his performances of 'Mont Blanc' so mechanically as to be quite unconscious of what he was doing, his mind being otherwise occupied throughout. In these and similar cases, the movements depend upon the 'reflex action' of that lower division of the nervous centres which includes the spinal cord and the ganglia of special sense at its summit. It is through the *original* endowments of this nervous tract that those *instinctive* movements are performed, which are either essential to the maintenance of our existence—as is the case with the act of breathing throughout life, and with the act of sucking in infancy—or serve for the protection of important organs from injury, as when the eyelids close at a flash of light or a loud sound.* And it is through their *acquired* endowments that those *habitual* movements and trains of movement are carried on, without anything more than initiation by the Will, which constitute a much larger part of our daily life than is commonly supposed. Each separate muscular contraction, in this class of movements, may be prompted by a fresh sensory suggestion, immediately received from without; as where the fingers of the piano-forte player or the lips of the reader automatically respond to the sight of the notes or the words on the pages before them. But in such cases as those of Houdin or Albert Smith, it would seem as if the nervous mechanism (in accordance with a well-known law of nutrition) had so shaped itself in accordance with the use habitually made of it as to execute a long series of varied actions without any renewed prompting from without, each contraction being excited by the sensory impression produced by that which preceded it; just as when the lifting of a lever in 'starting' a locomotive or a spinning-mule gives rise to that wonderful succession of diverse movements, for the performance of which its organisation was adapted by the constructive genius of a Stephenson or a Roberts.

It may be said, however, that these and similar facts merely show that movements which have become 'mechanical' by habit may be performed involuntarily and unconsciously, and

* It was by involuntary and unconscious muscular action, that one of our most distinguished chemists a few years ago escaped the loss of his sight, whilst engaged in the investigation of a new compound he had discovered, of tremendously explosive power. He was looking at a small quantity of this liquid in a bottle held up before his eyes, when he saw a flash of light and heard a loud detonation, the bottle being shivered into fragments of extreme minuteness. At the first moment he believed that these fragments had been driven into his eyes, probably blinding him for life; but he presently found to his intense relief that the fragments had all been driven into the skin of his eyelids, which had been closed by the reflex protective action of his sensory ganglia, in a shorter time than that required for the passage of the particles of glass from his hand to his face.

that they afford no ground for affirming that such movements as obviously express *ideas* or other forms of *mental* activity can take place with equal independence of the will or freedom from conscious exertion of the muscles. Here, again, we can meet our objector by showing that such a *modus operandi* has long been one of the admitted verities of physiological science. As far back as the year 1844, a very important memoir was published by Dr. Laycock (now Professor of Medicine in the University of Edinburgh) on the 'Reflex Action of the Brain,' in which he most distinctly showed that involuntary muscular movements take place in response not merely to sensations but to ideas; and not merely at the prompting of ideas actually before the mind, but through the action of the *substrata* left by past mental operations. Thus, for example, the convulsive paroxysm of hydrophobia may be excited not merely by the sight or the sound of water, but by the *idea* of water suggested either by a picture or by the verbal mention of it. But as Dr. Laycock did not at that time recognise the essential distinctness of the *sensory ganglia* from the *cerebrum*, which—being so obscurely marked in the brain of man as to be commonly overlooked—can only be properly appreciated by the student of Comparative Anatomy, he confounded together the two classes of actions of which they are the separate instruments, and his views did not receive the attention they merited. The doctrine of the 'reflex action of the sensory ganglia' having been long previously taught by Dr. Carpenter, under the title of 'Sensori-motor Activity,' he was subsequently led, by Dr. Laycock's reasoning, to see that it might be extended to the cerebrum proper. And on the 12th of March, 1852, some months before the Table-turning epidemic broke out, he delivered a lecture, at the Royal Institution, on what he termed the *Ideo-motor* principle of action; which consists in the involuntary response made by the muscles to ideas with which the mind may be possessed when the directing power of the will is in abeyance. Considered as the 'reflex action' of the cerebrum proper—

"this Ideo-motor principle," said Dr. Carpenter, "finds its appropriate place in the physiological system, which would, indeed, be incomplete without it. And, when it is once recognised, it may be applied to the explanation of numerous phenomena which have been a source of perplexity to many who have been convinced of their genuineness, and who could not see any mode of reconciling them with the known laws of nervous action. These phenomena have been clearly proved to depend upon the state of *expectant attention* on the part of the performer; his will being temporarily withdrawn from the control of his muscles by the state of abstraction to

to which his mind is given up, and the *anticipation* of a given result being the stimulus which directly and involuntarily prompts the muscular movements that produce it.”

This doctrine was at once accepted by many of our highest physiological authorities; so that when Professor Faraday was called upon to explain the mystery of Table-turning (which had not then been attributed either to ‘diabolical’ or to ‘spiritual’ agency, but was popularly supposed to be due to electricity), he was able not merely to prove by the ingenious ‘indicator’ he devised, that the movement is really and solely due to the muscular action of the operators, but to refer for a scientific *rationale* of that action to a physiological principle distinctly formularised more than a year previously, and less precisely enunciated nine years before.* The lesson afforded by the truly scientific method followed by this great master of experimental philosophy, in the investigation of a class of phenomena, presenting what was, to him, an altogether novel character, should not have been lost upon those who profess to be his disciples. But, as we shall presently see, it has been entirely disregarded, not merely by such ‘spiritualists’ as plume themselves upon ‘not being fettered by scientific education,’ but by men from whom better things might have been expected. The first point tested by Faraday was whether the interposition of his ‘indicators’ between the hands of the operators and the table in any way interfered with the movements of the latter; and he found that no such interference was observable, by tying the boards together and taking off the index, the table then going round as before.

* See Professor Faraday’s Letter to the ‘Athenæum’ of July 2, 1853. As we shall have much to say of this indicator, and as Professor Faraday’s account of it is not now generally accessible, we shall here reproduce it for the benefit of those whom it essentially concerns. Nothing could be simpler than its construction, though, like everything he devised, it was perfect in its working. A couple of boards of the size of a quarto sheet of paper, a couple of small rulers or cedar-pencils, a couple of indiarubber bands, a couple of pins, and a strip of light wood or cardboard eight or ten inches long, constituted its materials. The rulers being laid on one of the boards, each at a little distance from one of its sides and parallel to it, the other board was laid upon the rulers, so that it would roll on them from side to side; and its movements were restrained, without being prevented, by stretching the indiarubber bands over both boards, so as to pass above and beneath the rulers. One of the pins was fixed upright into the lower board close to the middle of its farther edge, the corresponding part of the upper being cut away at that part, so that the pin should not bear against it; the second pin was fixed into the upper board, about an inch back from the first; and the strip of wood or cardboard was so fixed on these pins as to constitute a lever of which the pin on the lower board was the fulcrum, while motion was imparted to the short arm of it by the pin on the upper board. Any lateral motion given to the upper board by the hands laid upon it would thus cause the index-point of the long arm of the lever to move through a long arc in the opposite direction; the amount of that motion being dependent on the ratio between the long and the short arms of the lever.

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When, however, the upper board was free to move, and each performer fixed his (or her) eyes upon the index, so as to be made cognizant by its movement of the slightest lateral pressure of the hands, any communication of motion to the table was usually kept in check; but if the table did go round under this condition, its motion was always preceded by a very decided movement of the index in the opposite direction. And the same indication was given when the index was hidden from the operator, but was watched by another person; any movement shown by the table under that condition being always preceded by a considerable motion of the index in the opposite direction. And thus it may be considered as demonstrated that as the table never went round unless the 'indicator' showed that lateral muscular pressure had been exerted in the direction of its movement, and as it always did go round when the 'indicator' showed that such lateral pressure was adequately exerted, *its motion was solely due to the muscular action of the performers.* Any persons who dispute this conclusion are obviously bound to prove the contrary, by showing that the table *will* go round without any deflection of the index by lateral pressure.

But it was asserted by the two clerical seers of Bath, who made the notable discovery in 1853 that the turning of tables was effected by Satanic agency,—and the assertion is re-echoed by the 'Spiritualists' of the present day, who consider Satan as their great opponent,—* that Professor Faraday's experiment has not the slightest bearing upon *their* performances; inasmuch as 'those who tried it in *his* (Professor Faraday's) presence imparted the motion, *which we did not.*' But Professor Faraday's Table-turners were originally as thoroughly convinced as the Revs. Gillson and Godfrey, and their follower Mr. Dibdin, that the table *could* not have derived its motion from themselves: they repudiated the idea, when suggested to them, as utterly opposed to their own consciousness; and yet the infallible 'indicator' showed them that they were mistaken. We wonder how such objectors *could* be convinced. The only evidence of which they will admit the cogency being that of their own senses, they are of course bound to believe in the motion of the sun round the earth; in the power of a conjuror to pour any quantity of any number of liquors out of an inexhaustible quart bottle; and in the possession of their legs by some friendly spirit, when they

* We have been gravely assured by a lady-spiritualist of great general intelligence and considerable poetic gifts, that the medical and scientific opponents of Spiritualism are emissaries of the Devil, who foresees that his dominion on earth is seriously imperilled by the extension of the new faith!

find themselves to have walked on to their destination without any consciousness of exertion.

That the 'tilting' of a table in response to questions put to it—which is described by the Spiritualists as the 'lifting of its leg,' as if the table itself stood still—is due to the downward pressure of the hands laid upon it, may then be assumed as self-evident *until the contrary shall have been proved*. And those who affirm that it is produced, not by muscular, but by 'spiritual' or 'psychic' agency, are bound to demonstrate the fact, by showing that no downward pressure is exerted. Nothing would be easier than to construct an apparatus for detecting *vertical* pressure by the movement of an index, in the same general plan as Faraday's 'indicator' for *lateral* pressure; and yet no one, so far as we are aware, has even attempted thus to show that the verdict of common sense is otherwise than true. We have, indeed, been gravely assured by a lady of unimpeachable veracity, that a table in her own house, with *no person being near it*, on being asked her age, 'lifted up its leg and struck forty-two,' the correct number of years; a result which so appalled her, that she sold the table forthwith. But on our hinting a doubt as to whether she had quite correctly remembered the circumstances of the case, which had happened some years previously, she promised to consult some notes she had made at the time; and a few days afterwards she honestly told us that there was one trifling mistake in her previous account; for that she and her friends, instead of being, as she had thought, on the other side of the room, *had their hands on the table*. The fact that the table had rapped out her age, and that she had parted with a piece of furniture which could not be trusted to keep so important a secret, remained on record.

That the answers obtained through the medium of tables, planchettes, &c., reflect the mental state, either of the questioner, or of some member of the 'circle,' may, we are certain, be assumed as a general fact. We have ourselves witnessed some amusing instances of it. Several years ago we were invited, with two medical friends, to a very select *séance*, to witness the performance of a lady, the Hon. Miss N——, who was described to us as a peculiarly gifted medium; not merely being the vehicle of spiritual revelations of the most elevating character, but being able to convince incredulous philosophers like ourselves of the reality of her 'spiritual' gifts, by 'physical' manifestations of the most unmistakeable kind. Unfortunately, however, the Hon. Miss N—— was not in great force on the occasion of our visit; and nothing would go right. It was suggested that she might be exhausted by a most successful performance which had

had taken place on the previous evening; and that the spirits should be asked whether she stood in need of refreshment. The question was put by our host (a wine-merchant, be it observed), who repeated the alphabet *rapidly* until he came to N, and then went on *slowly*; the table tilted at P. The same process was repeated, until the letters successively indicated were P, O, R, T. But this was not enough. The spirits might prescribe either *port* or *porter*; and the alphabet was then repeated *slowly from the beginning*, a prolonged pause being made at E; as the table did *not* tilt, a bumper of port was administered 'as directed.' It did not, however, produce the expected effect; and, with the exception of a 'manifestation' we shall presently notice under another head (p. 329), the *séance* was an entire failure. Happening to meet our host a few days afterwards, however, he assured us that he had discovered the reason of its want of success in 'the atmosphere of incredulity' which we had brought with us; for that no sooner had we taken our departure, than a series of most wonderful phenomena presented themselves, which, if they had occurred in our presence, *must* have convinced us. The like experience, we may here say, has been so frequently repeated, that we have been forced to abandon as useless the attempt to test by personal examination the wonders which have been narrated to us. And thus we are justified in our continued incredulity by the judgment of Spiritualists themselves. For, as one of them honestly says, 'the phenomena seen in spiritual circles are so extraordinary, and so unlike those coming within the ordinary range of human experience, that it is quite right not to accept them on the testimony of others. Each individual should witness and test them personally, and believe nothing until the absolute knowledge is gained that denial is impossible.'

On another occasion, we happened to be on a visit at a house at which two ladies were staying, who worked the *planchette* on the original method, and our long previous knowledge of whom placed them beyond all suspicion of anything but *self-deception*. One of them was a firm believer in the reality of her intercourse with the spirit-world; and her *planchette* was continually at work beneath her hands, its index pointing to successive letters and figures on the card before it, just as if it had been that of a telegraph-dial acted on by galvanic communication. After having watched the operation for some time, and assured ourselves that the answers she obtained to the questions she put to her spiritual visitants were just what her own simple and devout nature would suggest, we addressed her thus:—

“You believe that your replies are dictated to you by your spiritual friends, and that your hands are the passive vehicles of the
spiritual

spiritual agency by which the planchette is directed in spelling them out. We believe, on the other hand, that the answers are the products of your own brain, and that the planchette is moved by your own muscles. Now we can test by a very simple experiment whether *your* view or *ours* is the correct one. Will you be kind enough to *shut your eyes* when you ask your question, and to let us watch what the planchette spells out? If the spirits guide it there is no reason why they should not do so as well when your eyes are shut as when they are open. If the table is moved by your own hands it will not give definite replies, except under the guidance of your own vision.'"

To this appeal our friend replied that she could not think of making such an experiment, as 'it would show a want of faith;' and all our arguments and persuasions could only bring her to the point of *asking the spirits* whether she *might* comply with our request. The reply was, 'No.' She then, at our continued urgency, asked 'Why not?' The reply was, 'Want of faith.' Putting a still stronger pressure upon her, we induced her to ask, 'Faith in what?' The reply was, 'In God.' Of course, any further appeal in that quarter would have been useless; and we consequently addressed ourselves to our other fair friend, whose high culture and great general intelligence had prepared her for our own rationalistic explanation of marvels which had seriously perplexed her. For having been engaged a short time before in promoting a public movement, which had brought her into contact with a number of persons who had previously been strangers to her, she had asked questions respecting them which elicited replies that were in many instances such as she declared to be quite unexpected by herself,—specially tending to inculcate some of her coadjutors as influenced by unworthy motives. After a little questioning, however, she admitted to us that she had previously entertained lurking suspicions on this point, which she had scarcely even acknowledged to herself, far less made known to others; and was much relieved when we pointed out that the planchette merely revealed what was going on in the substratum of her own mind. Her conversion to our view was complete, when, on her trying the working of the planchette with her eyes shut, its pointers *went astray altogether*.

This test would at once dispose, we feel assured, of all the performances of the 'drawing mediums;' unless, indeed, they have so trained themselves to work under the guidance of their 'muscular sense' as to be more or less independent of vision, especially in states akin to somnambulism. For, as we showed in our former article (vol. xciii. p. 531), the concentration of the attention upon the muscular sense, in such conditions, often renders the subjects of them able to direct the movements by which *writing* is

is executed, with an exactness which could not have been surpassed if the eyes had been used. There is one application of the test, however, which,—where it can be fairly made,—may be relied on as infallible. Every one who has practised ‘free-hand’ drawing knows how difficult it is to describe any pair of curves (as the two sides of an arch) with perfect ‘bilateral symmetry;’ such symmetry being only obtainable, with any approach to exactness, by repeated touchings-up of one half or the other. Now if the hand of a ‘drawing-medium’ be under spiritual guidance, it ought to be able to delineate such curves, where they form part of the architectural or other design which the medium is directed to trace out, with exact symmetry *in the first instance*. Yet it was candidly admitted to us by a ‘drawing-medium,’ who was showing us her elevations of ‘spiritual temples’—which were in a style that included Moorish arches and Hindoo domes, with other features of the like kind—that she *was* obliged to obtain the required symmetry by continually looking from one side to the other, and gradually bringing her curves into accordance, just as any merely human draughtsman would do.

There is another class of phenomena, the genuineness of which we regard as extremely well-attested, and which is continually adduced by Spiritualists as demonstrating the fallacy of all scientific explanations based on the doctrine of ‘unconscious muscular action.’ ‘How,’ we are triumphantly asked, ‘does that doctrine account for the answers being often correct statements of facts not known either to the questioner or to any one at the table, and, in some instances, even contrary to their belief at the time?’ For example, the question having been put, at one of Mr. Dibdin’s *séances*, ‘How many years is it since Her Majesty came to the throne?’ the table struck a number which was subsequently found by the almanack to be the correct one, though no one present knew the date of her accession; and the question being afterwards put as to the age of the Prince of Wales, the like result was obtained. On the other hand, to the question put on the same occasion, ‘How many men are employed in the shop below?’ the table replied by striking *three* and giving *two* gentle rises; on which the employer, who was one of the party, said—‘There are *four* men and *two* boys, so *three* is a mistake;’ but he afterwards remembered that one of the young men was out of town.

Now, so far are we from regarding these and similar phenomena, of which a very curious variety has been communicated to us by trustworthy witnesses, from supporting the doctrine of spiritual communication, that we are prepared to show them to be no less reducible than the preceding to *known scientific principles*,

principles, of which they afford peculiarly interesting exemplifications. The psychologists of Germany, from the time of Leibnitz, have taught that much of our *mental* work is done *without consciousness*; but this doctrine, though systematically expounded by Sir W. Hamilton under the designation 'Latent Thought,' has only of late attracted the attention of physiologists. Though foreshadowed by Dr. Laycock, in his memoir of 1844 on the 'Reflex Action of the Brain,' it was not expressed with sufficient clearness to obtain recognition on the part of any of those who studied that essay with the care to which its great ability entitles it. Some years afterwards, however, Dr. Carpenter was led, by considering the anatomical relation of the Cerebrum to the Sensorium or centre of consciousness, to the conclusion that *ideational* changes may take place in the cerebrum of which we may be at the time *unconscious* through a want of receptivity on the part of the sensorium, just as it is unconscious during sleep of the impressions made by visual images on the retina; but that the results of such changes may afterwards present themselves to the consciousness as *ideas*, elaborated by an automatic process of which we have no cognizance. This principle of action was expounded by Dr. Carpenter under the designation 'Unconscious Cerebration,' in the fourth edition of his 'Human Physiology,' published early in 1853,—some months before any of the phenomena developed themselves to the explanation of which we now deem it applicable, and it has been of late frequently referred to under that name. The Lectures of Sir William Hamilton not having then been published, none but his own pupils were aware that the doctrine of 'Unconscious Cerebration' is really the same as that which had long previously been expounded by him as 'Latent Thought;' and the two designations may be regarded as based on the same fundamental principle,—one expressing it in terms of Brain, the other in terms of Mind. It happened that just as our former article was going to press, some cases were communicated to us which led us 'to suspect that the automatic movements are not always directed by ideas which are distinctly present to the consciousness at the moment, but that they may proceed from impressions left upon the brain by some past events,—such impressions as often vaguely flit before our thoughts in the waking state, but reproduce themselves most distinctly in dreaming, in delirium, or in those sudden memories which sometimes flash in upon us unbidden, *why* or *whence* we cannot tell. This,' we added, 'is only a hypothesis; but it will be found to be in strict conformity with the physiological views put forth by Dr. Carpenter as to the unconscious action of the cerebrum.'

We have been thus particular in our historical statements, because we deem it essential to prove that the doctrine of 'Latent Thought,' or 'Unconscious Cerebration,' has not been *invented* to account for the phenomena in question, but that it may be legitimately *applied* to explain them; having previously been known and accepted both in Psychological and Physiological Science, and possessing, like that of 'Unconscious Muscular Action,' a firm basis in our daily and hourly experience. For, as Sir W. Hamilton has justly remarked, 'the infinitely greater part of our spiritual treasures lies always beyond the sphere of our consciousness, hid in the obscure recesses of the mind;' so that, if we have *ever* known a thing, the question whether we can be said to know it at any particular time is simply whether we can readily reproduce it from the storehouse of our memory. There are some ideas which, if we may use so material an illustration, are systematically arranged in cupboards to which we have immediate access, so that we generally know exactly where to find what we want; this is the case with the knowledge that we have in constant daily use. And yet to whom has it not occurred to be unable to recollect, on the spur of the moment, a name or a phrase that is generally most familiar to him, just as he often fails to remember where he laid his spectacles, or his pencil-case, only five minutes before? There are other ideas, again, which we know we have got put away *somewhere*, but cannot find without looking for them; as, when we meet an acquaintance whom we have not seen for a long time, and recognise his face without being able to recall his name; or when we go to a foreign country, the language of which we have once thoroughly mastered, and find ourselves in the first instance unable either to speak or to understand it. In all these cases, the lost ideas are pretty certain either to be found, if we look for them, by putting in action that associative train of thought which we term Recollection, or to turn up, spontaneously and unexpectedly, when the effort to recollect has proved a failure and we have abandoned the search as hopeless. There is other knowledge, again, which we are not conscious either of possessing or of ever having possessed, as in the conjugal experience familiar to most of us, in which a husband assures the wife of his bosom (the converse case being perhaps hardly less frequent) that she *never did* tell him of some occurrence which *he should most certainly have remembered* if she had; and yet he may be brought to recollect, days or weeks afterwards, by the accidental shining-in of a light upon some dark corner of his 'chamber of imagery,' that the communication was really made, but was put away without any account
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being taken of it at the time. It is, we believe, the general creed of metaphysicians that no idea once fully apprehended by the mind ever permanently drops out of it; while physiologists are no less strong in the conviction that every mental act records itself in some change in the brain, which may lead to its reproduction before the consciousness at any distance of time, though it has shown no sign whatever of its existence during the interval. Thus an old man, who had left Wales in early boyhood, who had passed his whole life as servant to different members of the same English family, and who had so completely forgotten his native tongue that he was unable either to speak or to understand it when he received the visits of his compatriots, began to talk Welsh fluently in the delirium of fever, after he was seventy, losing all recollection of the language on his recovery. And there are well authenticated cases in which, under the momentary apprehension of drowning or of some other form of sudden death, incidents of early life, which had long been blotted out of the *conscious* memory, have been reproduced, as in a picture, with extraordinary vividness.

Now, whatever may be the nature of the operations by which these lost traces are recovered, it is certain that, being equally removed from our Will and our Consciousness, they must be entirely automatic, or, so to speak, mechanical. And it is quite in accordance with the general analogy of the automatic actions of the other nervous centres, that the automatic actions of the cerebrum, even when they lie beneath the sphere of consciousness, should express themselves in muscular movements; and that tables and planchettes should thus reveal facts, which, once known, had long been forgotten, or should give answers which are in opposition to the questioner's belief at the time, but are found, on subsequent enquiry, to be true. The first case which suggested to us this application of the doctrine of 'Unconscious Cerebration' occurred to an eminent literary man, in whose veracity we have the fullest confidence. The spirit of a friend, whose decease had taken place some months previously, having announced itself in the usual way, and the question having been put—'When did I last see you in life?' the answer given was inconsistent with the recollection of the interrogator. But on his subsequently talking over the matter with his family, it was brought to his remembrance that he *had* seen his deceased friend on the occasion mentioned, and had spoken of it to them at the time, although he had afterwards quite forgotten the circumstance.

The most singular illustration we have met with, however, of this form of cerebral activity is narrated in a lecture delivered in
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the Store-street Music Hall, about a month after the appearance of our former article, and apparently in reply to it, by the Rev. R. W. Dibdin, M.A. This lecture is remarkable for the singular mixture it displays of honest candour and benighted prejudice; while its author's implicit confidence in his own conclusions is in amusing contrast with his indiscriminate repudiation of the opposing results of scientific investigation. Like the two clerical seers of Bath, Mr. Dibdin regarded Table-talking as the result of Satanic agency; but he dissented from their supposition—"That the spirits of departed men and women are *really* the parties who answer to their questions. I incline," he says, "rather to believe—though of course I would speak with modesty upon so difficult a subject, upon which no man is warranted to dogmatise—that devils alone are the agents in these cases; and, being *lying* spirits, it is quite credible that, for purposes of their own, they might *assume* the names of departed men and women." But after narrating his own experience, which so closely corresponds with that of the Revs. Gillson and Godfrey as to render it needless for us to cite it, he gives the following account of the experience of a friend whose views were directly opposed to his own, and we think our readers will agree with us that his narrative bears on the face of it a strong impress of genuineness:—

'He said, when we went into the room, "I have heard strange things about this Table-turning; but I have raised a good spirit; all the others have been evil ones." "Oh, indeed," I said, "who is that?" "Edward Young, the poet, the author of 'Night Thoughts.'" And he gave me his experience. He said he was going to write a book, conjointly with a friend; and, if I mistake not, he told me it was to be under the direction of Edward Young. When the spirit came he asked him what was his name. "Edward Young" was the reply. "Are you the poet?" "Yes." "If you are, repeat a line of your poems." He repeated, "Man was not made to question, but adore." "Is that in your 'Night Thoughts'?" "No." "Where is it, then?" The reply was, "J O B." That they could make nothing of. They did not know what he meant by "Job," not being very familiar with his poems. The next day this gentleman bought a copy of Young's poems, and at the end of the 'Night Thoughts' he found a paraphrase of Job, and the last line of that paraphrase is "Man was not made to question, but adore." He was naturally very much astonished at such a thing as that.'

Some little time afterwards, however, Mr. Dibdin saw his friend again, and learned from him that he had come to believe that it was 'all a delusion.' 'I think,' he said, 'you do it yourself unconsciously.' Among other reasons which he gave was this: that a certain word having been written in each of four envelopes, and one of these having been laid on the table, the
table

table answered wrong on the question being put as to what this envelope contained. And he further went on to mention, that when his sister-in-law was sitting with him at the table, 'we tried the table, and had the most funny answers. We said, "What sort of eyes has so and so?" "Laughing eyes." "What sort of eyes has so and so?" "Roguish eyes." "What sort of eyes has so and so?" "Yankee eyes." And then my sister said to the table, "Do you love me?" The reply was, "I adore you." And one in the room said, "If you do, kiss her;" and the table rose to her lips.' When asked by Mr. Dibdin what he thought of Young, and of his bringing out that line, 'Man was not made to question, but adore,' his friend replied:—'Well, the fact is, I must tell you, that *I had Young's poems in my house all the time*, although I bought another copy; and *I found that I had read it before*. My opinion is that it was a *latent idea*, and that the table brought it out.'

Mr. Dibdin, however, was very far from sharing the heretical opinion of his friend, and considered it his duty to administer to the young lady who had allowed the table to commit such an impropriety a very serious warning. 'I had heard,' he said, 'of persons being paralyzed, and even struck dead; so that I did not wish any one to try it again.' 'Oh,' said the gentleman, 'I am not afraid.' His sister-in-law, however, was rather frightened, and said she had rather not. 'You had better,' he said; 'you have been doing it all the evening before you came here.' At last she consented; they sat down to the table, and it moved immediately. At first Mr. Dibdin asked a few questions, for the purpose of satisfying his coadjutors that the table would answer things which they knew nothing about. But he then applied what he obviously considered an infallible test for the discovery of the Satanic agency concerned in misleading those engaged in this dangerous pastime; this test being a certain set of questions, which he always put for reasons of his own:—

- 'Are we justified by works?—Yes.
- 'By faith alone?—No.
- 'Is the whole Bible true?—No.
- 'Were the miracles of the New Testament wrought by supernatural power?—No.
- 'By some hidden law of Nature?—Yes.
- 'Was Oliver Cromwell good?—No.
- 'Was Charles I. a good man?—Yes.
- 'Is it right to pray to the Virgin?—Yes.
- 'Is Christ God?—No.
- 'Is he a man?—No.
- 'Is he something between God and man, a sort of angel?—Yes.

'Is he in heaven?—No.

'Where is he?—It spelt slowly H E L L.

'As the last letter was indicated the girl drew her hands quickly off the table, much as a person would do who was drawing them off a hot iron. Her brother-in-law turned very pale, and took his hands off the table also.'

This appalling *dénouement* served to 'point the moral' of Mr. Dibdin's exhortations to his friends, to abstain from Table-moving on the peril of their souls. The sister-in-law declared that she would never touch a table again, but her stronger minded brother seemed to recover his common-sense view of the matter; whereupon Mr. Dibdin candidly told him his fears, lest he had been so 'giving place to the Devil' as to have fallen under the blinding influence of the 'God of this world' in the matter.

To us this narrative seems to exhibit a typical example of the mental influence exercised on the table, in each case, through the 'unconscious muscular action' of the principal performers. The gentleman who received the visit of the spirit of Edward Young had been *consciously* thinking much about him, and had *unconsciously* stored up the impression left by a former perusal of his poems, which reproduced itself in the citation (through the unconscious action of his brain on his muscular system) of a line that was likely to have particularly struck him. The innocent gaiety of his sister-in-law expressed itself in the 'funny answers' and the basial salutation. While the gloomy Calvinism of Mr. Dibdin, which had led him to a foregone conclusion as to the diabolical character of the manifestation, made the table rap out its own condemnation by the detestable heresies it gave forth.

Now, the doctrine of Mr. Dibdin and his predecessors upon this fundamental point has exactly the same basis as that since put forth by the Spiritualists. 'Here, then,' he says, 'are the facts on which I rest my argument, that it is of supernatural agency. If any one doubts my veracity, or questions the possibility of my senses being correct witnesses, in such a case I have nothing to reply to that person. Such an one puts himself out of the reach of all argument; and by such incredulity makes it impossible to prove anything to him.' And he thus disposes of Faraday's investigations:—'No doubt Professor Faraday understands his own department of science. What personal knowledge he has of the working of spirits, good or evil, it is not for me to say. But, in general, it seems necessary that men should be taught of the Holy Spirit, before they are competent to give any trustworthy opinion of the doings of Satan, or of evil spirits generally. Whether that ingenious Professor's spiritual attainments.

ments are such as enable him to pass judgment with such contempt upon the belief of pious and wise men, I am unable to decide.'

Who *shall* decide, when *such* doctors disagree? Mr. Dibdin, like his predecessors, is so firmly convinced that Table-moving is Satanic agency, as to feel himself called on to threaten all who practise this diabolical art with the gravest ecclesiastical censures, to say nothing of the terrors of paralysis or sudden death. The Spiritualists, on the other hand, affirm that nothing can be more conducive to their highest welfare, than to receive the visits of their departed relatives and friends, who impart to them spiritual guidance in their difficulties, and spiritual sympathy in their trials, and encourage them in the cultivation of 'purity of life and prayerfulness of inclination.' For ourselves, if we had to choose between the two creeds, we should prefer the latter. But it seems to us that Mr. Dibdin and the Spiritualists are equally right and equally wrong. Each is right in disbelieving the other's doctrine, while each is wrong in maintaining his own. Both are 'possessed' neither by 'spirits of health' nor 'goblins damned,' but by DOMINANT IDEAS, which act after their wont in converting what measure of common sense they may have ever possessed, and in bringing under their subjection that intelligent will which is man's most distinctive attribute.

On the curative powers said to be exerted through spiritual "mediums," it cannot be needful for us to dwell, the fact being notorious that the *confident anticipation* of a cure is in many cases sufficient of itself to bring it about. Any system of treatment, however absurd, that can be 'puffed' into public notoriety for efficacy—any individual who, by accident or design, obtains a reputation for the possession of a special gift of healing—is certain to attract a multitude of sufferers, among whom will be several who are capable of being *really* benefited by a strong assurance of relief, whilst others, for a time, *believe* themselves to have experienced it. And there is, for the same reason, no religious system that has attained powerful hold on the minds of its votaries, which cannot boast its "miracles" of this order. Nothing, for example, can be more complete than the attestation of a very remarkable cure which took place in the nunnery of Port Royal, in the person of one of the young scholars who was affected with an aggravated *fistula lachrymalis*, at a time when the hostility of the Jesuits and the Jansenists was at its height. The poor girl had been threatened with the "actual cautery" by the eminent surgeon Petit, under whose care she was, as the only way of getting rid of the disease of the bones of the nose, which manifested itself in intolerable fœtor; and the day was
fixed

fixed for its application. Two days previously, however, the patient walked in procession at the Fête de la Vierge, which was being celebrated with great pomp in the chapel of the convent, and was recommended by the nuns, as she passed the image of the Virgin, to prostrate herself before it and implore the Mother of God to relieve her from the dreaded infliction. This she did, no doubt, with the most childlike confidence and heartfelt sincerity, and her faith was rewarded by the favourable change which took place within a few hours, and which had so far advanced by the time of Petit's next visit, that he wisely did not interfere, the cure in a short time becoming complete. Of course, this 'miracle' was vaunted by the Jansenist party as indicating the special favour of the Virgin, whilst the Jesuits could not bring themselves to believe in its reality. A most careful enquiry was made by direction of the Court; the testimony of Petit and of other surgeons who knew the exact condition of the patient both before and after the 'miracle' (that condition being patent to their observation) was conclusive; and the reality of the cure could no longer be denied, though it remained inconceivable to the Jesuits that the Virgin should have worked a miracle in favour of their opponents.* No fact of this kind rests on a wider basis of testimony than the efficacy of the royal touch in the 'king's evil.' The readers of 'Macaulay's History' will remember that when the honest good sense of William the Third made him refuse to exercise the power with which he was undoubtedly credited by the great mass of his subjects, an overwhelming mass of evidence was brought together as to the 'balsamic virtues of the royal hand.' Not only theologians of eminent learning, ability, and virtue, gave the sanction of their authority to this belief; but some of the principal surgeons of the day certified that the cures were so numerous and rapid that they could not be attributed to any natural cause, and that the failures were to be ascribed to want of faith on the part of the patients. Charles the Second, in the course of his reign, had 'touched' near a hundred thousand persons; and James, in one of his progresses, 'touched' eight hundred persons in Chester Cathedral. William's refusal to continue the practice brought upon him the outcries of the parents of scrofulous children against his cruelty; whilst bigots lifted up their hands and eyes in horror at his impiety. Jacobites sarcastically praised him for not presuming to arrogate to himself a power which belonged only to legitimate sovereigns; and even some Whigs thought that he acted unwisely in treating with such

* Full details of this remarkable incident are given in Mrs. Schimmelpenninck's 'History of the Port Royalists.'

marked contempt a superstition which had so strong a hold on the vulgar mind. There are, probably, persons yet living who remember the reputed efficacy of 'Perkins's Metallic Tractors,' which was made the subject of a very careful investigation by Dr. Haygarth, an eminent physician of Bath, and Mr. Richard Smith, a distinguished surgeon of Bristol, in the early part of the present century. These gentlemen satisfied themselves that real benefit was often derived from the use of the 'Tractors,' which were supposed to exert the 'galvanic agency' then newly discovered; but that the same benefit was obtainable from the similar manipulation of two pieces of wood painted to resemble them, the *faith* of the patient being the condition required. Within our own recollection, the 'miracles' of Prince Hohenlohe were as well attested as any of the kind that have been worked before or since; these were succeeded by the therapeutic marvels of Mesmerism, which can all be accounted for by the like agency; and within the last few years we have seen the 'spiritual' cures of Dr. Newton at least equalled by those worked by the Zouave Jacob. Each reputation of this kind has its period of growth, maturity, decline, and death; and we should confidently anticipate that before the lapse of many years the 'spiritual' cures will, in like manner, have passed into the limbo of forgotten wonders of the same description, if it were not that the belief in them is only one of the manifestations of a morbid condition of the popular mind, the origin of which unfortunately lies very deep in its constitution.

It should not be lost sight of, in considering the *curative* influence attributable to 'faith,' that a most potent *injurious* influence may be exerted through the same agency. The 'spells' of witch-craft were by no means destitute of power over even princes and nobles in past times; whilst they still often seriously damage the health of persons who are ignorant and credulous enough to believe themselves to be the subjects of them. Every one who has lived among negroes knows that 'Obeah practices' are far more powerful for evil than 'spiritual agency' is for good; for there is no question that they have often produced the death of their victims by terrorism alone; whilst we have not yet heard it claimed by the Spiritualists that they can bring the dead to life. It is perfectly well known to medical men, that nothing more strongly opposes the operation of their best devised remedial measures—whether medical or surgical—than a fixed presentiment of a fatal result on the part of the patient. And very remarkable cases have been communicated to us by trustworthy observers, in which the fixed expectation of a local malady seems to have worked its own fulfilment, just as, within
our

our own experience, the assured belief that a particular remedy had been administered has produced its characteristic effects.

Those who believe in the curative virtues of 'Spiritualism,' therefore, are equally bound to believe in the malign influence of 'evil spirits'; and should consider it their peculiar mission to neutralise the spells of witches by invoking the assistance of the more benignant familiars, whom the 'healing mediums' have at their call. To us, on the other hand, it seems that the degree of ignorance and credulity of (so-called) educated men and women, which has been brought to light by the doings of the 'Spiritualists,' is not less lamentable than that of which our police reports give evidence when a decrepid old woman is nearly beaten to death by a young farmer for having 'cast a spell' upon him, or when a credulous servant girl is cheated out of her savings by a cunning old pretender to the power of 'ruling the planets.' Perhaps we shall be considered by some of our readers as drawing rather strongly on *their* credulity, when we assure them that a shrewd lawyer of our acquaintance was led, about two years ago, to give a high price for a large policy of insurance, on the life of a gentleman whose death within a twelvemonth was confidently predicted to him by one of these female 'seers'; and that he has since been twice called on to pay an annual premium of several hundred pounds, with the prospect of having to pay it for many future years, to secure the sum of which he expected to come into almost immediate possession. That a silly old woman should be induced by Mr. Home to make over to him sixty thousand pounds, on his representation that the spirit of her deceased husband directed the transfer, is to us far less wonderful than that practical men of the world should risk a large sum on the prediction of a *clairvoyante*; for even Dr. Cumming did not let the expectation of the Millenium interfere with his taking a long lease of a house. Generally speaking, the 'spirits' have judiciously abstained from committing themselves to predictions of which the falsity might soon be made apparent by the result, and have replied to questions as to the issue of impending 'events,' by saying that they do not concern themselves with matters of merely temporary and sublunary interest, their mission being to enlighten mankind as to those eternal verities which engage their own attention in the celestial sphere. Yet it would seem as if they occasionally condescend to minister to human frailties. Thus we have been assured by a lady at Bath, who bears a high character for intelligence and veracity, that having been present at a friend's house when the question was put by a young gentleman whose hands were resting on a planchette, 'Who likes me?' the table immediately wrote the names of
four

four young ladies known to all the party. The same question having been asked by the same gentleman with his hands on a different planchette in the house of another friend, *the same answer was given*; and this astounding coincidence was actually adduced by our informant as a proof that 'the tables know what each other say.' (The grammar is not ours.) She also assured us that a planchette of her acquaintance, though in the house of a clergyman, was 'never pious, often profane, and abused one of the young ladies of the house so constantly that she would not stay in the same room with it.' This table suffered the appropriate penalty for the crime of lending itself to the dictation of Satan. *It was burned!* Surely this clergyman must be the unconscious agent of the spirit of some arch-inquisitor of the sixteenth century, or of some witch-persecutor of the seventeenth. We are rejoiced, for the sake of humanity as well as for our own security, that he can now only exercise his combusive propensities on an inanimate bit of wood. Such heretics as deny that the tables are animated, either by good spirits or bad, could expect no mercy at his hands, if he were empowered to sit in judgment upon them.

We come, lastly, to those 'Physical manifestations' which have been from time to time adduced by the disciples of 'Spiritualism' as conclusive proofs of the existence of powers unknown to men of science, which (they aver) men of science have been repeatedly but vainly called upon to investigate and invited to witness, and in the reality of which, nevertheless, no man of any scientific reputation, in this country at least, has until recently professed his belief. Such a profession, however, has been recently made by gentlemen whose names and positions must give to it such weight with the general public, that we feel bound to subject their statements to a careful and critical examination. The July number of the 'Quarterly Journal of Science,' edited by Mr. W. Crookes, F.R.S., contains a Paper by the editor, entitled 'An Experimental Investigation of a New Force.' Most of the statements in this Paper are authenticated by letters from Dr. Huggins, V.P.R.S., and Mr. Serjeant Cox; and the Paper is reprinted in the 'Spiritualist' for July 15, under the title of 'An Experimental Investigation of Spiritual Phenomena,' by Mr. W. Crookes, F.R.S., Dr. Huggins, V.P.R.S., and Mr. Serjeant Cox, with 'Further Experiments' by Mr. Crookes. This number of the 'Spiritualist' also contained a Paper by Lord Lindsay, 'On Reichenbach's Magnetic Flames, and the Levitation of the Human Body'; extracts from an 'Experimental Investigation of the Spirit Manifestations,' by the late Dr. Hare, Professor of Chemistry in the University of Pennsylvania; and
a letter

a letter from Mr. Varley, a well-known electrician who has been extensively engaged in the laying of telegraph cables. Besides this body of scientific witnesses, we have, in the same number of the 'Spiritualist,' the evidence of a number of other persons with whose names (as we do not move in 'spiritual' circles) we have no acquaintance, but who testify—we have no doubt with full sincerity—to marvels far greater than any of which we had previously heard. In fact, the strongest appetite for 'sensational' writing ought to be satisfied by what we are assured is a sober narrative of real occurrences.

We must begin our examination of these witnesses by a protest against the spirit in which Mr. Crookes gives his evidence. 'It argues ill,' he says, 'for the boasted freedom of opinion among scientific men, that they have so long refused to institute a scientific investigation into the existence and nature of facts asserted by so many competent and credible witnesses, and which they are so freely invited to examine when and where they please. For my own part, I too much value the pursuit of truth, and the discovery of any new fact in Nature, to avoid inquiry because it appears to clash with prevailing opinions.' This is, of course, tantamount to asserting that Mr. Crookes and his coadjutors in this inquiry are the only scientific men whose love of truth makes them superior to vulgar prejudice!

Now we speak advisedly when we say that Mr. Crookes knew nothing whatever of the perseverance with which scientific men with whom he has never had the privilege of associating, qualified by long previous experience in inquiries of the like kind, *had* investigated these phenomena; until they had been forced to the conclusion that, as far as regards the Physical manifestations, there was nothing left to investigate, except the knavery of one set of performers and the self-delusion of others. We also speak advisedly when we say that Mr. Crookes was entirely ignorant of the previous history of the subject, and had not even acquainted himself with the mode in which Professor Faraday had demonstrated the real nature of Table-turning. For ourselves we can say that we took every opportunity within our reach, for more than a dozen years after the publication of the results of our former inquiries, of witnessing these 'higher phenomena' of Spiritualism; considering it to be our duty, having once taken up the inquiry, to follow it out so far as our time would admit and our patience hold out. And it was only after a repetition, on one occasion after another, of results which were entirely unsatisfactory, that we, and the scientific friends associated with us, abandoned the pursuit, as involving a waste of time and power that might be profitably employed upon worthier

worthier objects of investigation. We may give the following as *samples* of the results we have ourselves encountered:—

1. At an early stage in the development of Spiritualism, we were invited by the eminent literary friend mentioned in p. 319 to 'assist' at a *séance* to be held at his house, in which the performers were a woman and a youth, both professed mediums, who were asserted to possess the power of drawing chairs and tables after them by the mere 'tractive force' of their fingers. The woman, who was also a 'writing medium,' wrote out a sermon, the style of which strongly reminded us of that of the Rev. Mr. Chadband's orations. The woman and the youth sat at a card-table with our friend's wife and ourself; and we observed that the woman, finding the disposition of its legs unfavourable to the action of the downward pressure of her hands, quietly shifted them sideways, so as to get a better leverage. The table, which had previously refused to tilt, then gave such answers to a few questions as any one might have dictated. The youth, on being called on for a specimen of his peculiar powers, leaned over a large loo table supported on a pedestal springing from three spreading feet; and having pressed down one side of the table, so that it rested only on the edges of two of the feet, its surface being steeply inclined, he left the table standing in this position, to the astonishment of every one present, save ourselves. At the end of the *séance*, however, in which nothing else occurred in the least worthy of note, we went over to the table and set it up in precisely the same position;—the secret (which we had observed at the time) being that the edge of the broad claw of each foot, and the edge of its castor, bore on the ground together, so as to afford a base which, though narrow, was sufficient for the table to rest on; its weight happening to be so distributed that the 'line of direction' from its centre of gravity fell within that base. We were cordially thanked by several members of the party for having saved them from going away under the delusion that the table was sustained in its inclined position, contrary to the force of gravity, by the 'spiritual' influence of a cunning cheat.

2. At a *séance* to which we have already had occasion to refer (p. 313), a circumstance occurred which let us somewhat into the secret of the *self*-deception induced by the practice of these 'curious arts,' in persons above all suspicion of chicanery.—After the regular *séance* had broken up, we watched from behind the window-curtain the proceedings of our friendly host and the Hon. Miss N——, who had their hands upon a small, light table that stood in the recess of the window, supported on a pillar springing from three spreading feet. This table rocked about frantically,

frantically, sometimes resting on two legs, sometimes on one; and we observed that the performers seemed to be enticing it, as it were, by the movements of their hands, to rise into the air. Presently one of them exclaimed, 'It rose;' and soon afterwards the other responded, 'It rose again.' Now, we had been fixing our attention on the *feet* of the table; and were prepared to affirm with perfect certainty that *one* of them, at least, had never left the ground.—On discussing the matter afterwards, and claiming to be entitled on this point to trust to the evidence of our own careful observation, we asked the performers on what evidence *they* relied as to the rising of the table, and received this remarkable reply—'Because we felt it pressing upwards against our hands.' It was no longer difficult for us to understand how they could assure us, most truthfully, as regarded their own belief, that the long dining-table at which we were supping had risen a foot high on the previous evening. It was only necessary for them to 'feel it pressing upwards against their hands'!

3. On another occasion we were invited by an eminent naturalist, —who, having been absent from England during the Mesmeric and Odylic Mania, had not been prepared either for the chicanery or the self-deceptions of 'Spiritualism,'—to accompany him to a private *séance*, at which a very powerful professional 'medium' was to exhibit her 'Physical manifestations.' As in the first case, we were bound over to watch the phenomena without interference; and we faithfully kept our promise. All that we saw, however, was explicable on the hypothesis of intentional deception; while the entirely negative result of some experimental tests to which the 'medium' professed herself quite willing to accept, confirmed the impression of her character which had been made on us by the manner in which she ordered us off when we had availed ourselves of an opportunity of seating ourselves close at her side. 'The circle,' she said, 'would not be favourably constituted unless Miss A—— (a believer) changed places with that gentleman.'

4. Shortly after this occurrence, our scientific friend begged us to give him an opportunity in his own house of convincing us of the reality of these 'Physical manifestations;' a female friend of his sister having recently, quite unexpectedly to herself, found herself possessed of very remarkable powers as a 'medium,' and being quite willing to submit to any test of them that could be fairly imposed by scientific inquirers. This invitation we readily accepted. Our friend had already prepared what he considered effectual safeguards against imposition; and we were consequently spared the necessity of exhibiting any suspicion of a certain lurking roguishness which we fancied we detected in the
countenance

countenance of the lady. We sat for two hours in a state of solemn expectation; but though the presence of spirits was several times announced by 'raps,' they did not vouchsafe to favour us with any further manifestation of their agency.

5. The next of the experiences we shall narrate took place in connection with Mr. Foster, an American 'medium,' who carried away from London, some years ago, a rich harvest, obtained by the cleverness with which he practised on the credulity of the 'upper ten thousand.' We were requested by the lady mentioned in No. 1, who had known Mr. Foster in America, to accompany her and her son-in-law (an eminent London physician) on a visit to Mr. Foster, who had arrived in London only a few days previously. We were not introduced to him by name, and we do not think that he could have had any opportunity of knowing our person. Nevertheless, he not only answered, in a variety of modes, the questions we put to him respecting the time and cause of the death of several of our departed friends and relatives, whose names we had written down on slips of paper which had been folded up and crumpled into pellets before being placed in his hands, but he brought out names and dates correctly, in large red letters, on his bare arm, the redness being produced by the turgescence of the minute vessels of the skin, and passing away after a few minutes, like a blush. We must own to have been strongly impressed at the time by this performance; but on subsequently thinking it over, we thought we could see that Mr. Foster's divining power was partly derived from his having acquired the faculty of interpreting the movements of the *top* of a pen or pencil, though the *point* and what was written by it was hid from his sight; and partly from a very keen observation of the indications unconsciously given by ourselves of the answer we expected. For though we were fully armed with the knowledge which (as the readers of our former article will remember) had been acquired of the source from which Mrs. Hayden drew her inspiration, and did our utmost to repress every sign of anticipation, we came, on reflection, to an assured conviction that Mr. Foster *had* been keen-sighted enough to detect such signs, notwithstanding our attempt to baffle him. For, having asked him the *month* of the death of a friend, whose name had previously appeared in red letters on his arm, and the *year* of whose death had also been correctly indicated in another way, he desired us to take up the alphabet-card and to point to the successive letters. This we did, *as we believed*, with pendulum-like regularity; nevertheless, distinct raps were heard at the letters J, U. When, however, on the next repetition, we came to L, M, N, Mr. Foster was

was obviously baffled. He directed us to 'try back' two or three times, and at last confessed that he could not certainly tell whether the month was *June* or *July*. The secret of this was, that *we did not ourselves recollect*. Wishing to clear up the matter further, we called on Mr. Foster, revealed ourselves to him *in propria personâ*, and asked him if he would object to meet a few scientific investigators who should be allowed to subject his powers to fair tests. As he professed his readiness to do so, we brought together such a meeting at our own house; and previously to Mr. Foster's arrival, we explained to our friends the arrangements we proposed. One of these was, that one of the party should sit outside the 'circle,' and should devote himself to observing and recording all that passed, without taking any part whatever in the performance. Another was, that instead of writing down names on slips of paper, whilst sitting at the table within Mr. Foster's view, we should write them at a side-table, with our backs turned to him. On explaining these arrangements to Mr. Foster, he immediately said that the first could not be permitted, for that every person present *must* form part of the circle. To the second he made no objection. After handing him our slips of paper carefully folded up, we took our seats at the table, and waited for the announcement of spiritual visitors. The only one, however, who presented himself during an hour's *séance*, was the spirit of our own old master, whose name Mr. Foster might very readily have learned previously, but about whom he could give no particulars whatever. *Not one of the names written on the papers was revealed.*—The patience of our friends being exhausted, they took their leave; but as Mr. Foster's carriage had been ordered for a later hour, we requested him to sit down again with the members of our own family. 'Now,' we said, 'that these incredulous philosophers are gone, perhaps the spirits will favour us with a visit.' We purposely followed *his* lead, as on our first interview, and everything went on as successfully as on that occasion; until, whilst the name of a relative we had recently lost was being spelled out on our alphabet-card, the raps suddenly ceased on the interposition of a large music-box, which was set up at a preconcerted signal so as to hide the *top* as well as the bottom of our pointer from Mr. Foster's eyes. Nothing could more conclusively prove that Mr. Foster's knowledge was derived from observation of the movements of the pointer, although he could only see the portion of it not hidden by the card, which was so held as to conceal the lower part of it; and nothing could be a better illustration of the principle of 'unconscious ideo-motor action' than the fact that whilst we were most carefully abstaining from any pause or
look

look from which he might derive guidance, we had enabled him to divine the answer we expected.* The trick by which the red letters were produced, was discovered by the inquiries of our medical friends.

* A most instructive lesson as to the special training to which the professional conjuror subjects himself in preparing his mystifications, and the improvement of the powers of rapid apprehension and intellectual insight under such cultivation, is afforded by the 'Autobiography of Robert Houdin,' which ought to be carefully studied by every one who applies himself to the investigation of any phenomena in the production of which human agency takes an essential share. One of his most remarkable and attractive tricks was that which he appropriately designated 'Second Sight,' consisting in the ability of his son, a lad of twelve years old, whose eyes were covered with a thick bandage, to name and describe any object shown to the father at some distance from him. A plan of secret telegraphy had been arranged between them, by which the father could convey to his son the information he derived from his own inspection of the object; and the success of the son's description of it depended upon the readiness and certainty with which this imperceptible communication could be maintained, and upon the knowledge possessed by both, of the articles which were likely to be offered for description. The power of immediate apprehension was tested and trained in the following way:—In the first instance, Houdin put down a single domino, and required his son to name the total number of points without counting them, which he could readily do. *Two* dominoes were then tried; and, after a little practice, the total number of points on both was correctly named at the first glance. The next day the lesson was resumed, and they succeeded in naming the points on *four* dominoes at a single glance; on the following day those of *six*; and, at length, they found themselves able to give, without counting, the sum of the points on *twelve* dominoes. This result having been attained, they applied themselves to a far more difficult task, over which they spent a month. The father and son passed rapidly before a toy-shop, or any other displaying a variety of wares; and each cast an attentive glance upon it. A few steps further on, each drew paper and pencil from his pocket, and tried which could enumerate the greater number of the objects momentarily seen in passing. The son surpassed the father in quickness of apprehension, being often able to write down forty objects, whilst his father could scarcely reach thirty; yet, on their returning to verify his statement, he was rarely found to have made a mistake. Still more remarkable was the course of preparation to which both father and son subjected themselves, in order that the latter might be able to give a correct description of the multifarious objects presented to the former by the spectators, who would naturally choose those most likely to cause embarrassment. Among the objects with which they thus acquainted themselves, were the coins of all nations, half-effaced medals, minerals, precious stones, books printed in various languages (both living and dead), coats of arms, surgical and philosophical instruments, and miscellaneous curiosities of various kinds, both ancient and modern. All these they managed to 'get up' sufficiently for the recognition required; not only learning the names and values of all current coins, but familiarising themselves, in the cabinet of a friendly collector, with half-effaced antiques; acquiring a knowledge of the characters of Russian, Turkish, Greek, Hebrew, and even Chinese, so as to be able to read the titles of books in those languages; studying heraldry sufficiently to be able to give a correct technical description of a coat of arms, and so on. Having been brought up as a watchmaker, Houdin could easily open a watch, even with one hand, and could read the maker's name whilst artfully diverting the attention of the spectators; and in like manner he could open boxes, purses, pocket-books, or packets tied by a string, and find out their contents without being noticed, while appearing to be engaged on something quite different. A sealed packet gave him the greatest embarrassment; but this difficulty he managed to evade by making a slit in the paper with the nails of his left hand, which he kept long and sharp for the purpose.

6. It was, we believe, at about the same time, that we were requested to join a Committee for investigating the supposed 'occult powers' possessed by the Davenport Brothers. Being informed that the members of this Committee would be required, like ordinary attendants at the Brothers' performances, to join hands in a 'circle,' and that the essential parts of the performances themselves took place either within a cupboard into which no one was permitted to look, or in a dark room, we replied that we did not consider these performances to be proper subjects of scientific inquiry; for that no scientific man could consent to forego the use of his eyes and his hands, the most valuable of all his instruments for the investigation of objective truth.

This is the only occasion on which we have declined an invitation to investigate the physical manifestations of Spiritualism. We have repeatedly expressed our willingness to inquire into them, if only we were allowed to use ordinary scientific methods of testing their genuineness and scrutinising the conditions under which they occur. What will only take place in a 'dark *séance*,' or when hidden under a table, we do *not* feel called upon to treat as anything else than as a piece either of jugglery or of self-deception. And it is obviously a matter of grave suspicion when these manifestations take place only in presence of persons who are already predisposed to believe in their reality; and when they refuse to present themselves to the observation of honest inquirers, anxious only to arrive at truth and to prevent the dissemination of error, and prejudiced only so far as they may fairly be by their experience of the falsity of the pretensions advanced by numbers of previous claimants to similar 'occult' powers. That 'there are more things in heaven and earth than are dreamt of in *our* philosophy,'—that 'there is no end to the possibilities of Nature,'—is, we feel assured, the honest conviction of every true man of science. But, as was recently pointed out to Mr. Crookes by the distinguished Physical Secretary of the Royal Society, on returning to him the Paper which he had presented to be read before that body, while the Royal Society would by no means refuse to receive a Memoir having for its object to establish the existence of a new force in Nature, it may reasonably expect that the experimental investigation on which the existence of such a force is affirmed, should be of a kind to satisfy the requirements of exact Science. It is by that standard that we shall now scrutinize the testimony of the several witnesses who have presented themselves for examination, in the order in which we have enumerated them.

Lord Lindsay is a gentleman of honourable name, unblemished personal character, and not only highly educated according to the ordinary

ordinary standard, but possessed of considerable scientific attainments: being such a man, in fact, as would be justly accounted a safe witness in regard to any ordinary occurrence. His capacity to investigate phenomena of any extraordinary character, however, is open to very serious question. The following is his own account of the experiment by which he considers himself to have tested Mr. Home's power of seeing a magnet in the dark:—

‘This is an experiment which I believe was made by Reichenbach, and although, like myself, he was never able to distinguish the light, yet he found a number of persons who did see it under test conditions.

‘I asked Mr. Home, and he expressed himself willing to try the experiment. I then took into one of my rooms, which was totally dark, a large permanent magnet, and having removed the armature, I placed it on the floor near the wall, at a considerable distance from the door.

‘Mr. Home was then brought into the room, and remained standing near the door for some moments.

‘He then said that he saw some sort of light on the floor in a corner of the room, and immediately said to me—“Give me your hand, and I will show you exactly where I see it.” He then led me straight across the room, and without the least hesitation stooped down and placed my hand on the magnet.

‘I have been trying for more than two years to get a satisfactory result in this experiment, but hitherto with only doubtful success.

‘The instrument used was a large compound magnet capable of sustaining a weight of about 20 lbs.’

It is evident, from the commencement of the foregoing quotation, that Lord Lindsay had neither read Von Reichenbach's own statement of his inquiries, nor made himself acquainted with the contemporary criticisms which exposed the fallacy of their results. It was clearly shown by the experiments of Mr. Braid, that where ‘sensitives’ were persons on whose honesty reliance could be placed, the results depended upon the induction of a state of semi-reverie (of the same character with that subsequently known as the Biological), in which the ‘subjects’ were ready to see or feel anything that might be suggested to them. But a large part of Von Reichenbach's experiences show him to have been victimised by the intentional deceptions of cunning pretenders. It is quite clear that Lord Lindsay, like his predecessor, had utterly failed to apprehend the peculiar fallacies to which inquiries of this kind are subject; placing the same reliance on Mr. Home's statements that he would in the indications of a well-constructed thermometer, instead of setting himself, in the first instance, to test the value of those statements,

as the maker of a thermometer does the correctness of its graduation. Nothing would have been easier than to do this, in a manner to satisfy the most rigorous requirements of science. Lord Lindsay had only to employ an electro-magnet, instead of a permanent magnet; giving free control over the galvanic battery on which its magnetic force depends to an assistant outside, who should either make or unmake the magnet, or should vary its power, at his own pleasure, recording the time of each change. If, then, Mr. Home's account of the appearance, disappearance, and varying intensity of the light emitted from the magnet should be found to be in uniform correspondence with such a record, and the experiment were to give the same constancy of results when several times repeated,—with such a variation of persons as would exclude all possibility either of intentional collusion or of accidental coincidence,—Mr. Home's possession of the power to see light issuing from a magnet would be entitled to rank as an ascertained scientific fact. But this, after all, would merely prove that magnetic force, acting through Mr. Home's nervous system, could produce the sensation of Light; which would not seem more unlikely to those who know the correlation of those forces than that certain persons should be apprised of a change of wind or the approach of a thunderstorm, by feelings of which ordinary people have no experience.

If, then, Lord Lindsay cannot be trusted as a 'faithful' witness in 'that which is least,' how can we feel assured that he is 'faithful also in much'? And what measure of credit can we attach to the following narrative, doubtless implicitly believed in by himself, which follows immediately upon our previous quotation?

'I may mention that on another occasion I was sitting with Mr. Home and Lord Adare, and a cousin of his. During the sitting Mr. Home went into a trance, and in that state was carried out of the window in the room next to where we were, and was brought in at our window. The distance between the windows was about 7 feet 6 inches, and there was not the slightest foothold between them, nor was there more than a 12-inch projection to each window, which served as a ledge to put flowers on.

'We heard the window in the next room lifted up, and almost immediately after we saw Home floating in the air outside our window.

'The moon was shining full into the room; my back was to the light, and I saw the shadow on the wall of the window-sill, and Home's feet about six inches above it. He remained in this position for a few seconds, then raised the window and glided into the room, feet foremost, and sat down.

'Lord Adare then went into the next room to look at the window
from

from which he had been carried. It was raised about eighteen inches, and he expressed his wonder how Mr. Home had been taken through so narrow an aperture.

Home said (still in trance), "I will show you;" and then, with his back to the window, he leaned back, and was shot out of the aperture head first with the body rigid, and then returned quite quietly.

'The window is about seventy feet from the ground. I very much doubt whether any skilful tight-rope dancer would like to attempt a feat of this description, where the only means of crossing would be by a perilous leap, or being borne across in such a manner as I have described, placing the question of the light aside.'

Now on this we shall only make three observations:—

1. Though it might have been expected that, in narrating a marvel so astounding, Lord Lindsay would have been careful to state every particular that could be reasonably asked for, and to support his account of it by the testimony of the other gentlemen by whom it was witnessed, he commences as if he were narrating the most ordinary occurrence, which ought to be received on his own testimony alone; thus showing that he had previously surrendered himself unreservedly to the belief in Mr. Home's 'occult' powers, and that his testimony is therefore to be received with the gravest suspicion.

2. He commits the flagrant inconsistency of telling us that whilst he and two other persons were 'sitting with Mr. Home,'—which, if words have any meaning, implies that Mr. Home was in the same room with him,—Mr. Home '*was carried out of the window in the room next to where we were, and was brought in at our window.*'

3. This spiritual transportation took place, not in open day, but *by moonlight.*

If any wicked wag were to characterise Lord Lindsay's statement as 'all moonshine,' would not the common sense of our readers accept the description?

We have next to deal with Dr. Hare, who was an American physicist and chemist of some reputation, but was not, so far as we have been able to learn, remarkable for acuteness of discrimination as to any matters beyond the ordinary sphere of his inquiries; and we shall presently show how the want of such discrimination caused him to fail egregiously in apprehending the most essential conditions of the question to be put to experimental test. He set himself to contrive 'an apparatus, which, if spirits were actually present, would enable them to exercise their physical and intellectual powers independent of the control by any medium;' and this he thought he had realised in the following manner:—A
dial

dial was fixed to the table on which the hands of the 'medium' were to be laid; and round the circumference of this dial the letters of the alphabet were disposed in irregular order. An index-hand was made to rotate on an axle passing through the centre of the dial; and this axle was made to revolve, through the traction of a cord wound round it, by any *tilting* movements given to the table. The dial being hidden by an interposing screen from the eyes of the 'medium,' it was assumed by Dr. Hare that 'no letter could be brought under the index at will;' nevertheless the hand spelled out any name that was called for, and, when directed to do so, pointed successively to the letters in their proper alphabetical order. Now, in the first place, no measure was taken by Dr. Hare to test the downward pressure of the hands of the 'medium' upon the table; and we therefore hold ourselves justified in assuming, in the absence of any proof to the contrary, that its tiltings were due to her muscular agency. But, secondly, as we are not told that the face of Dr. Hare and of every other person who was looking at the dial, was screened from observation of the 'medium,' it is evident that she had ample opportunity of deriving guidance in her manipulation of the table, from watching the indications they would afford her; just as Mrs. Hayden was guided in her 'raps,' and Mr. Foster in his varied modes of communicating spiritual answers, by the like observation of the signs involuntarily dictated by the 'expectant attention' of the questioners. And that this was really the case is evident from Dr. Hare's own account of what took place.

'Although,' he says, 'the requisite letters were ultimately found, there was evidently some difficulty, as if there was some groping for them with an imperfect light. This has been explained since by my father's spirit. He alleges that, preferably, the eyes of the medium would be employed; but that, although with difficulty, he used mine as a substitute.'

Even on the spirit's own showing, therefore, the use of somebody's eyes was necessary for the regulation of the movements of the index; clearly proving that the movement was dependent on *human* agency. Again, he says,—

'Although, with a view to convince the sceptical, spirits will occasionally give manifestations, when the vision or muscular control of the medium is nullified, it is more difficult for the spirits to operate in this way; moreover it is more difficult for some spirits than for others. . . . One who has assisted me with much zeal has communicated that he would work my apparatus when arranged for a test, but that, as it caused much more exertion, and of course retardation, he advised that the test arrangement should not be interposed when it could be avoided.'

Another

Another apparatus was so contrived by Dr. Hare, that the hand was turned by the *horizontal* movement of the table, which rolled on wheels about 5 inches in diameter. A 'medium' having seated herself at the table with her face screened from the alphabet-disk, 'no manifestation took place through the disk, though other indications of the presence of spirits were given. Hence, inducing the medium to sit at an ordinary table, I inquired if any change could be made which would enable them to communicate through my apparatus. The reply through the alphabet-card was, "Let the medium see the letters."—Even this does not seem to have opened Dr. Hare's eyes to the fundamental fallacy of his method of investigation. He caused the 'medium' to place her hands upon a metallic plate having small brass balls interposed between it and the table; by which means, he considered, 'he could neutralise the power of the medium to move the table, so that she could not influence the selection of the letters, though permitted to see them.' Yet it never seems to have occurred to Dr. Hare to ascertain whether or not a pair of hands resting on his metallic plate could give a horizontal motion, through its mediation, to the table beneath, whose large wheels would very easily yield to any such impulse; and, as the contrary was not proved, we are justified in assuming that the table was so moved.

Having thus exposed the sources of error underlying two of the experiments which are regarded by this Professor of Chemistry 'as proving a spirit to have been present and to have actuated the apparatus, affording *thus precise experimental proof of the immortality of the soul*' (!), we should not think it needful to cross-examine him further, were it not that it is obviously on another of his experiments that Messrs. Crookes and Huggins have based their own method of inquiry. A board about 4 feet long was made to rest on a fulcrum at a foot from one of its extremities, and consequently at 3 feet from the other; and the longer end was attached to a weighing-machine that indicated any downward pressure which might be applied to any part of that arm of the lever. A glass vase was fixed, mouth upwards, on the board, having its centre at a distance of 6 inches from the fulcrum, on the same side as the weighing-machine; and, as the distance of the weighing-machine from the fulcrum was six times that of the centre of the vase, any pressure exerted on the latter must have been six times that indicated by the weighing-machine. The vase having been nearly filled with water, a wire-gauze cage was so arranged as to descend into it; a 'medium' was induced to plunge his hands, clasped together, to the bottom of the cage; and Dr. Hare then invoked 'the aid
of

of his spirit friends.' A downright force, he assures us, was repeatedly exerted upon the end at the board appended to the balance, equal to nearly *three* pounds weight; equivalent, therefore, to *eighteen* pounds at the centre of the vase. Yet it never seems to have occurred to Dr. Hare to test whether he or anyone else could not produce the same depression by the rhythmical action of repeated downward impulses given to the cage, which would be communicated to the vase through the friction of the waters in rising through the pores of the wire-gauze. Knowing what we do of the extraordinary results of the *cumulative* force of very small vibratory impulses rhythmically repeated, we have no difficulty in accounting for the result of Dr. Hare's experiment, without any aid from his 'spirit friends.' Had our own Faraday taken part in such an investigation, he would have considered it his first duty, as a scientific man, to *test the performance of his instruments*; but this seems to have been entirely beneath the consideration of a philosopher who was bent only upon obtaining a 'precise experimental proof of the immortality of the soul.' And yet this is the man whose 'spirit' seems to have been allowed by Messrs. Crookes and Huggins to direct their investigations.

As Mr. Crookes advances no less a claim than to have proved the existence of his New Force by 'the application of crucial tests, with carefully arranged apparatus, and in the presence of irreproachable witnesses,' we are forced to inquire not only how far the tests were really crucial, but how far the witnesses were competent. For, as we have already seen, a man may have acquired a high reputation as an investigator in one department of science, and yet be utterly untrustworthy in regard to another. This is what not merely the general public, but men who claim to guide its judgments, seem unable to understand. Any 'scientific man' is popularly supposed to be a competent authority upon obscure questions, for the elucidation of which are required the nice discrimination and the acute discernment of the sources of fallacy, which can only be gained by a long course of experience, based on special knowledge. And this is particularly the case when the inquiry is psychical rather than physical, and involves a knowledge of the modes in which the Mind of the observer is liable to be misled either by his own proclivities or by the arts of an intentional deceiver. 'If,' it is triumphantly asked, 'we accept Dr. Huggins's testimony to the facts he has discovered by Spectrum-analysis, why should we refuse credence to his testimony as to the manifestations of Psychic Force? And if we do *not* accept his evidence as to the latter class of phenomena, how can we consistently rely upon it

it in regard to the former?' This question we shall endeavour to answer in a manner as little offensive as possible to Dr. Huggins, for whose personal as well as for whose scientific character we entertain the sincerest respect. And we must request him, on the one hand, to believe that nothing but what we deem the paramount interests of truth would induce us to utter a word in depreciation of his merit; and, on the other hand, to bear in mind that he has himself challenged such criticism, by having, as we consider, hastily and inconsiderately given the sanction of his high authority and of the distinguished office he at present holds by favour of the President of the Royal Society, to the results of what is—to say the least—a very inadequate investigation.

Dr. Huggins is one of a class of scientific amateurs who hold a most important position in our community, as helping to maintain for British Science that place which would be imperilled by the paucity of its professional defenders: men who, either born to independence, or honourably acquiring it by their own exertions, apply themselves to scientific pursuits with as much earnest devotion as if their livelihood depended on their success. When such amateurs have shown the capacity, as well as the will, to labour for the advancement of Science in any department they may select, they are invariably welcomed by its professors as most valued allies, and receive at their hands the academic distinctions usually accorded only to those who have distinguished themselves in University studies. Like Mr. Whitbread, Mr. Lassell, and other brewers we could name, Dr. Huggins attached himself, in the first instance, to the study of astronomy, and soon after the marvellous application, by Professors Bunsen and Kirchhoff, of the method of Spectrum-analysis to the study of the component elements of the sun, he associated himself with his friend and neighbour, the late Professor W. A. Miller, in the extension of the same method of inquiry to the planets, the fixed stars, and finally to the nebulæ. The success of their joint labours in this previously unexplored field was most complete. Questions were definitely resolved which had baffled all the skill of the Herschels and the Rosses; and every extension of their inquiries opened out new and illimitable prospects beyond. Most deservedly, therefore, did they receive the plaudits of the whole scientific world, while learned Societies and Universities vied with each other in the bestowal of their well earned honours. No attestation could be higher to Mr. Huggins's unsurpassed ability as a spectroscopic observer than the resolution of the Council of the Royal Society (at the special instance of Dr. Robinson of Armagh) to devote a sum of 2000*l.*

to the construction of a telescope expressly adapted to enable him to apply this method of analysis in the most efficient manner to the systematic study of the nebulae. This telescope has been recently completed, and placed in the observatory provided by Dr. Huggins for its reception; the exclusive possession of this noble instrument having been given him for a term of years, on his undertaking to devote all his disposable time to its use.

There can be no question, however, that such scientific amateurs labour, as a rule, under a grave disadvantage, in the want of that broad basis of *general* scientific culture, which alone can keep them from the narrowing and perverting influence of a limited *specialism*. And we have no reason to believe that to this rule Dr. Huggins constitutes an exception. Of his acquaintance with any other department of science than the small subdivision of a branch to which he has so meritoriously devoted himself, we are not aware that he has given any evidence whatever. And we believe that his habits of thought were formed and fixed before he entered into that association with a justly distinguished Professor, which unquestionably laid the foundation of his subsequent success. In particular, we believe that his devotion to a branch of research which tasks the keenest powers of *observation*, has prevented him from training himself in the strict methods of *experimental* inquiry; and that the implicit trust he has been rightly led to place in the revelations of his spectroscope has tended rather to weaken, than to strengthen, his power of detecting the fallacies of observation in other matters. To him 'seeing is believing;' but to those who have qualified themselves for the study of 'Psychic Force' by a previous course of investigation into the class of 'occult' phenomena of which this is the latest manifestation, 'seeing' is anything but 'believing.' They know that there are *moral* sources of error, of which Dr. Huggins, with his simple trustingness, would never dream, and that one of the most potent of these is a proclivity to believe in the reality of spiritual communications, which places those who are not constantly on their guard against its influence under the twofold danger of deception—alike from *within* and from *without*.

Our task in dealing with Mr. Crookes is much less difficult; for not merely his incautious use of his position as editor of an important scientific journal, but the *malus animus* he has displayed towards those with whom he claims to be in fraternity, entirely destroys any tenderness we might have otherwise felt for a man who has in his previous career made creditable use of his very limited opportunities. Mr. Crookes acquired his place in
Science

Science by the application of Spectrum-analysis to the detection of the new metal *Thallium*, the properties and chemical relations of which he studied with care and accuracy. For this discovery he was rewarded by the Fellowship of the Royal Society; but we speak advisedly when we say that this distinction was conferred on him with considerable hesitation, the ability he displayed in the investigation being purely *technical*. We are assured, on the highest authority, that he is regarded among chemists as a specialist of specialists, being totally destitute of any knowledge of Chemical Philosophy, and utterly untrustworthy as to any inquiry which requires more than technical knowledge for its successful conduct. He committed himself in the pages of his journal, fifteen months ago, to an expression, 'in the most emphatic manner,' of 'his belief in the occurrence, under certain circumstances, of phenomena inexplicable by any known natural laws;' whilst, at the same time, he admitted that he had not employed the tests which men of science had a right to demand before giving credence to the genuineness of those phenomena. Hence he entered upon the inquiry, of which he now makes public the results, with an *avowed foregone conclusion of his own*, based on evidence which he admitted to be scientifically incomplete; and this obviously deprives his 'conviction of their objective reality' of even that small measure of value to which his scientific character might have given it a claim, if his testimony had been impartial. That he had not prepared himself for the investigation, by making himself acquainted with what had been previously ascertained in regard to the real nature of kindred phenomena, we have already pointed out.*

Of Mr. Serjeant Cox it will be enough for us to say that, whatever may be his professional ability, he is known to those conversant with the history of Mesmerism as one of the most gullible of the gullible, as to whatever appeals to his organ of Wonder. He was the patron of that youth George Goble, whose pretensions to the *clairvoyant* power were investigated by Drs. Forbes and Sharpey more than twenty-five years ago, and whose fraud was exposed by an ingenious contrivance devised by the latter. Yet Mr. Cox was so persuaded that his *protégé* had played the cheat *on that occasion only*, that he called the next day on Dr. Forbes, assured him of his own continued belief in George's asserted powers, and begged him to resume his investigations! This is the sort of witness whose testimony Mr. Crookes calls upon scientific men to receive, as to the results of what he represents as a purely scientific enquiry; whilst

* 'Quarterly Review,' vol. xciii. p. 538.

he altogether ignores the painstaking and carefully conducted researches which had led men of the highest scientific eminence to an unquestioning rejection of the whole of those 'higher phenomena' of Mesmerism, which are now presented under other names as the results of 'Spiritual' or 'Psychic' agency.

The test experiment, on which the claim is advanced for Mr. Home that he possesses the power of 'altering the weight of bodies,' is obviously suggested by the last of Dr. Hare's. The apparatus consisted of a mahogany board, 36 inches long, 9½ inches wide, and 1 inch thick. Under one end was screwed a strip of mahogany 1½ inch wide, which served as foot or fulcrum, resting on the edge of a firm table. The other end of the board was hung to a spring-balance supported by a substantial tripod stand, and this balance was fitted with a self-registering index, which recorded the maximum weight indicated by the pointer. The apparatus was so adjusted that the mahogany board was horizontal; and in this position its weight depressed the pointer so that it marked 3 lbs. The following is Mr. Crookes's account of what took place:—

'Mr. Home placed the tips of his fingers lightly on the extreme end of the mahogany board which was resting on the support, whilst Dr. Huggins and myself sat, one on each side of it, watching for any effect which might be produced. Almost immediately the pointer of the balance was seen to descend. After a few seconds it rose again. This movement was repeated several times, as if by successive waves of the Psychic Force. The end of the board was observed to oscillate slowly up and down during the time.

'Mr. Home now of his own accord took a small hand-bell and a little card match-box, which happened to be near, and placed one under each hand, to satisfy us, as he said, that he was not producing the downward pressure. The very slow oscillation of the spring-balance became more marked, and Dr. Huggins, on watching the index, said that he saw it descend to 6½ lbs. The normal weight of the board as so suspended being 3 lbs., the additional downward pull was therefore 3½ lbs. On looking immediately afterwards at the automatic register, we saw that the index had at one time descended as low as 9 lbs., showing a maximum pull of 6 lbs.

'In order to see whether it was possible to produce much effect on the spring-balance by pressure at the place where Mr. Home's fingers had been I stepped upon the table and stood on one foot at the end of the board. Dr. Huggins, who was observing the index of the balance, said that the whole weight of my body (140 lbs.) so applied only sunk the index 1½ lb., or 2 lbs. when I jerked up and down. Mr. Home had been sitting in a low easy-chair, and could not, therefore, had he tried his utmost, have exerted any material influence on these results. I need scarcely add that his feet, as well as his hands, were closely watched by all in the room.

'It was particularly noticed that Mr. Home's fingers were not at any time advanced more than $1\frac{1}{2}$ inch from the extreme end, as shown by a pencil-mark, which, with Dr. Huggins's acquiescence, I made at the time. Now, the wooden foot being also $1\frac{1}{2}$ inch wide, and resting flat on the table, it is evident that no amount of pressure exerted within this space of $1\frac{1}{2}$ inch could produce any action on the balance. Again, it is also evident that when the end furthest from Mr. Home sank, the board would turn on the further edge of this foot as on a fulcrum. The arrangement was consequently that of a see-saw, 36 inches in length, the fulcrum being $1\frac{1}{2}$ inch from one end! Were he, therefore, to have exerted a downward pressure, it would have been in opposition to the force which was causing the other end of the board to move down.

'The slight downward pressure shown by the balance when I stood on the board was owing probably to my foot extending beyond this fulcrum.'

Now, on this we have simply to observe that the whole experiment is vitiated by the absence of any determination of the *actual downward pressure* of Mr. Home's fingers: the very point being assumed without any investigation, which ought to have been subjected to the most rigorous tests. Such determination, by a vertical 'indicator,' would have been the very first step in the inquiry if Professor Faraday had been conducting it; and until this test has been applied, in the presence of witnesses to whose trustworthiness and impartiality no exception can be taken, we hold ourselves excused from any call to explain the depression of the index which is affirmed by Mr. Crookes and Dr. Huggins to have taken place. The statement, however, that it took place in 'waves'—or, as Serjeant Cox expresses it, 'in tremulous pulsations, not in the form of steady, continuous pressure, the indicator moving and falling incessantly during the experiment'—strongly suggests that Mr. Home managed to impart a rhythmical vibration to the board by extending the pressure of his fingers a little *off* its support, while the attention of the witnesses was kept fixed upon the index, three feet off.*

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* It is well known that a large part of the conjuror's art consists in the *distraction of the spectator's attention* from the critical points of his performance; and Houdin tells us that he found this to be easier with clever men, who go to such representations to enjoy the illusions, than with ordinary men who see in them a challenge offered to their intelligence. The following anecdote of the late Earl of Rosse seems to us not a little instructive in this point of view. Having taken his children to see the performances of Frikell, one of the most dexterous of pure sleight-of-hand *prestidigitateurs*, he entirely surrendered himself at the time to the artist's clever deceptions. But, possessing a good memory, he was afterwards able to retrace every step of the performance; and by setting his reason to work, he succeeded in satisfying himself as to the precise point in each trick at which the sleight of hand *must* have been practised. He then went a second time, with the determination

In his subsequent communication to the 'Spiritualist,' Mr. Crookes records the results of other experiments with this apparatus, one of them being a variation of that which Dr. Hare had made with the water-vase. These, he asserts, altogether preclude the possibility that Mr. Home, and the lady-medium who was able to produce the like results, should have done so by their own muscular action; and yet it never seems to have occurred to him to test whether the same results could not be produced by throwing the board into rhythmical vibration by an *intentional* exertion of muscular action!

We must class Mr. Crookes's account of Mr. Home's performances with an accordion with Lord Lindsay's narrative of Mr. Home's moonlight sail. For all these performances took place within a cylindrical cage of hoops, laths, string, and wire, which was placed *under a table* in a room lighted with gas; the averment being that the accordion, first held in one of Mr. Home's hands, with its keys downwards, emitted distinct and separate notes in succession, and then played a simple air; whilst afterwards, on Mr. Home withdrawing his hand, the accordion floated inside the cage, without any visible support, and went on playing as before. Mr. Crookes's assistant, who looked under the table when Mr. Home had his hand on the accordion, reported that the accordion was expanding and contracting, but did not say whether or not its keys were moving; and though Mr. Crookes, his assistant, and Serjeant Cox afterwards saw the accordion floating unsupported in the cage (Dr. Huggins does *not* testify to this), they do not give us the slightest information as to whether the keys and the bellows of the accordion were at work whilst the instrument was continuing to utter its dulcet sounds.

It will be quite time for us to consider how this performance is to be explained, when it shall have been repeated *in open daylight* (without any cage), *above* instead of *under* a table, and in the presence of *trustworthy witnesses*, who should carefully record all the particulars in which Mr. Crookes's narrative is deficient. In the meanwhile, it is worthy of remark that it is the *accordion* which is usually selected as the favourite instrument of spirit-mediums; and that the performance on this instrument *with one hand* is a juggling trick often exhibited at country fairs.

It is admitted by Mr. Crookes that there is a great obstacle to the scientific investigation of Mr. Home's asserted powers,

determination of limiting his attention to these points, without allowing it to be distracted by the devices of the performer; and he was then able to detect a number of the "passes" which had previously escaped his observation, admirably trained though this was by his astronomical and mechanical pursuits.

‘owing to our imperfect knowledge of the conditions which favour or oppose the manifestations of this force, to the apparently capricious manner in which it is exerted, and to the fact that Mr. Home himself is subject to unaccountable ebbs and flows of this force;’ so that ‘it has but seldom happened that a result obtained on one occasion could be subsequently confirmed and tested with apparatus specially contrived for the purpose.’ Now, to us there is no mystery whatever. We have constantly found that when we have gone simply as spectators,—when our sceptical disposition was not known,—when no indications of incredulity or even of doubt was given, either on our own part, or on that of others, by word, look, or sign,—when (in fact) the performers had it all their own way, like conjurors at a public performance, at which the spectators are prepared to be taken in,—the conditions are all favourable to the flow of the peculiar force—Mesmeric, Psychic, or Spiritual, as its advocates may choose to designate it. When, on the other hand, the performers are aware that their proceedings are being scrutinised by critical and intelligent eyes; when they know that it would be fatal to their pretensions were they to be detected in deceptions which they can safely practise on the credulous; and when (to save appearances) they have accepted tests which they know must prevent them from even attempting these deceptions, the ‘unaccountable’ *ebb* takes place, and the results are entirely negative. This is what happened to a committee of scientific men, which met Mr. Home some months ago at St. Petersburg. Mr. Home’s force being at a minimum, no manifestations were vouchsafed. ‘The same thing,’ says Mr. Crookes, ‘has frequently happened within my own experience. A party of scientific men met Mr. Home at my house, and the results were as negative as those at St. Petersburg. Instead, however, of throwing up the inquiry, we patiently repeated the trial a second and a third time, when we met with results which were positive.’ We doubt not that during these *séances* Mr. Home was taking the measure of those who had met to take his; and that when he found them sufficiently impressed with the reality of his Psychic force to attribute to it the rippling of the surface of water in a basin, which was really produced by the tremor occasioned in Mr. Crookes’s house by the passage of a railway-train close to it,* he considered them ripe for its further manifestation.

Having frequently heard the testimony of Mr. C. E. Varley to the physical marvels of Spiritualism cited as that of ‘an

* This is not an invention of our own, but a fact communicated to us by a highly intelligent witness, who was admitted to one of Mr. Crookes’s *séances*.

eminent scientific man,' we have made some inquiry into his qualifications as a witness on such matters, and find that they are certainly not superior to those of Mr. Crookes's. Though possessing considerable *technical* knowledge of electric telegraphy, his *scientific* attainments are so cheaply estimated by those who are best qualified to judge of them that he has never been admitted to the Royal Society, although he has more than once been a candidate for that honour. We quote the following merely as an example of the manner in which minds of this limited order are apt to become the dupes of their own imaginings:—

'I have in broad daylight seen a small table with no one near it but myself, and not even touched by me or any visible person, raised off the floor and carried horizontally 10 feet through the air; and I have repeatedly seen a large dining-table lifted bodily off the floor, and when so supported in the air the table has moved in the direction that I mentally requested it to take. In this experiment, not only was the "new force" well developed, but in addition it obeyed my *unspoken mental request*, to convince me that there was present an "intelligence" that could, and did, read my thoughts.

'I have on a few occasions been able to see the *Spirits themselves*, sometimes to *talk* with them. They have frequently foretold things that were about to happen, and in most instances the events have occurred as predicted.'

We are now arrived at the climax—or, as some may perhaps think, the anti-climax—of the marvels, which we are gravely called on to accept as well-authenticated facts. On the 20th of May last, Mr. Herne, of 61, Lamb's Conduit Street, was 'caught away' whilst walking in the neighbourhood of Islington, in open day, and conveyed, by invisible agency, into a room in the house of Mr. Guppy, No. 1, Morland Villas, Highbury Hill Park, its doors and windows being all closed. A fortnight afterwards, a return visit was paid by Mrs. Guppy to Mr. Herne; the lady being brought by invisible agency into a room measuring twelve feet by ten, of which the doors and windows were closed and fastened, and coming 'plump down,' in a standing position, upon the centre of a table round which eleven persons were sitting, shoulder to shoulder, in a dark *séance*. Mrs. Guppy was evidently not a consenting party to this transportation, for she was in a state of complete unconsciousness and of partial *déshabille*, having neither bonnet, shawl, nor shoes; and she seems to have been rudely interrupted by her spiritual captors whilst making up her household accounts, as she held an account-book in one hand, and a pen with the ink still wet in the other. These astounding phenomena are calmly narrated by
a Mr.

a Mr. Benjamin Coleman, who is very severe upon scientific men for their incredulity, but seems to consider it rather their misfortune than their fault, since he says, 'Had I been fettered by scientific education, I could not have allowed so "preposterous" and "impossible" an event to enter my brain.' Being himself perfectly unfettered, however, by any absurd prejudices, he had been led to anticipate and even to predict that these wonders would culminate in Mrs. Guppy—one of the largest and heaviest women of his acquaintance—being carried away; and we cannot but suspect that his prediction had something to do in bringing about its fulfilment. It is obvious that the party of eleven persons, who were sitting *in the dark* in Mr. Herne's apartments, were in that state of 'expectant attention' which is well known to physiologists to be productive of 'subjective sensations' as well as of movements; and just as, in a 'circle' of Table-turners, when one leads off all the others follow suit, so any one who heard or felt anything (*seeing* being out of the question) which could be fancied to indicate Mrs. Guppy's presence on the table would readily excite the same belief in the minds of the rest; just as Theodore Hook, in his celebrated experiment on popular credulity, persuaded a London crowd not merely that *he*, but that *they*, could see the lion on the top of Northumberland House wag his tail. How, in a dark *séance*, it was ascertained not merely that Mrs. Guppy was present, but that she was in a state of *déshabille*, and that the ink was still wet in her pen, we are not informed. The following incident, recorded in another part of the same number of the 'Spiritualist,' seems to afford some clue to the mystery:—

'Last Friday week at a dark *séance* at the residence of Mr. Guppy, two live lobsters were placed on the hands of one of the sitters. It was then made known that Miss Thom, of Pendleton, near Manchester, whispered to her mother that she wished the spirits would bring a live lobster instead of flowers. Mrs. Thom, who attended the circle merely as an inquirer, did not think it proper to repeat the request aloud, so neither the medium nor anybody else at the circle knew that a desire for a lobster had been expressed.'

Can any rational person doubt that these 'two live lobsters' existed only in the imagination of Miss Thom and her associates? She could not *see* them in the dark; and if they had made their presence *felt* by pinching her fingers, she would have most assuredly screamed. In the state of 'expectant attention,' she doubtless experienced, in unusual strength, the 'creepy-crawly' sensations familiar to many of us in strange beds, and attributed these to the presence of the lobsters she had been wishing for. If she will assure us that they were boiled for supper

after

after the *séance*, and proved to be substantial, not spiritual, food, we will retract our hypothetical explanation.

We might fill another page or two with Mr. Coleman's accounts of Mrs. Guppy's 'mediumistic' endowments, which, as regards her power of bringing in any quantity of fruits and flowers, are only paralleled by those of a Houdin or a Frikell; whilst she goes beyond these accomplished *prestidigitateurs* in dashing down large quantities of snow, so clear and sparkling that it could not have been touched by human hands, and pieces of ice, as large as the fist, in such quantity as to require the services of a man-servant to take it away. This last occurrence is vouched for not only by Mr. Coleman but by the editor of the 'Spiritualist,' who further informs us that Mrs. Guppy and her friends had been sitting before a large fire for half-an-hour before the *séance* began.

There is one trifling inconsistency we should like explained before we can accept these narratives as veracious. The invisible spirits at Mrs. Guppy's command can obviously do as much for her as did the obedient Jins for the heroes and heroines of the immortal tales that charm the youth of successive generations. If they can bring in any quantity of fruits, flowers, and ices for a dessert, they must surely be able to furnish forth her breakfast and her dinner-tables. When she wishes to travel, they save her not merely the fatigue of the journey, but the cost of cabs and railway fares. What on earth, then, has Mrs. Guppy got to do with 'household accounts'?

None can be more ready than ourselves to admit that 'ridicule is not the test of truth;' but there are some subjects—and we believe this to be one of them—as to which ridicule has a wholesome power of checking the spread of pernicious error. We have gravely discussed many of the phenomena which are adduced as evidences of 'spiritual' agency, for the purpose of showing that, like others which had previously presented themselves under different names, they are really produced by the unconscious agency of the individuals through whose 'mediumship' they are exhibited; and that their occurrence affords new and interesting exemplifications of physiological and psychological principles previously known and accepted. But when we are called on to believe in the 'levitation' of the human body, and in the power of incorporeal spirits to move heavy masses of matter without any ostensible agency, to make an accordion play tunes without the working of its bellows or its keys, and to evolve fruits and flowers, snow and ice, live lobsters and the hands of departed friends, out of the depths of their own consciousness, the question is one to be decided, not by an elaborate

elaborate discussion, but by direct appeal to *educated common sense*. Is it more likely that these marvels actually occurred as narrated, or that the witnesses to them were deceived by their own imaginings?

The history of Epidemic Delusions affords such abundant evidence as to the former prevalence of what are now universally regarded as the most absurd beliefs, that those who have no more than a general acquaintance with it can have no difficulty in finding parallels to that on which we have now been commenting. Not more than two centuries ago, for example, the transportation of witches through the air, that they might take part in the unholy orgies of their creed, and hold sexual commerce with evil Spirits, was not only testified in courts of justice by multitudes of witnesses, but was admitted by the culprits themselves, many of whom went to the stake with the heroism of martyrs 'witnessing a good confession' to what they honestly believed to be true. If we once begin to try such affirmations by the test of *reason*, we should perchance find ourselves obliged to acquiesce in the *dictum* of Dr. Johnson, that nothing proves the *non-existence* of witches; or, in the conclusion of one of our greatest modern logicians—who had devoted himself so exclusively to the science of Reasoning as to be unfitted for that practical appreciation of the value of Evidence, on which we depend in the judgments of every-day life—that the Spiritualist doctrine has a better claim to acceptance than any of the other thousand-and-one explanations that might be given of the phenomena.

The insight we have gained in the course of this inquiry into the gullibility, not merely of the average public, but of many of those who command its respect, either as teachers of religion or as successful scientific investigators, has made us reflect seriously as to what it is in our present system of education which constitutes the chief 'predisposing cause' of the Spiritualist epidemic. And after the best comparison we have been able to make between the mental condition of the classes who have *most* severely suffered from it, and that of the classes who have been *least* affected, we have come to the conclusion that part, at least, of this predisposition depends on *the deficiency of early scientific training*. Such training ought to include—(1), the acquirement of habits of correct *observation* of the phenomena daily taking place around us; (2), the cultivation of the power of *reasoning* upon these phenomena, so as to arrive at *general principles* by the *inductive* process; (3), the study of the method of testing the validity of such inductions by *experiment*; and (4), the *deductive* application of principles thus acquired to the *prediction* of

of phenomena which can be verified by observation. We speak with knowledge when we say that a tenth of the time which is devoted, in an ordinary school curriculum, to the study of *abstractions*, will suffice for the culture (if judiciously directed) of the power of *bringing the reasoning faculties to bear on objective realities*, not only without disadvantage to his other studies, but with a manifest improvement in the pupil's power of apprehending the real meaning of abstractions which had previously perplexed him. Now it is among purely *literary* men, whose minds have seldom been exercised upon anything but abstractions, that we have witnessed most ready surrender to the seductions of Spiritualism; the distinction between objective realities and the creations of their own imaginations being often extremely ill-defined; and the testimony borne by Science to the want of trustworthiness of what they assume to be the evidence of their own senses, being scornfully repudiated. On the other hand, those who have either gone through the discipline of such an early scientific training as we have advocated, or have (like Faraday) conscientiously imposed it upon themselves at a later period, are usually the last persons to become 'possessed' by the delusions of this pseudo-science; or, if they should have perchance been attracted by them for a time, they speedily come to discern their fallacy.

Our belief that the early education of the scientific witnesses who have come forward to testify to the reality of the Physical manifestations of Spiritualism, was not such as to develop the power of *scientific discrimination*, is fully justified, as we have shown, by the thoroughly unscientific manner in which they have conducted their investigations, and reported their results. Let any who may accuse us of underrating the competency of these witnesses, merely because we have ourselves come to a foregone conclusion as to the incredibility of their statements, compare the narratives of Dr. Hare and Mr. Crookes with Professor Faraday's 'Letters on Table-turning,' and Professor Chevreul's treatise on the 'Baguette Divinatoire.*' The latter are models of scientific inquiry on a subject rendered peculiarly difficult by the interposition of the *human* element; the former, as we have shown, are conspicuous for the absence of true scientific method.

But there is a positive as well as a negative defect in the prevailing mental organisation of our time, which shows itself in the unhealthy craving for some 'sign' that shall testify to the

* This admirable treatise, which was not published until after the appearance of our former article, entirely confirms, by a most elaborate and conclusive series of investigations, the views we had ourselves expressed in regard to the 'Divining Rod.'

reality of the existence of disembodied spirits, while the legitimate influence of the noble lives and pregnant sayings of the great and good who have gone before us is proportionately ignored. Putting aside, as beyond the scope of our present inquiry, those questions of high Philosophy, which arise out of modern ideas of the relation between Matter and Force, Body and Spirit, we would fearlessly leave it to the good sense of any right-minded person, whether he would surrender the enduring and inspiring memories impressed on his inner soul by the counsels and example of a wise father, by the affectionate sympathy of a tender and judicious mother, by the cordial unselfishness of a generous-hearted brother, by the self-sacrificing devotion of a loving sister, or by the guileless simplicity of an innocent child, for any communications they could send him by rappings or table-tiltings. Or, to turn from these to influences of a wider scope, who that early felt his intellect expanded and his aspirations elevated by the noble thoughts put forth in the 'Discourse on the Study of Natural Philosophy,' and has endeavoured, however imperfectly, to make them the guide of his own scientific life; who that recently joined with the most eminent representatives of every department of British science in attending to their last resting-place in the national mausoleum the honoured remains of one whom all acknowledged to be their master, could wish that the spirit of a Herschel should be asked to give evidence of its continued existence by playing a tune on an accordion or rapping out a line of his 'Astronomy'?

It happened to us, within a few weeks after that mournful ceremony, to follow to the same resting-place the not less honoured remains of one whom we had come to regard with no inferior veneration, not so much for his great erudition and varied intellectual ability, as for his rare—we might almost say unprecedented—combination of unswerving justice tempered by the most gracious kindness, of perfect unselfishness, animated by the most enlarged philanthropy. Of all the memories in our spiritual Valhalla, that of George Grote stands pre-eminent for those qualities which have commanded our respect and inspired our personal attachment. Who that has had the privilege of not only observing the public course of our modern Aristides, but of sharing in the amenities of his private life, could wish anything better for himself, than that the spirit of his departed friend should be his own constant and life-long guide; so that whenever its close may arrive, he too may be deemed worthy of the eulogy so appropriately bestowed on our great historian from the grand old words—'The just shall be held in everlasting remembrance.'