

RESEARCHES INTO THE PHENOMENA OF MODERN SPIRITUALISM

(Two Worlds Publishing Co., 1904)

- B. H. Crookes -

IT IS now many years since an authentic edition of these researches was published, and it is felt that a new edition would be welcomed by many people who have no access to the former one. At the time of his death, Sir William Crookes was preparing to issue a new edition, which might or might not have been recast and enlarged to include his later experiences. However this may have been, there is now no one competent to alter or add to what he has written. Nevertheless, the present volume is not a verbatim reprint of the original. It has been judged expedient to omit, as no longer relevant, certain correspondence challenging and vindicating his competency to make and record the crucial experiments with D. D. Home, and in addition the names of certain gentlemen who were at first referred to by initials, but whose names were subsequently given, have been inserted in the text. With these exceptions, everything is as first published by Sir (then Mr.) William Crookes.

Though not mentioned in the text, it is desirable to put on record that Sir William wrote to several of his friends: "The photographs of Katie King were only permitted to be taken on condition that they should never be published," and from that day to this the condition has been rigidly adhered to, and, it is to be hoped, will be in the future.

A short list of some of the chief landmarks in Sir William's life may be of interest to those readers who have not seen his biography (published 1923).

He was born in 1832 and died in 1919 in his 87th year, both events taking place in London.

In 1897 he was knighted "in recognition of the eminent services he had rendered to the advance of scientific knowledge," and in 1910 he was further honoured by the bestowal of the Order of Merit.

In 1898 he became President of the British Association at Bristol, and the latter half of his Presidential Address, in which he refers to his Spiritualistic Researches a quarter of a century before, has been included in this volume.

In 1913 he was elected President of the Royal Society. In his later years

he had been President of the Society for Psychical Research, the Chemical Society, the Society of Chemical Industry and the Electrical Engineers. He was elected a correspondent of the Institut de France in 1906, and was Honorary Secretary of the Royal Institution in Albemarle Street for many years. He was D.Sc. and LL.D. of six English and one Colonial Universities.

Those who are interested to know why all these and other honours were showered upon him in his declining years will find a fairly complete account of his activities in many fields of scientific research for upwards of 60 years, in the biography referred to above, and at the same time will find ample justification for trusting to his accuracy and judgment in carrying out the research described in the following pages.

Spiritualism Viewed by the Light of Modern Science
- Sir William Crookes -

- First published in the Quarterly Journal of Science, July 1870 -

SOME WEEKS ago the fact that I was engaged in investigating Spiritualism, so called, was announced in a contemporary(1): and in consequence of the many communications I have since received, I think it desirable to say a little concerning the investigation which I have commenced. Views or opinions I cannot be said to possess on a subject which I do not pretend to understand. I consider it the duty of scientific men who have learnt exact modes of working to examine phenomena which attract the attention of the public, in order to confirm their genuineness, or to explain, if possible, the delusions of the honest and to expose the tricks of deceivers. But I think it a pity that any public announcement of a man's investigation should be made until he has shown himself willing to speak out.

(1) "The Athenaeum".

A man may be a true scientific man, and yet agree with Professor De Morgan when he says: "I have both seen and heard, in a manner which would make unbelief impossible, things called spiritual which cannot be taken by a rational being to be capable of explanation by imposture, coincidence or mistake. So far I feel the ground firm under me; but when it comes to what is the cause of these phenomena I find I cannot adopt any explanation which has yet been suggested... The physical explanations which I have seen are easy, but miserably insufficient. The spiritual hypothesis is sufficient, but ponderously difficult."

Regarding the sufficiency of the explanation, I am not able to speak. That certain physical phenomena, such as the movement of material

substances, and the production of sounds resembling electric discharges, occur under circumstances in which they cannot be explained by any physical law at present known, is a fact of which I am as certain as I am of the most elementary fact in chemistry. My whole scientific education has been one long lesson in exactness of observation, and I wish it to be understood that this firm conviction is the result of most careful investigation. But I cannot, at present, hazard even the most vague hypothesis as to the cause of the phenomena. Hitherto I have seen nothing to convince me of the truth of the "spiritual" theory. In such an inquiry the intellect demands that the spiritual proof must be absolutely incapable of being explained away; it must be so strikingly and convincingly true that we cannot, dare not, deny it.

Faraday says: "Before we proceed to consider any question involving physical principles we should set out with clear ideas of the naturally possible and impossible." But this appears like reasoning in a circle: we are to investigate nothing till we know it to be possible, whilst we cannot say what is impossible, outside pure mathematics, till we know everything.

In the present case I prefer to enter upon the enquiry with no preconceived notions whatever as to what can or cannot be, but with all my senses alert and ready to convey information to the brain; believing, as I do, that we have by no means exhausted all human knowledge or fathomed the depths of all the physical forces, and remembering that the great philosopher already quoted said, in reference to some speculations on the gravitating force, "Nothing is too wonderful to be true if it be consistent with the laws of nature; and in such things as these, experiment is the best test of such consistency."

The modes of reasoning of scientific men appear to be generally misunderstood by Spiritualists with whom I have conversed, and the reluctance of the trained scientific mind to investigate this subject is frequently ascribed to unworthy motives. I think, therefore, it will be of service if I here illustrate the modes of thought current amongst those who investigate science, and say what kind of experimental proof science has a right to demand before admitting a new department of knowledge into her ranks. We must not, mix up the exact and the inexact. The supremacy of accuracy must be absolute.

The first requisite is to be sure of facts; then to ascertain conditions; next, laws. Accuracy and knowledge of detail stand foremost amongst the great aims of modern scientific men. No observations are of much use to the student of science unless they are truthful and made under test conditions, and here I find the great mass of Spiritualistic evidence to fail. In a subject which, perhaps, more than any other lends itself to trickery and deception, the precautions against fraud appear to have been, in most cases, totally insufficient, owing, it would seem, to an erroneous idea that to ask for such safeguards was to imply a suspicion of the honesty of someone present. We may use our own unaided

senses, but when we ask for instrumental means to increase their sharpness, certainty and trustworthiness under circumstances of excitement and difficulty, and when one's natural senses are liable to be thrown off their balance, offense is taken.

In the countless number of recorded observations I have read, there appear to be few instances of meetings held for the express purpose of getting the phenomena under test conditions in the presence of persons properly qualified by scientific training to weigh and adjust the value of the evidence which might present itself. The only good series of test experiments I have met with were tried by the Count de Gasparin, and he, whilst admitting the genuineness of the phenomena, came to the conclusion that they were not due to supernatural agency.

The pseudo-scientific Spiritualist professes to know everything: no calculations trouble his serenity, no hard experiments, no long laborious readings; no weary attempts to make clear in words that which has rejoiced the heart and elevated the mind. He talks glibly of all sciences and arts, overwhelmingly the enquirer with terms like "electro-biologize," "psychologize," "animal magnetism," etc.- a mere play upon words, showing ignorance rather than understanding. Popular science such as this is little able to guide discovery rushing onwards to an unknown future; and the real workers of science must be extremely careful not to allow the reins to get into unfit and incompetent hands.

In investigations which so completely baffle the ordinary observer the thorough scientific man has a great advantage. He has followed science from the beginning through a long line of learning and he knows, therefore, in what direction it is leading; he knows that there are dangers on one side, uncertainties on another, and almost absolute certainty on a third: he sees to a certain extent in advance. But, where every step is towards the marvellous and unexpected, precautions and tests should be multiplied rather than diminished. Investigators must work; although their work may be very small in quantity if only compensation be made by its intrinsic excellence. But even in this realm of marvels, this wonderland towards which scientific enquiry is sending out its pioneers, can anything be more astonishing than the delicacy of the instrumental aids which the workers bring with them to supplement the observations of their natural senses?

The Spiritualist tells of bodies weighing 50 or 100 lbs. being lifted up into the air without the intervention of any known force; but the scientific chemist is accustomed to use a balance which will render sensible a weight so small that it would take ten thousand of them to weigh one grain; he is, therefore, justified in asking that a power professing to be guided by intelligence, which will toss a heavy body up to the ceiling, shall also cause his delicately-poised balance to move under test conditions.

The Spiritualist tells of tapping sounds which are produced in different

parts of a room when two or more persons sit quietly round a table. The scientific experimenter is entitled to ask that these taps shall be produced on the stretched membrane of his phonautograph.

The Spiritualist tells of rooms and houses being shaken, even to injury, by superhuman power. The man of science merely asks for a pendulum to be set vibrating when it is in a glass case and supported on solid masonry.

The Spiritualist tells of heavy articles of furniture moving from one room to another without human agency. But the man of science has made instruments which will divide an inch into a million parts; and he is justified in doubting the accuracy of the former observations if the same force is powerless to move the index of his instrument one poor degree.

The Spiritualist tells of flowers with the fresh dew on them, of fruit and living objects being carried through closed windows, and even solid brick-walls. The scientific investigator naturally asks that an additional weight (if it be only the 1,000th part of a grain) be deposited on one pan of his balance when the case is locked. And the chemist asks for the 1,000th of a grain of arsenic to be carried through the sides of a glass tube in which pure water is hermetically sealed.

The Spiritualist tells of manifestations of power, which would be equivalent to many thousands of "foot-pounds," taking place without known agency. The man of science, believing firmly in the conservation of force, and that it is never produced without a corresponding exhaustion of something to replace it, asks for some such exhibitions of power to be manifested in his laboratory, where he can weigh, measure and submit it to proper tests.

For these reasons and with these feelings I began an inquiry suggested to me by eminent men exercising great influence on the thought of the country. At first, like other men who thought little of the matter and saw little, I believed that the whole affair was a superstition, or at least an unexplained trick. Even at this moment I meet with cases which I cannot prove to be anything else; and in some cases I am sure that it is a delusion of the senses.

I by no means promise to enter fully into this subject; it seems very difficult to obtain opportunities, and numerous failures certainly may dishearten anyone. The persons in whose presence these phenomena take place are few in number, and opportunities for experimenting with previously arranged apparatus are rarer still. I should feel it to be a great satisfaction if I could bring out light in any direction, and I may safely say that I care not in what direction. With this end in view, I appeal to any of my readers who may possess a key to these strange phenomena to further the progress of the truth by assisting me in my investigations. That the subject has to do with strange physiological conditions is clear, and these in a sense may be called "spiritual" when they produce certain

results in our minds. At present the phenomena I have observed baffle explanation; so do the phenomena of thought, which are also spiritual, and which no philosopher has yet understood. No man, however, denies them.

The explanations given to me, both orally and in most of the books I have read, are shrouded in such an affected ponderosity of style, such an attempt at disguising poverty of ideas in grandiloquent language, that I feel it impossible, after driving off the frothy diluent, to discern a crystalline residue of meaning. I confess that the reasoning of some Spiritualists would almost seem to justify Faraday's severe statement - that many dogs have the power of coming to much more logical conclusions. Their speculations utterly ignore all theories of force being only a form of molecular motion, and they speak of Force, Matter and Spirit as three distinct entities, each capable of existing without the other; although they sometimes admit that they are mutually convertible.

It has been my wish to show that science is gradually making its followers the representatives of care and accuracy. It is a fine quality that of uttering undeniable truth. Let, then, that position not be lowered, but let words suit facts with an accuracy equal to that with which the facts themselves can be ascertained; and in a subject encrusted with credulity and superstition, let it be shown that there is a class of facts to be found upon which reliance can be placed, so far, that we may be certain they will never change. In common affairs a mistake may have but a short life, but in the study of nature an imperfect observation may cause infinite trouble to thousands. The increased employment of -scientific methods will promote exact observation and greater love of truth among enquirers, and will produce a race of observers who will drive the worthless residuum of Spiritualism hence into the unknown limbo of magic and necromancy.

Experimental Investigation of a New Force
- Sir William Crookes -

**First published in the "Quarterly Journal of Science", January 1st
1871**

TWELVE MONTHS ago in this journal I wrote an article, which, after expressing in the most emphatic manner my belief in the occurrence, under certain circumstances, of phenomena inexplicable by any known natural laws, I indicated several tests which men of science had a right to demand before giving credence to the genuineness of these phenomena. Among the tests pointed out were, that a "delicately poised balance should be moved under test conditions"; and that some exhibition of power equivalent to so many "foot-pounds" should be manifested in his laboratory, where the experimentalists could weigh measure, and submit to it proper tests." I said, too, that I could not

promise to enter fully into this subject, owing to the difficulties of obtaining opportunities, and the numerous failures attending the enquiry; moreover, that "the persons in whose presence these phenomena take place are few in number, and opportunities for experimenting with previously arranged apparatus are rarer still."

Opportunities having since offered for pursuing the investigation, I have gladly availed myself of them for applying to these phenomena careful scientific testing experiments and I have thus arrived at certain definite results which I think it right should be published. These experiments appear conclusively to establish the existence of a new force, in some unknown manner connected with the human organization, which for convenience may be called the Psychic Force.

Of all the persons endowed with a powerful development of this Psychic Force, and who have been termed "mediums" upon quite another theory of its origin, Mr. Daniel Douglas Home is the most remarkable, and it is mainly owing to the many opportunities I have had of carrying on my investigation in his presence that I am enabled to affirm so conclusively the existence of this Force. The experiments I have tried have been very numerous, but owing to our imperfect knowledge of the conditions which favor 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 the force, 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.

Among the remarkable phenomena which occur under Mr. Home's influence, the most striking, as well as the most easily tested with scientific accuracy, are - (1) the alteration in the weight of bodies, and (2) the playing of tunes upon musical instruments (generally an accordion, for convenience of portability) without direct human intervention, under conditions rendering contact or connection with the keys impossible. Not until I had witnessed these facts some half-dozen times, and scrutinized them with all the critical acumen I possess, did I become convinced of their objective reality. Still, desiring to place the matter beyond the shadow of doubt, I invited Mr. Home on several occasions to come to my own house, where, in the presence of a few scientific enquirers, these phenomena could be submitted to crucial experiments.

The meetings took place in the evening, in a large room lighted by gas. The apparatus prepared for the purpose of testing the movements of the accordion, consisted of a cage, formed of two wooden hoops, respectively 1 foot 10 inches and 2 feet diameter, connected together by 12 narrow laths, each 1 foot 10 inches long, so as to form a drum-shaped frame, open at the top and bottom; round this 50 yards of insulated copper wire were wound in 24 rounds, each being rather less than an inch from its neighbour. The horizontal strands of wire were then netted together firmly with string, so as to form meshes rather less than 2

inches long by 1 inch high. The height of this cage was such that it would just slip under my dining table, but be too close to the top to allow of the hand being introduced into the interior, or to admit of a foot being pushed underneath it. In another room were two Grove's cells, wires being led from them into the dining room for connection, if desirable, with the wires surrounding the cage.

The accordion was a new one, having been purchased by myself for the purpose of these experiments at Wheatstone's, in Conduit Street. Mr. Home had neither handled nor seen the instrument before the commencement of the test experiments.

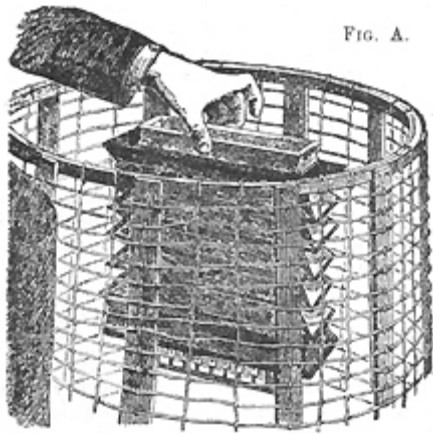
In another part of the room an apparatus was fitted up for experimenting on the alterations in the weight of a body. It consisted of a mahogany board, 36 inches long by 9 1/2 inches wide and 1 inch thick. At each end a strip of mahogany 1 1/2 inches wide was screwed on, forming feet. One end of the board rested on a firm table, whilst the other end was supported by a spring balance hanging from a substantial tripod stand. The balance was fitted with a self-registering index, in such a manner that it would record the maximum weight indicated by the pointer. The apparatus was adjusted so that the mahogany board was horizontal, its foot resting flat on the support. In this position its weight was 3 lbs., as marked by the pointer of the balance.

Before Mr. Home entered the room the apparatus had been arranged in position, and he had not even the object of some parts of it explained before sitting down. It may, perhaps, be worth while to add, for the purpose of anticipating some critical remarks which are likely to be made, that in the afternoon I called for Mr. Home at his apartments, and when there he suggested that, as he had to change his dress, perhaps I should not object to continue our conversation in his bedroom. I am, therefore, enabled to state positively, that no machinery, apparatus, or contrivance of any sort was secreted about his person.

The investigators present on the test occasion were an eminent physicist, high in the ranks of the Royal Society, whom I will call Dr. A. B.; a well-known Sergeant-at Law, whom I will call Sergeant C. D.; my brother; and my chemical assistant.(1)

(1) It argues ill 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 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 enquiry because it appears to clash with prevailing opinions. But as I have no right to assume that others are equally willing to do this, I refrain from mentioning the names of my friends without their permission.

Mr. Home sat in a low easy chair at the side of the table. In front of him



under the table was the aforesaid cage, one of his legs being on each side of it. I sat close to him on his left, and another observer sat close to him on his right, the rest of the party being seated at convenient distances round the table.

For the greater part of the evening, particularly when anything of importance was proceeding, the observers on each side of Mr. Home kept their feet respectively on his feet, so as to be able to detect his slightest movement.

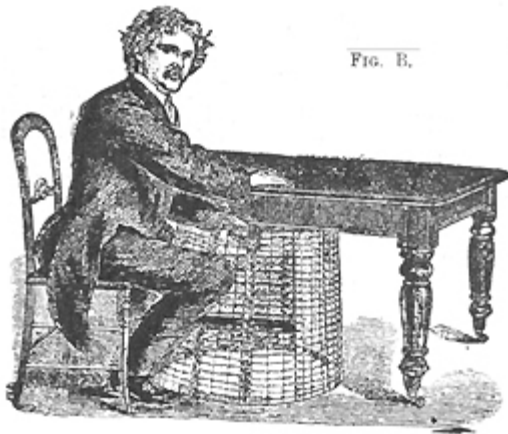
The temperature of the room varied from 68 degrees to 70 degrees F.

Mr. Home took the accordion between the thumb and middle finger of one hand at the opposite end to the keys (to save repetition this will be subsequently called "in the usual manner"). Having previously opened the bass key myself, and the cage being drawn from under the table so as just to allow the accordion to be pushed in with its key downwards, it was pushed back as close as Mr. Home's arm would permit, but without hiding his hand from those next to him. Very soon the accordion was seen by those on each side to be waving about in a somewhat curious manner; then sounds came from it, and finally several notes were played in succession. Whilst this was going on my assistant went under the table, and reported that the accordion was expanding and contracting; at the same time it was seen that the hand of Mr. Home by which it was held was quite still, his other hand resting on the table.

Presently the accordion was seen by those on either side of Mr. Home to move about, oscillating and going round and round the cage, and playing at the same time. Dr. A. B. now looked under the table, and said that Mr. Home's hand appeared quite still whilst the accordion I was moving about emitting distinct sounds.

Mr. Home still holding the accordion in the usual manner in the cage, his feet being held by those next him, and his other hand resting on the table, we heard distinct and separate notes sounded in succession, and then a simple air was played. As such a result could only have been produced by the various keys of the instrument being acted upon in harmonious succession, this was considered, by those present to be a crucial experiment. But the sequel was still more striking, for Mr. Home then removed his hand altogether from the accordion, taking it quite out of the cage, and placed it in the hand of the person next to him. The instrument then continued to play, no person touching it and no hand being near it.

I was now desirous of trying what would be the effect of passing the battery current round the insulated wire of the cage, and my assistant



accordingly made the connection with the wires from the two Grove's cells. Mr. Home again held the instrument inside the page in the same manner as before, when it immediately sounded and moved about vigorously. But whether the electric current passing round the cage assisted the manifestation of force inside it, is impossible to say.

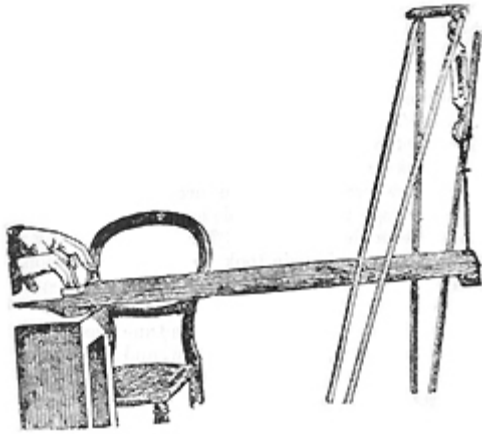
The accordion was now again taken without any visible touch from Mr.

Home's hand, which he removed from it entirely and placed upon the table, where it was taken by the person next to him, and seen, as now were both his hands, by all present. I and two of the others present saw the accordion distinctly floating about inside the cage with no visible support.

This was repeated a second time, after a short interval. Mr. Home presently re-inserted his hand in the cage and again took hold of the accordion. It then commenced to play, at first, chords and runs, and afterwards a well-known sweet and plaintive melody, which was executed perfectly in a very beautiful manner. Whilst this tune was being played I grasped Mr. Home's arm, below the elbow, and gently slid my hand down it until I touched the top of the accordion. He was not moving a muscle. His other hand was on the table, visible to all, and his feet were under the feet of those next to him.

Having met with such striking results in the experiments with the accordion in the cage, we turned to the balance apparatus already described. 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. A. B. 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 experiment.

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. A. B., watching the index, said that he saw it descend to 6 1/2 lbs. The normal weight of the board as so suspended being 3 lbs., the additional downward pull was therefore 3 1/2 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. upon a board whose normal weight was 3 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. A. B., who was observing the index of the balance, said that the whole weight of my body (140 lbs.) so applied only sunk the index 1 1/2 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 guarded by all in the room.

This experiment appears to me more striking, if possible, than the one with the accordion. As will be seen on referring to the cut, the board was arranged perfectly horizontally, and it was particularly noticed that Mr. Home's fingers were not at any time advanced more than 1 1/2 inches from the extreme end, as shown by a pencil-mark, which, with Dr. A. B.'s acquiescence, I made at the time. Now, the wooden foot being also 1 1/2 inches wide, and resting flat on the table, it is evident that no amount of pressure exerted within this space of 1 1/2 inches 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 side of this foot as on a fulcrum. The arrangement was consequently that of a see-saw, 36 inches in length, the fulcrum being 1 1/2 inches 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.

I have now given a plain, unvarnished statement of the facts from copious notes written at the time the occurrences were taking place, and copied out in full immediately after. Indeed, it would be fatal to the object I have in view - that of urging the scientific investigation of these phenomena - were I to exaggerate ever so little; for although to my readers Dr. A. B. is at present represented by incorporeal initials, to me the letters represent a power in the scientific world that would certainly convict me if I were to prove an untrustworthy narrator.

In the *Quarterly Journal of Science*, October 1st, 1871, the illustrious investigator replied to the charges brought against him by those who were not in agreement with his findings, and recorded a series of further experiments. He wrote: When I first stated in this journal that I was about to investigate the phenomena of so-called Spiritualism, the

announcement called forth universal expression of approval. One said that my "statements deserved respectful consideration"; another expressed "profound satisfaction that the subject was about to be investigated by a man so thoroughly qualified as," etc.; a third was "gratified to learn that the matter is now receiving the attention of cool and clearheaded men of recognized position in science"; a fourth asserted that "no one could doubt Mr. Crookes' ability to conduct the investigation with rigid philosophical impartiality"; and a fifth was good enough to tell its readers that "if men like Mr. Crookes grapple with the subject, taking nothing for granted until it is proved, we shall soon know how much to believe."

These remarks, however, were written too hastily. It was taken for granted by the writers that the results of my experiments would be in accordance with their preconceptions. What they really desired was not *the truth*, but an additional witness in favour of their own foregone conclusions. When they found that the facts which that investigation established could not be made to fit those opinions, why - "so much the worse for the facts." They try to creep out of their own confident recommendations of the enquiry by declaring that "Mr. Home is a clever conjurer, who has duped us all." "Mr. Crookes might, with equal propriety, examine the performances of an Indian juggler." "Mr. Crookes must get better witnesses before he can be believed." "The thing is too absurd to be treated seriously." "It is impossible, and therefore can't be." (The quotation occurs to me - "I never said it was possible, I only said it was true.")

"The observers have all been biologised(!) and fancy they saw things occur which really never took place," etc., etc.

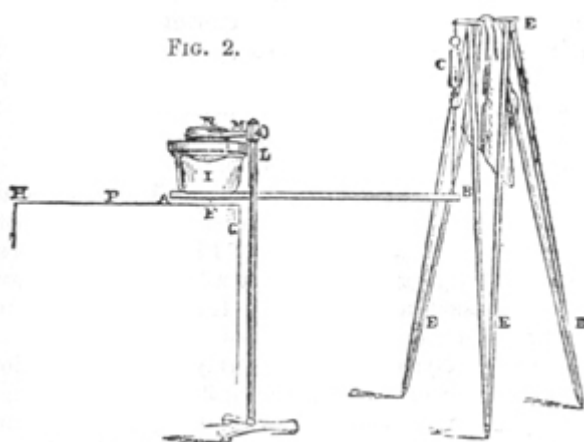
These remarks imply a curious oblivion of the very functions which the scientific enquirer has to fulfill. I am scarcely surprised when the objectors say that I have been deceived merely because they are unconvinced without personal investigation, since the same unscientific course of *a priori* argument has been opposed to all great discoveries. When I am told that what I describe cannot be explained in accordance with preconceived ideas of the laws of nature, the objector really begs the very question at issue, and resorts to a mode of reasoning which brings science to a standstill. The argument runs in a vicious circle: we must not assert a fact till we know that it is in accordance with the laws of nature, while our only knowledge of the laws of nature must be based on an extensive observation of facts. If a new fact seems to oppose what is called a law of nature, it does not prove the asserted fact to be false, but only that we have not yet ascertained all the laws of nature, or not learned them correctly.

I may at once answer one objection which has been made in several quarters, viz., that my results would carry more weight had they been tried a greater number of times, and with other persons besides Mr. Home. The fact is, I have been working at the subject for two years, and

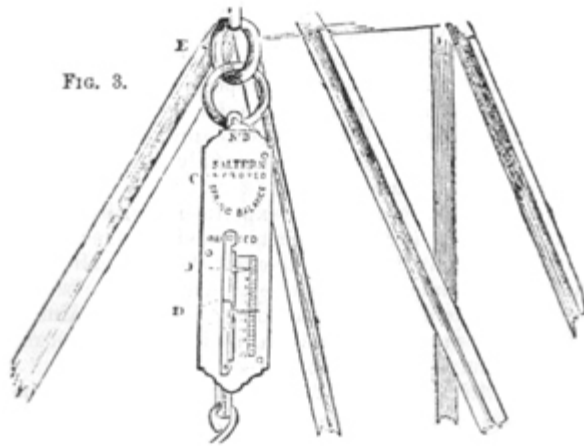
have found nine or ten different persons who possess psychic power in more or less degree; but its development in Mr. D. D. Home is so powerful, that, having satisfied myself by careful experiments that the phenomena observed were genuine, I have, merely as a matter of convenience, carried on my experiments with him, in preference to working with others in whom the power existed in a less striking degree. Most of the experiments I am about to describe, however, have been tried with another person than Mr. Home, and in his absence.

Before proceeding to relate my new experiments, I desire to say a few words respecting those already described. The objection has been raised that announcements of such magnitude should not be made on the strength of one or two experiments hastily performed. I reply that the conclusions were not arrived at hastily, nor on the results of two or three experiments only. In my former paper (*Quarterly Journal of Science*, page 340), I remarked: "Not until I had witnessed these facts some half-dozen times, and scrutinized them with all the critical acumen I possess, did I become convinced of their objective reality." Before fitting up special apparatus for these experiments, I have seen on five separate occasions, objects varying in weight from 25 to 100 lbs. temporarily influenced in such a manner, that I, and others present, could with difficulty lift them from the floor. Wishing to ascertain whether this was a physical fact, or merely due to a vibration in the power of our own strength under the influence of imagination, I tested with a weighing machine the phenomenon on two subsequent occasions when I had an opportunity of meeting Mr. Home at the house of a friend. On the first occasion, the increase of weight was from 8 lbs. normally, to 36 lbs., 48 lbs., and 46 lbs., in three successive experiments tried under strict scrutiny. On the second occasion, tried about a fortnight after, in the presence of other observers, I found the increase of weight to be from 8 lbs., to 23 lbs., 43 lbs., and 27 lbs., in three successive trials, varying the conditions. As I had the entire management of the above mentioned experimental trials, employed an instrument of great accuracy, and took every care to exclude the possibility of the results being influenced by

trickery, I was not unprepared for a satisfactory result when the fact was properly tested in my own laboratory. The meeting on the occasion formerly described was, therefore, for the purpose of confirming my previous observations by the application of crucial tests, with carefully arranged apparatus of a still more delicate nature.



He then proceeds to record further experiments with the medium D. D. Home. On trying experiments (previously recorded) for the first time, I thought that actual contact between Mr. Home's hands and



the suspended body whose weight was to be altered was essential to the exhibition of the force; but I found afterwards that this was not a necessary condition, and I therefore arranged my apparatus in the following manner:

The accompanying cuts (Figs. 8, 9, 10) explain the arrangement. Fig. 8 is a general view, and Figs. 9 and 10 show the

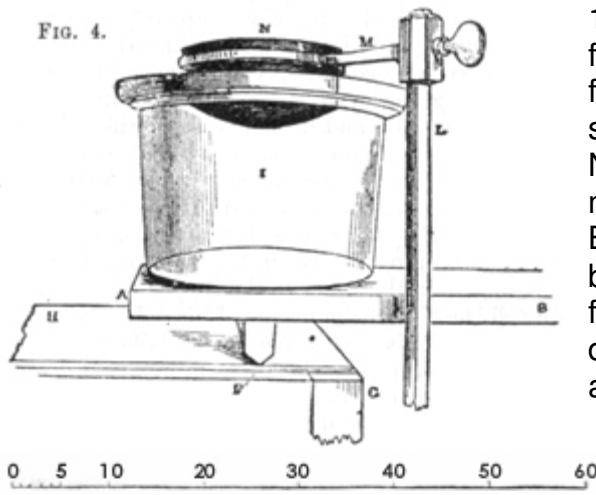
essential parts more in detail. The reference letters are the same in each illustration. A B is a mahogany board, 36 inches long by 9 1/2 inches wide and 1 inch thick. It is suspended at the end, B, by a spring balance, C, furnished with an automatic register, D. The balance is suspended from a very firm tripod support, E.

The following piece of apparatus is not shown in the figures. To the moving index, O, of the spring balance, a fine steel point is soldered, projecting horizontally outwards. In front of the balance, and firmly fastened to it, is a grooved frame carrying a flat box similar to the dark box of a photographic camera. This box is made to travel by clock-work horizontally in front of the moving index, and it contains a sheet of plate-glass which has been smoked over a flame. The projecting steel point impresses a mark on this smoked surface. If the balance is at rest, and the clock set going, the result is a perfectly straight horizontal line. If the clock is stopped and weights are placed on the end, B, of the board, the result is a vertical line, whose length depends on the weight applied. If, whilst the clock draws the plate along, the weight of the board (or the tension on the balance) varies, the result is a curved line, from which the tension in grains at any moment during the continuance of the experiments can be calculated.

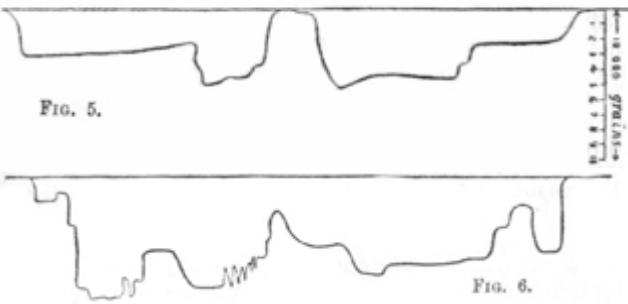
The instrument was capable of registering a diminution of the force of gravitation as well as an increase; registrations of such a diminution were frequently obtained. To avoid complication, however, I will only here refer to in which an increase of gravitation was experienced.

The end, B, of the board being supported by the spring balance, the end, A, is supported on a wooden strip, F, screwed across its lower side and cut to a knife edge. This fulcrum rests on a firm and heavy wooden stand, G H. On the board, exactly over the fulcrum, is placed a large glass vessel filled with water, I. L is a massive iron stand, furnished with an arm and ring, M N, in which rests a hemispherical copper vessel perforated with several holes at the bottom.

The iron stand is two inches from the board, A B, and the arm and copper vessel, M N, are so adjusted that the latter dips into the water 1



1/2 inches, being 5 1/2 inches from the bottom of 1, and 2 inches from its circumference. Shaking or striking the arm, M, or the vessel, N, produces no appreciable mechanical effect on the board, A B, capable of affecting the balance. Dipping the hand to the fullest extent into the water in N, does not produce the least appreciable action on the balance.



As the mechanical transmission of power is by this means entirely cut off between the copper vessel and the board, A B, the power of muscular control is thereby completely eliminated.

For convenience I will divide the experiments into groups, 1, 2, 3, etc., and I have selected one special instance in each to describe in detail. Nothing, however, is mentioned which has not been repeated more than once and in some cases verified, in Mr. Home's absence, with another person possessing similar powers.

There was always ample light in the room where the experiments were conducted (my own dining room) to see all that took place.

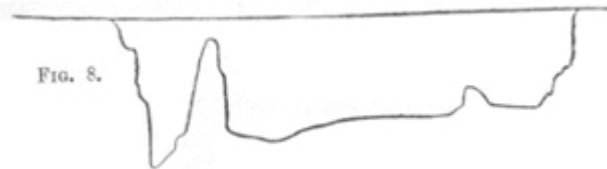
Experiment One: The apparatus having been properly adjusted before Mr. Home entered the room, he was brought in, and asked to place his fingers in the water in the copper vessel, N. He stood up and dipped the tips of the fingers of his right hand in the water, his other hand and his feet being held. When he said he felt a power, force, or influence, proceeding from his hand, I set the clock going, and almost immediately the end, B, of the board was seen to descend slowly and remain down for about 10 seconds; it then descended a little further, and afterwards rose to its normal height. It then descended again, rose suddenly, gradually sunk for 17 seconds, and finally rose to its normal height, where it remained till the experiment was concluded. The lowest point marked on the glass was equivalent to a direct pull of about 5,000 grains. The accompanying figure is a copy of the curve traced on the glass.

Experiment Two: Contact through water having proved to be as effectual as actual mechanical contact, I wished to see if the power or force could affect the weight, either through other portions of the apparatus or through the air. The glass vessel and iron stand, etc., were

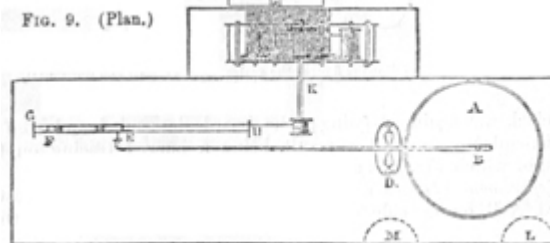
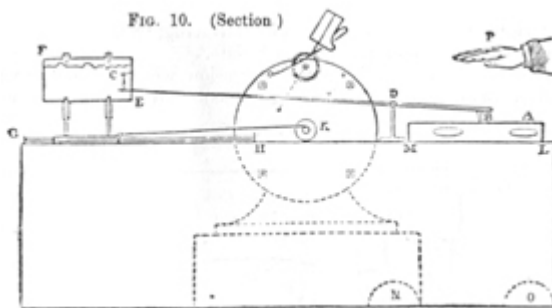


therefore removed, as an unnecessary complication, and Mr. Home's hands

were placed on the stand of the apparatus at P. A gentleman present put his hand on Mr. Home's hands, and his foot on both Mr. Home's feet, and I also watched him closely all the time. At the proper moment the clock was again set going; the board descended and rose in an irregular manner, the result being a curved tracing on the glass, of which Fig. 12 is a copy.



Experiment Three: Mr. Home was now placed 1 foot from the board, A B, on one side of it. His hands and feet were

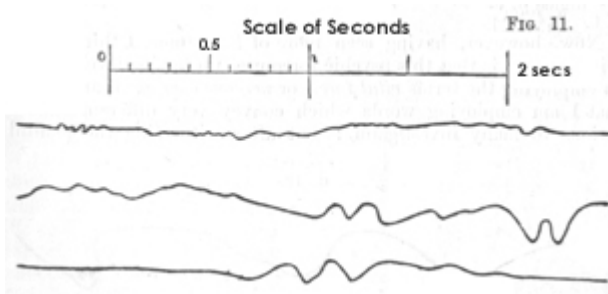


firmly grasped by a bystander, and another tracing, of which Fig. 13 is a copy, was taken on a moving glass plate.

Experiment Four: (Tried on an occasion when the power was stronger than on the previous occasions). Mr. Home was now placed three feet from the apparatus, his hands and feet being tightly held. The clock was set going when he gave the word, and the end, B, of the board soon descended and again rose in an irregular manner, as shown in Fig. 14.

The following series of experiments were tried with more delicate apparatus, and with another person, a lady, Mr. Home being absent. As the lady is a non-professional, I do not mention her name. She has, however, consented to meet any scientific men whom I may introduce for purposes of investigation.

A piece of thin parchment, A, Figs. 15 and 16, is stretched tightly across a circular hoop of wood. B C is a light lever turning on D. At the end, B, is a vertical needle point touching the membrane, A, and at C is another needle point, projecting horizontally and touching a smoked glass plate, E F. This glass plate is drawn along in the direction, H G, by clockwork, K. The end, B, of the lever is weighted so that it shall quickly follow the movements of the centre of the disc, A. These movements are transmitted and recorded on the glass plate, E F, by means of the lever and needle point, C. Holes are cut in the side of the hoop to allow a free



passage of air to the underside of the membrane. The apparatus was well tested beforehand by myself and others, to see that no shaking or jar on the table or support would interfere with the results: the line traced by the point, C, on the smoked glass

was perfectly straight in spite of all our attempts to influence the lever by shaking the stand or stamping on the floor.

Experiment Five: Without having the object of the instrument explained to her, the lady was brought into the room and asked to place her fingers on the wooden stand at the points L M, Fig. 15. I then placed my hands over hers to enable me to detect any conscious or unconscious movement on her part. Presently percussive noises were heard on the parchment, resembling the dropping of grains of sand on its surface. At each percussion a fragment of graphite which I had placed on the membrane was seen to be projected upwards about 1-50th of an inch, and the end, C, of the lever moved slightly up and down. Sometimes the sounds were as rapid as those from an induction-coil, whilst at others they were more than a second apart. Five or six tracings were taken, and in all cases a movement of the end, C, of the lever was seen to have occurred with each vibration of the membrane.

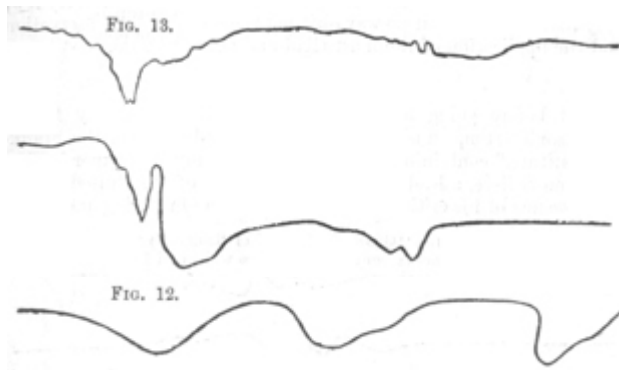
In some cases the lady's hands were not so near the membrane as L M, but were at N O, Fig. 16.

The accompanying figure 11 gives tracings taken from the plates used on these occasions.

Experiment Six: Having met with these results in Mr. Home's absence, I was anxious to see what action would be produced on the instrument in his presence. Accordingly I asked him to try, but without explaining the instrument to him.

I grasped Mr. Home's right arm above the wrist and held his hand over the membrane, about 10 inches from its surface, in the position shown at P, Fig. 16. His other hand was held by a friend. After remaining in this position for about half a minute, Mr. Home said he felt some influence passing. I then set the clock going, and we all saw the index, C, moving up and down. The movements were much slower than in the former case, and were almost entirely unaccompanied by the percussive, vibrations then noticed.

Figs. 18 and 19 show the curves produced on the glass on two of these occasions.



Figs. 17, 18, 19 are magnified.

These experiments *confirm beyond doubt* the conclusion at which I arrived in my former paper, namely, the existence of a force associated, in some manner not yet explained, with the human organization, by which force increased weight is capable of being imparted to

solid bodies without physical contact. In the case of Mr. Home, the development of this force varies enormously, not only from week to week, but from hour to hour; on some occasions the force is inappreciable by my tests for an hour or more, and then suddenly reappears in great strength. It is capable of acting at a distance from Mr. Home (not infrequently as far as two or three feet), but is always strongest close to him.

Being firmly convinced that there could be no manifestation of one form of force, without the corresponding expenditure of some other form of force, I for a long time searched in vain for evidence of any force or power being used up in the production of these results.

Now, however, having seen more of Mr. Home, I think I perceive, what it is that this psychic force uses up for its development. In employing the terms *vital force*, or *nervous energy*, I am aware that I am employing words which convey very different significations to many investigators; but after witnessing the painful state of nervous and bodily prostration in which some of these experiments have left Mr. Home - after seeing him lying in an almost fainting condition on the floor, pale and speechless - I could scarcely doubt that the evolution of psychic force is accompanied by a corresponding drain on vital force.

I have ventured to give this new force the name of *Psychic Force*, because of its manifest relationship to certain psychological conditions, and because I was most desirous to avoid the foregone conclusions implied in the title under which it has hitherto been claimed as belonging to a province beyond the range of experiment and argument. But having found that it is within the province of purely scientific research, it is entitled to be known by a scientific name, and I do not think a more appropriate one could have been selected.

To witness exhibitions of this force it is not necessary to have access to known psychics. The force itself is probably possessed by all human beings, although the individuals endowed with an extraordinary amount of it are doubtless few. Within the last twelve months I have met in private families five or six persons possessing a sufficiently vigorous development to make me feel confident that similar results might be produced through their means to those here recorded, provided the

experimentalist worked with more delicate apparatus, capable of indicating a fraction of a grain instead of recording pounds and ounces only.

As far as my other occupations will permit, I purpose to continue the experiments in various forms, and I will report from time to time their results. In the meanwhile I trust that others will be induced to pursue the investigation in its scientific form. It should, however, be understood that, equally with all other scientific experiments these researches must be conducted in strict compliance with the conditions under which the force is developed. As it is an indispensable condition of experiments with frictional electricity that the atmosphere should be free from excess of moisture, and that no conducting medium should touch the instrument while the force is being generated, so certain conditions are found to be essential to the production and operation of the Psychic Force, and unless these precautions are observed the experiments will fail. I am emphatic on this point, because unreasonable objections have sometimes been made to the Psychic Force that it is not developed under adverse condition dictated by the experimentalist, who, nevertheless, would object to conditions being imposed upon himself in the exhibition of any of his own scientific results. But I may add that the conditions required are very few, very reasonable, and in no way obstruct the most perfect observation and the application of the most rigid and accurate tests.

Just before going to press I have received from my friend, Professor Morton, an advance sheet of the Journal of the Franklin Institute, containing some remarks on my last paper by Mr. Coleman Sellers, a leading scientific engineer of the United States. The essence of his criticism contained in the following quotation:

"On page 341 (of the *Quarterly Journal of Science*) we have given a mahogany board 36 inches long by 9 1/2 inches wide, and 1 inch thick, with at each end a strip of mahogany 1 1/2 inches wide screwed on, forming feet. This board was so placed as to rest with one end on the table, the other suspended by a spring balance, and, so suspended, it recorded a weight of 3 pounds; i.e., a *mahogany* board of the above dimensions is shown to weigh 6 pounds - 3 pounds on the balance, and 3 pounds on the table. A mechanic used to handling wood wonders how this may be. He looks through his limited library, and finds that scientific men tell him that such a board should weigh about 13 1/2 pounds. Did Mr. Crookes make this board himself, or did Mr. Home furnish it as one of his pieces of apparatus?... It would have been more satisfactory if Mr. Crookes had stated, in regard to this board, who made it... Let it be discovered that the 6 pound mahogany board was furnished by Mr. Home, and the experiments will not be so convincing."

My experiments must indeed be convincing if so accomplished a

mechanician as Mr. Coleman Sellers can find no worse fault with them than is expressed in the comments I have quoted. He writes in so matter-of-fact a manner, and deals so plausibly with dimensions and weights, that most persons would take it for granted that I really *had* committed the egregious blunder he points out.

Will it be believed, therefore, that my mahogany board does weigh only 6 pounds? Four separate balances in my own house tell me so, and my greengrocer confirms the fact.

It is easy to perceive into what errors a "mechanic" may fall when he relies for practical knowledge on his "limited library," instead of appealing to actual experiment.

I am sorry I cannot inform Mr. Sellers who made my mahogany board. It has been in my possession about sixteen years; it was originally cut off a length in a wood-yard; it became the stand of a spectrum camera, and as such is described with a cut in the Journal of the Photographic Society for January 21, 1856 (vol. II page 293). It has since done temporary duty in the arrangement of various pieces of apparatus in my physical laboratory, and was selected for these particular experiments owing to its shape being more convenient than that of other available pieces of wood.

But is it seriously expected that I should answer such a question as "Did Mr. Home furnish the board?" Will not my critics give me credit for the possession of some amount of common sense?

Psychic Force and Modern Spiritualism

- Sir William Crookes -

**First published in the "Quarterly Journal of Science", January 1874
A Reply to the "Quarterly Review"**

IN PRESENTING this article to the public, let me take the opportunity of explaining the exact position which I wish to occupy in respect to the subject of Psychic Force and Modern Spiritualism. I have desired to examine the phenomena from a point of view as strictly physical as their nature will permit. I wish to ascertain the laws governing the appearance of very remarkable phenomena which at the present time are occurring to an almost incredible extent. That a hitherto unrecognised form of Force - whether it be called psychic force or x force is of little consequence - is involved in this occurrence, is not with me a matter of opinion, but of absolute knowledge; but the nature of that force, or the cause which immediately excites its activity, forms a subject on which I do not at present feel competent to offer an opinion. I wish, at

Valentia, examining by means of appropriate testing instruments, certain electrical currents and pulsations passing through the Atlantic cable; independently of their causation, and ignoring whether these phenomena are produced by imperfections in the testing instruments themselves - whether by earth currents or by faults in the insulation - or whether they are produced by all intelligent operator at the other end of the line.

William Crookes. London, December, 1871.

The *Quarterly Review* for October contains an article under the title of "Spiritualism and its Recent Converts," in which my investigations and those of other scientific men are severely handled in the spiteful bad old style which formerly characterised this periodical, and which I thought had happily passed away. It has reverted to the unjustifiable fashion of testing truth by the character of individuals. Had the writer contented himself with fair criticism, however sharply administered, I should have taken no public notice of it, but have submitted with the best grace I could. But with reference to myself he has further mis-stated and distorted the aim and nature of my investigations. And written of me personally as confidently as if he had known me from boyhood and was thoroughly acquainted with every circumstance of my educational and scientific career, so that I feel constrained to protest against his manifest unfairness, prejudice and incapacity to deal with the subject and my connection with it. Although other investigators, including Dr. Huggins, Serjeant Cox, Mr. Varley and Lord Lindsay are included in the indictment and found guilty with extenuating circumstances, for me he can feel no tenderness, which, were it not for my recent sins, he is good enough to observe he "might have otherwise felt for a man who has in his previous career made creditable use of his very limited opportunities." The other offenders who are attacked can well take care of themselves; let me now vindicate myself.

It was, my good or evil fortune, as the case may be, to have an hour's conversation, if it may be so termed when the talking was all on one side, with the Quarterly Reviewer in question, when I had an opportunity of observing the curiously dogmatic tone of his mind and of estimating his incapacity to deal with any subject conflicting with his prejudices and prepossessions. At the last meeting of the British Association at Edinburgh we were introduced - he as a physiologist who had enquired into the matter fifteen or twenty years ago; I as a scientific investigator of a certain department of the subject. Here is a sketch of our interview, accurate in substance if not identical in language.

"Ah! Mr. Crookes," said he, "I am glad I have an opportunity of speaking to you about this Spiritualism you have been writing about. You are only wasting your time. I devoted a great deal of time many years ago to mesmerism, clairvoyance, electro-biology, table-turning, and all the rest of it, and I found there was nothing in it. I explained it all in my article I wrote in the *Quarterly Review*. I think it a pity you have written anything on this subject before you made yourself intimately acquainted with my

writings and my views on the subject. I have exhausted it."

"But, Sir," interposed I, "you will allow me to say your are mistaken, if..."

"No, no!" interrupted he, "I am not mistaken I know what you would say. But it is quite evident from what you have just remarked that you allowed yourself to be taken in by these people when you knew nothing whatever of the perseverance with which I and other competent men, eminently qualified to deal with the most difficult problems, had investigated these phenomena. You ought to have known that I explain everything you have seen by 'unconscious cerebration' and 'unconscious muscular action'; and if you had only a clear idea in your mind of the exact meaning of these two phrases, you would see that they are sufficient to account for everything."

"But, Sir..."

"Yes, yes; my explanations would clear away all the difficulties you have met with. I saw a great many mesmerists and clairvoyants, and it was all done by 'unconscious cerebration', Whilst as to table-turning, everyone knows how Faraday put down that. It is a pity you were unacquainted with Faraday's beautiful indicator; but, of course, a person who knew nothing of my writings would not have known how he showed that unconscious muscular action was sufficient to explain all these movements."

"Pardon me," I interrupted, "but Faraday himself showed..." But it was in vain, and on rolled the stream of unconscious egotism.

"Yes, of course; that is what I said. If you had known of Faraday's indicator and used it with Mr. Home, he would not have been able to go through his performance."

"But how," I contrived to ask, "could the indicator have served, seeing that neither Mr. Home nor anyone else touched the..."

"That's just it. You evidently know nothing of the indicator. You have not read my articles and explanations of all you saw, and you know nothing whatever of the previous history of the subject. Don't you think you have compromised the Royal Society? It is a great pity that you should be allowed there to revive subjects I put down ten years ago in my articles, and you ought not to be permitted to send papers in. However, we can deal with them." Here I was fain to keep silence. Meanwhile, my infallible interlocutor continued:

"Well, Mr. Crookes, I am very pleased I have had this opportunity of hearing these explanations from yourself. One learns so much in a conversation like this, and what you say has confirmed me on several points I was doubtful about before. Now, after I have had the benefit of

I have been always right, and that there is nothing in it but unconscious cerebration and muscular action."

At this juncture some good Samaritan turned the torrent of words on to himself; I thankfully escaped with a sigh of relief, and my memory recalled my first interview with Faraday, when we discussed table-turning and his contrivance to detect the part played by involuntary muscular effort in the production of that phenomenon. How different his courteous, kindly, candid demeanour towards me in similar circumstances compared with that of the Quarterly Reviewer!

Now, let me ask, what authority has the reviewer for designating me a recent convert to Spiritualism? Nothing that I have ever written can justify such an unfounded assumption. Indeed, the dissatisfaction with which many Spiritualists have received my articles clearly proves that they consider me unworthy of joining their fraternity. In my first published article the following sentences occur.

"Hitherto I have seen nothing to convince me of the 'spiritual' theory. In such an enquiry the intellect demands that the spiritual proof must be absolutely incapable of being explained away; it must be so strikingly and convincingly true that we cannot, dare not deny it."

"Accuracy and knowledge of detail stand foremost amongst the great aims of modern scientific men. No observations are of much use to the student of science unless they are truthful and made under test conditions; and here I find the great mass of spiritualistic evidence to fail. In a subject which, perhaps, more than any other lends itself to trickery and deception, the precautions against fraud appear to have been, in most cases, totally insufficient."

"I confess that the reasoning of some spiritualists would almost seem to justify Faraday's severe statement that many dogs have the power of coming to much more logical conclusions. Their speculations utterly ignore all theories of force being only a form of molecular motion, and they speak of Force, -Matter and Spirit as three distinct entities."

In a subsequent paper, I said that my experiments appeared to establish the existence of a new force connected, in some unknown manner, with the human organisation; but that it would be wrong to hazard the most vague hypothesis respecting the cause of the phenomena, the nature of this force, and the correlation existing between it and the other forces of nature. "Indeed," said I, "it is the duty of the enquirer to abstain altogether from framing theories until he has accumulated a sufficient number of facts to form a substantial basis upon which to reason." New forces must be found, or mankind must remain sadly ignorant of the mysteries of nature. We are unacquainted with a sufficient number of forces to do the work of the universe.

In a third paper, I brought forward many quotations from previous

experimentalists, which showed that they did *not* ascribe the phenomena to Spiritualism. I then said that the name Psychic had been chosen for the subject "because I was most desirous to avoid the foregone conclusions implied in the title under which it has hitherto been claimed as belonging to a province beyond the range of experiment and argument."

Do these quotations look like Spiritualism? Does the train of thought running through them justify the Quarterly Reviewer in saying that "the lesson afforded by the truly scientific method followed by this great master of experimental philosophy (Faraday) ... should not have been lost upon those who profess to be his disciples. But it has been entirely disregarded ... by men from whom better things might have been expected"?

I have devoted my enquiry entirely to those physical phenomena in which, owing to the circumstance of the case, unconscious muscular action, self-deception, or even wilful fraud would be rendered inoperative. I have not attempted to investigate except under such conditions of place, person, light, position and observation that contact was either physically impossible or could take place only under circumstances in which the unconscious or wilful movement of the hands could not vitiate the experiment. The experiments being tried in my own house, assumption of pre-arranged mechanical contrivances to assist the "medium" was out of the question.

The most curious thing regarding this article in the *Quarterly* is that the writer himself is a believer in a *new force*, and he arrogantly tries to put down any attempt to bring forward another. He refers to various hypothesis - to Sir William Hamilton's "latent thought," Dr. Laycock's "reflex action of the brain," and Carpenter's ideo-motor principle." The reviewer adopts without hesitation, Carpenter's hypothesis as the true and universal solvent of the phenomena in question, notwithstanding that this hypothesis is rejected by the physiologists most competent to judge it.

The whole tenor of the article, the numerous references to various "spiritual" phenomena, and the account of some of the reviewer's own experiences, show that he knows little or nothing of any such phenomena as those which I have commenced to investigate. He refers to mesmerism, curative influence, planchette writing, table-tilting, table-turning, and to the messages obtained by these means. When he does not impute fraud, he explains the physical movements by the hypothesis of "unconscious muscular action" and the intelligence which sometimes controls these movements, delivers messages, etc., by "unconscious cerebration" or "ideo-motor action."

Now these explanations are possibly sufficient to account for much that has come under the personal cognisance of the reviewer. I will do him the justice to believe that, as he affirms, he did take every opportunity

within his reach of witnessing the higher phenomena of "Spiritualism," and that on various occasions he met with results which were entirely unsatisfactory. The error into which he falls is this: Because he saw nothing that he thought worth following up, therefore it is impossible anyone else can be more fortunate. Because he and his scientific friends were following out the subject for more than a dozen years, therefore my own friends and myself deserve reprobation for pursuing the inquiry for about as many months.

According to this reasoning science would proceed very slowly. How often do we find instances of an abandoned investigation being taken up by another more fortunate in his opportunities, carries it to a successful issue.

The reviewer has no grounds whatever for asserting that:

"He (Mr. Crookes) 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."

Now, I am quite familiar with these researches and with the various explanations of them so elaborately set forth by Dr. Carpenter and others. I made no reference to them simply because the phenomena which came under their notice are entirely different from the phenomena I have examined. During my experiments I have seen plenty of instances of planchette writing, table-turning, table-tilting, and have received messages innumerable, but I have not attempted their investigation, mainly for two reasons: first, because I shrank from the enormous difficulty and the consumption of time necessary to carry out an inquiry more physiological than physical; and secondly, because little came under my notice in the way of messages or table-tilts which I could not account for.

My reviewer objects to the accordion being tried in a cage under the table. My object is easily explained. I must use my own methods of experiment. I deemed them good under the circumstances, and if the reviewer had seen the experiment before complaining it would have been more like a scientific man. But the cage is by no means essential, although, in a test experiment, it is an additional safeguard. On several subsequent occasions the accordion has played over the table, and in other parts of my room away from a table the keys moving and the bellows action going on. An accordion was selected because it is absolutely impossible to play tricks with it held in the manner indicated. I flatly deny that, held by the end away from the keys the performance on an accordion "*with one hand* is a juggling trick often exhibited at country fairs," unless special mechanism exists for the purpose. Did ever the reviewer or anyone else witness this phenomenon at a country fair or elsewhere? The statement is only equalled in absurdity by the argument

of a recent writer, who, in order to prove that the accounts of Mr. Home's levitations could not be true, says, "An Indian juggler could sit down in the middle of Trafalgar Square and then slowly and steadily rise in the air to a height of five or six feet, still sitting, and as slowly come down again." Curious logic this, to argue that a certain phenomenon is impossible to Mr. Home because a country bumpkin or an Indian juggler can produce it.

In the experiment with the board and spring balance the reviewer says that "the whole experiment is vitiated by the absence of any determination of the *actual downward pressure* of Mr. Home's fingers."

I maintain that this determination is as unnecessary as a determination of his "downward pressure" on the chair on which he was sitting, or on his boots when standing. In reference to this point I said:

"Home placed the tips of his fingers *lightly on the extreme end* of the mahogany board which was resting on the support."

"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 1 1/2 lbs., or 2 lbs. when I jerked up and down. Mr. Home had been sitting in a low easy-chair, and could not, there fore, 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 guarded by all in the room."

"The wooden foot being 1 1/2 inches wide, and resting flat on the table, it is evident that *no amount of pressure* exerted within this space of 1 1/2 inches could produce any action on the balance."

But as this objection had been made by several persons, I devised certain experiments so as to entirely eliminate mechanical contact, and these experiment were fully described in my last paper.

To show the singular inaccuracy of the reviewer' statements and inferences, I give below, in parallel columns, quotations from the *Quarterly Review*, to mark the contrast between its unfair statements an my own actual language as printed in the *Quarterly Journal of Science*.

| <i>(Quarterly Review, Oct., 1871.)</i> | <i>(Quarterly Journal of Science July, 1870.)</i> |
|--|---|
| "He admitted that he had not employed the tests which men of science had a right to demand before giving | "My whole scientific education has been one long lesson in exactness of observation, and I wish it to be distinctly |

| | |
|--|---|
| credence to the genuineness of those phenomena." | understood that this firm conviction [of the genuineness of certain phenomena] is the <i>result of most careful investigation.</i> " |
| "He entered upon the inquiry, of which he now makes public the results, <i>with an avowed foregone conclusion of his own.</i> " | "In the present case I prefer to enter upon the inquiry with no preconceived notions whatever as to what can or cannot be." ... "At first, I believed that the whole affair was a superstition. or at least an unexplained trick." ... "I should feel it to be a great satisfaction if I could bring out light in any direction, and I may safely say that <i>I care not in what direction.</i> " ... "I cannot, at present, hazard even the most vague hypothesis as to the cause of the phenomena." |
| "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." | " <i>Views or opinions I cannot be said to possess on a subject which I do not, pretend to understand.</i> " ... "The increased employment of scientific methods will promote exact observation and greater love of truth among enquirers, and will produce a race of observers who will drive the worthless residuum of Spiritualism hence into the unknown limbo of magic and necromancy." |

On page 351 the reviewer insinuates that the early scientific training of myself and fellow-workers has been deficient. Speaking for myself, I may say that my scientific training could not have well commenced earlier than it did. Some time before I was sixteen I had been occupied in experimental work in a private physical laboratory. Then I entered the Royal College of Chemistry, under Dr. Hoffmann, where I stayed six years. My first original research, on a complicated and difficult subject, was published when I was nineteen; and from that time to the present my scientific education has been one continuous lesson in exactness of observation.

The following parallel passages show that my reviewer and myself differ but little in our estimates of the qualities required for scientific investigation

| (Quarterly Review, Oct., 1871.) | (Quarterly Journal of Science July, 1870.) |
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| <p>"Part at least of this predisposition" [towards Spiritualism] "depends on <i>the deficiency of early scientific training</i>. Such training ought to include 1. The acquirement of habits of correct <i>observation</i> of the phenomena daily taking place around us; 2. The cultivation of the power of <i>reasoning</i> upon these phenomena, so as to arrive at <i>general principles</i> by the <i>inductive</i> process; 3. The study of the method of testing the validity of such inductions by <i>experiment</i>; and 4. The <i>deductive</i> application of principles thus acquired to the <i>prediction</i> of phenomena which can be verified by observation."</p> | <p>"It will be of service if I here illustrate the modes of thought current among those who investigate science, and say what kind of experimental proof science has a right to demand before admitting a new department of knowledge into her ranks. We must not mix up the exact and the inexact. The supremacy of accuracy must be absolute." ... "The first requisite is to be sure of <i>facts</i>; then to ascertain <i>conditions</i>; next, <i>laws</i>. Accuracy and knowledge of detail stand foremost amongst the great aims of modern scientific men. No, observations are of much use to the student of science unless they are truthful and made under test conditions." ... "In investigations which so completely baffle the ordinary observer, the thorough scientific man has a great advantage. He has followed science from the beginning through a long line of learning; and he knows therefore, in what direction it is leading; he knows that there are dangers on one side, uncertainties on another, and almost absolute certainty on a third; he sees to a certain extent in advance. But, where every step is towards the marvellous and unexpected, precautions and tests should be multiplied</p> |

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| | <p>rather than diminished." ... "Investigators must work; although their work may be very small in quantity if only compensation be made by its intrinsic excellence."</p> |
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The review is so full of perverse, prejudiced, or unwarranted mis-statements, that it is impossible to take note of them all. Passing over a number I had marked for animadversion, I must restrain myself to exemplifying a few of them.

The reviewer says that in my paper of July, 1870, my conclusion was "based on evidence which I admitted to be scientifically incomplete." Now, in that paper I gave no experimental evidence whatever. After testifying emphatically as to the genuineness of two of the phenomena, I gave an outline of certain tests which in my opinion ought to be applied, and, in a foot-note, I said that my preliminary tests in this direction had been satisfactory. Is this admitting that I had not employed such tests? Is it fair to say that my results were "based on evidence which I admitted to be scientifically incomplete"?

On page 346, referring to the results obtained with the board and balance, my reviewer urges that it never seems to have occurred to me "to test whether the same results could not be produced by throwing the board into rhythmical vibration by an *intentional* exertion of muscular action!" Yet will it be believed that at page 344 he gives in my own words an account of my trying this identical experiment; and if he had taken the trouble to refer to my other paper on page 486 of the *Quarterly Journal of Science*, he would have seen that I had tested in like manner the special apparatus to which he alludes. Has the reviewer learnt to blow both hot and cold? has his memory faded? or has chagrin at missing the truth in his long investigations spoil his temper?

The "fact" spoken of on page 347, that myself and friends attributed to psychic force the rippling of the surface of water in a basin, when it was really produced by the tremor of a passing railway train, is, like many other of the reviewer's "facts," utterly baseless; but as he is careful to tell us that in this particular case the "fact" is *not* one of his own invention, what is to be said of his discretion in believing his "highly intelligent witness"? No such occurrence took place; nor will a passing railway train produce a ripple on the surface of water in the basin in my room. I invite the "highly intelligent witness" to verify the fact.

On page 348, in speaking of Mr. Varley, the reviewer says that 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." It seems natural it should follow that Mr. Varley *is* a Fellow of

saying exactly the opposite of the reviewer.

Not to weary the reader, I will deal only with three more mis-statements, selecting instances where the reviewer conceives that he is perfectly sure of his facts. In these three instances the reviewer commences his attack upon me with the ominous words, "we speak advisedly." If this expression has any meaning, it implies that the writer is more than ordinarily certain of the statement it prefaces - that he speaks with deliberate and careful consideration. Now, I also speak "advisedly" when I affirm, with the proof in my hand, that two if not all of these three charges fulminated against me are either heedless or willful misrepresentations.

The first charge is as follows:

"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."

This spiteful statement is utterly false. I should think there are few persons in this country who have examined more carefully into the literature of the subject, or have read a greater number of books on Spiritualism, demonology, witchcraft, animal magnetism, and medical psychology, in English, French and Latin. In this list I have even included Dr. Carpenter's article on Electro-Biology and Mesmerism in the *Quarterly Review* for October, 1853.

The second well-considered charge runs as follows:

"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."

As to my entire ignorance of the previous history of the subject, that, I think, is pretty well disposed of in the preceding paragraph.

In 1853 I was intimately acquainted with the late Robert Murray, at that time manager at Mr. Newman's, Philosophical Instrument Maker, Regent Street. I was in his shop several times a week, and in May and June of that year Murray and I had many conversations on the subject of table-turning. I well remember his telling me one day that Professor Faraday had given him the design of a test-apparatus by which he expected to prove that the rotation of the table was due to unconscious muscular action. A day or two after, he showed me the instrument which he was just about to send to Professor Faraday. At that time I was not infrequently favoured by the late Rev. J. Barlow, Sec. R.I., with invitations to his house in Berkeley Street, and on one of these

occasions on entering the room he thus accosted me: "Mr. Crookes, I am glad you have come, we are doing a little table-turning, and have just been trying Faraday's new instrument. He is here, let me introduce you to him." Professor Faraday, in his kindly genial manner, explained to me fully the action of his instrument, and instead of pooh-poohing the remarks of a mere boy - for I was only 21 - listened to my objection that his instrument was based upon the assumption that the supposed acting force from the hands would pass through the glass rollers, and replied that he had thought of that, and had got over the difficulty by tying the two boards together so as to render them rigid, when it was found that the table rotated as well with the instrument as without it. Since then I have frequently employed this device of a long delicate indicator to magnify minute movements. Perhaps my reviewer is not aware that this device is one of the commonest in physical laboratories, and was in frequent use long before any of the present generation saw the light. I have adopted it from 1853 up to the present time. In my early experiments I availed myself of Professor Faraday's test-instrument, but recently when I have frequently made it a *sine qua non* that the operator shall not touch the table or any portion of the instrument, as in Experiments III., IV., VI.,(1) it would puzzle even the ingenuity of my reviewer to say how Faraday's instrument is to be applied. In such cases I adopt the well-known and superlatively delicate index, a ray of light.

(1) Quarterly Journal of Science, Oct., 1871, p. 487 et seq.

The *Quarterly* goes on to magnify Faraday's experiment on table-turning, utterly forgetting that Faraday did not come to a similar conclusion with the reviewer at least, it was much more obscurely put, if put at all. Faraday, so far as I know, never spoke of a latent power within us, of which we are unconscious, working in our muscles and leading them to acts which culminate in a form of speech or writing by movements of a table. Faraday would have held this a sufficiently great novelty if put before him as I endeavour to put it before myself after reading the *Quarterly's* article. My belief, however, is that Faraday experimented with questionable phenomena only.

The third charge in which the reviewer speaks "advisedly" runs thus:

"For this discovery [Thallium] he was rewarded by the Fellowship of the Royal Society; but we speak advisedly when we say the distinction was conferred on him with considerable hesitation."

In January, 1863, whilst the interest attaching to the discovery of the element Thallium was fresh in the minds of scientific men, I was both surprised and gratified at receiving the following note from Professor Williamson:

"University of London,
"Burlington House, W.,
"16th January, 1863.

"My Dear Sir,

I should be glad to see your name on the list of Fellows of the Royal Society, and if you have no objection to my doing so, would do myself the honour of proposing you for election into the Society. Could you spare a quarter of an hour on Monday afternoon to talk the matter over with me at University College, and oblige.

Yours very truly,

"Alex W. Williamson."

This kindness being entirely unsought was the more pleasing to me. At the interview, my certificate was partially filled up and left in Professor Williamson's hands for the purpose of obtaining the necessary signatures. After this meeting with Professor Williamson I took no further steps in the matter, and spoke to no one on the subject; but in due time Professor Williamson wrote that my certificate was duly received at the Royal Society and read at the meeting, adding:

"There is on the part of the Chemists now on the Council a sincere appreciation of your high claims."

Subsequently, the same kind friend wrote:

"I have much pleasure in congratulating you and ourselves on your being one of the fifteen selected by the Council of the Royal Society for election."

I was formally elected on the 4th of June, 1863.

That discussion ensued when my name was brought before the Council follows as a matter of course. When fifteen only are to be elected from about fifty candidates, it is to be expected that the claims of each should be rigidly scrutinised; but whatever my anonymous reviewer may say "advisedly" on the subject, the *fact* remains that I was elected on the first application, an almost unheard-of honour for so young a man. Considering the large majority of eminent candidates whose election is postponed from year to year (sometimes even to ten years), there is no reason why my election should not have been postponed for at least one year had there been truth in the statement that "considerable hesitation" was evinced in conferring this distinction upon me.

The grossness of the imputation that the Royal Society admitted me although my investigations had only a merit purely *technical*, is astounding when the merits of the members generally are considered. I should consider them nearly all as purely technical workers in science, when they have done any work at all; but the curiosity is great when we find that the inquiry in question is purely technical. Professedly, it is a question of apparatus. In entering upon an enquiry which I have endeavoured to keep within the limits of broad, tangible and easily

demonstrable facts, what qualities would common sense ask for in an investigator? Would an investigation be considered trustworthy were it conducted by a chemical dreamer who could spin off theory by the hour, and cover acres of paper with chemical symbols, but who in a laboratory would be unable to perform the simplest analysis or build up a piece of chemical apparatus? Let it not however, be supposed that I am unmindful of the, philosophical and fructifying labours of Hoffmann, Williamson and others in the field of Chemical Philosophy. But with reference to this enquiry, surely it should be conducted by one "who is trustworthy in an enquiry requiring technical knowledge for its successful conduct."

The reviewer assumes that the phenomenon of the suspension of heavy bodies in the air, the up and down movements of a wooden board, and the registration of the varying tension on a spring balance, are *psychical* not *physical*; and he lays down a dictum that in such matter-of-fact results which I have obtained, one's own eyes must not be trusted, for in such a case "seeing is anything but believing." To show my unfitness for ascertaining the weight of a piece of wood, he accuses me of being ignorant of the knowledge of Chemical Philosophy! He does, however, from his Olympian height, condescendingly admit that my ability is *technical*, that I have made creditable use of my very limited opportunities, and intimates that I am trustworthy as to any enquiry which requires technical knowledge for its successful conduct. Now, what does he mean by all this? I always thought that these qualities which are so contemptuously accorded me were just those of the highest value in this country. What has chiefly placed England in the industrial position she now holds but technical science and special researches?

But my greatest crime seems to be that I am a "specialist of specialists!" I a specialist of specialists! This is indeed news to me, that I have confined my attention only to one special subject. Will my reviewer kindly say what that subject is? Is it general chemistry whose chronicler I have been since the commencement of the *Chemical News* in 1859? Is it Thallium, about which the public have probably heard as much as they care for? Is it Chemical Analysis, in which my recently published "Select Methods" is the result of twelve years' work? Is it Disinfection and the Prevention and Cure of Cattle Plague, my published report on which may be said to have popularised Carbolic Acid? Is it Photography, on the theory and practice of which my papers have been very numerous? Is it the Metallurgy of Gold and Silver, in which my discovery of the value of Sodium in the amalgamation process is now largely used in Australia, California and South America? Is it Physical Optics, in which department I have space only to refer to papers on some Phenomena of Polarised Light, published before I was twenty-one; to my detailed description of the Spectroscope and labours with this instrument, when it was almost unknown in England; to my papers on the Solar and Terrestrial Spectra; to my examination of the Optical Phenomena of Opals and construction of the Spectrum Microscope to my papers on the Measurement of the Luminous Intensity of Light; and my description of my Polarisation

Photometer? Or is my speciality Astronomy and Meteorology, inasmuch as I was for twelve months at the Radcliffe Observatory, Oxford, where, in addition to my principal employment of arranging the meteorological department, I divided my leisure time between Homer and mathematics at Magdalen Hall, planethunting and transit taking with Mr. Pogson, now Principal of the Madras Observatory, and celestial photography with the magnificent heliometer attached to the Observatory? My photographs of the Moon, taken in 1855, at Mr. Hartnup's Observatory, Liverpool, were for years the best extant, and I was honoured by a money grant from the Royal Society to carry out further work in connection with them. These facts, together with my trip to Oran last year as one of the Government Eclipse Expedition, and the invitation recently received to visit Ceylon for the same purpose, would almost seem to show that Astronomy was my specialty. In truth, few scientific men are less open to the charge of being "a specialist of specialists."

Whilst the scepticism of this reviewer in respect to the credibility of eminent witnesses, who give their names and detailed statements of definite facts, exceeds all reasonable bounds, his credulity in believing unattested statements of others, or in expecting his readers to give credit to all the absurd stories of his own experience, is refreshing in its simplicity. He gives five separate accounts of certain séances, where he saw something take place, but he condescends to few details; with one exception, no names or tests are given, nor is there a single clue by which the accuracy of his statements can be verified. The only case in which a name and anything like detail is given is an account of a visit to Mr. Foster. Amongst other strange things here recorded, but by no means satisfactorily accounted for, even by our reviewer, is the following:

"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."

The accurate answers to the reviewer's questions are supposed to be explained by "unconscious ideo-motor action," which, like "unconscious cerebration," is to explain all phenomena - past, present and to come. Respecting the latter phenomenon, he says: "The trick by which the red letters were produced was discovered by the enquiries of our medical friends." If the reviewer will not believe my plain statement of facts fortified by eminent witnesses, how does he expect his readers to believe these statements on the simple word of an anonymous writer? His "gullibility," to use his own coarse but expressive word, is strongly

shown in his implicit belief of an obviously exaggerated account given by the well-known Robert Houdin of the way in which he and his son performed some of their tricks.

It is curious to note how Dr. Carpenter is made to pervade the *Quarterly Review* article. The reviewer throughout the article unconsciously manifests his implicit conviction that Dr. Carpenter is to be regarded as the paramount authority in reference to the subtle psychological questions involved in the so-called Spiritualistic phenomena. The theories of the profound psychologists of Germany, to say nothing of those of our own countrymen, are made quite subsidiary to the hypotheses of Dr. William Carpenter. An unquestioning and infatuated belief in what Dr. Carpenter says concerning our mental operations has led the reviewer wholly to ignore the facts that these speculations are not accepted by the best minds devoted to psychological inquiries. I mean no disrespect to Dr. Carpenter, who, in certain departments, has done some excellent scientific work, not always, perhaps, in a simple and undogmatic spirit, when I "speak advisedly" that his mind lacks that acute, generalising, philosophic quality which would fit him to unravel the intricate problems which lie hid in the structure of the human brain.

Here I must bring this enforced vindication to a close. The self-reference to which I have been constrained is exceedingly distasteful to me. I forbear to characterise with fitting terms the spirit of this attack upon a scientific worker; it is enough that I have proved that in ten distinct instances the reviewer has deliberately calumniated me. It is a heavy and a true charge to bring against anyone occupying the reviewer's position amongst scientific men.

I cannot refrain from citing from the *Birmingham Morning News* the following trenchant criticism from the pen of an eminent chemist - himself a disbeliever in "Spiritualism." It will serve as one instance amongst many, to show the feeling of disgust which the article in the *Quarterly Review* has excited among scientific men, whatever their opinions on this topic may be. After a few Prefatory remarks, the writer goes on to say:

"Either a new and most extraordinary natural force has been discovered, or some very eminent men specially trained in rigid physical investigation have been the victims of a most marvellous, unprecedented and inexplicable physical delusion. I say unprecedented because, although we have records of many popular delusions of similar kind and equal magnitude, and speculative delusions among the learned, I can cite no instance of skilful experimental experts being utterly egregiously and repeatedly deceived by the mechanical action of experimental test apparatus carefully constructed and used by themselves.

"As the interest in the subject is rapidly growing both wider and deeper, as a very warm discussion is pending, and further and still more extraordinary experimental revelations are in reserve, my readers will

probably welcome a somewhat longer gossip on this than I usually devote to a single subject.

"Such an extension is the more demanded as the newspaper and magazine articles which have hitherto appeared, have, for the most part, by following the lead of the *Quarterly Review*, absurdly muddled the whole subject, and ridiculously, mis-stated the position of Mr. Crookes and others. In the first place, all these writers that follow the *Quarterly* omit any mention or allusion to Mr. Crookes's preliminary paper published in July, 1870, but which has a most important bearing on the whole subject, as it expounds the object of all the subsequent researches.

"Mr. Crookes there states that 'some weeks ago the fact that I was engaged in investigating Spiritualism, so-called, was announced in a contemporary (*The Athenaeum*), and, in consequence of the many communications I have since received, I think it desirable to say a little concerning the investigations which I have commenced. Views or opinions I cannot be said to possess on a subject which I do not profess to understand. I consider it the duty of scientific men, who have learned exact modes of working, to examine phenomena which attract the attention of the public in order to confirm their genuineness, or to explain, if possible, the delusions of the honest and to expose the tricks of deceivers.' He then proceeds to state the case of Science *versus* Spiritualism, thus: 'The Spiritualist tells of bodies weighing 50 or 100 lbs., being lifted up into the air without the intervention of any known force; but the scientific chemist is accustomed to use a balance which will render sensible a weight so small that it would take ten thousand of them to weigh one grain; he is, therefore, justified in asking that a power professing to be guided by intelligence, which will toss a heavy body to the ceiling, shall also cause his delicately-poised balance to move under test conditions.' 'The Spiritualist tells of rooms and houses being shaken, even to injury, by superhuman power. The man of science merely asks for a pendulum to be sent vibrating when it is in a glass case and supported on solid masonry. 'The Spiritualist tells of heavy articles of furniture moving from one room to another without human agency. But the man of science has made instruments which will divide an inch into a million parts, and he is justified in doubting the accuracy of the former observations if the same force is powerless to move the index of his instrument one poor degree.' 'The Spiritualist tells of flowers with the fresh dew on them, of fruit and living objects being carried through closed windows and even solid brick walls. The scientific investigator naturally asks that an additional weight (if it be only the 1,000th part of a gram) be deposited on one pan of his balance when the case is locked. And the chemist asks for the 1,000th part of a grain of arsenic to be carried through the sides of a glass tube in which pure water is hermetically sealed.'

"These and other requirements are stated by Mr. Crookes, together with further exposition of the principles of strict inductive investigation as it

should be applied to such an inquiry. A year after this he published an account of the experiments which I described in a former letter, and added to his own testimony that of the eminent physicist and astronomer, Dr. Huggins, and Serjeant Cox. Subsequently, that is in the last number of the *Quarterly Journal of Science*, he has published the particulars of another series of experiments.

"I will not now enter upon the details of these, but merely state that the conclusions of Mr. Crookes are directly opposed to those of the Spiritualists. He utterly, positively, distinctly and repeatedly repudiates all belief in the operations of the supposed spirits, or of any other supernatural agency whatever, and attributes the phenomena he witnessed to an entirely different origin, viz., to the direct agency of the medium. He supposes that the force analogous to that which the nerves convey from their ganglionic centres to the muscles, in producing muscular contraction, may, by an effort of the will, be transmitted to external inanimate matter in such a manner as to influence in some degree its gravitating power, and produce vibratory motion. He calls this the *psychic force*.

"Now, this is direct and unequivocal *anti-Spiritualism*. It is a theory set up in opposition to the supernatural hypotheses of the Spiritualists, and Mr. Crookes's position in reference to Spiritualism is precisely analogous to that of Faraday in reference to table-turning. For precisely the same reasons as those above quoted, the great master of experimental investigation examined the phenomena called table-turning, and he concluded that they were due to muscular force, just as Mr. Crookes concludes that the more complex phenomena he has examined are due to psychic force.

"Speaking of the theories of the Spiritualists, Mr. Crookes, in his first paper (July, 1870), says:

"The pseudo-scientific spiritualist professes to know everything. No calculations trouble his serenity; no hard experiments, no laborious readings; no weary attempts to make clear in words that which has rejoiced the heart and elevated the mind. He talks glibly of all sciences and arts, overwhelming the inquirer with terms like "electro-biologise," "psychologise," "animal magnetism," etc., a mere play upon words, showing ignorance rather than understanding.'

"And further on he says:

"I confess that the reasoning of some spiritualists would almost seem to justify Faraday's severe statement that many dogs have the power of coming to more logical conclusions.'

"I have already referred to the muddled mis-statement of Mr. Crookes's position by the newspaper writers, who almost unanimously describe him and Dr. Huggins as two distinguished scientific men who have recently

been converted to Spiritualism. The above quotations, to which, if space permitted, I might add a dozen others from either the first, the second or third of Mr. Crookes's papers, in which he as positively and decidedly controverts the dreams of the Spiritualists, will show how egregiously these writers have been deceived. They have relied very naturally on the established respectability of the *Quarterly Review*, and have thus deluded both themselves and their readers. Considering the marvellous range of subjects these writers have to treat, and the acres of paper they daily cover, it is not surprising that they should have been thus misled in reference to a subject carrying them considerably out of their usual track; but the offence of the *Quarterly* is not so venial. It assumes, in fact, a very serious complexion when further investigated.

"The title of the article is 'Spiritualism and its Recent Converts,' and the recent converts most specially and prominently named are Mr. Crookes and Dr. Huggins. Serjeant Cox is also named, but not as a *recent* convert; for the reviewer describes him as an old and hopelessly infatuated Spiritualist(1). Knowing nothing of Serjeant Cox, I am unable to say whether the reviewer's very strong personal statements respecting him are true or false - whether he really is 'one of the most gullible of the gullible,' etc., though I must express my detestation of the abominable bad taste which is displayed in the attack which is made upon this gentleman. The head and front of his offending consists in having certified to the accuracy of Mr. Crookes's account of certain experiments; and for having simply done this, the reviewer proceeds, in accordance with the lowest tactics of Old Bailey advocacy, to bully the witness and to publish disparaging personal details of what he did twenty-five years ago.

(1) It is due to Mr. Serjeant Cox to state that, so far from being an old spiritualist, he had seen nothing of Spiritualism until he joined the Investigation Committee of the Dialectical Society, confident that he should thus assist in dissipating a delusion or detecting an imposture; but by that elaborate examination he was satisfied (as he states in his Report) that many of the asserted phenomena were genuine, but that there was no evidence whatever to support the theory of Spiritualism; that he was convinced by what he had seen that the Force was a purely psychical one, and in no way produced by spirits of the dead. He is, in fact, a decided opponent of the theory of the spiritualists, and has just published a book detailing his experiments, entitled "Spiritualism answered by Science". The writer of the article in the *Quarterly Review* must have been quite aware of this fact, for he actually cites a passage from the letter to me in which letter Mr. Serjeant Cox expressly repudiates the theory of Spiritualism. - William Crookes.

"Dr. Huggins, who has had nothing further to do with the subject than simply to state that he witnessed what Mr. Crookes described, and who has not ventured upon one word of explanation of the phenomena, is treated with similar insolence.

"The reviewer goes out of his way to inform the public that Dr. Huggins is, after all, only a brewer, by artfully stating that 'like Mr. Whitbread, Mr. Lassell and other brewers we could name, Dr. Huggins attached himself, in the first place, to the study of Astronomy.' He then proceeds to sneer at 'such scientific amateurs' by informing the public that they 'labour, as a rule, under a grave disadvantage in the want of that broad basis of scientific culture which alone can keep them from the narrowing and pervertive influence of a limited *specialism*.' The reviewer proceeds to say that he has 'no reason to believe that Dr. Huggins constitutes an exception' to this rule, and further asserts that he is justified in concluding that Dr. Huggins is ignorant of 'every other department of science than *the small subdivision of a branch* to which he has so meritoriously devoted himself.' Mark the words 'small subdivision of a branch.' Merely a twig of the tree of science is, according to this most untruthful writer, all that Dr. Huggins has ever studied.

"If a personal vindication were the business of this letter I could easily show that these statements respecting the present avocations, the scientific training and actual attainments of Dr. Huggins are most gross and atrocious misrepresentations; but Dr. Huggins has no need of my championship - his high scientific position and the breadth and depth of his general attainments are sufficiently known to all in the scientific world, with the exception of the *Quarterly* reviewer. My object is not to discuss the personal question whether book-making and dredging afford better or worse training for experimental inquiry than the marvellously exact and exquisitely delicate manipulations of the modern observatory and laboratory, but to protest against this attempt to stop the progress of investigation, to damage the true interests of science and the cause of truth, by thus throwing low libellous mud upon any and every body who steps at all aside from the beaten paths of ordinary investigation. The true business of science is the discovery of truth, to seek it wherever it may be found, to follow the pursuit through by-ways and high-ways. and, having found it, to proclaim it plainly and fearlessly without regard to authority, fashion or prejudice. If, however, such influential magazines as the *Quarterly Review* are to be converted into the vehicles of artful and elaborate efforts to undermine the scientific reputation of any man who thus does his scientific duty, the time for plain speaking and vigorous protest has arrived. My readers will be glad to learn that this is the general feeling of the leading scientific men of the metropolis; whatever they may think of the particular investigations of Mr. Crookes, they are unanimous in expressing their denunciations of this article in the *Quarterly*.

"The attack upon Mr. Crookes is still more malignant than that upon Dr. Huggins. Speaking of Mr. Crookes's Fellowship of the Royal Society, the reviewer says, 'We speak advisedly when we say that this distinction *was conferred on him with considerable hesitation*'; and further, that '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.' The italics in these quotations are my own, placed there to mark certain statements to which no milder term than that of falsehood is applicable.

* * * * *

"If space permitted I could go on quoting a long series of mis-statements of matters of fact from this singularly untruthful essay. The writer seems conscious of its general character, for, in the midst of one of his narratives he breaks out into a foot-note, stating that '*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*.' I have taken the liberty to emphasise the proper word in this very explanatory note.

"The full measure of the injustice of prominently thrusting forward Dr. Huggins and Mr. Crookes as 'recent converts' to Spiritualism will be seen by comparing the reviewer's own definition of Spiritualism with Mr. Crookes's remarks above quoted. The reviewer says that the fundamental tenet of the Spiritualist is the old doctrine of communication between the spirits of the departed and the souls of the living.' This is the definition of the reviewer, and his logical conclusion is that Mr. Crookes is a spiritualist because he explicitly denies the fundamental tenet of Spiritualism, and Dr. Huggins is a spiritualist because he says nothing whatever about it.

"If examining the phenomena upon which the spiritualist builds his 'fundamental tenet,' and explaining them in some other manner, constitutes conversion to Spiritualism, then the reviewer is a far more thorough-going convert than Mr. Crookes, who only attempts to explain the mind phenomena of his own experiments."

Notes of an Enquiry into the Phenomena called Spiritual during the years 1870-1873

- Sir William Crookes -

- First published in the Quarterly Journal of Science, January 1874 -

LIKE A traveler exploring some distant country, the wonders of which have hitherto been known only through reports and rumors of a vague or distorted character, so for four years I have been occupied in pushing an enquiry into a territory of natural knowledge which offers almost virgin soil to a scientific man. As the traveler sees in the natural phenomena he may witness the action of forces governed by natural laws, where others see only the capricious intervention of offended gods, so have I endeavoured to trace the operation of natural laws and forces, where others have seen only the agency of supernatural beings, owning

no laws, and obeying no force but their own free will. As the traveler in his wanderings is entirely dependent on the good will and friendliness of the chiefs and the medicine men of the tribes amongst whom he sojourns, so have I not only been aided in my enquiry in a marked degree by some of those who possess the peculiar powers I have sought to examine, but have also formed firm and valued friendships amongst many of the recognized leaders of opinion whose hospitalities I have shared. As the traveler sometimes sends home, when opportunity offers, a brief record of progress, which record, being necessarily isolated from all that has led up to it, is often received with disbelief or ridicule, so have I on two occasions selected and published what seemed to be a few striking and definite *facts*; but having omitted to describe the preliminary stages necessary to lead the public mind up to an appreciation of the phenomena and to show how they fitted into other observed facts, they were also met, not only with incredulity, but with no little abuse. And, lastly, as the traveler, when his exploration is finished and he returns to his old associates, collects together all his scattered notes, tabulates them, and puts them in order ready to be given to the world as a connected narrative, so have I, on reaching this stage of my enquiry, arranged and put together all my disconnected observations, ready to place before the public in the form of a volume.

The phenomena I am prepared to attest are so extraordinary and so directly oppose the most firmly rooted articles of scientific belief - amongst others, the ubiquity and invariable action of the force of gravitation - that, even now, on recalling the details of what I witnessed, there is an antagonism in my mind between *reason*, which pronounces it to be scientifically impossible, and the consciousness that my senses, both of touch and sight - and these corroborated, as they were, by the senses of all who were present, - are not lying witnesses when they testify against my preconceptions.

But the supposition that there is a sort of mania or delusion which suddenly attacks a whole room full of intelligent persons who are quite sane elsewhere, and that they all concur to the minutest particulars, in the details of the occurrences of which they suppose themselves to be witnesses, seems to my mind more incredible than even the facts they attest.

The subject is far more difficult and extensive than it appears. Four years ago I intended only to devote a leisure month or two to ascertain whether certain marvelous occurrences I had heard about would stand the test of close scrutiny. Having, however, soon arrived at the same conclusion as, I may say, every impartial enquirer, that there was "something in it," I could not, as a student of Nature's laws, refuse to follow the enquiry wheresoever the facts might lead. Thus a few months have grown into a few years, and were my time at my own disposal it would probably extend still longer. But other matters of scientific and practical interest demand my present attention; and, inasmuch as I cannot afford the time requisite to follow the inquiry as it deserves, and as I am fully confident it

will be studied by scientific men a few years hence, and as my opportunities are not now as good as they were some time ago, when Mr. D. D. Home was in good health, and Miss Kate Fox (now Mrs. Jencken) was free from domestic and maternal occupations, I feel compelled to suspend further investigation for the present.

To obtain free access to some persons abundantly endowed with the power I am experimenting upon, now involves more favour than a scientific investigator should be expected to make of it. Spiritualism amongst its more devout followers is a religion. The mediums, in many cases young members of the family, are guarded with a seclusion and jealousy which an outsider can penetrate with difficulty. Being earnest and conscientious believers in the truth of certain doctrines which they hold to be substantiated by what appear to them to be miraculous occurrences, they seem to hold the presence of scientific investigation as a profanation of the shrine. As a personal favour I have more than once been allowed to be present at meetings that presented rather the form of a religious ceremony than of a spiritualistic *séance*. But to be admitted by favour once or twice, as a stranger might be allowed to witness the Eleusinian mysteries, or a Gentile to peep within the Holy of Holies, is not the way to ascertain facts and discover laws. To gratify curiosity is one thing; to carry on systematic research is another. I am seeking the truth continually. On a few occasions, indeed, I have been allowed to apply tests and impose conditions; but only once or twice have I been permitted to carry off the priestess from her shrine, and in my own house, surrounded by my own friends, to enjoy opportunities of testing the phenomena I had witnessed elsewhere under less conclusive conditions(1). My observations on these cases will find their due place in the work I am about to publish.

(1) In this paper I give no instances and use no arguments drawn from these exceptional cases. Without this explanation it might be thought that the immense number of facts I have accumulated were principally obtained on the few occasions here referred to, and the objection would naturally arise of insufficiency of scrutiny from want of time.

Following the plan adopted on previous occasions, - a plan which, however much it offended the prejudices of some critics, I have good reason to know was acceptable to the readers of the *Quarterly Journal of Science* - I intended to embody the results of my labour in the form of one or two articles for this journal. However, on going over my notes, I find such a wealth of facts, such a superabundance of evidence, so overwhelming a mass of testimony, all of which will have to be marshalled in order, that I could fill several numbers of the Quarterly. I must therefore be content on this occasion with an outline only of my labours, leaving proof and full details to another occasion.

My principal object will be to place on record a series of actual occurrences which have taken place in my own house, in the presence of trustworthy witnesses, and under as strict test conditions as I could

devise. Every fact which I have observed is, moreover, corroborated by the records of independent observers at other times and places. It will be seen that the facts are of the most astounding character, and seem utterly irreconcilable with all known theories of modern science. Having satisfied myself of their *truth*, it would be moral cowardice to withhold my testimony because my previous publications were ridiculed by critics and others who knew nothing whatever of the subject, and who were too prejudiced to see and judge for themselves whether or not there was truth in the phenomena; I shall state simply what I have seen and proved by repeated experiment and test, and "I have yet to learn that it is irrational to endeavour to discover the causes of unexplained phenomena."

At the commencement, I must correct one or two errors which have taken firm possession of the public mind. One is that *darkness* is essential to the phenomena. This is by no means the case. Except where darkness has been a necessary condition, as with some of the phenomena of luminous appearances, and a few other instances, everything recorded has taken place *in the light*. In the few cases where the phenomena noted have occurred in darkness I have been very particular to mention the fact; moreover, some special reason can be shown for the exclusion of light, or the results have been produced under such perfect test conditions that the suppression of one of these senses has not really weakened the evidence.

Another common error is that the occurrences can be witnessed only at certain times and places - in the rooms of the medium, or at hours previously arranged; and arguing from this erroneous supposition, an analogy has been insisted on between the phenomena called spiritual and the feats of legerdemain by professional "conjurers", and "wizards," exhibited on their own platform and surrounded by all the appliances of their art.

To show how far this is from the truth, I need only say that, with very few exceptions, the many hundreds of facts I am prepared to attest - facts which to imitate by known mechanical or physical means would baffle the skill of Houdin, a Bosco, or an Anderson, backed with all the resources of elaborate machinery and the practice of years - have all taken place in my own house, at times appointed by myself, and under circumstances which absolutely precluded the employment of the very simplest instrumental aids.

A third error is that the medium must select his own circle of friends and associates at a *séance*; that these friends must be thorough believers in the truth of whatever doctrine the medium enunciates; and that *conditions* are imposed on any person present of an investigating turn of mind, which entirely preclude accurate observation and facilitate trickery and deception. In reply to this I can state that (with the exception of the very few cases: to which I have alluded in a previous paragraph where, whatever might have been the motive for exclusiveness, it certainly was

not the veiling of deception) I have chosen my own circle of friends, have introduced any hardheaded unbeliever whom I pleased, and have generally imposed my own terms, which have been carefully chosen to prevent the possibility of fraud. Having generally ascertained some of the conditions which facilitate the occurrence of the phenomena, my modes of conducting these inquiries have generally been attended with equal and, indeed, in most cases with more, success than on other occasions, where, through mistaken notions of the importance of certain trifling observances, the conditions imposed might render less easy the detection of fraud.

I have said that darkness is not essential. It is however, well-ascertained fact that when the force is weak a bright light exerts an interfering action on some of the phenomena. The power possessed by Mr. Home is sufficiently strong to withstand this antagonistic influence; consequently, he always objects to darkness at his *séances*. Indeed, except on two occasions, when, for some particular experiments of my own, light was excluded, everything which I have witnessed with him has taken place in the light. I have had many opportunities of testing the action of light of different sources and colours, such as sunlight, diffused daylight, moonlight, gas, lamp, and candle light electric light from a vacuum tube, homogeneous yellow light, etc. The interfering rays appear to be those at the extreme end of the spectrum.

I now proceed to classify some of the phenomena which have come under my notice, proceeding from the simple to the more complex, and briefly giving under each heading an outline of some of the evidence I am prepared to bring forward. My readers will remember that, with the exception of cases specially mentioned, the occurrences have taken place *in my own house, in the light, and with only private friends present* besides the medium. In the contemplated volume I propose to give in full detail the tests and precautions adopted on each occasion, with names of witnesses. I only briefly allude to them in this article.

CLASS I

The Movement of Heavy Bodies with Contact, but without Mechanical Exertion

This is one of the simplest forms of the phenomena observed. It varies in degree from a quivering or vibration of the room and its contents to the actual rising into the air of a heavy body when the hand is placed on it. The retort is obvious that if people are touching a thing when it moves, they push it, or pull it, or lift it; I have proved experimentally that this is not the case in numerous instances, but as a matter of evidence I attach little importance to this class of phenomena by itself, and only mention them as a preliminary to other movements of the same kind, but without contact.

These movements (and indeed I may say the same of every kind of phenomenon) are generally preceded by a peculiar cold air, sometimes

amounting to a decided wind. I have had sheets of paper blown about by it, and a thermometer lowered several degrees. On some occasions, which I will subsequently give more in detail, I have not detected any actual movement of the air, but the cold has been so intense that I could only compare it to that felt when the hand has been within a few inches of frozen mercury.

CLASS II

The Phenomena of Percussive and Other Allied Sounds

The popular name of "raps" conveys a very erroneous impression of this class of phenomena. At different times, during my experiments, I have heard delicate ticks, as with the point of a pin; a cascade of sharp sounds as from an induction coil in full work; detonations in the air; sharp metallic taps; a crackling like that heard when a fractional machine is at work; sounds like scratching; the twittering of a bird, etc.

These sounds are noticed with almost every medium, each having a special peculiarity; they are more varied with Mr. Home, but for power and certainty I have met with no one who at all approached Miss Kate Fox. For several months I enjoyed almost unlimited opportunity of testing the various phenomena occurring in the presence of this lady, and I especially examined the phenomena of these sounds. With mediums, generally it is necessary to sit for a formal *séance* before anything is heard; but in the case of Miss Fox it seems only necessary for her to place her hand on any substance for loud thuds to be heard in it, like a triple pulsation, sometimes loud enough to be heard several rooms off. In this manner I have heard them in a living tree - on a sheet of glass - on a stretched iron wire - on a stretched membrane - a tambourine - on the roof of a cab - and on the floor of a theatre. Moreover, actual contact is not always necessary; I have had these sounds proceeding from the floor, walls, etc., when the medium's hands and feet were held - when she was standing on a chair - when she was suspended in a swing from the ceiling - when she was enclosed in a wire cage - and when she had fallen fainting on a sofa. I have heard them on a glass harmonicon - I have felt them on my own shoulder and under my own hands. I have heard them on a sheet of paper, held between the fingers by a piece of thread passed through one corner. With a full knowledge of the numerous theories which have been started, chiefly in America, to explain these sounds, I have tested them in every way that I could devise, until there has been no escape from the conviction that they were true objective occurrences not produced by trickery or mechanical means.

An important question here forces itself upon the attention. *Are the movements and sounds governed by intelligence?* At a very early stage of the enquiry, it was seen that the power producing the phenomena was not merely a blind force, but was associated with or governed by intelligence: thus the sounds to which I have just alluded will be repeated a definite number of times, they will come loud or faint, and in different

places at request and by a pre-arranged code of signals, questions are answered, and messages given with more or less accuracy.

The intelligence governing the phenomena is sometimes manifestly below that of the medium. It is frequently in direct opposition to the wishes of the medium: when a determination has been expressed to do something which might not be considered quite right, I have known urgent messages given to induce a reconsideration. The intelligence is sometimes of such a character as to lead to the belief that it does not emanate from any person present.

Several instances can be given to prove each of these statements, but the subject will be more fully discussed subsequently, when treating of the source of the intelligence.

CLASS III

The Alteration of Weights of Bodies

I have repeated the experiments already described in this Journal, in different forms, and with several mediums. I need not further allude to them here.

CLASS IV

Movements of Heavy Substances when at a distance from the Medium

The instances in which heavy bodies, such as tables, chairs, sofas, etc., have been moved, when the medium has not been touching them, are very numerous. I will briefly mention a few of the most striking. My own chair has been twisted partly round, whilst my feet were off the floor. A chair was seen by all present to move slowly up to the table from a far corner, when all were watching it; on another occasion an arm chair moved to where we were sitting, and then moved slowly back again (a distance of about three feet) at my request. On three successive evenings a small table moved slowly across the room, under conditions which I had specially pre-arranged, so as to answer any objection which might be raised to the evidence. I have had several repetitions of the experiment considered by the Committee of the Dialectical Society to be conclusive, viz., the movement of a heavy table, in full fight, the chairs turned with their backs to the table, about a foot off, and each person kneeling on his chair, with hands resting over the backs of the chairs, but not touching the table. On one occasion this took place when I was moving about so as to see how everyone was placed.

CLASS V

The Rising of Tables and Chairs off the Ground, with out Contact with any Person

A remark is generally made when occurrences of this kind are mentioned: Why is it only tables and chairs which do these things? Why

is this property peculiar to furniture? I might reply that I only observe and record facts, and do not profess to enter into the Why and Wherefore; but indeed it will be obvious that if a heavy inanimate body in an ordinary dining-room has to rise off the floor, it cannot very well be anything else but a table or a chair. That this propensity is not specially attached to furniture I have abundant evidence, but like other experimental demonstrators, the intelligence or power, whatever it may be, which produces these phenomena can only work with the materials which are available.

On five separate occasions a heavy dining-table rose between a few inches and 1 1/2 feet off the floor, under special circumstances, which rendered trickery impossible. On another occasion a heavy table rose from the floor in full light, while I was holding the medium's hands and feet. On another occasion the table rose from the floor, not only when no person was touching it, but under conditions which I had prearranged so as to assure unquestionable proof of the fact.

CLASS VI

The Levitation of Human Beings

This has occurred in my presence on four occasions in darkness. The test conditions under which they took place were quite satisfactory, so far as the judgment was concerned; but ocular demonstration of such a fact is so necessary to disturb our pre-formed opinions as to "the naturally possible and impossible," that I will here only mention cases in which the deductions of reason were confirmed by the sense of sight.

On one occasion I witnessed a chair, with a lady sitting on it, rise several inches from the ground. On another occasion, to avoid the suspicion of this being in some way performed by herself, the lady knelt on the chair in such a manner that its four feet were visible to us. It then rose about three inches, remained suspended for about ten seconds, and then slowly descended. At another time two children, on separate occasions, rose from the floor with their chairs, in full daylight, under (to me) most satisfactory conditions; for I was kneeling and keeping close watch upon the feet of the chair, and observing that no one might touch them.

The most striking cases of levitation which I have witnessed have been with Mr. Home, On three separate occasions have I seen him raised completely from the floor of the room. Once sitting in an easy chair, once kneeling on his chair, and once standing up. On each occasion I had full opportunity of watching the occurrence as it was taking place.

There are at least a hundred recorded instances of Mr. Home's rising from the ground, in the presence of as many separate persons, and I have heard from the lips of the three witnesses to the most striking occurrence of this kind - the Earl of Dunraven, Lord Lindsay, and Captain C. Wynne - their own most minute accounts of what took place. To reject the recorded evidence on this subject is to reject all human testimony

whatever; for no fact in sacred or profane history is supported by a stronger array of proofs.

The accumulated testimony establishing Mr. Homes levitations is overwhelming. It is greatly to be desired that some person, whose evidence would be accepted as conclusive by the scientific world - if indeed there lives a person whose testimony *in favour* of such phenomena would be taken - would seriously and patiently examine the alleged facts. Most of the eyewitnesses to these levitations are now living, and would, doubtless, be willing to give their evidence. But, in a few years, such *direct* evidence will be difficult, if not impossible, to be obtained.

CLASS VII **Movement of Various Small Articles without Contact with any Person**

Under this heading I propose to describe some special phenomena which I have witnessed. I can do little more here than allude to some of the more striking facts, all of which, be it remembered, have occurred under circumstances that render trickery impossible. But it is idle to attribute these results to trickery, for I would again remind my readers that what I relate has not been accomplished at the house of a medium, but in my own house, where preparations have been quite impossible. A medium, walking into my dining room, cannot, while seated in one part of the room with a number of persons keenly watching him, by trickery make an accordion play in *my own* hand when I hold it keys downwards, or cause the same accordion to float about the room playing all the time. He cannot introduce machinery which will wave window curtains or pull up Venetian blinds eight feet off, tie a knot in a handkerchief and place it in a far comer of the room, sound notes on a distant piano, cause a card-plate to float about the room, raise a water-bottle and tumbler from the table, make a coral necklace rise on end, cause a fan to move about and fan the company, or set in motion a pendulum when enclosed in a glass case firmly cemented to the wall.

CLASS VIII **Luminous Appearances**

These, being rather faint, generally require the room to be darkened. I need scarcely remind my readers again that, under these circumstances, I have taken proper precautions to avoid being imposed upon by phosphorised oil or other means. Moreover, many of these lights are such as I have tried to imitate artificially, but cannot.

Under the strictest test conditions, I have seen a solid self-luminous body, the size and nearly the shape of a turkey's egg, float noiselessly about the room, at one time higher than any one present could reach standing on tiptoe, and then gently descend to the floor. It was visible for more than ten minutes, and before it faded away it struck the table three

times with a sound like that of a hard solid body. During this time the medium was lying back, apparently insensible, in an easy chair.

I have seen luminous points of light darting about and settling on the heads of different persons; I have had questions answered by the flashing of a bright light a desired number of times in front of my face. I have seen sparks of light rising from the table to the ceiling, and again falling upon the table, striking it with an audible sound. I have had an alphabetic communication given by luminous flashes occurring before me in the air, whilst my hand was moving about amongst them. I have seen a luminous cloud floating upwards to a picture. Under the strictest test conditions, I have more than once had a solid, self-luminous, crystalline body placed in my hand by a hand which did not belong to any person in the room. *In the light*, I have seen a luminous cloud hover over a heliotrope on a side table, break a sprig off, and carry the sprig to a lady; and on some occasions I have seen a similar luminous cloud visibly condense to the form of a band and carry small objects about. These, however, more properly belong to the next class of phenomena.

CLASS IX

The Appearance of Hands, either Self-Luminous or Visible by Ordinary Light

The forms of bands are frequently *felt* at dark *séances*, or under circumstances where they cannot be seen. More rarely I have seen the hands. I will here give no instances in which the phenomenon has occurred in darkness, but will simply select a few of the numerous instances in which I have seen the bands in the light.

A beautifully formed small hand rose up from an opening in a dining-table and gave me a flower; it appeared and then disappeared three times at intervals, affording me ample opportunity of satisfying myself that it was as real in appearance as my own. This occurred in the light in my own room, whilst I was holding the medium's hands and feet.

On another occasion, a small band and arm, like a baby's, appeared playing about a lady who was sitting next to me. It then passed to me and patted my arm and pulled my coat several times.

At another time, a finger and thumb were seen to pick the petals from a flower in Mr. Home's buttonhole, and lay them in front of several persons who were sitting near him.

A hand has been repeatedly seen by myself and others playing the keys of an accordion, both of the medium's hands being visible at the same time, and sometimes being held by those near him.

The hands and fingers do not always appear to me to be solid and life-like. Sometimes, indeed, they present more the appearance of a nebulous cloud partly condensed into the form of a hand. This is not

equally visible to all present. For instance, a flower or other small object is seen to move; one person present will see a luminous cloud hovering over it, another will detect a nebulous looking hand, whilst others will see nothing at all but the moving flower. I have more than once seen, first an object move, then a luminous cloud appear to form about it, and, lastly, the cloud condense into a shape and become a perfectly-formed hand. At this stage the hand is visible to all present. It is not always a mere form, but sometimes appears perfectly life-like and graceful, the fingers moving, and the flesh apparently as human as that of any in the room. At the wrist, or arm, it becomes hazy, and fades off into a luminous cloud.

To the touch, the hand sometimes appears icy cold and dead, at other times, warm and life-like, grasping my own with the firm pressure of an old friend.

I have retained one of these hands in my own, firmly resolved not to let it escape. There was no struggle or effort made to get loose, but it gradually seemed to resolve itself into vapour, and faded in that manner from my grasp.

CLASS X

Direct Writing

This is the term employed to express writing which is not produced by any person present. I have had words and messages repeatedly written on privately-marked paper, under the most rigid test conditions, and have heard the pencil moving over the paper in the dark. The conditions pre-arranged by myself have been so strict as to be equally convincing to my mind as if I had seen the written characters formed. But as space will not allow me to enter into full particulars, I will merely select two instances in which my eyes as well as ears were witnesses to the operation.

The first instance which I shall give took place, it is true, at a dark *séance*, but the result was not less satisfactory on that account. I was sitting next to the medium, Miss Fox, the only other persons present being my wife and a lady relative, and I was holding the medium's two hands in one of mine, whilst her feet were resting on my feet. Paper was on the table before us, and my disengaged hand was holding a pencil.

A luminous hand came down from the upper part of the room, and after hovering near me for a few seconds, took the pencil from my hand, rapidly wrote on a sheet of paper, threw the pencil down, and then rose up over our heads, gradually fading into darkness.

My second instance may be considered the record of a failure. "A good failure often teaches more than the most successful experiment." It took place in the light, in my own room, with only a few private friends and Mr. Home present. Several circumstances, to which I need not further allude, had shown that the power that evening was strong. I therefore

expressed a wish to witness the actual production of a written message such as I had heard described a short time before by a friend. Immediately an alphabetic communication was made as follows: "We will try." A pencil and some sheets of paper had been lying on the centre of the table; presently the pencil rose up on its point and after advancing by hesitating jerks to the paper, fell down. It then rose, and again fell. A third time it tried, but with no better result. After three unsuccessful attempts, a small wooden lath, which was lying near upon the table, slid towards the pencil, and rose a few inches from the table; the pencil rose again, and propping itself against the lath, the two together made an effort to mark the paper. It fell, and then a joint effort was again made. After a third trial the lath gave it up, and moved back to its place, the pencil lay as it fell across the paper, and an alphabetic message told us - "We have tried to do as you asked, but our power is exhausted."

CLASS XI

Phantom Forms and Faces

These are the rarest of the phenomena I have witnessed. The conditions requisite for their appearance appear to be so delicate, and such trifles interfere with their production, that only on very few occasions have I witnessed them under satisfactory test conditions. I will mention two of these cases.

In the dusk of the evening, during a *séance* with Mr. Rome at my house, the curtains of a window about eight feet from Mr. Home were seen to move. A dark, shadowy, semitransparent form, like that of a man, was then seen by all present standing near the window, waving the curtain with his hand. As we looked, the form faded away, and the curtains ceased to move.

The following is a still more striking instance. As in the former case, Mr. Home was the medium. A phantom form came from a corner of the room, took an accordion in its hand, and then glided about the room playing the instrument. The form was visible to all present for many minutes, Mr. Home also being seen at the same time. Coming rather close to a lady who was sitting apart from the rest of the company, she gave a slight cry, upon which it vanished.

CLASS XII

Special Instances Which Seem to Point to the Agency of an Exterior Intelligence

It has already been shown that the phenomena are governed by an intelligence. It becomes a question of importance as to the source of that intelligence. Is it the intelligence of the medium, of any of the other persons in the room, or is it an exterior intelligence? Without wishing at present to speak positively on this point, I may say that whilst I have observed many circumstances which appear to show that the will and intelligence of the medium have much to do with the phenomena(2), I

have observed some circumstances which seem conclusively to point to the agency of an outside intelligence, not belonging to any human being in the room.

Space does not allow me to give here all the arguments which can be adduced to prove these points, but I will briefly mention one or two circumstances out of many.

(2) I do not wish my meaning to be misunderstood. What I mean is, not that the medium's will and intelligence are actively employed in any conscious or dishonest way in the production of the phenomena, but that they sometimes appear to act in an unconscious manner.

I have been present when several phenomena were going on at the same time, some being unknown to the medium. I have been with Miss Fox when she has been writing a message automatically to one person present, whilst a message to another person on another subject was being given alphabetically by means of "raps," and the whole time she was conversing freely with a third person on a subject totally different from either. Perhaps a more striking instance is the following:

During a *séance* with Mr. Home, a small lath, which I have before mentioned, moved across the table to me, in the light, and delivered a message to me by tapping my hand; I repeating the alphabet, and the lath tapping me at the right letters. The other end of the lath was resting on the table, some distance from Mr. Home's hands.

The taps were so sharp and clear, and the lath was evidently so well under control of the invisible power which was governing its movements, that I said, "Can the intelligence governing the motion of this lath change the character of the movements, and give me a telegraphic message through the Morse alphabet by taps on my hand?" (I have every reason to believe that the Morse code was quite unknown to any other person present, and it was only imperfectly known to me.) Immediately I said this, the character of the taps changed, and the message was continued in the way I had requested. The letters were given too rapidly for me to do more than catch a word here and there, and consequently I lost the message; but I heard sufficient to convince me that there was a good Morse operator at the other end of the line, wherever that might be.

Another instance. A lady was writing automatically by means of the planchette. I was trying to devise a means of proving that what she wrote was not due to "unconscious cerebration." The planchette, as it always does, insisted that, although it was moved by the hand and arm of the lady, the *intelligence* was that of an invisible being who was playing on her brain as on a musical instrument, and thus moving her muscles. I therefore said to this intelligence, "Can you see the contents of this room?" "Yes," wrote the planchette. "Can you see to read this newspaper?" said I, putting my finger on a copy of the *Times*, which was on a table behind me, but without looking at it. "Yes," was the reply of the planchette. "Well," I said, "if you can see that, write the word which is

now covered by my finger, and I will believe you." The planchette commenced to move. Slowly and with great difficulty the word "however" was written. I turned round and saw the the word "however" was covered by the tip of my finger.

I had purposely avoided looking at the newspaper when I tried this experiment, and it was impossible for the lady, had she tried, to have seen any of the printed words, for she was sitting at one table, and the paper was on another table behind, my body intervening.

CLASS XIII

Miscellaneous Occurrences of a Complex Character

Under this heading I propose to give several occurrences which cannot be otherwise classified owing to their complex character. Out of more than a dozen cases, I will select two. The first occurred in the presence of Miss Kate Fox. To render it intelligible I must enter into some details.

Miss Fox had promised to give me a *séance* at my house one evening in the spring of last year. Whilst waiting for her, a lady relative, with my two eldest sons, aged fourteen and eleven, were sitting in the dining-room where the *séances* were always held, and I was sitting by myself, writing in the library. Hearing a cab drive up and the bell ring, I opened the door to Miss Fox, and took her directly into the dining-room. She said she would not go upstairs, as she could not stay very long, but laid her bonnet and shawl on a chair in the room. I then went to the dining-room door, and telling the two boys to go into the library and proceed with their lessons, I closed the door behind them, locked it, and (according to my usual custom at *séances*) put the key in my pocket.

We sat down, Miss Fox being on my right hand and the other lady on my left. An alphabetic message was soon given to turn the gas out, and we thereupon sat in total darkness, I holding Miss Fox's two hands in one of mine the whole time. Very soon a message was given in the following words: "We are going to bring something to show our power"; and almost immediately afterwards we all heard the tinkling of a bell, not stationary, but moving about in all parts of the room: at one time by the wall, at another in a further comer of the room, now touching me on the head, and now tapping against the floor. After ringing about the room in this manner for fully five minutes, it fell upon the table close to my hands.

During the time this was going on no one moved, and Miss Fox's hands were perfectly quiet. I remarked that it could not be my little hand-bell which was ringing, for I left that in the library. (Shortly before Miss Fox came I had occasion to refer to a book which was lying on a corner of a book-shelf. The bell was on the book, and I put it on one side to get the book. That little incident had impressed on my mind the fact of the bell being in the library.) The gas was burning brightly in the hall outside the dining-room door so that this could not be opened without letting light into the room, even had there been an accomplice in the house with a

duplicate key, which there certainly was not.

I struck a light. There, sure enough, was my own bell lying on the table before me. I went straight into the library. A glance showed that the bell was not where it ought to have been. I said to my eldest boy, "Do you know where my little bell is?" "Yes, papa," he replied, "there it is," pointing to where I had left it. He looked up as he said this, and then continued, "No - it's not there, but it was there a little time ago." "How do you mean? - has anyone come in and taken it?"

"No," said he, "no one has been in; but I am sure it was there, because when you sent us in here out of the dining-room, J. (the youngest boy) began ringing it so that I could not go on with my lessons, and I told him to stop." J. corroborated this, and said that, after ringing it, he put the bell down where he had found it.

The second circumstance which I will relate occurred in the light, one Sunday evening, only Mr. Home and members of my family being present. My wife and I had been spending the day in the country, and had brought home a few flowers we had gathered. On reaching home, we gave them to a servant to put them in water. Mr. Home came soon after, and we at once proceeded to the dining-room. As we were sitting down, a servant brought in the flowers which she had arranged in a vase. I placed it in the centre of the dining-table, which was without a cloth. This was the first time Mr. Home had seen these flowers.

After several phenomena had occurred, the conversation turned upon some circumstances which seemed only explicable on the assumption that matter had actually passed through a solid substance. Thereupon a message was given by means of the alphabet: "It is impossible for matter to pass through matter, but we will show you what we can do." We waited in silence. Presently a luminous appearance was seen hovering over the bouquet of flowers, and then, in full view of all present, a piece of China-grass 15 inches long, which formed the centre ornament of the bouquet, slowly rose from the other flowers, and then descended to the table in front of the vase between it and Mr. Home. It did not stop on reaching the table, but went straight through it, and we all watched it until it had entirely passed through. Immediately on the disappearance of the grass, my wife, who was sitting near Mr. Home, saw a hand come up from under the table between them, holding the piece of grass. It tapped her on the shoulder two or three times with a sound audible to all, then laid the grass on the floor, and disappeared. Only two persons saw the hand, but all in the room saw the piece of grass moving about as I have described. During the time this was taking place, Mr. Home's hands were seen by all to be quietly resting on the table in front of him. The place where the grass disappeared was 18 inches from his hands. The table was a telescope dining table, opening with a screw; there was no leaf in it, and the junction of the two sides formed a narrow crack down the middle. The grass had passed through this chink, which I measured, and found to be barely $\frac{1}{8}$ inch wide. The

stem of the piece of grass was far too thick to enable me to force it through this crack without injuring it, yet we had all seen it pass through quietly and smoothly; and on examination, it did not show the slightest signs of pressure or abrasion.

Theories to Account for the Phenomena Observed

First Theory: The phenomena are all the results of tricks, clever mechanical arrangements, or legerdemain; the mediums are imposters, and the rest of the company fools.

It is obvious that this theory can only account for a very small proportion of the facts observed. I am willing to admit that some so-called mediums of whom the public have heard much are arrant imposters who have taken advantage of the public demand for spiritualistic excitement to fill their purses with easily-earned guineas; whilst others who have no pecuniary motive for imposture are tempted to cheat, it would seem, solely by a desire for notoriety. I have met with several cases of imposture, some very ingenious, others so palpable that no person who has witnessed the genuine phenomena could be taken in by them. An enquirer into the subject finding one of these cases at his first initiation is disgusted with what he detects at once to be an imposture; and he not unnaturally gives vent to his feelings, privately or in print, by a sweeping denunciation of the whole genus "medium." Again, with a thoroughly genuine medium, the first phenomena which are observed are generally slight movements of the table, and faint taps under the medium's hands or feet. These, of course, are quite easy to be imitated by the medium, or anyone at the table. If, as sometimes occurs, nothing else takes place, the skeptical observer goes away with the firm impression that his superior acuteness detected cheating on the part of the medium, who was consequently afraid to proceed with any more tricks in *his* presence. He, too, writes to the newspapers exposing the whole imposture, and probably indulges in moral sentiments about the sad spectacle of persons, apparently intelligent, being taken in by imposture which he detected at once.

There is a wide difference between the tricks of a professional conjurer, surrounded by his apparatus, and aided by any number of concealed assistants and confederates, deceiving the senses by clever sleight of hand on his own platform, and the phenomena occurring in the presence of Mr. Home, which take place in the light, in a private room that almost up to the commencement of the *séance* has been occupied as a living room, and surrounded by private friends of my own, who not only will not countenance the slightest deception, but who are watching narrowly everything that takes place. Moreover, Mr. Home has frequently been searched before and after *séances* and he *always* offers to allow it. During the most remarkable occurrences I have occasionally held both his hands, and placed my feet on his feet. On no single occasion have I proposed a modification of arrangements for the purpose of rendering trickery less possible which he has not at once assented to, and

frequently he has himself drawn attention to tests which might be tried.

I speak chiefly of Mr. Home, as he is so much more powerful than most of the mediums I have experimented with. But with all I have taken such precautions as place trickery out of the list of possible explanations.

Be it remembered that an explanation to be of any value must satisfy *all* the conditions of the problem. It is not enough for a person, who has perhaps seen only a few of the inferior phenomena, to say, "I suspect it was all cheating," or "I saw how some of the tricks could be done."

Second Theory: The persons at a *séance* are the victims of a sort of mania or delusion, and imagine phenomena to occur which have no real objective existence.

Third Theory: The whole is the result of conscious or unconscious cerebral action.

Fourth Theory: The result of the spirit of the medium, perhaps in association with the spirits of some or all of the people present.

These two theories are evidently incapable of embracing more than a small portion of the phenomena, and they are improbable explanations for even those. They may be dismissed very briefly.

I now approach the "Spiritual" theories. It must be remembered that the word "spirits" is used in a very vague sense by the generality of people.

Fifth Theory: The actions of evil spirits or devils, personifying who or what they please, in order to undermine Christianity and ruin men's souls.

Sixth Theory: The actions of a separate order of beings, living on this earth, but invisible and immaterial to us. Able, however, occasionally to manifest their presence. Known in almost all countries and ages as demons (not necessarily bad), gnomes, fairies, kobolds, elves, goblins, Puck, etc.

Seventh Theory: The actions of departed human beings - the spiritual theory *par excellence*.

Eighth Theory: (*The Psychic Force Theory*). This is a necessary adjunct to the 4th, 5th, 6th, and 7th theories, rather than a theory by itself.

According to this theory the "medium," or the circle of people associated together as a whole, is supposed to possess a force, power, influence, virtue, or gift, by means of which intelligent beings are enabled to produce the phenomena observed. What these intelligent beings are is a

subject for other theories.

It is obvious that a "medium" possesses a *something* which is not possessed by an ordinary being. Give this *something* a name. Call it 'x' if you like. Mr. Serjeant Cox calls it Psychic Force. There has been so much misunderstanding on this subject that I think it best to give the following explanation in Mr. Serjeant Cox's own words:

"The Theory of *Psychic Force* is in itself merely the recognition of the now almost undisputed fact that under certain conditions, as yet but imperfectly ascertained, and within a limited, but as yet undefined, distance from the bodies of certain persons having a special nerve organization, a Force operates by which, without muscular contact or connection, action at a distance is caused, and visible motions and audible sounds are produced in solid substances. As the presence of such an organization is necessary to the phenomenon, it is reasonably concluded that the Force does, in some manner as yet unknown, proceed from that organization. As the organism is itself moved and directed within its structure by a Force which either is, or is controlled by, the Soul, Spirit, or Mind (call it what we may) which constitutes the individual being we term 'the Man,' it is an equally reasonable conclusion that the Force which causes the motions beyond the limits of the body is the same Force that produces motion within the limits of the body. And, inasmuch as the external force is seen to be often directed by Intelligence, it is an equally reasonable conclusion that the directing Intelligence of the external force is the same Intelligence that directs the Force internally. This is the force to which the name of *Psychic Force* has been given by me as properly designating a force which I thus contend to be traced back to the Soul or Mind of the Man as its source. But I and all who adopt this theory of Psychic Force as being the agent through which the phenomena are produced, do not thereby intend to assert that this Psychic Force may not be sometimes seized and directed by some other Intelligence than the Mind of the Psychic. The most ardent Spiritualists practically admit the existence of Psychic Force under the very inappropriate name of Magnetism (to which it has no affinity whatever), for they assert that the Spirits of the Dead can only do the acts attributed to them by using the Magnetism (that is, the Psychic Force) of the Medium. The difference between the advocates of Psychic Force and the Spiritualists consists in this - that we contend that there is as yet insufficient proof of any other directing agent than the Intelligence of the Medium, and no proof whatever of the agency of Spirits of the Dead; while the Spiritualists hold it as a faith, not demanding further proof, that Spirits of the Dead are the sole agents in the production of all the phenomena. Thus the controversy resolves itself into a pure question of *fact*, only to be determined by a laborious and long-continued series of experiments and an extensive collection of psychological *facts*, which should be the first duty of the Psychological Society, the formation of which is now in progress."

Miss Florence Cook's Mediumship

- Sir William Crookes -

- Letter to "The Spiritualist" February 6th 1874 -

SIR, It has been my endeavour to keep as clear of controversy as possible, in writing or speaking about so inflammatory a topic as the phenomena called Spiritual. Except in very few cases, where the prominent position my opponent would have caused my silence to be ascribed to other than the real motives, I have made no reply to the attacks and misrepresentations which my connection with this subject has entailed upon me.

The case is otherwise, however, when a few lines from me may perhaps assist in removing an unjust suspicion which is cast upon another. And when this other person is a woman - young, sensitive, and innocent - it becomes especially a duty for me to give the weight of my testimony in favour of her whom I believe to be unjustly accused.

Among all the arguments brought forward on either side touching the phenomena of Miss Cook's mediumship, I see very few *facts* stated in such a way as to lead an unprejudiced reader, provided he can trust the judgment and veracity of the narrator, to say, "Here at last is absolute proof." I see plenty of strong assertion, much unintentional exaggeration, endless conjecture and supposition, no little insinuation of fraud, and some amount of vulgar buffoonery; but no one has come forward with a positive assertion, based upon the evidence of his own senses, to the effect that when the form which calls itself "Katie" is visible in the room, the body of Miss Cook is either actually in the cabinet or is not there.

It appears to me that the whole question narrows itself into this small compass. Let either of the above alternatives be proved to be a fact, and all the other collateral questions may be dismissed. But the proof must be absolute, and not based upon inferential reasoning, or assumed upon the supposed integrity of seals, knots, and sewing; for I have reason to know that the power at work in these phenomena, like Love, "laughs at locksmiths."

I was in hopes that some of those friends of Miss Cook, who have attended her *séances* almost from the commencement, and who appear to have been highly favoured in the tests they have received, would, ere this, have borne testimony in her favour. In default, however, of evidence from those who have followed these phenomena from their beginning nearly three years ago, let me, who have only been admitted, as it were, at the eleventh hour, state a circumstance which came under my notice at a *séance* to which I was invited by the favour of Miss Cook, a few days after the disgraceful occurrence which has given rise to this

controversy.

The *séance* was held at the house of Mr. Luxmore, and the "cabinet" was a back drawing room, separated from the front room in which the company sat by a curtain.

The usual formality of searching the room and examining the fastenings having been gone through, Miss Cook entered the cabinet.

After a little time the form of Katie appeared at the side of the curtain, but soon retreated, saying her medium was not well, and could not be put into a sufficiently deep sleep to make it safe for her to be left.

I was sitting within a few feet of the curtain close behind which Miss Cook was sitting, and I could frequently hear her moan and sob, as if in pain. This uneasiness continued at intervals nearly the whole duration of the *séance*, and *once, when the form of Katie was standing before me in the room, I distinctly heard a sobbing, moaning sound, identical with that which Miss Cook had been making at intervals the whole time of the séance, come from behind the curtain where the young lady was supposed to be sitting.*

I admit that the figure was startlingly life-like and real, and, as far as I could see in the somewhat dim light, the features resembled those of Miss Cook; but still the positive evidence of one of my own senses that the moan came from Miss Cook in the cabinet, whilst the figure was outside, is too strong to be upset by a mere inference to the contrary, however well supported.

Your readers, sir, know me, and will, I hope, believe that I will not come hastily to an opinion, or ask them to agree with me on insufficient evidence. It is perhaps expecting too much to think that the little incident I have mentioned will have the same weight with them that it had with me. But this I do beg of them - Let those who are inclined to judge Miss Cook harshly suspend their judgment until I bring forward positive evidence which I think will be sufficient to settle the question.

Miss Cook is now devoting herself exclusively to a series of private *séances* with me and one or two friends. The *séances* will probably extend over some months, and I am promised that every desirable test shall be given to me. These *séances* have not been going on many weeks, but enough has taken place to thoroughly convince me of the perfect truth and honesty of Miss Cook, and to give me every reason to expect that the promises so freely made to me by Katie will be kept.

All I now ask is that your readers will not hastily assume that everything which is *prima facie* suspicious necessarily implies deception, and that they will suspend their judgment until they hear from me again on this subject.

Spirit Forms

- Sir William Crookes -

- Letter to "The Spiritualist" April 3rd 1874 -

IN A letter which I wrote to this journal early in February last, speaking of the phenomena of spirit-forms which have appeared through Miss Cook's mediurnship, I said, "Let those who are inclined to judge Miss Cook harshly suspend their judgment until I bring forward positive evidence which I think will be sufficient to settle the question. Miss Cook is now devoting herself exclusively to a series of private *séances* with me and one or two friends... Enough has taken place to thoroughly convince me of the perfect truth and honesty of Miss Cook, and to give me every reason to expect that the promises so freely made to me by Katie will be kept."

In that letter I described an incident which, to my mind, went very far towards convincing me that Katie and Miss Cook were two separate material beings. When Katie was outside the cabinet, standing before me, I heard a moaning noise from Miss Cook in the cabinet. I am happy to say that I have at last obtained the "absolute proof" to which I referred in the above quoted letter.

I will, for the present, pass over most of the tests which Katie has given me on the many occasions when Miss Cook has favoured me with *séances* at this house, and will only describe one or two which I have recently had. I have for some time past been experimenting with a phosphorous lamp, consisting of a 6-oz. or 8-oz. bottle, containing a little phosphorised oil, and tightly corked. I have had reason to hope that by the light of this lamp some of the mysterious phenomena of the cabinet might be rendered visible, and Katie has also expressed herself hopefully as to the same result.

On March 12th, during a *séance* here, after Katie had been walking amongst us and talking for some time, she retreated behind the curtain which separated my laboratory, where the company was sitting, from my library which did temporary duty as a cabinet. In a minute she came to the curtain and called me to her, saying, "Come into the room and lift my medium's head up, she has slipped down." Katie was then standing before me clothed in her usual white robes and turban head-dress. I immediately walked into the library up to Miss Cook, Katie stepping aside to allow me to pass. I found Miss Cook had slipped partially off the sofa, and her head was hanging in a very awkward position. I lifted her on to the sofa, and in so doing had satisfactory evidence, in spite of the darkness, that Miss Cook was not attired in the "Katie" costume, but had on her ordinary black velvet dress, and was in a deep trance. Not more than three seconds elapsed between my seeing the white-robed Katie

standing before me and my raising Miss Cook on to the sofa from the position into which she had fallen.

On returning to my post of observation by the curtain, Katie again appeared, and said she thought she would be able to show herself and her medium to me at the same time. The gas was then turned out and she asked for my phosphorus lamp. After exhibiting herself by it for some seconds, she handed it back to me, saying, "Now come in and see my medium." I closely followed her into the library, and by the light of my lamp saw Miss Cook lying on the sofa just as I had left her. I looked round for Katie, but she had disappeared. I called her, but there was no answer.

On resuming my place, Katie soon reappeared, and told me that she had been standing close to Miss Cook all the time. She then asked if she might try an experiment herself, and taking the phosphorus lamp from me she passed behind the curtain, asking me not to look in for the present. In a few minutes she handed the lamp back to me, saying she could not succeed, as she had used up all the power, but would try again another time. My eldest son, a lad of fourteen, who was sitting opposite me, in such a position that he could see behind the curtain, tells me he distinctly saw the phosphorus lamp apparently floating about in space over Miss Cook, illuminating her as she lay motionless on the sofa, but he could not see anyone holding the lamp.

I pass on to a *séance* held last night at Hackney. Katie never appeared to greater perfection, and for nearly two hours she walked about the room, conversing familiarly with those present. On several occasions she took my arm when walking, and the impression conveyed to my mind that it was a living woman by my side, instead of a visitor from the other world, was so strong that the temptation to repeat a recent celebrated experiment became almost irresistible. Feeling, however, that if I had not a spirit, I had at all events a *lady* close to me, I asked her permission to clasp her in my arms, so as to be able to verify the interesting observations which a bold experimentalist has recently somewhat verbosely recorded. Permission was graciously given, and I accordingly did - well, as any gentleman would do under the circumstances. Mr. Volckman will be pleased to know that I can corroborate his statement that the "ghost" (not "struggling" however) was as material a being as Miss Cook herself. But the sequel shows how wrong it is for an experimentalist, however accurate his observations may be, to venture to draw an important conclusion from an insufficient amount of evidence.

(On December 9, 1873, Florence Cook held a *séance* at the home of Mr. Luxmore for the Earl and Countess of Caithness. Among the guests present was a Mr. W. Volckman. As the materialized Katie King moved among the guests, Mr. Volckman became suspicious and grabbed her by the wrist, exclaiming it was the medium. A struggle ensued, of which there are two versions. Volckman claimed that she was forcibly freed; Henry Dumphy, another guest, and a well-known lawyer, stated that she

dissolved from Volckman's grasp and glided away leaving no trace. The gossamer cloth to which Volckman clung during the struggle also seemed to disappear from his grasp. At any rate, the incontestable fact to which all agreed, including Volckman, remains that moments later to settle the matter, the cabinet was opened and Miss Cook was found moaning and unconscious, as she had been placed, in her black dress and boots, with tape tightly wound about her waist and the chair, the knot sealed in wax bearing the mark made with the signet ring of the Earl of Caithness. She was searched, but no trace of the voluminous white drapery could be found. Miss Cook, upon awakening, became seriously ill from the ordeal.

Crookes always regarded this type of seizure as a treacherous and unscientific procedure. Crookes, on request, was permitted to handle and examine the apparition, even take the heartbeat. Dr. G. H. Tapp, who assisted him at the séances, attempted on one occasion to take the pulse of the phantom, but his fingers met through the nebulous wrist.

Varley held Katie King by the hand as she materialized from the head to the waist only. (It might be said that for proof, half a phantom is better than a whole phantom.) In all cases, Crookes required that any intention to touch the apparition first be announced, and that the medium, if conscious, or the phantom acquiesce. He felt that this assurance to the medium helped generate more powerful manifestations. Miss Cook was always willing to submit to any controls that the investigators chose to impose, but she pleaded strongly against unpredictable violence.)

Katie now said she thought she would be able this time to show herself and Miss Cook together. I was to turn the gas out, and then come with my phosphorus lamp into the room now used as a cabinet. This I did, having previously asked a friend who was skilful in shorthand to take down any statement I might make when in the cabinet, knowing the importance attaching to first impressions, and not wishing to leave more to memory than necessary. His notes are now before me.

I went cautiously into the room, it being dark, and felt about for Miss Cook. I found her crouching on the floor. Kneeling down, I let air enter the lamp, and by its light I saw the young lady dressed in black velvet, as she had been in the early part of the evening, and to appearance perfectly senseless; she did not move when I took her hand and held the light quite close to her face, but continued quietly breathing. Raising the lamp, I looked around and saw Katie standing close behind Miss Cook. She was robed in flowing white drapery as we had seen her previously during the *séance*. Holding one of Miss Cook's hands in mine, and still kneeling, I passed the lamp up and down so as to illuminate Katie's whole figure, and satisfy myself thoroughly that I was really looking at the veritable Katie whom I had clasped in my arms a few minutes before, and not at the phantasm of a disordered brain. She did not speak, but moved her head and smiled in recognition. Three separate times did I carefully examine Miss Cook crouching before me, to be sure that the

hand I held was that of a living woman, and three separate times did I turn the lamp to Katie and examine her with steadfast scrutiny, until I had no doubt whatever of her objective reality. At last Miss Cook moved slightly, and Katie instantly motioned me to go away. I went to another part of the cabinet, and then ceased to see Katie, but did not leave the room till Miss Cook woke up, and two of the visitors came in with a light.

Before concluding this article I wish to give some of the points of difference, which I have observed between Miss Cook and Katie. Katie's height varies; in my house I have seen her six inches taller than Miss Cook. Last night, with bare feet, and not "tiptoeing," she was four-and-a-half inches taller than Miss Cook. Katie's neck was bare last night; the skin was perfectly smooth both to touch and sight, whilst on Miss Cook's neck is a large blister, which under similar circumstances is distinctly visible and rough to the touch. Katie's ears are unpierced, whilst Miss Cook habitually wears earrings. Katie's complexion is very fair, while that of Miss Cook is very dark, Katie's fingers are much longer than Miss Cook's, and her face is also larger. In manners and ways of expression there are also many decided differences.

Miss Cook's health is not good enough to allow of her giving more of these test *séances* for the next few weeks, and we have, therefore, strongly advised her to take an entire rest before recommencing the experimental campaign which I have sketched out for her, and the results of which I hope to be able to record at some future day.

The Last of Katie King

- Sir William Crookes -

First published in "The Spiritualist", June 5th 1874

HAVING TAKEN a very prominent part of late at Miss Cook's *séances*, and having been very successful in taking numerous photographs of Katie King by the aid of the electric light, I have thought that the publication of a few of the details would be of interest to the readers of the *Spiritualist*.

During the week before Katie took her departure she gave *séances* at my house almost nightly, to enable me to photograph her by artificial light. Five complete sets of photographic apparatus were accordingly fitted up for the purpose, consisting of five cameras, one of the wholeplate size, one half-plate, one quarter-plate, and two binocular stereoscopic cameras, which were all brought to bear upon Katie at the same time on each occasion on which she stood for her portrait. Five sensitising and five fixing baths were used, and plenty of plates were cleaned ready for use in advance, so that there might be no hitch or delay during the photographic operations, which were performed by

myself, aided by one assistant.

My library was used as a dark cabinet. It has folding doors opening into the laboratory; one of these doors was taken off its hinges, and a curtain suspended in its place to enable Katie to pass in and out easily. Those of our friends who were present were seated in the laboratory facing the curtain, and the cameras were placed a little behind them, ready to photograph Katie when she came outside, and to photograph anything also inside the cabinet, whenever the curtain was withdrawn for the purpose. Each evening there were three or four exposures of plates in the five cameras, giving at least fifteen separate pictures at each *séance*; some of these were spoilt in the developing, and some in regulating the amount of light. Although I have forty-four negatives, some inferior, some indifferent, and some excellent.

Katie instructed all the sitters but myself to keep their seats and to keep conditions, but for some time past she has given me permission to do what I liked - to touch her, and to enter and leave the cabinet almost whenever I pleased. I have frequently followed her into the cabinet, and have sometimes seen her and her medium together, but most generally I have found nobody but the entranced medium lying on the floor, Katie and her white robes having instantaneously disappeared.

During the last six months Miss Cook has been a frequent visitor at my house, remaining sometimes a week at a time. She brings nothing with her but a little hand-bag, not locked; during the day she is constantly in the presence of Mrs. Crookes, myself, or some other member of my family, and, not sleeping by herself, there is absolutely no opportunity for any preparation even of a less elaborate character than would be required for enacting Katie King. I prepare and arrange my library myself as the dark cabinet, and usually, after Miss Cook has been dining and conversing with us, and scarcely out of our sight for a minute, she walks direct into the cabinet, and I, at her request, lock its second door, and keep possession of the key all through the *séance*; the gas is then turned out, and Miss Cook is left in darkness.

On entering the cabinet, Miss Cook lies down upon the floor, with her head on a pillow, and is soon entranced. During the photographic *séance*, Katie muffled her medium's head up in a shawl to prevent the light falling upon her face. I frequently drew the curtain on one side when Katie was standing near, and it was a common thing for the seven or eight of us in the laboratory to see Miss Cook and Katie at the same time, under the full blaze of the electric light. We did not on these occasions actually see the face of the medium because of the shawl, but we saw her hands and feet; we saw her move uneasily under the influence of the intense light, and we heard her moan occasionally. I have one photograph of the two together, but Katie is seated in front of Miss Cook's head.

During the time I have taken an active part in these *séances* Katie's

confidence in me gradually grew, until she refused to give a *séance* unless I took charge of the arrangements. She said she always wanted me to keep close to her, and near the cabinet, and I found that after this confidence was established, and she was satisfied I would not break any promise I might make to her, the phenomena increased greatly in power, and tests were freely given that would have been unobtainable had I approached the subject in another manner. She often consulted me about persons present at the *séances*, and where they should be placed, for of late she had become very nervous, in consequence of certain ill-advised suggestions that force should be employed as an adjunct to more scientific modes of research.

One of the most interesting of the pictures is one in which I am standing by the side of Katie; she has her bare foot upon a particular part of the floor. Afterwards I dressed Miss Cook like Katie, placed her and myself in exactly the same position, and we were photographed by the same cameras, placed exactly as in the other experiment, and illuminated by the same light. When these two pictures are placed over each other, the two photographs of myself coincide exactly as regards stature, etc., but Katie is half a head taller than Miss Cook, and looks a big woman in comparison with her. In the breadth of her face, in many of the pictures, she differs essentially in size from her medium, and the photographs show several other points of difference.

But photography is as inadequate to depict the perfect beauty of Katie's face as words are powerless to describe her charms of manner. Photography may, indeed, give a map of her countenance; but how can it reproduce the brilliant purity of her complexion, or the ever-varying expression of her mobile features, now overshadowed with sadness when relating some of the bitter experiences of her past life, now smiling with all the innocence of happy girlhood when she had collected my children round her and was amusing them by recounting anecdotes of her adventures in India?

*"Round her she made an atmosphere of life;
The very air seemed lighter from her eyes,
They were so soft and beautiful, and rife
With all we can imagine of the skies;
Her overpowering presence made you feel
It would not be idolatry to kneel."*

Having seen so much of Katie lately, when she has been illuminated by the electric light, I am enabled to add to the points of difference between her and her medium which I mentioned in a former article. I have the most absolute certainty that Miss Cook and Katie are two separate individuals so far as their bodies are concerned. Several little marks on Miss Cook's face are absent on Katie's. Miss Cook's hair is so dark a brown as almost to appear black; a lock of Katie's, which is now before me, and which she allowed me to cut from her luxuriant tresses, having first traced it up to the scalp and satisfied myself that it actually grew

there, is a rich golden auburn.

One evening I timed Katie's pulse. It beat steadily at 75, whilst Miss Cook's pulse a little time after was going at its usual rate of 90. On applying my ear to Katie's chest I heard a heart beating rhythmically inside, and pulsating even more steadily than did Miss Cook's heart when she allowed me to try a similar experiment after the *séance*. Tested in the same way, Katie's lungs were found to be sounder than her medium's, for at the time I tried my experiment Miss Cook was under medical treatment for a severe cough.

Your readers may be interested in having Mrs. Ross Church's (Florence Marryat, author of 'There is No Death') and your own accounts of the last appearance of Katie supplemented by my own narrative, as far as I can publish it. When the time came for Katie to take her farewell I asked that she would let me see the last of her. Accordingly when she had called each of the company up to her and had spoken to them a few words in private, she gave some general directions for the future guidance and protection of Miss Cook. From these, which were taken down in shorthand, I quote the following: "Mr. Crookes has done very well throughout, and I leave Florrie with the greatest confidence in his hands, feeling perfectly sure he will not abuse the trust I place in him. He can act in any emergency better than I can myself, for he has more strength." Having concluded her directions Katie invited me into the cabinet with her, and allowed me to remain there to the end.

After closing the curtain she conversed with me for some time, and then walked across the room to where Miss Cook was lying senseless on the floor. Stooping over her, Katie touched her, and said: "Wake up, Florrie, wake up! I must leave you now." Miss Cook then woke and tearfully entreated Katie to stay a little time longer. "My dear, I can't; my work is done. God bless you," Katie replied, and then continued speaking to Miss Cook. For several minutes the two were conversing with each other, till at last Miss Cook's tears prevented her speaking. Following Katie's instructions I then came forward to support Miss Cook, who was falling on the floor, sobbing hysterically. I looked round, but the white-robed Katie had gone. As soon as Miss Cook was sufficiently calmed, a light was procured and I led her out of the cabinet.

The almost daily *séances* with which Miss Cook has lately favoured me have proved a severe tax upon her strength, and I wish to make the most public acknowledgment of the obligations I am under to her for her readiness to assist me in my experiments. Every test that I have proposed she has at once agreed to submit to with the utmost willingness; she is open and straight-forward in speech, and I have never seen anything approaching the slightest symptom of a wish to deceive. Indeed, I do not believe she could carry on a deception if she were to try, and if she did she would certainly be found out very quickly, for such a line of action is altogether foreign to her nature. And to imagine that an innocent school-girl of fifteen should be able to conceive and then

successfully carry out for three years so gigantic an imposture as this, and in that time should submit to any test which might be imposed upon her, should bear the strictest scrutiny, should be willing to be searched at any time, either before or after the *séance*, and should meet with even better success in my own house than at that of her parents, knowing that she visited me with the express object of submitting to strict scientific tests - to imagine, I say, the Katie King of the last three years to be the result of imposture does more violence to one's reason and common sense than to believe her to be what she herself affirms.

It would not be right for me to conclude this article without also thanking Mr. and Mrs. Cook for the great faculties they have given me to carry on these observations and experiments.

Sir William Crookes addresses the British Association
- Sir William Crookes -

At the annual assembly of that most representative body, the British Association, at Bristol, in 1898, Sir William Crookes again declared himself upon the subject of his researches.

Since his first utterance, in 1874, many doubters had arisen who had declared that the scientist had swerved from his former course and no longer believed in the genuineness of the manifestations witnessed. His words before the British Association leave no doubt in the mind. He said:

NO INCIDENT in my scientific career is more widely known than the part I took many years ago in certain psychic researches. Thirty years have passed since I published an account of experiments tending to show that outside our scientific knowledge there exists a Force exercised by intelligence differing from the ordinary intelligence common to mortals. This fact in my life is, of course, well understood by those who honoured me with the invitation to become your President. Perhaps among my audience some may feel curious as to whether I shall speak out or be silent. I elect to speak, although briefly. To ignore the subject would be an act of cowardice - an act of cowardice I feel no temptation to commit.

I have nothing to retract. I adhere to my already published statements. Indeed, I might add much thereto. I regret only a certain crudity in those early expositions which, no doubt justly, militated against their acceptance by the scientific world. My own knowledge at that time scarcely extended beyond the fact that certain phenomena new to science had assuredly occurred, and were attested by my own sober senses, and, better still, by automatic record.

I think I see a little farther now. I have glimpses of something like

coherence among the strange elusive phenomena; of something like continuity between those unexplained forces and laws already known. This advance is largely due to the labours of another Association of which I have also this year the honour to be President - the Society for Psychical Research. And were I now introducing for the first time these inquiries to the world of science I should choose a starting point different from that of old. It would be well to begin with *telepathy*; with the fundamental law, as I believe it to be, that thoughts and images may be transferred from one mind to another without the agency of the recognized organs of sense - that knowledge may enter the human mind without being communicated in any hitherto known or recognized ways.

If telepathy takes place we have two physical facts - the physical change in the brain of A, the suggester, and the analogous physical change in the brain of B, the recipient of the suggestion. Between these two physical events there must exist a train of physical causes. Whenever the connecting sequence of intermediate causes begins to be revealed the inquiry will then come within the range of one of the Sections of the British Association. Such a sequence can only occur through an intervening medium. All the phenomena of the universe are presumably in some way continuous, and it is unscientific to call in the aid of mysterious agencies when with every fresh advance in knowledge it is shown that ether vibrations have powers and attributes abundantly equal to any demand - even to the transmission of thought. It is supposed by some physiologists that the essential cells of nerves do not actually touch, but are separated by a narrow gap which widens in sleep while it narrows almost to extinction during mental activity. This condition is so singularly like that of a Branly or Lodge coherer as to suggest a further analogy. The structure of nerve and brain being similar, it is conceivable there may be present masses of such nerve coherers in the brain whose special function it may be to receive impulses brought from without through the connecting sequence of ether waves of appropriate order of magnitude. Roentgen has familiarized us with an order of vibrations of extreme minuteness compared with the smallest wave with which we have otherwise been acquainted, and of dimensions comparable with the distances between the centers of the atoms of which the material universe is built up: and there is no reason to suppose that we have here reached the limit of frequency. It is known that the action of thought is accompanied by certain molecular movements in the brain, and here we have physical vibrations capable from their extreme minuteness of acting direct on individual molecules, while their rapidity approaches that of the internal and external movements of the atoms themselves.

Confirmation of telepathic phenomena is afforded by many converging experiments, and by many spontaneous occurrences only thus intelligible. The most varied proof, perhaps, is drawn from analysis of the sub-conscious workings of the mind, when these, whether by accident or design, are brought into conscious survey. Evidence of a region below the threshold of consciousness has been presented, since its first inception, in the "Proceedings of the Society for Psychical Research;"

and its various aspects are being interpreted and welded into a comprehensive whole by the pertinacious genius of F. W. H. Myers.

A formidable range of phenomena must be scientifically sifted before we effectually grasp a faculty so strange, so bewildering, and for ages so inscrutable, as the direct action of mind on mind. This delicate task needs a rigorous employment of the method of exclusion - a constant setting aside of irrelevant phenomena that could be explained by known causes, including those far too familiar causes, conscious and unconscious fraud. The inquiry unites the difficulties inherent in all experimentation connected with mind, with tangled human temperaments and with observations dependent less on automatic record than on personal testimony. But difficulties are things to be overcome even in the elusory branch of research known as Experimental Psychology.

It has been said that "Nothing worth the proving can be proved, nor yet disproved." True though this may have been in the past, it is true no longer. The science of our century has forged weapons of observation and analysis by which the veriest tyro may profit. Science has trained and fashioned the average mind into habits of exactitude and disciplined perception, and in so doing has fortified itself for tasks higher, wider, and incomparably more wonderful than even the wisest among our ancestors imagined. Like the souls in Plato's myth that follow the chariot of Zeus, it has ascended to a point of vision far above the earth. It is henceforth open to science to transcend all we now think we know of matter, and to gain new glimpses of a profounder scheme of Cosmic Law.

An eminent predecessor in this chair declared that "by an intellectual necessity he crossed the boundary of experimental evidence, and discerned in that matter, which we, in our ignorance of its latent powers, and notwithstanding our professed reverence for its Creator, have hitherto covered with opprobrium, the potency and promise of all terrestrial life." I should prefer the apophthegm, and to say that in life I see the promise and potency of all forms of matter.

In old Egyptian days a well-known inscription was carved over the portal of the temple of Isis: "I am whatever hath been, is, or ever will be; and my veil no man hath yet lifted." Not thus do modern seekers after truth confront Nature - the word that stands for the baffling mysteries of the Universe. Steadily, unflinchingly, we strive to pierce the inmost heart of Nature, from what she is to reconstruct what she has been, and to prophesy what she yet shall be. Veil after veil we have lifted, and her face grows more beautiful, august, and wonderful, with every barrier that is withdrawn.

The Reality of Katie King

- Author unknown -

THE READER may have gotten the impression from the earlier experiments entered in this journal that Victorian England took these reports from its leading physicist in stride. It is a tribute to Crookes that he makes small reference to the religious and scientific storm that swirled around him because of his investigations. He was regarded by many as a sort of Jekyll and Hyde, contributing monumental scientific discoveries on the one hand, and on the other, plunging into the depths of irrationalism. But nothing was comparable to the furious response that followed the first reports of his investigations with Florence Cook and the Katie King materialization. He and Florence Cook were bitterly attacked. This part of the journal begins with his reply to his critics.

If this criticism had any constructive purpose at all, it was to increase the vigilance of the observers and the numbers of witnesses requested to view and testify to the validity of the phenomena. It made Sir William and his associates more determined than ever to prove beyond doubt the objective reality of Katie King. It was known at this time that Sir William (he wasn't Sir William Crookes yet) was being considered for knighthood, and the outraged members of the scientific community and press militated against the conferring of this honour. They accused him of fraud, and of philandering with Florence Cook. But in 1897 despite the tumultuous controversy, he was knighted by the British Empire. It was a cutting blow to his critics.

Florence Cook (1856-1904) was one of three sisters. At fifteen, having attended a spectacular séance with her mother at the home of a friend, she resolved to be a medium. She had demonstrated abilities before, and with her new determination began to achieve dramatic results. After a few séances, to the utter astonishment of those present, the phantom form of a woman began to appear beside her. The materialization was alarmingly complete and, not surprisingly, Miss Cook was accused of trickery. To demonstrate her honesty she allowed herself to be bound, the knots of the cords were sealed, and she was placed in a tiny niche that restricted her movements. Still the phantom appeared and walked among those present. Word of the phenomenon spread quickly, and it was thus that Florence Cook came to the attention of Sir William Crookes. She was willing to submit to his controls, and they began their three-year series of experiments.

Cesare Lombroso spoke of the phenomenon. "The case of Katie King, which was for three years under the observation of the most eminent English experimenters, seems to me free of all suspicion ..."

Florence Marryat, another of the investigators, gave this testimony:

"Katie King stood by the wall of the room, with both arms extended, as if crucified. Three gas jets threw a bright light upon her. The effect was stupefying. She remained so for about one second, then began to disintegrate, her features becoming nebulous, the eyes retreating into their orbits, the nose disappeared, and then the brows, then the limbs seemed to drop apart to the floor. At last only part of the head and some white garments remained, then all vanished."

At a séance in the home of Mr. Luxmore, a participant without warning seized Katie by the wrist as she moved among them. He cried, "It's the medium!" Suddenly Katie lost her arms and legs. She dissolved in the captor's grasp, leaving no trace. Immediately after this episode, Miss Cook was examined and found still tied with the knots intact.

In an experiment Crookes conducted with Miss Cook, Mr. Tapp, an assistant, took hold of Katie's wrist. He said of this, "Her wrist gave way under my grasp like a piece of thin card or paper, and my fingers met through her arm as if it were fluid."

No one knew who Katie King was. She claimed to be the daughter of John King (the spirit contact of yet another medium, Eusapia Paladino), said she had lived in India, had been married and had slain her two children. None of this information was ever verified, and was of less interest to Sir William and his associates than' establishing her existence as an actual phantom.

As the sensational nature of the Katie King phenomena unfolded, and the testimony of credible witnesses plus the nature of the scientific controls were divulged the Episcopal Church entered the picture. Far from doubting the phenomenon, they accepted it as real, and attacked it on scriptural grounds, declaring it to be a positive proof of Satanism. Crookes, his colleagues and witnesses were accused of trafficking with the devil. The press, which had at first supported Crookes in anticipation of his exposure of "spiritist" manifestations, now swung to the popular opinion that Crookes was himself a hoaxster, possibly using the bizarre circumstance of Miss Cook's mediumship as a cover-up for an affair with her.

Actually, to dispose of the situation of Miss Cook's mediumship by explaining it in terms of Sir William's emotional susceptibility to her has its weaknesses. It implies that Sir William, who had heretofore displayed intelligence and discipline in his scientific pursuits, had suddenly become less than reliable. Most important, it does not take into account the objective observations of Varley and Wallace or the highly sophisticated controls that were set up before each séance in the presence of critical witnesses, who also confirmed the reality of the manifestations.

Katie King was photographed many times while the medium was in a

trance. The entrance and exit of a second person (an accomplice) was made impossible by the precautions taken. We cannot suppose that these investigators were for three years the witless victims of a trick such as the secret entrance and exit of a confederate working with Miss Cook. This was the first assumption against which precautions were taken. Furthermore, even the most skilled confederate could not dissolve bit by bit before the eyes of creditable witnesses viewing the event in gaslight. Nor could a confederate make her wrist so fluid that a thumb and forefinger could pass through it. Katie King's white robe is typical of ectoplasmic entities.

Shrenck-Notzing, during materialization with another medium, retained a small amount of ectoplasm. On analysis, it was composed of protein, fat and other organic substances. Very likely, it is this ectoplasmic formation that had led to the classic 'sheet' which is presumed to enshroud all ghosts.

It might be well at this point to consider the matter of ectoplasm in more detail. The word, invented by Dr. Charles Richet, is derived from the Greek *ektos* (without) and *plasm* (form). Dr. Richet, one of many critical observers of materialization phenomena, states: "I have clearly seen in conditions of good light, the ectoplasmic forms in the process of organization. Fraud under the conditions imposed was impossible. Rectilinear extensions emerge from the medium's body terminating and acting like a living hand ... at first the ectoplasmic limbs appear thin and stiff. Little by little they thicken, taking the form of more or less solid limbs.

"I personally in good light have seen the first lineaments of ectoplasm emerge as a kind of liquid or pasty jelly from the mouth or the breast of the medium. It organizes itself by degrees into the shape of a face or limb. Under these same conditions of good visibility I have, along with Schrenk-Notzing, Dr. Geley, Mine. Bisson, Zollner and Oliver Lodge, seen this paste spread on my knee and slowly take form so as to show the rudiments, of the radius, cubitus or metacarpal bone whose increasing pressure I could feel on my knee. The ectoplasmic cloud would seem to become living substance while at the same time veils develop around it that conceal the mechanism of its formation into ephemeral living tissue."

A microscopic analysis of a sufficient residue of this ectoplasmic substance was obtained by Schrenck-Notzing. It indicated epithelial cells, bacterial forms and substantial evidences of fat. It appeared entirely organic in nature, comprising matter equivalent to living tissue.

In the case of Katie King we have the extraordinary extension of the ectoplasmic form into an entity entirely separate from the medium. While this type of materialization is not unique it is, in the matter of documentation, one of the most important on record. We must not forget, however, that in many instances Katie King was a far from perfect

materialization, particularly when she appeared only to the waist in the remarkable incident reported at one séance. Mr. Varley had attached a galvanometer to Miss Cook, who was entranced on the sofa, so that any movement by her would be indicated on the galvanometer by a deflection of the needle. But there was no such deflection when Katie King appeared with only the upper part of her body materialized, though Mr. Varley was able to grasp her hand for all to see in the full view of the electric light.

The methods used to preclude fraud were far in excess of anything the average reader might be able to devise. With the aid of Varley and Wallace, Crookes set snares that made Miss Cook a virtual prisoner during the séances, though Sir William refers to them simply as "proper precautions." Reports by Varley go into greater detail. Let's examine the arrangements employed, none of which were ever explained to Miss Cook. First, before any of the controls were set, Miss Cook was inspected by a female member of the investigators to ensure that she had nothing on her person but the clothes she wore. Second, she was then admitted to the library, where she was situated for the duration of the séance. The room was thoroughly searched, the windows were closed and sealed with thread secured by imprinted wax over the knots. The door to the library was then closed, locked and secured in a similar manner. Third, Miss Cook, reposing on the couch, was wired by each wrist with a fragile platinum wire that ran from a battery source to a galvanometer in the laboratory. Any movement of the wire over the skin surface - or its removal - would change the resistance of the current flow and would be immediately detectable by the galvanometer. In some instances, she was even bound hand and foot with stout cord in addition to these other precautions. Fourth, the curtained entrance to the laboratory was crossed with fine wire, making it impossible to pass through without breaking a circuit connected to another galvanometer. Fifth, the windows and doors to the laboratory were sealed in the same fashion as those in the library, and the room was searched by each investigator.

Varley said:

"The medium was treated like a telegraphic cable. An electric current passed from her right wrist along her arm to her left wrist, as well as another circuit across the door into the laboratory. Despite all this the half-materialized form of Katie King appeared down to the waist only, the remainder of the body being missing or invisible. I held the hand of this strange being, and at the end of the séance, Katie told me to go and awaken the medium. I found Miss Cook entranced as I had left her, and all the wires intact. I then awakened Miss Cook."

In studying the room diagram, the reader may properly ask why the separate room and curtain were necessary to the phenomena; they tend to make the demonstration suspect. The answer to this must be that the arrangement appeared to facilitate the generation of the force. The

medium had to feel secure to achieve a trance condition.

Sir William satisfied his misgivings by entering the library with Katie King and seeing both the medium and the apparition together. In order for this to have been possible, the phenomenon must either have been real, or Miss Cook must have had an accomplice. The latter possibility was ruled out by the precautions taken against just such an eventuality. Further, an accomplice would have been in a fine position eventually to profit handsomely from the exposure of the hoax - but no such claim has ever come to light.

We are left then, if we do not accept the facts, with one alternative; we must conclude that all the investigators, regardless of their characters and prominence, were co-conspirators in a senseless fraud, the interception of which would have ruined them socially and professionally. It does more violence to one's common sense to believe this than to accept the phenomena as genuine.

To attack Crookes and his associates as frauds leaves much unanswered. How are we to consider his crucial lever experiments done in the presence of distinguished witnesses - was this fraud? Is it reasonable to suppose that after stating that he intended to expose men such as D. D. Home, Sir William would then resort to chicanery in the presence of skilled observers, and scientifically establish the powers that Home had claimed? What about the accordion experiments-was this mal-observation? Conspiratorial fraud? In the Katie King experiments were Varley and Wallace co-conspirators? If so, what were their reasons?

An examination of the record shows us that:

- 1) By the nature of the controls and the evidence of photographs and witness testimony, Florence Cook herself could not have produced Katie King fraudulently.
- 2) These same controls made participation of an accomplice impossible.
- 3) The premise of fraud requires the cooperation of all who were present. Motivation is not sufficient to support this theory.
- 4) This narrows the field to Crookes, Varley and Wallace, but there still isn't enough reason to suspect any involvement on the part of Varley and Wallace. (All three of them couldn't have been engaged in an affair with Miss Cook.)
- 5) This leaves Crookes, but it is still necessary to establish motivation. The only plausible one was a consuming passion for Miss Cook. But Crookes was aware of the insinuations and with the first sproutings of gossip, he saw to it that the supervision of the controls, the processing of

the photographs, the inspection of the medium, etc. were all conducted independently of his immediate supervision. His only invariable condition was that unannounced violent action would not be tolerated. Other than this, his collaborators were free to act and impose the most stringent controls.

It is reasonable to assume that his associates were aware of the rumour, and were human enough to keep a watchful eye during the séances to circumvent any involvement in what could, if it were true, explode into a spectacular scandal.

6) If the affair were conducted in the brazen fashion claimed we would have to credit Mrs. Crookes with unsurpassable naiveté. Any woman, no matter how devoted, would make certain such a situation could not exist in her home.

7) And lastly, how do we account for the later sittings of Florence Cook, in which Crookes had no part. These listed are just a few of the hundreds she gave until the time of her death in 1904. In the séances mentioned, the controls were such to preclude the possibility of fraud, but still spectacular phantom forms other than Katie King appeared.

1874 - Sittings under the direction of Prince Emil Sayn Wittenstein (London)

1879 - Sittings under the direction of Professor Robert Fries (London)

1898 - Sittings under the direction of Lieutenant Colonel Le Mesurier Taylor (Cheltenham)

1899 - Sittings under the direction of Dr. E. Andreak (Berlin)

1901 - Sittings under the direction of Captain F. N. Bennett (Gloucestershire)

Aside from Sir William Crookes' delightful style, wry humour and dignified restraint in describing even the most astounding occurrences, we can, perhaps, best determine the measure of the man by his address before the British Association, which follows his account of Miss Florence Cook's Mediumship.

Independent Testimony as to the Mediumship of Florence Cook - Arthur Conan Doyle -

THE MOST connected account of the mediumship of Miss Florence Cook, apart from that of Professor Crookes, is to be found in Miss Florence Marryat's "There is No Death," a most interesting book of practical experiences, which is now published in a very cheap edition (Rider & Co.). From it I make the following extracts. Miss Marryat, it should be added, was an excellent witness, all of whose statements have stood the test of time. At the time when Miss Marryat (Mrs. Ross-Church) met the medium, the latter had become Mrs. Elgie Corner.

"The first time," she writes, "that I ever met Florence Cook was in Mr. Dunphy's private house, when my little daughter appeared through her.

"On that occasion, as we were sitting at supper after the séance - a party of perhaps thirty people the whole dinner-table, with everything upon it, rose bodily in the air to a level with our knees, and the dishes and glasses swayed about in a perilous manner, without, however, coming to any permanent harm. I was so much astonished at, and interested by, what I saw that evening that I became most anxious to make the personal acquaintance of Miss Cook. She was the medium for the celebrated spirit, 'Katie King,' of whom so much has been believed and disbelieved, and the seances she gave at her parents' house in Hackney for the purpose of seeing this figure alone, used to be crowded by the cleverest and most scientific men of the day. Serjeants Cox and Ballantyne, Mr. S. C. Hall, Mr. Crookes, and many others being on terms of the greatest intimacy with her. Mr. Willia Harrison, of the 'Spiritualist' paper, was the one to procure me an introduction to the family and an entrance to the séances, for which I shall always feel grateful to him.

"The order of these séances was always the same. Miss Cook retired to a back room, divided from the audience by a thin damask curtain, and presently the form of 'Katie King' would appear dressed in white and walk out amongst the sitters in gaslight, and talk like one of themselves. Florence Cook, as I mentioned before, is a very small, slight brunette, with dark eyes and dark curly hair, and a delicate aquiline nose. Sometimes 'Katie' resembled her exactly; at others, she was totally different. Sometimes, too, she measured the same height as her medium; at others she was much taller. I have a large photograph of 'Katie' taken under limelight. In it she appears as the double of Florrie Cook, yet Florrie was looking on whilst the picture was taken. I have sat for her several times with Mr. Crookes, and seen the tests applied which are mentioned in his book on the subject. I have seen Florrie's dark curls nailed down to the floor outside the curtain, in view of the audience, whilst 'Katie' walked about and talked with us. I have seen Florrie placed on the scale of a weighing-machine constructed by Mr. Crookes for the

purpose, behind the curtain, whilst the balance remained in sight. I have seen under these circumstances that the medium weighed eight stone in a normal condition, and that as soon as the materialised form was fully developed, the balance ran up to four stone. Moreover, I have seen both Florrie and 'Katie' together on several occasions, so I can have no doubt on the subject that they were two separate creatures. Still, I can quite understand how difficult it must have been for strangers to compare the strong likeness that existed between the medium and the spirit, without suspecting that they were one and the same person. One evening 'Katie' walked out and perched herself upon my knee. I could feel she was a much plumper and heavier woman than Miss Cook, but she wonderfully resembled her in features, and I told her so. 'Katie' did not seem to consider it a compliment. She shrugged her shoulders, made a grimace, and said, 'I know I am; I can't help it, but I was much prettier than that in earth life. You shall see some day - you shall see.' After she had finally retired that evening she put her head out at the curtain again, and said, with the strong lisp she always had, 'I want Mrs. Ross-Church.'

"I rose and went to her, when she pulled me inside the curtain, when I found it was so thin that the gas shining through it from the outer room made everything in the inner quite visible. 'Katie' pulled my dress impatiently, and said, 'Sit down on the ground,' which I did. She then seated herself in my lap, saying, 'And now, dear, we'll have a good 'confab,' like women do on earth.' Florence Cook, meanwhile, was lying on a mattress on the ground close to us, wrapped in a deep trance. 'Katie' seemed very anxious I should ascertain beyond doubt that it was Florrie. 'Touch her,' she said. 'Take her hand, pull her curls. Do you see that it is Florrie lying there?' When I assured her I was quite satisfied there was no doubt of it, the spirit said, 'Then look round this way, and see what I was like in earth life.' I turned to the form in my arms, and what was my amazement to see a woman fair as the day, with large grey or blue eyes, a white skin and a profusion of golden red hair. 'Katie' enjoyed my surprise, and asked me, 'Ain't I prettier than Florrie now?' She then rose and procured a pair of scissors from the table and cut off a lock of her own hair and a lock of the medium's, and gave them to me. I have them safe to this day. One is almost black, soft and silky; the other coarse golden red. After she had made me this present, 'Katie,' said, 'Go back now, but don't tell the others to-night, or they'll all want to see me.' On another very warm evening she sat on my lap amongst the audience, and I felt perspiration on her arm. This surprised me, and I asked her if, for the time being, she had the veins, nerves and secretions of a human being; if blood ran through her body and she had a heart and lungs. Her answer was, 'I have everything that Florrie has.'

"On that occasion also she called me after her into the back room, and, dropping her white garment, stood perfectly naked before me. 'Now,' she said, 'you can see that I am a woman.' Which, indeed, she was, and a most beautifully-made woman, too, and I examined her well, whilst Miss Cook lay beside us on the floor. Instead of dismissing me this time, 'Katie' told me to sit down by the medium, and having brought me a

candle and matches, said I was to strike a light as soon as she gave three knocks, as Florrie would be hysterical on awaking and need my assistance. She then knelt down and kissed me, and I saw she was still naked. 'Where is your dress, Katie?' I asked. 'Oh, that's gone,' she said: 'I've sent it on before me.' As she spoke thus, kneeling beside me, she rapped three times on the floor. I struck the match almost simultaneously with the signal, but as it flared up 'Katie King' was gone like a flash of lightning, and Miss Cook, as she had predicted, awoke with a burst of frightened tears, and had to be soothed into tranquility again. On another occasion 'Katie King' was asked at the beginning of the séance by one of the company to say why she could not appear in the light of more than one gas burner. The question seemed to irritate her, and she replied, 'I have told you all, several times before, that I can't stay under a searching light. I don't know why, but I can't, and if you want to prove the truth of what I say, turn up all the gas and see what will happen to me. Only remember, if you do there will be no séance to-night, because I shan't be able to come back again, and you must take your choice.'

"Upon this assertion it was put to the vote if the trial should be made or not, and all present (Mr. S. C. Hall was one of the party) decided we would prefer to witness the effect of a full glare of gas upon the materialised form than to have the usual sitting, as it would settle the vexed question of the necessity of gloom (if not darkness) for a materialising séance for ever. We accordingly told 'Katie' of our choice, and she consented to stand the test, though she said afterwards we had put her to much pain. She took up her station against the drawing-room wall, with her arms extended as if she were crucified. Then three gas-burners were turned on to their full extent, in a room about sixteen feet square. The effect upon 'Katie King' was marvellous. She looked like herself for the space of a second only, then she began gradually to melt away. I can compare the dematerialisation of her form to nothing but a wax doll melting before a hot fire. First the features became blurred and indistinct; they seemed to run into each other. The eyes sunk in the sockets, the nose disappeared, the frontal bone fell in. Next the limbs appeared to give way under her, and she sank lower and lower on the carpet like a crumbling edifice. At last there 'was nothing but her head left above the ground; then a heap of white drapery only, which disappeared with a whisk, as if a hand had pulled it after her, and we were left staring by the light of three gas-burners, at the spot on which 'Katie King' had stood(1).

(1) Some discredit was cast upon this account, and even so high an authority as Sir Oliver Lodge was misled by the assertion of Sir William that he did not witness it. An examination of Miss Marryat's evidence will show that she never claimed that he did.

"She was always attired in white drapery, but it varied in quality. Sometimes it looked like long cloth; at others like mull muslin or jaconet; oftenest it was a species of thick cotton net. The sitters were much given to asking 'Katie' for a piece of her dress to keep, as a souvenir of their

visit, and when they received it would seal it up carefully in an envelope and convey it home, and were much surprised, on examining their treasure, to find it had totally disappeared.

"'Katie' used to say that nothing material about her could be made to last without taking away some of the medium's vitality and weakening her in consequence. One evening, when she was cutting off pieces of her dress rather lavishly, I remarked that it would require a great deal of mending. She answered, 'I'll show you how we mend dresses in the Spirit World.' She then doubled up the front breadth of her garment a dozen times and cut two or three round holes in it. I am sure, when she let it fall again, there must have been thirty or forty holes, and 'Katie' said, 'Isn't that a nice cullender?'

"She then commenced, whilst we stood close to her, to shake her skirt gently about, and in a minute it was as perfect as before, without a hole to be seen. When we expressed our astonishment, she told me to take the scissors and cut off her hair. She had a profusion of ringlets falling to her waist that night. I obeyed religiously, hacking the hair wherever I could, whilst she kept on saying, 'Cut more! cut more! not for yourself, you know, because you can't take it away!'

"So I cut off curl after curl, and as fast as they fell to the ground the hair grew again upon her head. When I had finished, 'Katie' asked me to examine her hair to see if I could detect any place where I had used the scissors, and I did so without any effect. Neither was the severed hair to be found. It had vanished out of sight. 'Katie' was photographed many times by limelight by Mr. Alfred Crookes, but her portraits are all too much like her medium to be of any value in establishing her claim to a separate identity. She had always stated she should not appear on this earth after the month of May, 1874, and accordingly, on the 21st she assembled her friends to say 'Good-bye' to them, and I was one of the number. 'Katie' had asked Miss Cook to provide her with a large basket of flowers and ribbons, and she sat on the floor and made up a bouquet for each of her friends to keep in remembrance of her.

"Mine, which consists of lilies of the valley and pink geranium, looks almost as fresh to-day, nearly seventeen years after, as it did when she gave it to me. It was accompanied by the following words, which 'Katie' wrote on a sheet of paper in my presence:

'From Annie Owen de Morgan (alias "Katie") to her friend, Florence Marryat Ross-Church. With love. Pensez a moi.- May 21st, 1874.'

"The farewell scene was as pathetic as if we had been parting with a dear companion by death. 'Katie' herself did not seem to know how to go. She returned again and again to have a last look, especially at Mr. Crookes, who was as attached to her as she was to him. Her prediction has been fulfilled, and from that day Florence Cook never saw her again nor heard anything about her. Her place was shortly filled by another

influence, who called herself 'Marie.' and who danced and sung in a truly professional style, and certainly as Miss Cook never either danced or sung. I should not have mentioned the appearance of this spirit, whom I only saw once or twice, excepting for the following reason. On one occasion Miss Cook (then Mrs. Corner) was giving a public seance at the rooms of the National British Association of Spiritualists, at which a certain Sir George Sitwell, a very young man, was present, and at which he declared that the medium cheated, and that the spirit 'Marie' was herself, dressed up to deceive the audience. Letters appeared in the newspapers about it, and the whole press came down upon Spiritualists, and declared them all to be either knaves or fools. These notices were published on the morning of a day on which Miss Cook was engaged to give another public séance, at which I was present. She was naturally very much cut up about them. Her reputation was at stake; her honour had been called into question, and being a proud girl, she resented it bitterly. Her present audience was chiefly composed of friends, but, before commencing, she put it to us whether, whilst under such a stigma, she had better not sit at all. We, who had all tested her and believed in her, were unanimous in repudiating the vile charges brought against her, and in begging the séance should proceed. Florrie refused, however, to sit unless someone remained in the cabinet with her, and she chose me for the purpose. I was, therefore, tied to her securely with a stout rope, and we remained thus fastened together for the whole of the evening. Under which conditions 'Marie' appeared, and sung and danced outside the cabinet, just as she had done to Sir George Sitwell, whilst her medium remained tied to me. So much for men who decide a matter before they have sifted it to the bottom. Mrs. Elgie Corner has long since given up mediumship, either private or public, and lives deep down in the heart of Wales, where the babble and scandal of the city affect her no longer. But she told me, only last year, that she would not pass through the suffering she had endured on account of Spiritualism again for all the good this, world could give her."

One point which will strike the critic in this account is the remark that sometimes the spirit form would exactly resemble the medium, while at other times it would be totally different. Every experienced investigator has had the same result. Working with Miss Bessinet, I have frequently seen faces which were identical with her own, and afterwards those which could not possibly have been hers - two appearing sometimes at the same moment. The natural explanation would be that it actually is the medium's face, and if she be in a trance state it is possible that such an explanation would be innocent as well as true, the forces which controlled her using her as best they could when the conditions did not admit of materialisation. Sometimes the medium's own form may be used with ectoplasmic additions. Thus the great German authority, Dr. Schrenck-Notzing, says, in talking of one of the photographs of "Eva," taken with ectoplasmic drapery around her(2):

"The photograph is interesting as throwing a light on the genesis of the so-called 'transfiguration,' i.e., the medium takes upon herself the part of

the spirit, endeavouring to dramatise the character of the person in question by clothing herself in the materialized fabrics. This transition stage is found in nearly all materializing mediums. The literature of the subject records a large number of attempts at the exposure of mediums thus impersonating 'spirits,' e.g., that of the medium Bastian by the Crown Prince Rudolph, that of Crookes' medium, Miss Cook; that of Mrs. d'Esperance, etc. In all these cases the medium was seized, but the fabrics used for masking immediately disappeared and were not afterwards found."

(2) "The Phenomena of Materialisation" (English translation), page 97.

The case of the alleged exposure of Mrs. Corner seemed to have been exactly as Dr. Schrenck-Notzing describes, and such incidents bringing undeserved reproach upon the medium will always occur if the sitters do not take the precaution of securely fastening him or her. Experienced mediums are aware of this, and take precautions accordingly. The writer can well remember having a sitting with the famous medium, Evan Powell, in the privacy of his own bedroom. Powell insisted upon being tied up, and on the writer remarking that such a precaution was unnecessary, since long experiment had quite convinced him of his honesty, he answered: "I must insist upon it as a protection for myself. How can I answer for what I may do when I am unconscious in a trance? I might unconsciously wander round the room, and you, finding me doing so, would lose confidence in me for ever." This saying throws a strong light upon such cases as the alleged exposure of Mrs. Corner by Major Sitwell and others. In that case all present testified to the appearance of white garments, while the medium, when seized, had nothing of the sort.

My Spirit Child

- by Florence Marryat -

Taken from Florence Marryat's book "There is no Death" Chapter VIII

THE SAME year that John Powles died, 1860, I passed through the greatest trouble of my life. It is quite unnecessary to my narrative to relate what that trouble was, nor how it affected me, but I suffered terribly both in mind and body, and it was chiefly for this reason that the medical men advised my return to England, which I reached on the 14th of December, and on the 30th of the same month a daughter was born to me, who survived her birth for only ten days. The child was born with a most peculiar blemish, which it is necessary for the purpose of my argument to describe. On the left side of the upper lip was a mark as though a semicircular piece of flesh had been cut out by a bullet-mould, which exposed part of the gum. The swallow also had been submerged into the gullet, so that she had for the short period of her earthly existence to be fed by artificial means, and the jaw itself had been so

twisted that could she have lived to cut her teeth, the double ones would have been in front. This blemish was considered to be of so remarkable a type that Dr. Frederick Butler of Winchester, who attended me, invited several other medical men from Southampton and other places, to examine the infant with him, and they all agreed that a similar case had never come under their notice before. This is a very important factor in my narrative. I was closely catechized as to whether I had suffered any physical or mental shock, that should account for the injury to my child, and it was decided that the trouble I had experienced was sufficient to produce it. The case, under feigned names, was fully reported in the *Lancet* as something quite out of the common way. My little child, who was baptized by the name of "Florence," lingered until the 10th of January, 1861, and then passed quietly away, and when my first natural disappointment was over I ceased to think of her except as of something which "might have been," but never would be again. In this world of misery, the loss of an infant is soon swallowed up in more active trouble. Still I never quite forgot my poor baby, perhaps because at that time she was happily the "one dead lamb" of my little flock. In recounting the events of my first séance with Mrs. Holmes, I have mentioned how a young girl much muffled up about the mouth and chin appeared, and intimated that she came for me, although I could not recognize her. I was so ignorant of the life beyond the grave at that period, that it never struck me that the baby who had left me at ten days old had been growing since our separation, until she had reached the age of ten years.

The first séance made such an impression on my mind that two nights afterwards I again presented myself (this time alone) at Mrs. Holmes' rooms to attend another. It was a very different circle on the second occasion. There were about thirty people present, all strangers to each other, and the manifestations were proportionately ordinary. Another professional medium, a Mrs. Davenport, was present, as one of her controls, whom she called "Bell," had promised, if possible, to show her face to her. As soon, therefore, as the first spirit face appeared (which was that of the same little girl that I had seen before), Mrs. Davenport exclaimed, "There, 'Bell ... Why!" I said, "that's the little nun we saw on Monday." "O! no! that's my 'Bell'," persisted Mrs. Davenport. But Mrs. Holmes took my side, and was positive the spirit came for me. She told me she had been trying to communicate with her since the previous séance. "I know she is nearly connected with you," she said. "Have you never lost a relation of her age?" "Never!" I replied; and at that declaration the little spirit moved away, sorrowfully as before.

A few weeks after I received an invitation from Mr. Henry Dunphy (the gentleman who had introduced me to Mrs. Holmes) to attend a private séance given at his own house in Upper Gloucester Place, by the well-known medium Florence Cook. The double drawing-rooms were divided by velvet curtains, behind which Miss Cook was seated in an armchair, the curtains being pinned together half-way up, leaving a large aperture in the shape of a V. Being a complete stranger to Miss Cook, I was surprised to hear the voice of her control direct that I should stand by the

curtains and hold the lower parts together whilst the forms appeared above, lest the pins should give way, and necessarily from my position I could hear every word that passed between Miss Cook and her guide. The first face that showed itself was that of a man unknown to me; then ensued a kind of frightened colloquy between the medium and her control. "Take it away. Go away! I don't like you. Don't touch me - you frighten me! Go away!" I heard Miss Cook exclaim, and then her guide's voice interposed itself, "Don't be silly, Florrie. Don't be unkind. It won't hurt you," etc., and immediately afterwards the same little girl I had seen at Mrs. Holmes' rose to view at the aperture of the curtains, muffled up as before, but smiling with her eyes at me. I directed the attention of the company to her, calling her again "my little nun," I was surprised, however, at the evident distaste Miss Cook had displayed towards the spirit, and when the séance was concluded and she had regained her normal condition, I asked her if she could recall the faces she saw under trance. "Sometimes," she replied. I told her of the "little nun," and demanded the reason of her apparent dread of her. "I can hardly tell you," said Miss Cook; "I don't know anything about her. She is quite a stranger to me, but her face is not fully developed, I think. There is something wrong about her mouth. She frightens me.

This remark, though made with the utmost carelessness, set me thinking, and after I had returned home, I wrote to Miss Cook, asking her to inquire of her guides who the little spirit was.

She replied as follows:

"Dear Mrs. Ross-Church, I have asked Katie King, but she cannot tell me anything further about the spirit that came through me the other evening than that she is a young girl closely connected with yourself."

I was not, however, yet convinced of the spirit's identity, although John Powles constantly assured me that it was my child. I tried hard to communicate with her at home, but without success. I find in the memoranda I kept of our private séances at that period several messages from Powles referring to Florence. In one he says, "Your child's want of power to communicate with you is not because she is too pure, but because she is too weak. She will speak to you some day. She is not in heaven." This last assertion, knowing so little as I did of a future state, both puzzled and grieved me. I could not believe that an innocent infant was not in the Beatific Presence - yet I could not understand what motive my friend could have in leading me astray. I had yet to learn that once received into Heaven no spirit could return to earth, and that a spirit may have a training to undergo, even though it has never committed a mortal sin. A further proof, however, that my dead child had never died was to reach me from a quarter where I least expected it. I was editor of the magazine London Society at that time, and amongst my contributors was Dr. Keningale Cook, who had married Mabel Collins, the now well-known writer of spiritualistic novels. One day Dr. Cook brought me an invitation from his wife (whom I had never met) to spend Saturday to

Monday with them in their cottage at Redhill, and I accepted it, knowing nothing of the proclivities of either of them, and they knowing as little of my private history as I did of theirs. And I must take this opportunity to observe that, at this period, I had never made my lost child the subject of conversation even with my most intimate friends. The memory of her life and death, and the troubles that caused it, was not a happy one, and of no interest to any but myself. So little, therefore, had it been discussed amongst us that until Florence reappeared to revive the topic, my elder children were ignorant that their sister had been marked in any way differently from themselves. It may, therefore, be supposed how unlikely it was that utter strangers and public media should have gained any inkling of the matter. I went down to Redhill, and as I was sitting with the Keningale Cooks after dinner, the subject of Spiritualism came on the tapis, and I was informed that the wife was a powerful trance medium, which much interested me, as I had not, at that period, had any experience of her particular class of mediumship. In the evening we "sat" together, and Mrs. Cook having become entranced, her husband took shorthand notes of her utterances. Several old friends of their family spoke through her, and I was listening to them in the listless manner in which we hear the conversation of strangers, when my attention was aroused by the medium suddenly leaving her seat, and falling on her knees before me, kissing my hands and face, and sobbing violently the while. I waited in expectation of hearing who this might be, when the manifestations as suddenly ceased, the medium returned to her seat, and the voice of one of her guides said that the spirit was unable to speak through excess of emotion, but would try again later in the evening. I had almost forgotten the circumstances in listening to other communications, when I was startled by hearing the word "Mother!" sighed rather than spoken. I was about to make some excited reply, when the medium raised her hand to enjoin silence, and the following communication was taken down by Mr. Cook as she pronounced the words. The sentences in parentheses are my replies to her.

"Mother! I am Florence. I must be very quiet. I want to feel I have a mother still. I am so lonely. Why should I be so? I cannot speak well. I want to be like one of you. I want to feel I have a mother and sisters. I am so far away from you all now.

("But I always think of you, my dear dead baby.")

"That's just it - your baby. But I'm not a baby now. I shall get nearer. They tell me I shall. I do not know if I can come when you are alone. It's all so dark. I know you are there, but so dimly. I've grown all by myself. I'm not really unhappy, but I want to get nearer you. I know you think of me, but you think of me as a baby. You don't know me as I am. You've seen me, because in my love I have forced myself upon you. I've not been amongst the flowers yet, but I shall be, very soon now; but I want my mother to take me there. All has been given me that can be given me, but I cannot receive it, except in so far -"

Here she seemed unable to express herself.

("Did the trouble I had before your birth affect your spirit, Florence?")

"Only as things cause each other. I was with you, Mother, all through that trouble. I should be nearer to you, than any child you have, if I could only get close to you."

("I can't bear to hear you speak so sadly, dear. I have always believed that you, at least, were happy in Heaven.")

"I am not in Heaven! But there will come a day, Mother - I can laugh when I say it - when we shall go to Heaven together and pick blue flowers - blue flowers. They are so good to me here, but if your eye cannot bear the daylight you cannot see the buttercups and daisies."

I did not learn till afterwards that in the spiritual language blue flowers are typical of happiness. The next question I asked her was if she thought she could write through me. "I don't seem able to write through you, but why, I know not."

("Do you know your sisters, Eva and Ethel?")

"No! no! in a weary voice. "The link of sisterhood is only through the mother. That kind of sisterhood does not last, because there is a higher."

("Do you ever see your father?")

"No! he is far, far away. I went once, not more. Mother dear, he'll love me when he comes here. They've told me so, and they always tell truth here! I am but a child, yet not so very little. I seem composed of two things - a child in ignorance and a woman in years. Why can't I speak at other places? I have wished and tried! I've come very near, but it seems so easy to speak now. This medium seems so different."

("I wish you could come to me when I am alone, Florence.")

"You shall know me! I will come, Mother dear. I shall always be able to come here. I do come to you., but not in the same way."

She spoke in such a plaintive, melancholy voice that Mrs. Cook, thinking she would depress my spirits, said, "Don't make your state out to be sadder than it really is." Her reply was very remarkable.

"I am, as I am! Friend! when you come here, if you find that sadness is, you will not be able to alter it by plunging into material pleasures. Our sadness makes the world we live in. It is not deeds that make us wrong. It is the state in which we were born. Mother! you say I died sinless. That is nothing. I was born in a state. Had I lived, I should have caused you more pain than you can know. I am better here. I was not fit to battle with

the world, and they took me from it. Mother! you won't let this make you sad. You must not."

("What can I do to bring you nearer to me?")

"I don't know what will bring me nearer, but I'm helped already by just talking to you. There's a ladder of brightness every step. I believe I've gained just one step now. O! the Divine teachings are so mysterious. Mother! does it seem strange to you to hear your 'baby' say things as if she knew them? I'm going now. Good-bye!"

And so Florence went. The next voice that spoke was that of a guide of the medium, and I asked her for a personal description of my daughter as she then appeared. She replied, "Her face is downcast. We have tried to cheer her, but she is very sad. It is the state in which she was born. Every physical deformity is the mark of a condition. A weak body is not necessarily the mark of a weak spirit, but the prison of it, because the spirit might be too passionate otherwise. You cannot judge in what way the mind is deformed because the body is deformed. It does not follow that a canker in the body is a canker in the mind. But the mind may be too exuberant - may need a canker to restrain it."

I have copied this conversation, word for word, from the shorthand notes taken at the time of utterance; and when it is remembered that neither Mrs. Keningale Cook nor her husband knew that I had lost a child - that they had never been in my house nor associated with any of my friends - it will at least be acknowledged, even by the most sceptical, that it was a very remarkable coincidence that I should receive such a communication from the lips of a perfect stranger. Only once after this did Florence communicate with me through the same source. She found congenial media nearer home, and naturally availed herself of them. But the second occasion was almost more convincing than the first. I went one afternoon to consult my solicitor in the strictest confidence as to how I should act under some very painful circumstances, and he gave me his advice. The next morning as I sat at breakfast, Mrs. Cook, who was still living at Redhill, ran into my room with an apology for the unceremoniousness of her visit, on the score that she had received a message for me the night before which Florence had begged her to deliver without delay. The message was to this effect: "Tell my mother that I was with her this afternoon at the lawyer's, and she is not to follow the advice given her, as it will do harm instead of good." Mrs. Cook added, "I don't know to what Florence alludes, of course, but I thought it best, as I was coming to town, to let you know at once."

The force of this anecdote does not lie in the context. The mystery is contained in the fact of a secret interview having been overheard and commented upon. But the truth is, that having greater confidence in the counsel of my visible guide than in that of my invisible one, I abided by the former, and regretted it ever afterwards.

The first conversation I held with Florence had a great effect upon me. I knew before that my uncontrolled grief had been the cause of the untimely death of her body, but it had never struck me that her spirit would carry the effects of it into the unseen world. It was a warning to me (as it should be to all mothers) not to take the solemn responsibility of maternity upon themselves without being prepared to sacrifice their own feelings for the sake of their children. Florence assured me, however, that communion with myself in my improved condition of happiness would soon lift her spirit from its state of depression and consequently I seized every opportunity of seeing and speaking with her.

During the succeeding twelve months I attended numerous séances with various media, and my spirit child (as she called herself) never failed to manifest through the influence of any one of them, though, of course, in different ways. Through some she touched me only, and always with an infant's hand, that I might recognize it as hers, or laid her mouth against mine that I might feel the scar upon her lips; through others she spoke, or wrote, or showed her face, but I never attended a séance at which she omitted to notify her presence. Once at a dark circle, held with Mr. Charles Williams, after having had my dress and that of my next neighbour, Lady Archibald Campbell, pulled several times, as if to attract our attention, the darkness opened before us, and there stood my child, smiling at us like a happy dream, her fair hair waving about her temples, and her blue eyes fixed on me. She was clothed in white, but we saw no more than her head and bust, about which her hands held her drapery. Lady Archibald Campbell saw her as plainly as I did. On another occasion Mr. William Eglinton proposed to me to try and procure the spirit-writing on his arm. He directed me to go into another room and write the name of the friend I loved best in the spirit world upon a scrap of paper, which I was to twist up tightly and take back to him. I did so, writing the name of "John Powles." When I returned to Mr. Eglinton, he bared his arm, and holding the paper to the candle till it was reduced to tinder, rubbed his flesh with the ashes. I know what was expected to ensue. The name written on the paper was to reappear in red or white letters on the medium's arm. The sceptic would say it was a trick of thought-reading, and that, the medium knowing what I had written, had prepared the writing during my absence. But to his surprise and mine, when, at last he shook the ashes from his arm, we read, written in a bold, clear hand, the words - 'Florence is the dearest, ' as though my spirit child had given me a gentle rebuke for writing any name but her own. It seems curious to me now to look back and remember how melancholy she used to be when she first came back to me, for as soon as she had established an unbroken communication between us, she developed into the merriest little spirit I have ever known, and though her childhood has now passed away, and she is more dignified and thoughtful and womanly, she always appears joyous and happy. She has manifested largely to me through the mediumship of Mr. Arthur Colman. I had known her during a dark séance with a very small private circle (the medium being securely held and fastened the while) run about the room, like the child she was, and speak to and kiss each sitter in turn, pulling

off the sofa and chair covers and piling them up in the middle of the table, and changing the ornaments of everyone present—placing the gentlemen's neckties round the throats of the ladies, and hanging the ladies' earrings in the buttonholes of the gentlemen's coats - just as she might have done had she been still with us, a happy, petted child, on earth. I have known her come in the dark and sit on my lap and kiss my face and hands, and let me feel the defect in her mouth with my own. One bright evening on the 9th of July - my birthday - Arthur Colman walked in quite unexpectedly to pay me a visit, and as I had some friends with me, we agreed to have a séance. It was impossible to make the room dark, as the windows were only shaded by venetian blinds, but we lowered them, and sat in the twilight. The first thing we heard was the voice of Florence whispering, "A present for dear Mother's birthday," when something was put into my hand. Then she crossed to the side of a lady present and dropped something into her hand, saying, "And a present for dear Mother's friend!" I knew at once by the feel of it that what Florence had given me was a chaplet of beads, and knowing how often, under similar circumstances, articles are merely carried about a room, I concluded it was one which lay upon my drawing-room mantelpiece, and said as much. I was answered by the voice of "Aimee", the medium's nearest control.

"You are mistaken," she said, "Florence has given you a chaplet you have never seen before. She was exceedingly anxious to give you a present on your birthday, so I gave her the beads which were buried with me. They came from my coffin. I held them in my hand. All I ask is that you will not show them to Arthur until I give you leave. He is not well at present, and the sight of them will upset him."

I was greatly astonished, but, of course, I followed her instructions, and when I had an opportunity to examine the beads, I found that they really were strangers to me, and had not been in the house before. The present my lady friend had received was a large, unset topaz. The chaplet was made of carved wood and steel. It was not till months had elapsed that I was given permission to show it to Arthur Colman. He immediately recognized it as the one he had himself placed in the hands of "Aimee" as she lay in her coffin, and when I saw how the sight affected him, I regretted I had told him anything about it. I offered to give the beads up to him, but he refused to receive them, and they remain in my possession to this day.

But the great climax that was to prove beyond all question the personal identity of the spirit who communicated with me, with the body I had brought into the world, was yet to come. Mr. William Harrison, the editor of the *Spiritualist* (who, after seventeen years' patient research into the science of Spiritualism, had never received a personal proof of the return of his own friends, or relations) wrote me word that he had received a message from his lately deceased friend, Mrs. Stewart, to the effect that if he would sit with the medium Florence Cook, and one or two harmonious companions, she would do her best to appear to him in her

earthly likeness and afford him the test he had so long sought after. Mr. Harrison asked me, therefore, if I would join him and Miss Kidlingbury - the secretary to the British National Association of Spiritualists - in holding a séance with Miss Cook, to which I agreed, and we met in one of the rooms of the Association for that purpose. It was a very small room, about 8 feet by 16 feet, was uncarpeted and contained no furniture, so we carried in three cane-bottomed chairs for our accommodation. Across one corner of the room, about four feet from the floor, we nailed an old black shawl, and placed a cushion behind it for Miss Cook to lean her head against. Miss Florence Cook, who is a brunette, of a small, slight figure, with dark eyes and hair which she wore in a profusion of curls, was dressed in light grey merino, ornamented with crimson ribbons. She informed me previous to sitting, that she had become restless during her trances lately, and in the habit of walking out amongst the circle, and she asked me as a friend (for such we had by that time become) to scold her well should such a thing occur, and order her to go back into the cabinet as if she were "a child or a dog and I promised her I would do so. After Florence Cook had sat down on the floor, behind the black shawl (which left her grey merino skirt exposed), and laid her head against the cushion, we lowered the gas a little, and took our seats on the three cane chairs. The medium appeared very uneasy at first, and we heard her remonstrating with the influences for using her so roughly. In a few minutes, however, there was a tremulous movement of the black shawl, and a large white hand was several times thrust into view and withdrawn again. I had never seen Mrs. Stewart (for whom we were expressly sitting) in this life, and could not, therefore, recognize the hand; but we all remarked how large and white it was. In another minute the shawl was lifted up, and a female figure crawled on its hands and knees from behind it, and then stood UP and regarded us. It was impossible, in the dim light and at the distance she stood from us, to identify the features, so Mr. Harrison asked if she were Mrs. Stewart. The figure shook its head. I had lost a sister a few months previously, and the thought flashed across me that it might be her. "Is it you, Emily?" I asked; but the head was still shaken to express a negative, and a similar question on the part of Miss Kidlingbury, with respect to a friend of her own, met with the same response. "Who can it be?" I remarked curiously to Mr. Harrison.

"Mother! don't you know me?" sounded in Florence's whispering voice. I started up to approach her exclaiming, "O! my darling child! I never thought I should meet you here!" But she said, "Go back to your chair, and I will come to you?" I reseated myself, and Florence crossed the room come and sat down on my lap. She was more unclothed on that occasion than any materialized spirit I have ever seen. She wore nothing on her head, only her hair, of which she appears to have an immense quantity, fell down her back and covered her shoulders. Her arms were bare and her feet part of her legs, and the dress she wore had no shape, but seemed like so many yards of soft thick muslin, wound round her body from the bosom to below the knees. She was a heavy weight - perhaps ten stone - and had well covered limbs. In fact, she was then,

and has appeared for several years past, to be, in point of size and shape, so like her oldest sister Eva, that I always observe the resemblance between them. This séance took place at a period when Florence must have been about seventeen years old.

"Florence, my darling," I said, "is this really you" "Turn the gas," she answered, "and look at my mouth." Mr. Harrison did as she desired, and we all saw distinctly that peculiar defect on the lip with which she was born - a defect, be remembered, which some of the most experienced members the profession had affirmed to be "so rare as never to have fallen under their notice before." She also opened her mouth that I might see she had no gullet. I promised at the commencement of my book to confine myself to facts, and leave the deductions to be drawn from them to my readers, so I will not interrupt my narrative to make any remarks upon this controvertible proof of identity. I know it struck me dumb, and melted me into tears. At this juncture Miss Cook, who had been moaning and moving about a good deal behind black shawl, suddenly exclaimed, "I can't stand this any longer," and walked out into the room. There she stood in her dress and crimson ribbons whilst Florence sat on my lap in white drapery. But only for a moment, for directly the medium, was fully in view, the spirit sprung up and darted behind the curtain. Recalling Miss Cook's injunctions to me, I scolded her heartily for leaving her seat, until she crept back, whimpering, to her former position. The shawl had scarcely closed behind her before Florence reappeared and clung to me saying, "Don't let her do that again. She frightens me so." She was actually trembling all over. "Why, Florence," I replied, "do you mean to tell me you are frightened of your medium? In this world it is we poor mortals who are frightened of the spirits." "I am afraid she will send me away, Mother," she whispered. However, Miss Cook did not disturb us again, and Florence stayed with us for some time longer. She clasped her arms round my neck, and laid her head upon my bosom, and kissed me dozens of times. She took my hand and spread it out, and said she felt sure I should recognize her hand when she thrust it outside the curtain, because it was so much like my own. I was suffering much trouble at that time, and Florence told me the reason God had permitted her to show herself to me in her earthly deformity was so that I might be sure that she was herself, and that Spiritualism was a truth to comfort me. "Sometimes you doubt, Mother," she said, "and think your eyes and ears have misled you; but after this you must never doubt again. Don't fancy I am like this in the spirit land. The blemish left me long ago. But I put it on tonight to make you certain. Don't fret, dear Mother. Remember I am always near you. No one can take me away. Your earthly children may grow up and go out into the world and leave you, but you will always have your spirit child close to you." I did not, and cannot, calculate for how long Florence remained visible on that occasion. Mr. Harrison told me afterwards that she had remained for nearly twenty minutes. But her undoubted presence was such a stupendous fact to me, that I could only think that she was there-that I actually held in my arms the tiny infant I had laid with my own hands in her coffin - that she was no more dead than I was myself, but had grown to be a woman. So I sat, with my arms

tight round her, and my heart beating against hers, until the power decreased, and Florence was compelled to give me a last kiss and leave me stupefied and bewildered by what had so unexpectedly occurred. Two other spirits materialized and appeared after she had left us, but as neither of them was Mrs. Stewart, the séance, as far as Mr. Harrison was concerned, was a failure. I have seen and heard Florence on numerous occasions since the one I have narrated, but not with the mark upon her mouth, which she assures me will never trouble either of us again. I could fill pages with accounts of her pretty, caressing ways and her affectionate and sometimes solemn messages; but I have told as much of her story as will interest the general reader. It has been wonderful to me to mark how her ways and mode of communication have changed with the passing years. It was a simple child who did not know how to express itself that appeared to me in 1873. It is a woman full of counsel and tender warning that comes to me in 1890. But yet she is only nineteen. When she reached that age, Florence told me she should never grow any older in years or appearance, and that she had reached the climax of womanly perfection in the spirit world. Only tonight--the night before Christmas Day - as I write her story, she comes to me and says, "Mother! you must not give way to sad thoughts. The Past is past. Let it be buried in the blessings that remain to you."

And amongst the greatest of those blessings I reckon my belief in the existence of my spirit-child.