

NOTICES OF BOOKS.

Mesmerism, Spiritualism, &c., Historically and Scientifically Considered. Being Two Lectures delivered at the London Institution, with Preface and Appendix. By WILLIAM B. CARPENTER, C.B., M.D., F.R.S., &c., &c. London: Longmans, Green, and Co., 1877.

THE two lectures which Dr. Carpenter gave last year at the London Institution were generally reported by the press and led to some controversy. They were then published in Fraser's Magazine; and they are now re-published with what are considered to be *pièces justificatives* in an appendix. We may therefore fairly assume that the author has here said his best on the subject—that he has carefully considered his facts and his arguments—and that he can give, in his own opinion at least, good reasons for omitting to notice certain matters which seem essential to a fair and impartial review of the whole question.

Dr. Carpenter enjoys the great advantage, which he well knows how to profit by, of being on the popular side, and of having been long before the public as an expounder of popular and educational science. Everything he writes is widely read; and his reiterated assurances that nobody's opinion and nobody's evidence on this particular subject is of the least value unless they have had a certain *special early training* (of which, it is pretty generally understood, Dr. Carpenter is one of the few living representatives) have convinced many people that what he tells them must be true and should therefore settle the whole matter. He has another advantage in the immense extent and complexity of the subject and the widely scattered and controversial nature of its literature. By ranging over this wide field and picking here and there a fact to support his views and a statement to damage his opponents, Dr. Carpenter has rendered it almost impossible to answer him on every point, without an amount of detail and research that would be repulsive to ordinary readers. It is necessary therefore to confine ourselves to the more important questions, where the facts are tolerably accessible and the matter can be brought to a definite issue; though, if space permitted, there is hardly a page of the book in which we should not find expressions calling for strong animadversion, as, for example, the unfounded and totally false general assertion at p. 6, that "believers in spiritualism make it a reproach against men of science that they entertain a prepossession in favour of the ascertained and universally admitted laws of nature." Vague general assertions of this kind, without a particle of proof offered or which can be offered, are alone suffi-

cient to destroy the judicial or scientific claims of the work ; but we have no intention of wasting space in further comment upon them.

Dr. Carpenter lays especial stress on his character of historian and man of science in relation to this enquiry. He parades this assumption in his title page and at the very commencement of his preface. He claims therefore to review the case as a judge, giving full weight to the evidence on both sides, and pronouncing an impartial and well-considered judgment. He may, indeed, believe that he has thus acted—for dominant ideas are very powerful—but any one tolerably acquainted with the literature and history of these subjects for the last thirty years, will most assuredly look upon this book as the work of an advocate rather than of a judge. In place of the impartial summary of the historian he will find the one-sided narrative of a partisan ; and, instead of the careful weighing of fact and experiment characteristic of the man of science, he will find loose and inaccurate statements, and negative results set up as conclusive against positive evidence. We will now proceed to demonstrate the truth of this grave accusation, and shall in every case refer to the authorities by means of which our statements can be tested.

The first example of Dr. Carpenter's "historical" mode of treating his subject which we shall adduce, is his account (pp. 13 to 15) of the rise of mesmerism in this country owing to the successful performance of many surgical operations without pain during the mesmeric trance. Dr. Carpenter writes of this as not only an admitted fact, but (so far as any word in his pages shows), as a fact which was admitted from the first, and which never went through that ordeal of denial, misrepresentation, and abuse by medical men and physiologists that other phenomena are still undergoing from a similar class of men. Yet Dr. Carpenter was in the thick of the fight and must know all about it. He must know that the greatest surgical and physiological authorities of that day—Sir Benjamin Brodie and Dr. Marshall Hall—opposed it with all the weight of their influence, accused the patients of imposture, or asserted that they might be "naturally insensible to pain," and spoke of the experiments of Dr. Elliotson and others as "trumpery," and as "polluting the temple of science." He must know, too, that Dr. Marshall Hall professed to demonstrate "physiologically" that the patients were impostors, because certain reflex-actions of the limbs which he declared ought to have occurred during the operations did not occur. The medical periodicals of the day were full of this, and a good summary may be found in Dr. Elliotson's "Surgical Operations without Pain, &c.," London, 1843. Dr. Carpenter tells us how his friends, Dr. Noble and Sir John Forbes, in 1845 accepted and wrote in favour of the reality of the facts ; but it was hardly "historical" to tell us this as the whole truth, when, for several years previously, the most violent controversy, abuse, and even

persecution, had raged on this very matter. Great physiological authorities were egregiously in the wrong then, and the natural inference to those who know the facts is, that other physiological authorities who now deny equally well attested facts may be no more infallible than their predecessors.

Dr. Carpenter persistently denies that there is any adequate evidence of the personal influence of the mesmeriser on the patient independent of the patient's knowledge and expectation, and he believes himself to be very strong in the cases he adduces, in which this power has been tested and failed. But he quite ignores the fact that all who have ever investigated the higher phases of mesmerism—such as influence at a distance, community of sensation, transference of the senses, or true clairvoyance—agree in maintaining that these phenomena are very uncertain, depending greatly on the state of body and mind of the patient, who is exceedingly susceptible to mental impressions, the presence of strangers, fatigue, or any unusual conditions. Failures continually occur, even when the mesmeriser and patient are alone or when only intimate friends are present; how, then, can the negative fact of a failure before strangers and antagonists prove anything? Dr. Carpenter also occupies his readers' attention with accounts of hearsay stories which have turned out exaggerated or incorrect, and lays great stress on the "disposition to overlook sources of fallacy," and to be "imposed on by cunning cheats" which this shows. This may be admitted; but it evidently has no bearing on well-authenticated and carefully observed facts, perfectly known to every student of the subject. Our author maintains, however, that such facts do not exist, and that "the evidence for these higher marvels has invariably broken down when submitted to the searching tests of trained experts." Here the question arises, who are "trained experts?" Dr. Carpenter would maintain that only sceptical medical men and professed conjurors deserve that epithet, however ignorant they may be of all the conditions requisite for the study of these delicate and fluctuating phenomena of the nervous system. But we, on the contrary, would only give that name to enquirers who have experimented for months or years on this very subject, and are thoroughly acquainted with all its difficulties. When such men are also physiologists it is hardly consistent with the historical and scientific method of enquiry to pass their evidence by in silence. I have already called Dr. Carpenter's attention to the case of the lady residing in Professor Gregory's own house, who was mesmerised at several streets distance by Mr. Lewis without her knowledge or expectation. This is a piece of direct evidence of a very satisfactory kind, and outweighs a very large quantity of negative evidence; but no mention is made of it except the following utterly unjustifiable remark:—"His (Mr. Lewis's) utter failure under the scrutiny of sceptical enquirers, obviously discredits all his previous statements, except

to such as (like Mr. A. R. Wallace, who has recently expressed his full faith in Mr. Lewis's self-asserted powers) are ready to accept without question the slenderest evidence of the greatest marvels." ("Mesmerism, Spiritualism, &c.," p. 24.) Now will it be believed that this statement, that I "place full faith in Mr. Lewis's *self-asserted powers*," has not even the shadow of a foundation. I know nothing of Mr. Lewis or of his powers, self-asserted or otherwise, but what I gain from Prof. Gregory's account of them; and in my letter to the "Daily News," immediately after the delivery of Dr. Carpenter's lectures, I referred to this account. I certainly have "full faith" in Professor Gregory's very careful narrative of a fact entirely within his own knowledge. This may be "the slenderest evidence" to Dr. Carpenter, but slender or not he chooses to evade it, and endeavours to make the public believe that I and others accept the unsupported assertions of an unknown man. It is impossible adequately to characterise such reckless accusations as this without using language which I should not wish to use. Let us pass on, therefore, to the evidence which Dr. Carpenter declares to be fitly described as "the slenderest." M. Dupotet, at the Hotel de Dieu, in Paris, put a patient to sleep when behind a partition, in the presence of M. Husson and M. Recamier, the latter a complete sceptic. M. Recamier expressed a doubt that the circumstances might produce expectation in the patient, and himself proposed an experiment the next day, in which all the same conditions should be observed, except that M. Dupotet should not come at all till half an hour later. He anticipated that the "expectation" would be still stronger the second time than at first, and that the patient would be mesmerised. But the result was quite the reverse. Notwithstanding every minute detail was repeated as on the previous day when the operator was in the next room, the patient showed no signs whatever of sleep either natural or somnambule (Teste's "Animal Magnetism," Spillan's Translation, p. 159). The Commission appointed by the Academie Royale de Medicine in 1826 sat for five years and investigated the whole subject of animal magnetism. It was wholly composed of medical men, and in their elaborate report, after giving numerous cases, the following is one of their conclusions:—

"14. We are satisfied that it (magnetic sleep) has been excited under circumstances where those magnetised could not see, and were entirely ignorant of the means employed to occasion it."

These were surely "trained experts;" yet they declare themselves satisfied of that, the evidence for which, Dr. Carpenter says, has always broken down when tested.

Baron Reichenbach's researches are next discussed; and are coolly dismissed with the remark that "it at once became apparent to experienced physicians, that the whole phenomena were subjective, and that 'sensitives' like Von Reichenbach's can

feel, see, or smell anything they were led to believe they *would* feel, see, or smell." His evidence for this is, that Mr. Braid could make his subjects do so, and that Dr. Carpenter had seen him do it. One of them, for instance,—an intellectual and able Manchester gentleman,—“could be brought to see flames issuing from the poles of a magnet of any form or colour that Mr. Braid chose to name.” All this belongs to the mere rudiments of mesmerism and is known to every operator. Two things, however, are essential—the patient or sensitive must be, or have been, mesmerised, or electro-biologised as it is commonly called, and the *suggestion* must be actually made. Given these two conditions and no doubt twenty persons may be made to declare that they see green flames issuing from the operator's mouth; but no single case has been adduced of persons in ordinary health, not subject to any operation of mesmerism, &c., being all caused to see this or any other thing in agreement, by being merely brought into a dark room and asked to describe accurately what they saw. Yet this is what Von Reichenbach did, and much more. For, in order to confirm the evidence of the “sensitives” first experimented on, he invited a large number of his friends and other persons in Vienna to come to his dark room, and the result was that about *sixty persons* of various ages and conditions saw and described exactly the same phenomena. Among these were a number of literary, official, and scientific men and their families, persons of a status fully equal to that of Dr. Carpenter and the Fellows of the Royal Society—such as Dr. Nied, a physician; Professor Endlicher, director of the Imperial Botanic Garden; Chevalier Hubert von Rainer, barrister; Mr. Karl Schuh, physicist; Dr. Ragsky, Professor of Chemistry; Mr. Franz Kollar and Dr. Diesing, Curators in the Imperial Natural History Museum, and many others. There was also an artist, Mr. Gustav Anschütz, who could see the flames, and drew them in their various forms and combinations. Does Dr. Carpenter really ask his readers to believe that his explanation applies to these gentlemen? That they all quietly submitted to be told *what* they were to see; submissively *said* they saw it, and allowed the fact to be published at the time, without a word of protest on their part from that day to this? But a little examination of the reports of their evidence shows that they did not follow each other like a flock of sheep, but that each had an individuality of perceptive power, some seeing one kind of flame better than another; while the variety of combinations of magnets submitted to them, rendered anything like suggestion as to what they were to see quite impossible, unless it were a deliberate and wilful imposture on the part of Baron von Reichenbach.

But again, Dr. Carpenter objects to the want of tests, and especially his pet test of using an electro-magnet, and not letting the patients know whether the electric circuit which “makes” and “unmakes” the magnet was complete or broken. How

far this test, had it been applied, would have satisfied the objector, may be imagined from his entirely ignoring all the tests, many of them at least as good, which were actually applied. The following are a few of these:—Test 1. Von Reichenbach arranged with a friend to stand in another room with a stone wall between him and the patient's bed, holding a powerful magnet, the armature of which was to be closed or opened at a given signal. The patient detected, on every occasion, whether the magnet was opened or closed. Test 2. M. Baumgartner, a professor of physics, after seeing the effects of magnets on patients, took from his pocket what he said was one of his most powerful magnets, to try its effects. The patient, to Von Reichenbach's astonishment, declared she found this magnet on the contrary very weak, and its action on her hardly more perceptible than a piece of iron. M. Baumgartner then explained that this magnet, though originally very powerful, had been as completely as possible deprived of its magnetism, and that he had brought it as a test. Here was *suggestion* and *expectation* in full force, yet it did not in the least affect the patient. (For these two tests see "Ashburner's Translation of Reichenbach," pp. 39, 40.) Test 3. A large crystal (placed in a new position before each patient was brought into the dark room) was always at once detected by means of its light, yellower and redder than that from magnets (*loc. cit.*, p. 86). Test 4. A patient confined in a darkened passage held a wire which communicated with a room in which experiments were made on plates connected with this wire. As these plates were exposed to sunlight or shade, the patient described corresponding changes in the luminous appearances of the end of the wire (*loc. cit.* p. 147). Test 5. The light from magnets, &c., was thrown on a screen by a lens, so that the image could be instantly and noiselessly changed in size and position at pleasure. Twelve patients, eight of them healthy and new to the enquiry, saw the image, and described its alterations of size and position as the lens or screen was shifted in the dark (*loc. cit.*, p. 585). Dr. Carpenter's only reply to all this is, that "Baron Reichenbach's researches upon 'Odyle' were discredited a quarter of a century ago, alike by the united voice of scientific opinion in his own country, and by that of the medical profession here." Even if this were the fact, it would have nothing to do with the matter, which is one of experiment and evidence, not of the belief or disbelief of certain prejudiced persons, since to *discredit* is not to *disprove*. The painless operations in mesmeric sleep were "discredited" by the highest medical authorities in this country, and yet they were true. But Dr. Elliotson, Dr. Ashburner, and others, accepted Reichenbach's discoveries; and some of the Vienna physicians even, after seeing the experiments with persons "whose honour, truthfulness, and impartiality they could vouch for," also accepted them as proved.

The facts of the luminosity of magnets was also independently established by Dr. Charpignon, who, in his "Physiologie, Médecine, et Metaphysique du Magnetisme," published in 1845—the very same year in which the account of Von Reichenbach's observations first appeared—says: "Having placed before the sonnambulists four small bars of iron, one of which was magnetised by the loadstone, they could always distinguish this one from the others, from its two ends being enveloped in a brilliant vapour. The light was more brilliant at one end (the north pole) than at the other. I could never deceive them; they always recognised the nature of the poles, although when in their normal state they were in complete ignorance of the subject." Surely here is a wonderful confirmation. One observer in France and another in Germany make the same observation about the same time, and quite independently; and even the detail of the north pole being the more brilliant agrees with the statement of Reichenbach's sensitives (Ashburner's Trans., p. 20).

Our readers can now judge how far the historic and scientific method has been followed in Dr. Carpenter's treatment of the researches of Von Reichenbach, not one of the essential facts here stated (and there are hundreds like them) being so much as alluded to, while "suggestion," "expectation," and "imposture," are offered as fully explaining everything. We cannot devote much time to the less important branches of the subject, but it is necessary to show that *in every case* Dr. Carpenter misstates facts and sets negative above positive evidence. Thus, as to the magnenometer* and odometer of Mr. Rutter and Dr. Mayo, all the effects are imputed to expectation and unconscious muscular action, and we have this positive statement: "It was found that the constancy of the vibrations depended entirely upon the operator's watching their direction, and, further, that when such a change was made *without the operator's knowledge* in the conditions of the experiment, as *ought*, theoretically, to alter the direction of the oscillations, no such alteration took place." Yet Mr. Rutter clearly states—1. That the instrument can be affected through the hand of a *third* person with exactly the same result (Rutter's "Human Electricity," App., p. 54). 2. That the instrument is affected by a crystal on a *detached stand* brought close to the instrument, but without contact (*loc. cit.*, p. 151). 3. That many persons, however "expectant" and anxious to succeed, have no power to move the instrument. 4. That substances *unknown to the operator*, and even when held by a third party caused correct indications, and that an attempt to deceive by using a substance under a wrong name was detected by the movements of the instrument (*loc. cit.*, Appendix, p. lvi.). Here then Mr. Rutter's posi-

* The magnenometer is a delicate pendulum which, when its support is touched by certain persons, vibrates in a definite direction, the direction changing on the motion suddenly stopping when different substances are touched at the same time by the operator.

tive testimony is altogether ignored, while the negative results of another person are set forth as conclusive. Next we have the evidence for the divining-rod similarly treated. Dr. Mayo is quoted as supporting the view that the rod moved in accordance with the "expectations" of the operator, but on the preceding page of Dr. Mayo's work, other cases are given in which there was no expectation; and the fact that Dr. Mayo was well aware of this source of error, and was a physiologist and physician of high rank, entitles his opinion as to the reality of the action in other cases to great weight. Again, we have the testimony of Dr. Hutton, who saw the Hon. Lady Milbanke use the divining-rod on Woolwich Common, and who declares that it turned where he knew there was water, and that in other places where he believed there was none it did not turn: that the lady's hands were closely watched, and that no motion of the fingers or hands could be detected, yet the rod turned so strongly and persistently that it became broken. No other person present could voluntarily or involuntarily cause the rod to turn in a similar way (Hutton's "Mathematical Recreations," Ed. 1840, p. 711). The evidence on this subject is most voluminous, but we have adduced sufficient to show that Dr. Carpenter's supposed demonstration does not account for all the facts.

We now come to the very interesting and important subject of clairvoyance, which Dr. Carpenter introduces with a great deal of irrelevant matter calculated to prejudge the question. Thus, he tells his readers that "there are at the present time numbers of educated men and women who have so completely surrendered their 'common sense' to a dominant prepossession as to maintain that any such monstrous fiction (as of a person being carried through the air in an hour from Edinburgh to London) ought to be believed, even upon the evidence of a single witness, if that witness be one upon whose testimony we should rely in the ordinary affairs of life!" He offers no proof of this statement, and we venture to say he can offer none, and it is only another example of that complete misrepresentation of the opinions of his opponents with which this book abounds. At page 71, however, we enter upon the subject itself, and at once encounter one of those curious examples of ignorance (or suppression of evidence) for which Dr. Carpenter is so remarkable in his treatment of this subject. We have been already told (p. 11) of the French Scientific Commission which about a hundred years ago investigated the pretensions of Mesmer, and decided, as might have been anticipated, against him. Now, we have the statement that "it was by the French Academy of Medicine, in which the mesmeric state had been previously discussed with reference to the performance of surgical operations; that this new and more extraordinary claim (*clairvoyance*) was first carefully sifted, in consequence of the offer made in 1837 by M. Burdin of a prize of 3000 francs to anyone who should

be found capable of reading through opaque substances." The result was negative. No clairvoyant succeeded under the conditions imposed. The reader unaccustomed to Dr. Carpenter's historical method would naturally suppose this statement to be correct, and that *clairvoyance* was *first* carefully sifted in France *after* 1837, though he might well doubt, if offering a prize for reading under rigid conditions was an adequate means of sifting a faculty so eminently variable, uncertain, and delicate as *clairvoyance* is admitted to be. What, then, will be his astonishment to find that this same "Académie Royale de Médecine" had appointed a commission of eleven members in 1826, who inquired into the whole subject of mesmerism for *five years*, and in 1831 reported in full, and *in favour* of the reality of almost all the alleged phenomena, *including clairvoyance*. Of the eleven members, nine attended the meetings and experiments, and all nine signed the report, which was therefore unanimous. This report, being full and elaborate, and the result of personal examination and experiment by medical men—the very "trained and sceptical experts," who are maintained by Dr. Carpenter to be the only adequate judges—is wholly ignored by him. In this report we find among the conclusions—"24. We have seen two sonnambulists distinguish with their eyes shut objects placed before them: name cards, read books, writing, &c. This phenomenon took place even when the opening of the eyelids was accurately closed by means of the fingers."* Is it not strange that the "historian" of mesmerism, &c., should be totally ignorant of the existence of this report, which is referred to in almost every work on the subject? Yet he must be thus ignorant or he could never say, as he does in the very same page quoted above (p. 71), "that in every instance (so far as I am aware) in which a thorough investigation has been made into those 'higher phenomena' of mesmerism, the supposed proof has completely failed." It cannot be said that investigation by nine medical men carried on for five years with every means of observation and experiment, and elaborately reported on, was not "thorough," whence it follows that Dr. Carpenter must be ignorant of it, and our readers can draw their own inference as to the value of his opinion, and the dependence to be placed on his scientific and historical treatment of this subject.

More than twenty-five pages of the book are occupied with more or less detailed accounts of the failures and alleged exposures of clairvoyants, while not a single case is given of a clairvoyant having stood the test of rigid examination by a committee, or by medical or other experts, and the implication is that none such are to be found. But every enquirer knows that *clairvoyance* is a most delicate and uncertain phenomenon, never to be certainly calculated on, and this is repeatedly stated in the

* Archives Generales de Medecine, vol. xx.; also in LEE's Animal Magnetism, pp. 13 to 29.

works of Lee, Gregory, Teste, Deleuze, and others. How, then, can any number of individual failures affect the question of the reality of the comparatively rare successes. As well deny that any rifleman ever hit the bull's-eye at 1000 yards, because none can be sure of hitting it always, and at a moment's notice. Several pages are devoted to the failure of Alexis and Adolphe Didier under test conditions in England, ending with the sneering remark, "Nothing, so far as I am aware, has ever been since heard of this *par nobile fratrum*." Would it (to use an established formula) surprise Dr. Carpenter to hear that these gentlemen remained in England a considerable time after the date he alludes to, that they have ever since retained their power and reputation, and that both still practise successfully medical clairvoyance, the one in London, and the other in Paris? To balance the few cases of failure by Alexis, Dr. Lee has given his personal observations of ten times as many successes, some of them of the most startling kind ("Animal Magnetism," pp. 255, 277). We can only find room here for two independent and complete tests. The first is given by Serjeant Cox as witnessed by himself. A party of experts was planned to test Alexis. A word was written by a friend in a distant town and enclosed in an envelope, *without any of the party knowing what the word was*. This envelope was enclosed successively in six others of thick brown paper, each sealed. This packet was handed to Alexis, who placed it on his forehead, and in three minutes and a half wrote the contents correctly, imitating the very handwriting. ("What am I," vol. ii., p. 167.) Now unless this statement by Serjeant Cox is absolutely false, a thousand failures cannot outweigh it. But we have, if possible, better evidence than this; and Dr. Carpenter knows it, because I called his attention to it in the "Daily News." Yet he makes no allusion to it. I refer to the testimony of Robert Houdin, the greatest of modern conjurers, whose exploits *are quoted* by Dr. Carpenter, when they serve his purpose (pp. 76, 111). He was an absolute master of card-tricks, and knew all their possibilities. He was asked by the Marquis de Mirville to visit Alexis, which he did twice. He took his own new cards, dealt them himself, but Alexis named them as they lay on the table, and even named the trump before it was turned up. This was repeated several times, and Houdin declared that neither chance nor skill could produce such wonderful results. He then took a book from his pocket and asked Alexis to read something eight pages beyond where it was opened at a specified level. Alexis pricked the place with a pin, and read four words, which were found at the place pricked nine pages on. He then told Houdin numerous details as to his son, in some of which Houdin had tried to deceive him, but in vain; and when it was over Houdin declared it "stupefying," and the next day signed a declaration that the report of what took place was correct, adding, "the

more I reflect upon them the more impossible do I find it to class them among the tricks which are the object of my art." The two letters of Robert Houdin were published at the time (May, 1847) in "*Le Siècle*," and have since appeared in many works, among others in Dr. Lee's "*Animal Magnetism*" (pp. 163 and 231).

One of the supposed exposures made much of by Dr. Carpenter is that of Dr. Hewes's "Jack," which is suggestive as showing the complete ignorance of many experimenters thirty years ago as to the essential conditions of the manifestation of so delicate and abnormal a faculty as clairvoyance, ignorance shared in by believers and sceptics alike. According to Dr. Carpenter (whose account he informs me is taken from an article by Dr. Noble in the "*British and Foreign Medical Review*" of April, 1845), Jack's eyes were "bound down by surgeons with strips of adhesive plaster, over which were folds of leather, again kept in place by other plasters." Jack then read off, *without the least hesitation*, everything that was presented to him. But a young Manchester surgeon had his eyes done up in the same manner, and, by *working the muscles of his face* till he had *loosened the plasters*, was enabled to read by *looking upwards*. The conclusion was immediately jumped at that this was the way Jack did it, although no *working of the muscles of the face* had been observed, and no *looking upwards* described. Instead, however, of repeating the experiment under the same conditions, but more watchfully, it was proposed that the *entire eyes should be covered up with a thick coating of shoemakers' wax!* The boy objected and resisted, and it was put on by force; and then, the clairvoyant powers being annihilated, as might have been anticipated, there was great glorification among the sceptics, and Dr. Carpenter indulges himself in a joke, telling us that Jack now "plainly saw, even with his eyes shut, that his little game was up." To any one who considers this case, even as related by Dr. Carpenter, it will be evident that the boy was a genuine clairvoyant. Adhesive plaster properly applied by a medical man on a passive subject, is not to be loosened by imperceptible working of the muscles, and it is too great a demand upon our credulity to ask us to believe that this occurred undetected by the acute medical sceptics watching the whole procedure. We have, however, fortunately, another case to refer to, in which this very test was carried out to its proper conclusion by examining the state of the plaster *after the clairvoyance*, when the alleged looseness could be instantly detected. A clairvoyant boy at Plymouth was submitted to the examination of a sceptical committee, who appear to have done their work very thoroughly. First his eyes were examined, and it was found that the balls were so turned up that even were the eyelids a little apart, ordinary vision was impos-

sible.* Then he was closely watched, and while the eyelids were seen to be perfectly closed, he read easily. Then adhesive plaster was applied, carefully warmed, in three layers, and it was watched to see that the adhesion was perfect all round the edges. Again the boy read what was presented to him, sometimes easily, sometimes with difficulty. At the end of the experiments the plaster was taken off strip by strip by the committee, and it was found to be perfectly secure, and the eyelids so completely glued together that it was a work of some difficulty to get them open again. This case is recorded, with the names of the committee in the "Zoist," vol. iv., pp. 84—88; and I call the reader's attention to the *completeness* of the test here, and its demonstration of the reality of clairvoyance, as compared with the loose experiment and hasty jumping-to-a-conclusion in the case which Dr. Carpenter thinks alone worthy of record.

Dr. Carpenter next comes to the work of Professor Gregory ("Letters on Animal Magnetism,") and devotes several pages to assertions as to the professor's "credulity," the "reprehensible facility" with which he accepted Major Buckley's statements, the "entire absence of detail" as to "precautions against tricks," and his utter failure to find a clairvoyant to obtain Sir James Simpson's bank-note. "And yet," he says, referring especially to myself, "there are even now, men of high scientific distinction, who adduce Professor Gregory's testimony on this subject as unimpeachable!" Readers who have accompanied me so far, will at least hesitate to accept Dr. Carpenter's dictum on this point, till they have heard what can be said on the other side. To give full details would occupy far too much space, I must therefore refer my readers to Professor Gregory's book for some cases, and give merely a brief outline of others. At page 394 (Case 29) is given in detail a most remarkable test-case, in which Professor Gregory sent some handwriting from Edinburgh to Dr. Haddock's clairvoyant at Bolton; who gave in return a minute description of the writer, her appearance, dress, house, illness, medical treatment, &c. At page 401 another test of the same kind is described. At page 403 a number of such cases are summarised, and one very completely given in detail. At page 423 is an account of a clairvoyant boy at the house of Dr. Schmitz, Rector of the High School at Edinburgh. This boy described Professor Gregory's house accurately, and the persons at that time in the dining-room (afterwards ascertained to be correct). As a further test Dr. Schmitz was asked to go into another room with his son and do anything he liked. The boy then described their motions, their jumping about, the son going out and coming in again, and the doctor beating his son with a roll of paper. When Dr. Schmitz returned, Professor Gregory repeated all the boy had said, which the doctor, much astonished,

* This is a constant feature of the true mesmeric trance, but "Jack's" accusers seem to have known nothing about it.

declared to be correct in every particular. At page 445 (Case 42) is an account of another clairvoyant, a mechanic, who described Professor Gregory's house in detail, and saw a lady sitting in a particular chair in the drawing-room reading a new book. On returning home the professor found that Mrs. Gregory had, at the time been sitting in that particular chair, which she hardly ever was accustomed to use, and was reading a new book which had been sent to her just before, but of which the Professor knew nothing. At page 405 is a most remarkable case of the recovery of a stolen watch, and detection of the thief in London by Dr. Haddock's clairvoyant at Bolton. The letters all passed through Sir Walter C. Trevelyan, who showed them to Professor Gregory. At page 407 are the particulars of the extraordinary discovery of the locality of travellers by means of their handwriting only, sent from the Royal Geographical Society to Sir C. Trevelyan in Edinburgh, and by him to Bolton, he himself not knowing either the names of the travellers, or where they were. Many more cases might be referred to, but these are sufficient to show that there is not that "total absence of detail," and of "precautions," in Professor Gregory's experiments, which is Dr. Carpenter's reason for entirely ignoring them. In addition to this we have the account of Dr. J. Haddock, a physician practising at Bolton, of the girl Emma, who for nearly two years was under his care, and residing in his house. Many of Professor Gregory's experiments, and those of Sir Walter Trevelyan, were made through this girl, and a full account of her wonderful clairvoyant powers is given by Dr. Haddock in the Appendix to his "Somnolysm and Psycheism." She could not read, and did not even know her letters. The discovery of the stolen cashbox, and identification of the entirely unsuspected thief, is given in full by Dr. Haddock, and is summarised in my "Miracles and Modern Science," p. 64. Again, Dr. Herbert Mayo gives unexceptionable personal testimony to clairvoyance at pages 167, 172, and 178 of his book on "Popular Superstitions."

Dr. Carpenter is very severe on Professor Gregory for his belief in Major Buckley's clairvoyants reading mottoes in nuts, &c., but Major Buckley was a man of fortune and good position, who exercised his remarkable powers as a magnetiser for the interest of it, and there is not the slightest grounds for suggesting his untrustworthiness. We have beside the confirmatory testimony of other persons, among them of Dr. Ashburner, who frequently took nuts purchased by himself, and had them correctly read by the clairvoyants before they were opened. ("Ashburner's Philosophy of Animal Magnetism," p. 304.) Dr. Carpenter also doubts Professor Gregory's common sense, in believing that a sealed letter had been read unopened by a clairvoyant when it might have been opened and resealed; but he omits to say that the envelopes were expressly arranged to pre-

vent their being opened without detection, and that the Professor adds, "I have in my possession one of the envelopes thus read, which has since been opened, and I am convinced that the precautions taken precluded any other than lucid vision."*

Still more important, perhaps, is the testimony of many eminent physicians to the existence of these remarkable powers. Dr. Rostan, Parisian Professor of Medicine, in his article "Magnetisme," in the "Dictionnaire de Medecine," says (as quoted by Dr. Lee), "There are few things better demonstrated than clairvoyance. I placed my watch at a distance of three or four inches from the occiput of the sonnambulist, and asked her if she saw anything. 'Certainly,' she replied, 'it is a watch; ten minutes to eight.' M. Ferrus repeated the experiment with the same successful result. He turned the hands of his watch several times, and we presented it to her *without looking at it*; she was not once mistaken." The Commissioners of the Royal Académie de Medecine applied the excellent test of holding a finger on each eye-lid, when the clairvoyant still read the title of a book, and distinguished cards. (Quoted in Dr. Lee's "Animal Magnetism," p. 22.) Dr. Esdaile had a patient at Calcutta who could hear and see through the stomach. This was tested by himself with a watch, as in the French case quoted above. ("Zoist," vol. viii., p. 220.) Dr. Teste's account of the clairvoyance of Madame Hortense is very suggestive. She sometimes read with ease when completely bandaged, and when a paper was held between her eyes and the object; at other times she could see nothing, and the smallest fatigue or excitement caused this difference. This excessive delicacy of the conditions for successful clairvoyance render all public exhibitions unsatisfactory; and Professor Gregory "protests against the notion that it is to be judged by the rough experiments of the public platform, or by such tests as can be publickly applied." For the same reason direct money tests are always objected to by experienced magnetisers, the excitement produced by the knowledge of the stake or the importance of the particular test impairing or destroying the lucidity. This is the reason why gentlemen and physicians like Professor Gregory, Major Buckley, and Dr. Haddock, who have had the command of clairvoyants, have not attempted to gain the bank-notes which have at various times been offered. Dr. Carpenter was very irate because I suggested at Glasgow—not as he seems to have understood that there *was* no note in Sir James Simpson's envelope—but that the clairvoyants themselves, if they heard of it, might very

* Dr. Carpenter says that "the unsealing of letters and the re-sealing them so as to conceal their having been opened" are practised in Continental post-offices. No doubt this can be done with an ordinary letter, but it is no less certain that there are many ways of securing a letter which absolutely preclude its being done undetected, and Dr. Carpenter omits to state that such precautions are here expressly mentioned by Professor Gregory as having been used in these experiments.

well be excused if they thought it was a trick to impose upon them. I find now that in the other case quoted by Dr. Carpenter, the note for £100 publicly stated to have been enclosed by Sir Philip Crampton in a letter, and placed in a bank in Dublin, to become the property of any clairvoyant who should read the *whole of it*—this was actually the case. After six months the letter was opened, and the manager of the bank certified that it contained no note at all, but a blank cheque! The correspondence on the subject is published in the "Zoist," vol. x., p. 35. Dr. Carpenter's indignation was therefore misplaced; for, as a medical knight in Ireland did actually play such a trick, the mere supposition on my part, that ignorant clairvoyants might think that a medical knight in Scotland was capable of doing the same, was not a very outrageous one.

We now come to the last part of Dr. Carpenter's lecture—Table-Turning and Spiritualism, and here there is hardly any attempt to deal with the evidence. Instead of this we have irrelevant matters put prominently forward, backed up by sneers against believers, and false or unproved accusations against mediums. To begin with, the old amusement of table-turning of fifteen or twenty years ago, with Faraday's proof that it was often caused by unconscious muscular action, is again brought to the front. Table-tilting is asserted to be caused in the same way, and an "indicator" is suggested for proving this; and the whole matter is supposed to be settled because no one, so far as Dr. Carpenter is aware, "has ever ventured to affirm that he has thus demonstrated the *absence* of muscular pressure," and "until such demonstrations shall have been given, the tilting—like the turning—of tables may be unhesitatingly attributed to the unconscious muscular action of the operators." We suppose Dr. Carpenter will shield himself by the "thus" in the above sentence, though he knows very well that a far more complete demonstration of the absence of muscular pressure than any indicator could afford has been repeatedly given, by motion, both turning and tilting, of the table occurring *without any contact whatever*. Thus, in the Report of the Committee of the Dialectical Society, we have (p. 378), Experiment 13, nine members present, all stood quite clear of the table, and observers were placed under it to see that it was not touched, yet it repeatedly moved along the floor, often in the direction asked for. It also jerked up from the floor about an inch. This was repeated when all stood 2 feet from the table. Experiment 22. Six members present, the same thing occurred under varied conditions. Experiment 38 (p. 390). Eight members present, the conditions were most rigid; the chairs were all turned with their backs to the table at a foot distant from it; every member present knelt on his chair *with his hands behind his back*; there was abundance of light, yet, under these test-conditions, the table moved several times in various directions, visible to all present. Finally

the table was turned up and examined, and found to be an ordinary dining table with no machinery or apparatus of any kind connected with it. Similar movements without contact have been witnessed elsewhere and recorded by Serjeant Cox and by Mr. Crookes, as well as by many other persons; yet the man who comes before the public as the "historian" of this subject tells his audience and his readers that "he is not aware that anyone affirms that he has demonstrated the absence of muscular pressure"! How are we to reconcile this statement with Dr. Carpenter's references to each of the books, papers, or letters containing the facts above quoted or referred to? But we have evidence of a yet more conclusive character (from Dr. Carpenter's own point of view), because it is that of a medical man who has made a special study of abnormal mental phenomena. Dr. Lockhart Robertson, for many years an editor of the "Journal of Mental Science" and Superintendent of the Hayward's Heath Asylum, declares that his own heavy oak dining table was lifted up and moved about the room, and this not by any of the four persons present. Writing was also produced on blank paper which the medium "had not the slightest chance of touching" ("Dialectical Report," p. 248). Dr. Carpenter is always crying out for "sceptical experts," but when they come—in the persons of Robert Houdin and Dr. Lockhart Robertson, he takes very good care that, so far as he is concerned, the public shall not know of their existence. What, therefore, is the use of his asking me (in a note at p. 108) whether my table ever went up within its crinoline in the presence of a "sceptical expert"? The very fact that I *secretly* applied tests (see "Miracles and Modern Spiritualism," p. 134) shows that I was myself sceptical at this time, and several of my friends who witnessed the experiments were far more sceptical, but they were all satisfied of the completeness of the test. The reason why some sceptical men of science never witness these successful experiments is simply because they will not persevere. Neither Dr. Carpenter nor Professor Tyndall would come more than once to my house to see the medium through whom these phenomena occurred, or I feel sure they might, after two or three sittings, have witnessed similar phenomena themselves. This has rendered all that Dr. Carpenter has seen at odd times during so many years of little avail. He has had one, or at most two, sittings with a medium, and has taken the results, usually weak or negative, as proving imposture, and then has gone no more. Quite recently this has happened with Dr. Slade and Mrs. Kane; and yet this mode of enquiry is set up as against that of men who hold scores of sittings for months together with the same medium, and after guarding against every possibility of deception or delusion obtain results which seem to Dr. Carpenter incredible. Mr. Crookes had a long series of sittings with Miss Kate Fox (now Mrs. Jencken) in his own

house, and tested the phenomena in every way his ingenuity could devise. Dr. Carpenter was recently offered the same facilities with this lady and her sister, but as usual had only one sitting. Yet he thinks it fair and courteous to make direct accusations of imposture against both these ladies. He revives the absurd and utterly insufficient theory that the "raps" are produced by "a jerking or snapping action of particular tendons of either the ankles, knees, or toes." The utter childishness of this explanation is manifest to any one who has heard the sounds through any good medium. They vary from delicate tickings to noises like thumpings with the fist, slappings with the hand, and blows with a hammer. They are often heard loudly on the ceiling or on a carpeted floor, and heard as well as felt on the backs or seats of chairs quite out of reach of the medium. One of the sceptical committees in America tested the Misses Fox by placing them barefooted on pillows, when the "raps" were heard as distinctly as before on the floor and walls of the room. Mr. Crookes states that he has heard them on the floor, walls, &c., when Miss Fox was suspended in a swing from the ceiling, and has felt them on his own shoulder. He has also heard them on a sheet of paper suspended from one corner by a thread held between the medium's fingers. A similar experiment was tried successfully by the Dialectical Committee ("Report," p. 383). At a meeting of the same committee raps were heard on a book while in the pocket of a very sceptical member; the book was placed on the table, and raps again heard; it was then held by two members supported on ivory paper knives, when still raps were heard upon it ("Report," p. 386).

Again, there is the evidence of Professor Barrett, an experienced physicist, who entered on this enquiry a complete sceptic. He tells us that he examined the raps or knockings occurring in the presence of a child ten years of age—that in full sunlight, when every precaution to prevent deception had been taken—still the raps would occur in different parts of the room, entirely out of reach of the child, whose hands and feet were sometimes closely watched, at other times held. The phenomena have been tested in every way that the ingenuity of sceptical friends could devise; and as Professor Barrett is well acquainted with Dr. Carpenter's writings on the subject and the explanations he gives, we have here another proof of the utter worthlessness of these explanations in presence of the facts themselves.

The Honourable R. D. Owen has heard, in the presence of Miss Fox, blows as if made by a strong man using a heavy bludgeon with all his force, blows such as would have killed a man or broken an ordinary table to pieces; while on another occasion the sounds resembled what would be produced by a falling cannon-ball, and shook the house ("Debateable Land," p. 275); and Dr. Carpenter would really have us believe that all these wonderfully varied sounds under all these test conditions are produced by "snapping tendons."

But what is evidently thought to be the most crushing blow is the declaration of Mrs. Culver given at length in the Appendix. This person was a connection of the Fox family, and she declared that the Misses Fox told her how it was all done, and asked her to assist them in deceiving the visitors; two gentlemen certify to the character of Mrs. Culver. The answer to this slander is to be found in Capron's "Modern Spiritualism," p. 423. Mr. Capron was an intimate friend of the Fox family, and Catherine Fox was staying with him at Auburn, while her sisters were at Rochester being examined and tested by the committee. Yet Mrs. Culver says it was Catherine who told her "that when her feet were held by the Rochester Committee the Dutch servant-girl rapped with her knuckles under the floor from the cellar." Here is falsehood with circumstance; for, first, Catherine was not there at all; secondly, the Committee never met at the Fox's house, but in various public rooms at Rochester; thirdly, the Fox family had no "Dutch servant-girl" at any time, and at that time no servant-girl at all. The gentlemen who so kindly signed Mrs. Culver's certificate of character did not live in the same town, and had no personal knowledge of her; and, lastly, I am informed that Mrs. Culver has since retracted the whole statement, and avowed it to be pure invention (see Mrs. Jencken's letter to "Athenæum," June 9, 1877). It is to be remarked, too, that there are several important mistakes in Dr. Carpenter's account. He says the "deposition" of Mrs. Culver was made not more than six years ago, whereas it was really *twenty-six* years ago; and he says it was a "deposition before the magistrates of the town in which she resided," by which, of course, his readers will understand that it was on oath, whereas it was a mere statement before two witnesses, who, without adequate knowledge, certified to her respectability!

* Since the MS. of this article left my hands, I have seen Dr. Carpenter's letter in the "Athenæum" of June 16th, withdrawing the charges founded on the declaration of Mrs. Culver, which, it seems, Dr. Carpenter obtained from no less an authority than Mr. Maskelyne! the great conjurer and would-be "exposer" of spiritualism. He still, however, maintains the validity of the explanation of the "raps" by Professor Flint and his coadjutors, who are said to have proved that persons who have "trained themselves to the trick," can produce an "exact imitation" of these sounds. This "exact imitation" is just what has never been proved, and the fact that a "training" is admitted to be required, does not explain the sudden occurrence of these sounds as soon as the Fox family removed temporarily to the house at Hydesville. If Dr. Carpenter would refer to better and earlier authorities than Mr. Maskelyne and M. Louis Figuier, he would learn several matters of importance. He would find that Professors Flint, Lee, and Coventry, after one hasty visit to the mediums, published their explanation of the "raps" in a letter to the "Buffalo Commercial Advertiser," dated February 17th, 1851, *before* making the investigation on the strength of which they issued their subsequent report, which, therefore, loses much of its value since it interprets all the phenomena in accordance with a theory to which the reporters were already publicly committed. On this scanty evidence we are asked to believe that two girls, one of them only nine years old, set up an imposture which for a long time brought them nothing but insult and abuse, subjected their father to public rebuke from

This is an example of the reprehensible eagerness with which Dr. Carpenter accepts and retails whatever falsehoods may be circulated against mediums; and it will be well to consider here two other unfounded charges which, not for the first time, he brings forward and helps to perpetuate. He tells us that "the 'Katie King' imposture, which had deluded some of the leading spiritualists in this country, as well as in the United States, was publicly exposed." This alleged exposure was very similar to that of Mrs. Culver's, but more precise and given on oath—but the oath was under a false name. A woman whose name was subsequently discovered to be Eliza White [declared that she had herself personated the spirit-form at several stated sances given by the two mediums Mr. and Mrs. Holmes, she having been engaged by them for the purpose; and she described a false panel made in the back of the cabinet by which she entered at the proper time from a bedroom in the rear. But Colonel Olcott, a gentleman connected with the New York daily press, has proved that many of the particulars about herself and the Holmes' stated in Mrs. White's sworn declaration are false, and that she is therefore perjured. He has also proved that her former character is bad; that the photograph taken of "Katie King," and which she says was taken from her, does not the least resemble her; that the cabinet used had no such moveable panel as she alleged; that the Holmes' manifestations went on just the same on many occasions when she was proved to be elsewhere; that she herself confessed she was offered a thousand dollars if she would expose the Holmes'; and, lastly, that in Colonel Olcott's own rooms, under the most rigid test conditions, and with Mrs. Holmes only as a medium, the very same figure appeared that was said to require the personation of Mrs. White.

his minister, and made their mother seriously ill; and that they have continuously maintained the same for nearly thirty years, and in all this long period have never once been actually detected. But there are facts in the early history of these phenomena which *demonstrate* the falsehood of this supposition, but which Dr. Carpenter, as usual, does not know, or, if he knows does not make public. These facts are, firstly, that two previous inhabitants of the House at Hydesville testified to having heard similar noises in it; and, secondly, that on the night of March 31st, 1848, Mrs. Fox and the children left the house, Mr. Fox only remaining, and that during all night and the following night, in presence of a continual influx of neighbours the "raps" continued exactly the same as when the two girls were present. This crucial fact is to be found in all the early records, and it is surprising that it can have escaped Dr. Carpenter, since it is given in so popular a book as Mr. R. Dale Owen's "Footfalls on the Boundary of Another World" (p. 209). Mr. Owen visited the spot, and obtained a copy of the depositions of twenty-one of the neighbours, which was drawn up and published a few weeks after the events. This undisputed fact, taken in connection with the great variety of sounds—varying from taps, as with a knitting-needle, to blows as with a cannon-ball or sledge-hammer—and the conditions under which they occur—as tested by Mr. Crookes and the Dialectical Committee, completely and finally dispose of the "joint and tendon" theory as applicable to the ascertained facts. What, therefore, can be the use of continually trying to galvanise into life this thoroughly dead horse, along with its equally dead brother the table-turning "indicator"?

The full details are given in Colonel Olcott's "People from the Other World," pp. 425—478.

Another alleged exposure is introduced in the following terms:—"I could tell you the particulars, in my possession, of the detection of the imposture practised by one of the most noteworthy of these lady mediums in the distribution of flowers . . . these flowers having really been previously collected in a basin upstairs and watered out of a decanter standing by—as was proved by the fact that an inquisitive sceptic having furtively introduced into the water of the decanter a small quantity of ferrocyanide of potassium, its presence in the 'dew' of the flowers was afterwards recognised by the appropriate chemical test (a per-salt of iron) which brought out prussian blue."

In his article on the "Fallacies of Testimony," in the "Contemporary Review" of January, 1876, where Dr. Carpenter first gave an account of this alleged exposure, it is stated that "a basin-full of these flowers (hollyhocks) was found in a garret with a decanter of water beside it," that the ferrocyanide was mixed with this water, and that all this was not hearsay, but a statement in writing in the hand of the "inquisitive sceptic" himself. It turns out, however, that this part of the statement was wholly untrue, as we know on the authority of a letter written by the lady of the house, and afterwards published, and Dr. Carpenter now seems to have found this out himself; but instead of withdrawing it wholly (as in common fairness he ought to have done), he still retains it ingeniously modified into an *inference*, but so worded as to look like the statement of a *fact*:—"these flowers having *really* been previously collected in a basin," &c.,—"as was proved"—not by finding them, but by the chemical test! What an extraordinary notion Dr. Carpenter must have of what is "really" proof. Let us, however, look a little further into this matter, of which more is known than Dr. Carpenter adduces, or than he thinks advisable to make public. Dr. Carpenter's informant was a member of the family in whose house the medium was staying as a guest. He had therefore full knowledge of the premises and command over the servants, and could very easily have ascertained such facts as the bringing of a large bunch of hollyhocks, asters, laurels, and other shrubs and flowers into one of the visitors' bedrooms, and whether they disappeared from the room when the lady medium left it previous to the séance. This would have been direct evidence, and easily attainable by one of the family, but none such is forthcoming; instead of it we have the altogether inconclusive though scientific-looking chemical test. For it is evident that the flowers which appear must be brought from somewhere, and may naturally be brought from the shortest distance. If there are flowers in the house, these may be brought—as a baked apple was actually brought when an apple was asked for, according to one of the reports of this very séance;—and if a sceptic chooses to put chemicals with such

flowers or baked apples beforehand, these chemicals may be detected when the flowers or apples are examined. The wonder of such séances does not at all lie in where the flowers are brought from, but in the precautions used. The medium's hands, for instance, are always held (as they were in this instance) yet when thus held the flowers drop on to the table, and even particular flowers and fruits drop close to the persons who ask for them. This is the real fact to be explained when, as in this case, it happens in a private house; and the alleged chemical test has no bearing on this. But here the test itself is open to the gravest suspicion. The person who says he applied it had struck a light in the middle of the séance and discovered nothing. He was then, in consequence of some offensive remarks, asked to leave the room or the séance could not go on; and subsequently high words passed between him and the medium. He is therefore not an unbiassed witness, and to support a charge of this kind we require independent testimony that the chemical in question was not applied to the flowers *after* they appeared at the séance. This is the more necessary as we have now before us the statement in writing by another resident in the house, that some of the flowers were sent to a medical man in the town, and that no trace of ferrocyanide of potassium could be detected. The accuracy of the supposed tests is also rendered very doubtful by another fact. In a published account of the affair in the "*Bath and Cheltenham Gazette*," endorsed by Dr. Carpenter's informant (in a letter now before me) as being by a friend of his and substantially correct, it is stated that the "same authority" who is said to have "demonstrated the presence of potassium ferrocyanide" on the flowers also examined some sand which fell on the table at the same sitting, and found it to contain salt, and therefore to be sea-sand, and to agree microscopically with the sand from a sea-beach near which the medium had been staying a few days before. This reads very like truth, and looks very suspicious, but it happens that another gentleman who was present at the séance in question took away with him some of the sand for the purpose of subjecting it to microscopic examination; and from that gentleman—Mr. J. Traill Taylor, Editor of the "*British Journal of Photography*" and an occasional contributor to other scientific journals—I have received the following note on the subject:—"I remember the séance to which you have alluded, and which was held on the evening of August 23, 1874, during the Belfast Meeting of the British Association, which I was attending. At that time, among other bye-pursuits, I was engaged in the microscopical examination of sand of various kinds, and I omitted no opportunity of procuring samples. During my visit to Ireland I obtained specimens from the sea-coast of Counties Down and Armagh, as well as from the shores of Lough Neagh. When the shower of sand fell upon the table during the séance I appropriated a quantity of it for subsequent exami-

nation. The most careful inspection under the microscope satisfied me that it was absolutely identical with some that had been procured from the Antrim coast of Lough Neagh, while it differed in certain respects from that obtained at the sea coast. Having subsequently seen a communication on this subject in the "English Mechanic" (by a writer who, I believe, had not been present at the séance), the purport of which was that the séance sand was similar to some obtained from a part of the sea-coast where the medium had been recently residing, I again subjected these various sands to microscopical examination, only to be confirmed in my previous conclusion. I followed this by a chemical test as follows:—I washed each sample of sand in a test-tube with distilled water, to which I then added a solution of nitrate of silver. A precipitate of chloride of silver was obtained from all the samples of sea-sand, but no precipitate was formed by that which came from Lough Neagh nor by that obtained at the séance, which last, under this chemical test behaved in a manner precisely similar to the Lough Neagh sample. I recollect that the result of this test was my feeling sure that the writer to whom I have alluded had not had the same data as those in my possession for arriving at a conclusion. In about a year after that time I threw away over a dozen different samples of sand, including those to which I have referred, as I required for another purpose the boxes in which they had been kept."

This clear and precise statement demonstrates the untrustworthiness of the authority on whom Dr. Carpenter relies, even if it does not indicate his disposition to manufacture evidence against the medium in question. At all events, with the more complete account of the whole episode now before them, our readers will, we are sure, admit that the evidence is by no means free from suspicion, and is quite insufficient to justify its being used to support a public charge of deliberate imposture. It also affords another example of how Dr. Carpenter jumps at explanations which are totally inapplicable to the facts in other cases, as, for example, to the production of flowers and ferns in my own room, as narrated in my "Miracles and Modern Spiritualism," page 164, and to that in the house of Mr. T. Adolphus Trollope, as given in the "Dialectical Report," pp. 277 and 372, in which case the medium had been carefully searched by Mrs. Trollope before the séance began.

We have now only to notice the extraordinary Appendix of *pieces justificatives*, which, strange to say, prove nothing, and have hardly any bearing on the main questions at issue. We have, for instance, six pages of extracts on early magic, the flagellants, and the dancing mania; followed by four pages about Mesmer; then an account of Mr. Lewis's experiments before the Medical School, Aberdeen, which failed; then eight pages on the effects of *suggestion* on hypnotised patients—effects thoroughly known to every operator, but having no bearing on the case of

persons never hypnotised or mesmerised, and to whom *no suggestion* was made; after this comes ten pages on the planchette, ~~on~~ which no one relies without collateral evidence; and then an account of some foolish clergymen, who thought they had direct proof of Satanic agency; then comes Mrs. Culver's statement (called a "deposition before magistrates" in the text), to which we have already referred; then my own letter to the "Spectator" about Mr. G. H. Lewes's supposed proof of the imposture of Mrs. Hayden; then the oft-told story of Dr. Carpenter's interviews with Foster, from the "Quarterly Review" article; then more of Mr. Braid's "suggestion and expectancy" experiments,—and that is all! Not one solitary piece of careful investigation or unimpeachable evidence in these forty-two pages of what are announced as *pieces justificatives*!

Let us now summarise briefly the results of our examination of Dr. Carpenter's book. We have given a few examples of how he has misrepresented the opinions of those opposed to his theories. Although he professes to treat the subject historically, we have shown how every particle of evidence is ignored which is too powerful to be explained away. As examples of this we have referred, in more or less detail, to the denial by high authorities of the reality of painless surgical operation during the mesmeric sleep; to the "Report of the Royal Académie de Médecine," supporting the reality of clairvoyance and the other higher phenomena of mesmerism; to experiments on clairvoyance, before French medical sceptics; to the evidence of educated and scientific men in Vienna as to the truth of Reichenbach's observations; to the personal evidence of Robert Houdin, Professor Gregory, Dr. Mayo, Dr. Haddock, Dr. Lee, Dr. Ashburner, Dr. Rostan, Dr. Teste, and Dr. Esdaile, as to tests demonstrating the reality of clairvoyance; to the evidence of the Dialectical Committee, of Dr. Lockhart Robertson, Serjeant Cox, Mr. Crookes, and myself, as to motion of solid bodies demonstrably not caused by muscular action; to the evidence of the Dialectical Committee, of the Hon. Robert Dale Owen, Mr. Crookes, and Professor Barrett, as to raps demonstrably not caused by the muscles or tendons of the medium; to the evidence of Mr. T. A. Trollope and myself as to the production of flowers, demonstrably not brought by the medium,—all of which evidence, and everything analogous to it, is totally ignored by Dr. Carpenter. Again, this work, professing to be "scientific," and therefore accurate as to facts and precise as to references, has been shown to be full of misstatements and misrepresentations. As examples we have—the statement that there is no evidence of the mesmeriser's power to act on a patient unconscious of his wish to do so, whereas I have shown that there is good medical evidence of this power; that Reichenbach did not submit his subjects to tests, whereas I have quoted many admirable tests, as well as the independent test-observa-

tions of Dr. Charpignon; that Rutter's magnenometer never acted when the operator did not know the substance influencing it, whereas Mr. Rutter states clearly and positively that it did; that the Royal Academy of Medicine *first* investigated clairvoyance in 1837 and declared it not proved, whereas they first investigated it in 1825, and reported *favourably*; that Professor Gregory was credulous, and took no precautions against imposture, which I have shown to be not the fact. Again we have numerous errors and misstatements (always against the mediums) in the accounts of the Misses Fox and Mrs. Culver, of the alleged "Katie King" exposure, and of the flower-séance chemically exposed. And, lastly, we have the statement, repeated under many forms, that when adequate investigation has taken place, and especially when "trained experts" have been employed, trick or imposture has *always* been discovered. But this I have shown to be the grossest of all misstatements. Surely medical men are "trained experts," and we have nine members of the Royal Academy of Medicine investigating for five years, and a large number of French and English medical men devoting years of enquiry to this subject, and deciding that it is *not* imposture. Are not eminent physicists trained experts, so far at least as the purely physical phenomena are concerned? But we have Prof. Hare, Prof. Gregory, and Mr. Crookes, who all devoted years of careful investigation to the subject; Prof. Barrett, who has come to it with a fresh and sceptical mind, stored with all the warnings that Dr. Carpenter can give him, and yet declares it to be reality, and neither imposture nor delusion; while another recent convert from extreme scepticism on this subject is Dr. Carter Blake, Lecturer on Comparative Anatomy at Westminster Hospital, who last year wrote me that after months of careful examination he was satisfied that the phenomena called "Spiritual" are thoroughly genuine and worthy of scientific examination,—that he has arrived at this conclusion very slowly, and, referring to his recent investigations, he says—"Every experiment performed has been under the most rigorous test conditions, and the dishonest element which some professional mediums have shown has been rigorously eliminated. Yet, again, professional conjurors are surely "trained experts," and Dr. Carpenter has himself often referred to them as such, but the moment they go against him he ignores them. I have adduced, for the second time, the remarkable evidence of Robert Houdin to the reality of the clairvoyance of Alexis; Mr. T. A. Trollope informs us that another celebrated conjuror, Bosco, "utterly scouted the idea of the possibility of such phenomena as I saw produced by Mr. Home being performed by any of the resources of his art;" and lastly, at Glasgow, last year, Lord Rayleigh informed us that he took with him a professional conjuror to Dr. Slade's, that the phenomena happened with considerable perfection, while "the

conjurer could not form the remotest idea as to how the effects were produced."

We have now concluded what has been a painful task ; but in the interests of truth it was necessary to show how completely untrustworthy is the self-appointed guide that the public so blindly follow. By ample references I have afforded to such of my readers as may be so inclined the means of testing the correctness of my charges against Dr. Carpenter ; and if they do so they will, I feel convinced, not only lose all faith in his explanations of these phenomena, but will also find how completely ignorant of this, as of most scientific subjects, are those writers in our influential literary press who have, almost without exception, praised this book as a fair and complete exposition of the subject on which it treats.

It also seems to me that an important question of literary morality is here involved. While maintaining as strongly as anyone that new or disputed theories should be subjected to the fullest and severest criticism, I yet hold that this should not involve either misrepresentation or what has been termed the "conspiracy of silence." It is, at the best, hard enough for new truths to make their way against the opposing forces of prepossession and indifference ; and bearing this in mind, I would ask whether it is in the interests of human progress and in accordance with right principles, that those who have the ear of the public should put forth, under the guise of impartial history, a thoroughly one-sided and erroneous account of a disputed question. It may be said that errors and misstatements can be exposed, and will only injure the author of them ; but unfortunately this is not so. The popular view of a subject like this is sure of a wide circulation, and writers in the daily and weekly papers increase its publicity, whereas few read the answer, and the press decline or refuse to make it known.*

* A striking proof of this statement has been quite recently furnished us. The letter given below was sent by Dr. Slade to Professor E. R. Lankester. It would seem to exhibit, in a high degree, the characteristics of truth, fairness, and charity. No answer was received. The press, moreover, refused to publish it, and the daily press, one and all, *refused to insert it even as an advertisement !*

"PROFESSOR E. R. LANKESTER.

"DEAR SIR,—Dr. Slade having in some measure recovered from his very severe illness, and his engagement to St. Petersburg having been postponed (by desire of his friends there) till the autumn, desires me to make the following offer:—

"He is willing to return to London for the express and sole purpose of satisfying you that the slate-writing occurring in his presence is in no way produced by any trickery of his. For this purpose he will come to your house unaccompanied by any one, and will sit with you at your own table, using your own slate and pencil ; or, if you prefer to come to his room it will suit him as well.

"In the event of any arrangement being agreed upon, Slade would prefer that the matter should be kept strictly private.

"As he never can guarantee results, you shall give him as many as six trials, and more if it shall be deemed advisable.

"And you shall be put to no charge or expense whatever.

As the very existence of the press depends on popularity this is inevitable, but it none the less throws a great responsibility on those who possess this popularity if they mislead public opinion by inaccuracy or suppression of facts.

In his article on "Fallacies of Testimony" Dr. Carpenter, quoting Schiller, says, that the "real philosopher" is distinguished from the "trader in knowledge" by his always loving truth better than his system. If our readers will carefully weigh the facts now laid before them, they will be able to decide how far Dr. Carpenter himself belongs to the first or to the second of these categories.

ALFRED R. WALLACE.

Text-Book of Structural and Physiological Botany. By OTTO W. THOME. Translated and Edited by ALFRED W. BENNETT, F.L.S. London: Longmans and Co.

WE have here a translation of a German work which has found great approbation in its own country, and will probably experience an equally favourable reception in England. It embraces the whole range of elementary botany, and will prove a safe and convenient guide for the student in the earlier part of his career. The Editor, however, very judiciously reminds his readers that in Natural Science "the greater and the most useful part of the student's knowledge must always be acquired in the field, or with the dissecting knife in hand," the use of text-books being merely to put him in the right track for personal research, and to save him from the necessity of re-discovering what others have already

"You on your part shall undertake that during the period of the sittings, and for one week afterwards, you will neither take, nor cause to be taken, nor countenance legal proceedings against him or me.

"That if in the end you are satisfied that the slate-writing is produced otherwise than by trickery, you shall abstain altogether from further proceedings against us, and suffer us to remain in England, if we choose to do so, unmolested by you.

"If, on the other hand, you are not satisfied, you shall be at liberty to proceed against us, after the expiration of one week from the conclusion of the six or more experiments, if we are still in England. You will observe that Slade is willing to go to you without witnesses of his own, and to trust entirely to your honour and good faith.

"Conscious of his own innocence, he has no malice against you for the past. He believes that you were very naturally deceived by appearances, which, to one who had not previously verified the phenomena under more satisfactory conditions, may well have seemed suspicious.

"Should we not hear from you within ten days from this date, Slade will conclude that you have declined his offer.

"I have the honour to be, sir, your obedient servant,

"J. SIMMONS."

37, Spui-straat, The Hague, May 7th 1877.

observed before him. The real educational value of Natural History, the development of the power of observation, will utterly escape those whose studies are confined to books.

The successive chapters of the work are devoted to a consideration of the cell as an individual; the cell as a member of a group of similar cells; the construction of the plant out of cells; the external form of plants; the life of the plant; special morphology and classification; the changes in the vegetation of the globe during past geological epochs; and botanical geography. The last division is illustrated with a map, showing the twenty-four regions into which the earth is divided by Griesbach in his "*Végétation der Erde*"—a classification which Mr. Bennett thinks "too unqualified," both with regard to the boundaries between the regions and the characters which distinguish them from one another. It is interesting to compare these regions with the geographical divisions of the animal world, as laid down by Mr. Wallace. We must own to a little surprise at finding Madagascar classed as an "Oceanic Island," along with the Azores, Madeiras, and Canaries.

The chapter on vegetable palæontology gives an accurate but necessarily very brief account of the floræ of bygone ages.

In the section on the "Life of the Plant," the influence of temperature, light, &c., upon vegetation is carefully described.

The work is throughout abundantly illustrated, and will, we hope, prove useful to those real students who seek not to "pass," but to know.

The Geology of England and Wales. A Concise Account of the Lithological Characters, Leading Fossils, and Economic Products of the Rocks; with Notes on the Physical Features of the Country. By HORACE B. WOODWARD, F.G.S., of the Geological Survey of England and Wales. London: Longmans and Co.

MANY as have been the geological works recently put forth in England, there was still, we believe, room for a condensed work of reference on the geology of our own country that should be fully on a level with the present state of the science. This want Mr. Woodward has supplied in what we must pronounce a very satisfactory manner. His treatise is well arranged, comprehensive, accurate, and concise. All unnecessary verbiage has been carefully avoided, so that the student is not placed under the necessity of seeking out the facts he wants amidst a dreary waste of padding. Of speculation there is little. The author declares himself to be what is technically called a "uniformitarian," but he judiciously adds that "in concluding that the physical forces have been the same throughout geological time" we must guard