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THE

MONTHLY CHRONICLE.

ANIMAL MAGNETISM.

"Were such things here as we do speak about?
Or have we eaten of the insane root
That takes the reason prisoner?"—*Macbeth.*

"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."—*Hamlet.*

"THE ordinary stages," says Mr. Mayo, "through which any discovery in physiology, involving views that go greatly beyond those commonly entertained, has to pass are—

"*First*, To be positively denied as false, contrary to experience, absurd, and unworthy the attention of sensible men.

"*Secondly*, To be shown to have been known and admitted before, to a degree depriving the observer, who just now was ridiculed for having believed it, of any credit for having seen with more justness and originality than others the disputed novelty.

"*Thirdly*, To be denounced as a perilous innovation, endangering religion and the moral bonds of society.

"*Fourthly, and finally*, To be received by every body as a matter of common knowledge, the only wonder being that it was ever doubted, and its supposed anomalies and contradictions to Nature's laws being seen to be and represented by the writers of the day as the most striking illustrations of the harmony of the physical world."*

Mr. Mayo need not have limited this sagacious observation to physiology; it is applicable, with equal force, to all great discoveries which have a tendency to disturb received notions. Scarcely an important discovery has ever been made—in astronomy, for example—which did not pass through the same stages; the motion of the earth itself affording a conspicuous example. Mr. Mayo considers animal magnetism to be now in the first of these stages; we think, however, it is more advanced. In Germany, it has arrived very nearly at the final stage; in France, it has entered, as it were, upon its third phase; while with us, backward as we have been in physiology generally, it has scarcely passed the first.

Is it to the inordinate lucre-loving principle which, springing up in its legitimate soil among our vast commercial and manufacturing interests, has spread its roots through the liberal professions, that we are to ascribe the remarkable fact that while our courts of judicature and our hospitals are filled by expert practical lawyers and physicians, the knowledge of jurisprudence on the one hand, and physiology on the other—the *science* of law and the *science* of medicine—have been less advanced among us than in any other part of the civilised world? Is it that the cultivation of jurisprudence does not attract clients, nor that of physiology patients, to fill

* An account of some recent effects of Mesmerism, by Herbert Mayo, F. R. S., Medical Gazette, Nos. 30, 31, 32.—a clear and philosophical exposition.

the purses of the professors? Neither would they accomplish this, we presume, elsewhere. Or, is it that Germans esteem an exalted reputation more highly than immediate professional gains, while our countrymen are actuated by a greater ambition for wealth than for scientific distinction? Be this as it may, the fact is unquestionable that we are behind other nations in those parts of professional knowledge from which the greatest reputation and the least profit arise.

It cannot be denied, however, that if any circumstances can palliate that scepticism which, when sincere, proves so great an obstruction to the progress of knowledge, but which is often affected from indolence or inability* to investigate novel subjects of inquiry, these circumstances eminently exist in the alleged phenomena of animal magnetism; in attempting this brief review of which, we approach our task under feelings of not a little hesitation and embarrassment. Seeing that we shall have to record things in such utter discordance with all effects hitherto commonly observed, and apparently touching so closely on the region of the miraculous, it is difficult, yet it is necessary, to win, in the first instance, that degree of confidence to which we are conscious the statements are entitled.

When Dr. Treviranus, an eminent physician of Bremen and a distinguished botanist, the friend and associate of the celebrated Dr. Olbers, visited London, Coleridge, who took a deep interest in the investigations of animal magnetism, anxiously inquired of him as to the reality of those phenomena of which he was reported to have been an eye-witness. The memorable reply of the naturalist was, "Ich habe gesehen was (Ich weiss das) ich nicht würde geglaubt haben auf ihren Erzählung." "I have seen what I am certain I would not have believed on *your* telling, and which in all reason, therefore, I can neither expect nor wish that you should believe on the faith of my assurance." There is no one who has ever witnessed the facts developed by the researches of magnetists, who will not recognise in the reply of Treviranus what he has himself felt.

Nevertheless, to withhold our assent to any fact, not in itself physically impossible, when attested by competent and credible witnesses, betrays some defect, moral or intellectual, in the mind. Nothing can be more opposed to that noble spirit of philosophy whose essence is the love of truth, and which is characterised by an unbounded faith in the goodness of all legitimate consequences arising from truth, than this unwillingness to surrender our assent to well attested facts, merely because they are contrary to our wishes, and in discordance with our previous habits of thinking. "The true philosopher," beautifully observes Sir John Herschel, "is prepared to believe all things not unreasonable, and to hope all things not impossible."

Among the many, in various parts of the world, whose attention has been directed to the subject now before us, it is truly humiliating to observe how few have been actuated by the pure and disinterested love of truth, and how difficult it seems to have been, in most cases, even for the best disciplined and most philosophical minds, to disinthral themselves from the sway of systems, and submit to the rules of Baconian investigation: — to look at facts as facts, phenomena as phenomena; — apart from preconceived theories and hypotheses. Alas! by how precarious a tenure should we hold our lives and properties, if judges and juries found it equally difficult to free their minds from the influence of all extrinsic circumstances, and to give their verdicts "according to the evidence!"

* Nonnulli, tædio veritatis investigandæ cuilibet opinioni potius ignavi succumbunt, quâm explorandâ veritate pertinaci diligentiâ perseverare volunt. Minut. Felix.

It is our purpose in the present paper to lay before our readers* a succinct statement of the facts and phenomena, called (whether properly or not, we shall not stop to inquire) Animal Magnetism. We shall state, we trust, without bias or partiality, the evidence on which the reality of these reported facts is based. In attempting this, we shall not, after the example of the writer of an article in the Quarterly Review on this subject †, first poison the minds of our readers by obtruding upon them the quackeries and absurdities which disfigure the first investigations on this subject. There is no department of science whose early professors have not been guilty of like practices. As fair and as rational would be an attempt to discredit astronomy, and to cast ridicule on the Newtons, the Laplaces, the Herschells, and the Brinkleys, because former cultivators of that science, even including Bacon himself, believed and practised astrology; or to treat with irony the researches of the Lavoisiers, the Gay Lussacs, the Davys, the Faradays, because of the grotesque quackeries of the alchemists, to whose labours, nevertheless, chemistry is so deeply indebted. The absurd ceremonies of Mesmer and his associates cannot invalidate facts, witnessed and vouched by individuals admitted to be among the most eminent naturalists and physicians of France and Germany.

The nature and force of the evidence on which the best attested phenomena in animal magnetism rest, may be safely pronounced to be sufficient to establish the truth of any alleged fact not physically impossible. We will not pretend, however, to produce such evidence as will satisfy the Quarterly Reviewer; that, indeed, would be a difficult task; for whether facts be vouched by individual witnesses, however respectable, or by a limited number of witnesses expressly selected for their skill and competency, or, finally, by the public in general, collected in large assemblies, the incredulity of that writer is impregnable. "When effects so strange are produced, we are entitled," says he, "to insist on the fulfilment of all the conditions which render delusion and collusion impossible; and the first and chief of these is, their public attestation by a sufficient number of competent judges." Well, the magnetists, zealous to satisfy even the most jealous scepticism, and anxiously courting inquiry, exhibited in different places, and especially in Paris, the facts publicly to large assemblies of persons; and to prevent the possible imputation of collusion, the operator was placed in another room without the cognizance of the patient. "Oh! but," says the Quarterly Reviewer, "no wonder effects were produced, considering the crowd of gaping assistants who could not fail to warn the patient of what was going on." Perhaps the Reviewer would inform us how to obtain the "public attestation by a sufficient number of competent judges," without a crowd of what he would call "gaping assistants."

Let us see whether a more limited number of competent inquirers will satisfy his scruples. A committee of the Royal Academy of Medicine of France, consisting of eleven distinguished members of that body, was in 1826 appointed to examine into the reality of the alleged phenomena. The members of that committee were previously, without one exception, sceptics on this subject, and their proceedings were directed by a spirit of mistrust. They excluded the public (the "crowd of gaping assistants") from their

* We wish to be understood as addressing the public generally, and not medical men. The subject is one which has excited, and will probably continue to excite, general attention; and there is nothing in the phenomena which may not be comprehended, nor in the evidence by which they are supported which may not be appreciated by every well-informed person; we shall, therefore, neither use the phraseology nor follow the line of statement and argument which would be proper in a medical publication.

† Quarterly Review, April, 1838.

inquiry, being themselves the sole witnesses of the facts brought before them. The decision of this committee was in favour of the reality of the phenomena; but neither doth this test please the fastidious Reviewer: he declares that it was no wonder that effects should be produced when the patient saw "half a dozen elderly gentlemen staring at him, and one of them busied in making passes and antics with great gravity before his face."

Since neither the public in general, nor a limited number of picked and competent judges, will convince the Reviewer, perhaps the recorded observations and experience of medical practitioners of acknowledged ability and integrity will satisfy him. Dr. Wienholt, a practitioner of great skill and reputation in Bremen; Dr. Olbers, another physician of eminence, and also holding the highest rank as an astronomer; and others of like rank and character in various parts of Germany, considering that the proper mode of promulgating improvements in the healing art is to make public the result of their professional practice, and relying on the dignity of their profession and their personal respectability for public confidence in their assertions, have declared that the results of their practice have satisfied them of the reality of the phenomena of magnetism, and of its beneficial influence as a therapeutic agent. But such testimony the Reviewer utterly repudiates: "We are entitled," he reiterates, "to the conditions which render delusion and collusion impossible." Thus, whether the facts be vouched by the medical practitioner in the usual course of his practice, or be testified by a limited number of appointed and competent witnesses expressly authorised to investigate them; or finally be exhibited publicly to all who wish to "come and see,"—the slippery Reviewer still has his means of escape. Alas for science, if the march of discovery were regulated by the logical canons of the Quarterly Reviewer!

In another part of this rambling and inconclusive essay, this writer, doubtless forgetting his first test of "public attestation by competent judges," declares that his belief in animal magnetism will be suspended until M. Dupotet "shall enter one house, and magnetise his unconscious neighbours in the next." This is a clever clap-trap, and has accordingly, since the publication of the article, been re-echoed by the sceptical, — but it will not bear examination. To the production of every natural effect certain concomitant conditions are necessary. In the spirit of the clear and convincing logic of modern physics, therefore, it is always conceded to those who claim the discovery of any new phenomena to prescribe all the conditions under which those phenomena are produced. Thus, to produce the spontaneous combustion of chlorine and hydrogen, the presence of solar light is requisite; to the development of the phenomena of electricity, a dryness in the atmosphere is necessary; to exhibit the magnetic virtue, the presence of iron is indispensable. Let us suppose that a sceptic on these subjects were to say, "When I see a mixture of chlorine and hydrogen spontaneously burn in a dark room; when I see an electric charge collected in an atmosphere of vapour; when I see a bar of pure gold rendered magnetic;—I will then believe in spontaneous combustion, in electricity, and in magnetism." Such precisely are the force and spirit of the test of the Quarterly Reviewer. That writer either knew, or might have known, that the effects of animal magnetism are not pretended to be produced indifferently on all patients; that, on the contrary, the number of individuals susceptible is supposed to be very limited; that, even on those, the effects are not pretended to be produced, except after a long continuance of the processes to which such effects are ascribed. He might also have known, had he thought fit to have witnessed the phenomena lately produced at the North London Hospital, and so clearly and philosophically described and

discussed by Dr. Mayo (compared with whom the Reviewer is as a dwarf to a giant), that distance considerably diminishes the influence of the operator upon the patient; and that this diminution is further increased by the interposition of doors or other material obstructions.

The fact is, however, that the effects produced by an operator in one room on an unconscious patient in another, have been rendered the subject of inquiry and observation; and it has been (as the Quarterly Reviewer must certainly be aware) ascertained to the satisfaction of a committee of the Royal Academy of Medicine of France that the consciousness of the patient has no influence, and that the effect can be produced through a closed door. Whether it can be transmitted through a wall of stone and mortar, we do not know; but, even if it cannot, it will only follow that a stone wall is not a conductor of this physical influence, though wood is.

After successively taking his stand on various and incompatible objections, proposing various and incompatible tests of the reality of the alleged phenomena, and rejecting almost immediately even his own tests, the Reviewer falls back upon the usual reserve of those who cannot refute, and will not admit a new truth, and exclaims *cui bono* — Of what use is this discovery, even admitting its reality? To this we shall return the dignified rebuke of Sir John Herschel: "The question '*cui bono*,' to what practical end and advantage do your researches tend? is one which the speculative philosopher, who loves knowledge for its own sake, and enjoys, as a rational being should enjoy, the mere contemplation of harmonious and mutually dependent truths, can seldom hear without a sense of humiliation. He feels that there is a lofty and disinterested pleasure in his speculations, which ought to exempt them from such questioning: communicating as they do, to his own mind, the purest happiness (after the exercise of the benevolent and moral feelings) of which human nature is susceptible, and tending to the injury of no one, he might surely allege *this* as a sufficient and direct reply to those who, having themselves little capacity and less relish for intellectual pursuits, are constantly repeating upon him this inquiry. But if he can bring himself to descend from this high but fair ground, and justify himself, his pursuits and his pleasures, in the eyes of those around him, he has only to point to the history of all science, where speculations apparently the most unprofitable have almost invariably been those from which the greatest practical applications have emanated." * And surely no branch of science more abounds with striking examples of this truth than medicine.

To the same purpose one of the most profound philosophers and independent thinkers has observed, — "If science be manifestly incomplete, and yet of the highest importance, it would surely be most unwise to restrain inquiry, conducted on just principles, even where the immediate practical utility of it was not visible. In mathematics, chemistry, and every branch of natural philolophy, how many are the inquiries necessary for their improvement and completion, which, taken separately, do not appear to lead to any specifically advantageous purpose! How many useful inventions, and how much valuable and improving knowledge would have been lost, if a rational curiosity, and a mere love of information, had not generally been allowed to be a sufficient motive for the search after truth!" †

There are three, and only three kinds of evidence, which ought legitimately to regulate our assent to any fact: *First*, The testimony of persons witnessing the alleged fact; the force of this testimony will be in proportion to the number, skill, and integrity of such witnesses. *Secondly*, That

* Herschel's Preliminary Discourse, Lardner's Cyclopædia, p. 10.
† Malthus, Principles of Political Economy, p. 16.

facts of a similar kind have usually happened under similar circumstances. *Thirdly*, That facts of a similar kind may, under like circumstances, be reproduced, so as to be submitted to the scrutiny of other competent witnesses.

In the range of our knowledge, however, there is but a small portion which can be supported at once by all these grounds of certainty. Even in matters of physical science, in which certainty reaches its highest point short of abstract truth, we are, for the most part, dependent on the testimony of competent witnesses; for, although we are assured, and in fact entertain no doubt, that the alleged phenomena *may be* reproduced at will, yet it does not happen to one individual in ten thousand actually to witness them. Who is there, for example, acquainted generally with modern physics, that doubts the existence of the remarkable phenomena attending the interference of light, — among which may be mentioned the fact, that two rays of light falling on the same object may obliterate each other, and produce darkness; while, by intercepting either, the other will acquire its illuminating power? Yet, this is an effect extremely difficult to reproduce; and probably of the whole number of persons who give to it — considered as a fact — their undoubting confidence, there is not one in fifty thousand who has himself actually witnessed it, or who could, if he would, reproduce it. In fine, in most cases our principal ground of assent is, and must continue to be, the testimony of a sufficient number of witnesses of skill and integrity vouching their knowledge of the fact.

The advocates and supporters of animal magnetism maintain, that there exists in nature a specific agency, in virtue of which the persons of certain individuals exert on each other certain effects, physical and mental. Let us, for distinction and brevity, call the person who produces the effect the *magnetiser*, — the person who receives it the *patient*.

The magnetiser then, approaching the patient, usually presents his hand with all the fingers pointed to the surface of his body, in the manner which would be suggested by the supposition that the magnetic influence would flow from the points of his fingers. Sometimes the hand of the magnetiser will be steadily presented to the head, the shoulder, or some other part of the body of the patient for a length of time, more or less, without moving, until the expected effects begin to be manifested. In other cases, the magnetiser will move his hands continually in some certain direction, constantly carrying them back to their first position, and repeating the same motion with the fingers pointed at the surface of the body of the patient. The direction of these motions of the hands, which are called *passes*, is indifferent. They are sometimes made from the head downward; sometimes from the feet upward; sometimes at right angles to the person in a horizontal direction; sometimes the hand, being placed near the patient, is drawn directly from his body; but most frequently the first effects are produced by holding the hands for a length of time in the same position with all the fingers pointed at some part of the head or neck, the distance of the fingers from the patient being from one to two inches.

Some magnetisers have proceeded by contact, friction, or pressure; the hands being pressed or rubbed on the surface of the body of the patient. This, however, is not the usual process; on the contrary, the effects are said to be produced in many cases without any manipulation or motion whatever on the part of the magnetiser, but merely by a look.

It has been mentioned by some inquirers who have attended more to theory and hypothesis than to the legitimate analysis of facts, that the *will* of the operator and the *faith* of the patient are indispensable to the

production of the phenomena; and the Quarterly Reviewer, finding this to his purpose, stigmatizes the doctrine and the practice as "a debasing superstition, and a miserable amalgam of faith and fear." Even if it were true that *will* on one part, and *faith* on the other, were indispensable, the reality of the physical phenomena would not thereby be shaken. But such is not the case. All the effects have been repeatedly produced under circumstances in which the patient could have no consciousness of the presence or proximity of the operator, and therefore no *faith* in the process; and in which the operator himself must have been unconscious of all that was doing, and therefore could have no *will* on the subject. Patients have been affected by operators placed unknown to them in a different apartment; they have also been affected by an operator at some distance from them, being themselves in a deep sleep. Children of an age too tender to comprehend such a subject, have been among the most susceptible patients; and even infants who had not yet learned to speak have been affected. An infant was rendered an unconscious operator by being taught to move its hands in the necessary manner. Those, and innumerable other circumstances of a like kind, demonstrate that the thoughts, intentions, or wishes of the operator, are not necessary to the development of the phenomena. Whether they affect their intensity has not been decided by experiment.

The term "Animal Magnetism" has been objected to as indicating a relation to or a connection with the phenomena of ordinary magnetism, of which there are no certain or even plausible indications. Indeed, for any thing to be found in the physiological phenomena now under consideration, they might with as much propriety have been called "animal electricity," "animal galvanism," or "animal gravitation." The very slender analogy which forms the only ground of the title Animal Magnetism is that the body of the magnetiser affects that of the patient *at a distance;* that the effect is probably increased by the diminution of distance; and that in some cases an *attraction* is manifested proceeding from the limbs or body of the magnetiser to that of the patient, as we shall presently more fully explain. But the well known property of the loadstone and iron has no relation whatever to the class of effects now under consideration.

The inconvenience arising from this inappropriate title has induced some writers to substitute for it the name *Mesmerism*, from *Mesmer*, a German physician, who first directed public attention to the subject; but it is difficult to change a name, however defective, when it once has obtained general acceptance; and these phenomena have continued to be and are still generally called ANIMAL MAGNETISM.

If the power of producing these effects appertain indifferently to all individuals, it is far otherwise as to the susceptibility of those who suffer them. Although experiment and observation have not yet been sufficiently extended to indicate the conditions under which persons are or are not susceptible of being affected by these processes, still it is tolerably certain that the susceptibility exists in a circumscribed class. A committee of the Academy of Medicine of France, to whose proceedings we shall have occasion frequently to refer, maintain that "magnetism has no effect on persons in a state of sound health." In this opinion we can only concur in a limited and qualified manner. That none of the individuals susceptible of the influence, who were brought under the observation of the committe, were "in a state of sound health," we shall not deny. We shall, moreover, admit freely that a very large majority of the cases in which an unequivocal susceptibility has been manifested have been cases of invalids. But, on the other hand, it is

necessary to take into account the fact that the process has been tried for the most part on invalids alone. The hospitals have been the most ordinary theatres for its exhibition. Physicians have been almost exclusively the operators, and the subjects have been as exclusively their patients. It is manifest that the process could be tried on a healthy subject only from motives of vague curiosity, which is with great propriety generally discouraged, or with a view to the scientific investigation of the question, for the sake of which it would be almost as difficult to find individuals willing to submit to the process as to leave their bodies to be dissected for the same philanthropic purpose. That the great majority—nay, *the whole* of the cases of susceptibility, should therefore be cases of invalids, instead of being matter of wonder, must be what was to be naturally expected.

The difficulty of detecting the susceptibility of patients has been increased by the fact that the process of manipulation, by which the first effects are produced, is in most cases one of long continuance. It has frequently happened that the same individual has been under the hands of the operator for several weeks before any manifestation of susceptibility took place, and yet subsequently the same patient became susceptible in the highest degree, and exhibited effects of the most rare occurrence. When these circumstances are considered, it will be evident how rash and premature any conclusion must be as to the probable number or condition of the individuals who are susceptible of this influence.

From the frequency and facility with which the effects have been produced on epileptic and cataleptic patients, a rather hasty inference is sometimes made, that these diseases are conditions of susceptibility. An epileptic boy, however, has been submitted to the usual process of manipulation by Dr. Elliotson in the North London Hospital for many months without the slightest effect being produced; while a boy of nearly the same age, labouring under the same disease in a similar degree, in the same hospital was affected very speedily. On the other hand, many cases have occurred of patients not suffering from epilepsy or catalepsy who have, nevertheless, been highly susceptible.

The effects produced on the patients by the processes just explained are so very various in different individuals, and subject to such extraordinary changes in their successive stages in the same individual, that any classification of them is exceedingly difficult, and must be regarded as subject to many qualifications and exceptions in each particular case.

In the first or lowest stage the patient remains awake, and retains the full use of all the organs of sense. Slight cutaneous sensations are produced—redness of the skin—twitches and spasms—a heaviness of the eyes—a sense of general warmth and comfort—lightness, such as produced by the action of a gentle stimulant,—are common effects. The respiration and the pulse are also generally affected.

In the second stage, the senses still retain their activity, with the exception of sight, which is rendered somewhat obtuse, the eye gradually withdrawing itself from the control of the will. Various nervous sensations are felt, and a state is produced which is called the *imperfect crisis*, or *half-sleep*.

In the third stage, the organs of sense lose altogether their susceptibility to external impressions, and the patient falls into a state which has all the external signs and appearances of deep slumber. The limbs are dissolved; the head droops; the body, if not supported, falls; the respirations become long, heavy, and sometimes loud; the eyelids are closed. This state is accompanied by an utter insensibility of the skin and integuments to external impressions. The patient may be severely pinched, pricked with a pin, the hair may be torn from the head, and the flesh may be cut

without causing any manifestation of pain. This stage is called the *magnetic sleep*, or *coma*.

The fourth stage is called the *perfect crisis*, or *somnambulism*. The patient, after remaining in the magnetic sleep for some time, will often pass spontaneously into the fourth stage, but more frequently is aroused into it by certain manipulations, such as by drawing the fingers gently over the eyebrows. This state bears a close resemblance to ordinary sleep-walking. It differs so much in different individuals, even in particulars which would seem to be essential, that it is difficult to give a general description of it.

The terms in which it is usually described are objectionable, because they involve references to some hypothesis as its cause. Thus we are told by one that the body sleeps, but the soul wakes; that the perceptions of external objects find their entrance to the mind, not by the usual organs of sense, which are still as destitute of susceptibility as in the third stage or magnetic sleep, but by other means; according to some, by a high sensibility acquired by the skin. It is also described as "a state which can neither be called sleeping nor waking, but which appears to be something between the two; a state in which the patient is placed in a very peculiar relation with the external world." *

Speaking from our own observation, we should describe this third stage as one in the transition to which from the previous state of coma the patient recovers the control over the body and limbs, in the same manner as a person does in awaking from natural slumber. Thus the legs now support the body, and carry it at the dictate of the will from place to place. The head no longer droops, but is sustained by the neck, as in a waking person. The eyes sometimes remain closed as in sleep, but are oftener open. When open, they are sometimes fixed and glazed like those of a natural somnambulist, rendering manifest the insensibility of the organ.

> "*Doctor.*—You see her eyes are open.
> *Gentlewoman.*—Yes; but their sense is shut."—*Macbeth.*

Frequently, however, the open eye is active, rolls about, and takes the direction of the objects, the perception of which the patient receives; in a word, has all the external appearance of being the avenue through which the perception of visible objects reaches the mind.

In this stage the same insensibility of the surface of the body as in the preceding continues. External impressions which usually inflict pain fail to do so; and we have seen, as will be explained hereafter, severe galvanic and electric charges passed through the person under such circumstances, without the slighest visible effect, and without awakening the patient.

The sense of hearing in this stage is, in some patients, nearly lost, while in others it is in the highest state of activity. Some speak little, and that little indistinctly, and in a tone so low as to be scarcely audible; while others become animated and loquacious in an extraordinary degree. Some are almost unconscious of surrounding objects, of which others are highly observant and attentive.

This stage will, however, be more clearly understood by the individual cases which we shall describe hereafter.

The fifth stage is admitted by those who have devoted most attention to these extraordinary phenomena to be of far more rare occurrence than any of the former. The patient retaining all the characters and peculiarities of the fourth stage, and being still in a state of magnetic somnambulism, is said to obtain a clear knowledge of his own internal organisation, as if his body were rendered transparent to his vision so as to enable him to see the

* Colquhoun, Isis Revelata, vol. i. p. 281. ed. 1836.

actual state of every internal part of it; he is further said to be endowed with such knowledge of it, that he can not only prescribe remedies, but foretel with certainty the future changes incidental to his disease, assigning the exact time of the access of each remarkable phenomenon. It is, however, admitted that this foresight does not extend to the influence of external circumstances by which the ordinary course of the phenomena may be interrupted. Thus, a patient may predict that on a certain day and at a certain hour he will suffer an epileptic fit, but in the meantime he may be accidentally killed or intentionally murdered. His predictions of the phenomena of his own disease are to be understood in the same sense as the predictions of the astronomer of the rise and fall of the tides in a particular port, that is, subject to the implied condition, that the natural course of things shall not be deranged by any external and irregular disturbing cause.

The faculty of internal inspection is not always confined to his own organisation. He is also sometimes endowed with the power of perceiving the state of the internal organisation of those who are put into magnetic connexion with him, and he is equally endowed with the power of perceiving their diseases, and prescribing remedies for them.

This fifth stage is called by French writers the state of *clairvoyance*, and by Germans *Hellsehen*.

In the sixth and highest stage, the powers of *clairvoyance* are freed from the limits imposed on them in the fifth stage; and the perception of the patient is extended to persons at any distance, while his power of prevision is spread over an unlimited extent of future time. Neither is it necessary that the objects of his prevision should be placed in magnetic connection with him.

Such are the principal phenomena enumerated by writers on animal magnetism, in support of most of which is adduced the testimony of numerous witnesses, the skill and integrity of many of whom cannot be disputed, including, as the Quarterly Reviewer admits, some of the most eminent naturalists and physicians who have flourished in France and Germany for the last half century.

Although traces of phenomena, similar to many of those of animal magnetism, may be discovered in the records of superstition, of magic, and of witchcraft, in almost every country, from the most remote ages till our own time, no attempt appears to have been made to generalise or reduce them to a system, with a view to the legitimate investigation of their proximate physical cause, or to investigate the means of reproducing them, until about the year 1776, when Frederick Anthony Mesmer, a native of Switzerland, who was a practising physician in Vienna, observed some of the effects already explained produced accidentally*; and subsequently discovered, by various tentative and empirical processes, the nature of the manipulations by which he could reproduce them at will.

He subsequently conceived that the effects thus produced on patients were attended with a therapeutic or curative influence, and thenceforward adopted them in his practice as a medical agent in the treatment of disease. These proceedings having raised against him the hostility of the medical profession in Germany, who denounced him as an impostor or a self-deluded enthusiast, he removed in 1778 to Paris, where he attempted to vindicate his character

* Ennemoser states that Mesmer was led to the discovery of animal magnetism by the following circumstance. Being present on one occasion when blood was drawn from a patient, he found a remarkable difference in the flowing of the blood when he approached or retired. Having afterwards repeated the experiment, the same phenomenon was manifested. Hence he was induced to conclude that his person was endowed with this magnetic influence, which may have been stronger in him than in other men, as different pieces of iron or steel may possess different degrees of magnetic power. Colquhoun, vol. i. p. 217.

from the charges urged against him in Germany, in a treatise which contained a theory by which the phenomena of animal magnetism were attempted to be explained on physical principles. A rational and satisfactory theory is seldom produced until after long experience has collected and classified with clearness and precision the facts which it is contrived to explain. Mesmer's, as might be expected, was crude and visionary in the last degree; and whatever effect it may have had in clearing his reputation from the stigma of imposture and charlatanery, it certainly could not have contributed much to remove from him the imputation of enthusiasm and delusion.

Whatever might be thought of his theory, the facts and phenomena which he developed were undeniable; and he soon collected around him such a number of disciples and converts as to excite alarm in the medical profession of Paris, and to awaken the serious attention of the government. The professional persecution commenced as usual by unsparing ridicule and unscrupulous calumny. The hostility of government was manifested by the peremptory and invariable refusal of the censors of the press to permit the insertion in the public journals of any defensive or explanatory statements on his side, while they gave unbridled freedom to every attack upon his system, and every slander against his character.

At first Mesmer preserved his processes secret, and was himself the great and sole magnetiser. After the lapse of some years, however, he imparted them to many others, chiefly medical practitioners. Societies for the practice of magnetism as a therapeutic agent, and for the investigation of its phenomena regarded as a subject of general science, soon sprang up, not only in Paris, but in the provinces. Correspondence between these bodies was established, and the observation and collection of facts increased, as is wont in other sciences, by the active spirit of inquiry which had been called into life.

The proselytes of this new branch of medical and physiological science, smarting under the sting of professional proscription and social persecution, became eager for a public inquiry into the reality of the effects which they professed to produce, and their efficacy as a medical remedy; and many proposals and suggestions were thrown out by them with this view. Mesmer himself, and subsequently his pupil Puysegur, proposed to the medical faculty of Paris that twenty-four patients should be selected from the hospitals; one half of whom, taken indiscriminately, should be treated according to the usual methods followed by physicians, and that the other half should be submitted to the magnetic treatment. These proposals were declined.

Meanwhile the practice of animal magnetism prevailed to such an extent throughout France as to give rise to many abuses. Although in some cases it was adopted by intelligent and qualified physicians, yet being rejected with scorn and contempt, whether real or affected, by the great body of the profession, it fell mostly into the hands of charlatans and pretenders. The attention of the state was at length forced to the subject, and a mandate was issued by Louis XVI. in March 1784, directing the scientific bodies of Paris to appoint commissioners to inquire into the reality of its pretended effects. Two commissions were in consequence appointed; the one consisting of the following members of the Academy of Sciences — Franklin, Leroi, Bailly, De Bori, and Lavoisier; and of the following physicians — Majault, Sallin, D'Arcet, and Guillotin (from whom the terrible instrument of execution afterwards received its name); and the other of the following members of the Society of Physicians — Poissonier, Desperrieres, Caille, Manduyt, Andry, and Jussieu, the celebrated botanist.

Nothing could be more futile or misdirected than the inquiry of these commissioners, evidently undertaken and commenced with a predetermination as to their final decision. Instead of directing their attention to the only question of real importance before them—the nature and reality of the phenomena alleged to be developed, and their therapeutic or sanative effects—the committee addressed themselves to the refutation of the theory contained in Mesmer's published treatise, already alluded to, which assumed the existence of a fluid pervading the universe which was the vehicle by which these effects were conveyed. They arrived at the conclusion that the existence of such fluid was "not proven;" and they declared that all the phenomena observed by them could be accounted for by imagination, imitation, and *attouchement.*

Whether Mesmer's theory were right or wrong, or whether his supposed fluid had any existence *in rerum natura* or not, was a matter of not the slightest importance; nor could it in any way affect the reality of the effects of animal magnetism. All the phenomena of light and vision are usually ascribed to the agency of a peculiar fluid which is supposed to pervade the universe; and Newton imagined that the effects of gravitation were produced by an ether which filled the infinity of space being more or less compressed or rarified in different regions, and thus giving bodies floating in it a tendency to rush from one situation to another. What would be thought of a committee of philosophers attempting to determine the reality and usefulness of the phenomena and laws of physics and optics, who should direct their efforts to ascertain the reality of the existence of the luminous fluid or the gravitating ether; and having, as they imagined, disproved these, should declare that physics and optics had no reality or usefulness in them?

The only material questions which it was the duty of this commission to have decided were, whether the extraordinary phenomena alleged to have been produced were really produced; and whether or not they were followed by any of the curative consequences which had been ascribed to them. The latter inquiry the commissioners altogether declined, declaring that it was necessary to exclude the treatment of diseases, because it could only furnish results always uncertain, and often deceptive.*

Although at the time of making this report the most extraordinary class of magnetic phenomena, viz. somnambulism, clairvoyance, and prevision, had not been discovered; yet the commissioners allow, in their concluding summary, that facts were proved to them which imagination was insufficient to account for; and these facts they ascribe to imitation and *attouchement.* What *attouchement* is, or how it is instrumental in accounting for the admitted facts, they do not inform us: meanwhile the body of the report is full of inconsistencies with itself and with their conclusion. Although they declare in that conclusion that imagination does all and magnetism nothing; yet in the seventh page of their report they say, that when magnetised persons appear to be plunged in a state of total insensibility, the voice of the magnetiser, his look, or a sign, will revive them; and that they cannot hesitate to recognise in these invariable effects a great influence which acts upon the patients, governs them, and of which the magnetiser appears to be the depository.

Dr. Franklin, who was then ambassador at Paris from the United States, was a member of this commission; but he was prevented by indisposition from taking any active part in it. A foreigner, and in a diplomatic character, he was probably, also, unwilling to interfere with the proceedings

* Il faut exclure de ces deux preuves le traitement des maladies parce qu'il ne peut fournir que des resultats tonjours incertains et souvent trompeurs.

and decisions of so many professional and scientific men of the country, especially as the subject was one of an exclusively medical nature.

Of the philosophers and physicians who constituted this committee, the most eminent in science and the most active in this investigation was Jussieu. This distinguished person dissented from his colleagues, and refused to sign the report, which was drawn up by the unfortunate Bailly. In vain were entreaties and remonstrances exerted upon him. Recourse was even had to the influence of the court, but the philosopher was firm, and would not be debauched; he had greater reverence for the majesty of truth than for the majesty of France, and more considered his reputation with posterity than his favour with the people in high palaces. He fearlessly published a separate report, in which he declared that, to account for the phenomena witnessed by him and the other commissioners, it was necessary to admit the existence of some agent independent either of the influence of imagination or of any known physiological laws. Speaking of his own experiments in particular, he says — "Ces faits sont peu nombreux et peu variés, parce que je n'ai pu citer que ceux qui étaient bien verifiés, et sur lesquels je n'avais aucun donte. Ils suffirent pour faire admettre la possibilité ou existence d'un fluide, ou agent, qui se porte de l'homme à son semblable, et exerce quelquefois sur ce dernier une action sensible."

The general report of the committee, sanctioned by the scientific bodies and royal authority, had the effect of satisfying the minds of those who had not themselves witnessed the facts; and the great political convulsions which attended and followed the French Revolution, succeeded by the splendid exploits of Napoleon, withdrew the public attention from inquiries of this kind, and left the further discussion of the question among a few persons in different parts of Europe, who devoted themselves to it with more or less enthusiasm.

Soon after the date of the report of the committee, the Marquis de Puysegur discovered the phenomena of magnetic somnambulism; and at a still later period the other effects adverted to were developed. After the general peace which followed the battle of Waterloo, the subject began again to attract attention, especially in Paris, and in the different cities of Germany. If the limits which must be imposed on this paper would permit us, we could state numerous instances of practising physicians in various parts of Europe, who being sceptics on the subject, were induced to allow it to be tried on patients in a hopeless state, and who were rendered its most zealous advocates by the effects which they witnessed. Among many others may be mentioned the following: —

In the city of Bremen, Dr. Wienholt was a physician of great respectability, and in extensive practice. He was the friend and associate of Dr. Olbers, also a practising physician, and who has likewise obtained celebrity for his astronomical discoveries. Wienholt, who had long been sceptical in regard to the alleged efficacy of magnetism, was at length induced by circumstances to make trial of it, and gives the following account of his experience: — "It became every day more and more evident to me that, in the phenomena produced by the magnetic treatment, there was manifested the influence of a hitherto unknown agent, and that it was impossible to ascribe them either to mechanical excitation or to moral effects as their source. But I found a still more valuable and more interesting reward of my perseverance in the successful and complete termination of many serious and inveterate diseases where my art failed me, and I could derive no aid from it in future. The best encouragement I experienced was in the

successful and radical cure of my own child, a boy near six years old. For some years he had been almost constantly in a complaining state, and afflicted with many ailments, especially of the stomach, which appeared of a spasmodic kind. At length, when he had attained his sixth year, he exhibited symptoms which led me to apprehend confirmed epilepsy; and now, as all my previous efforts had failed, I resorted to magnetism, of the efficacy of which I had already acquired sufficient experience. His mother undertook the treatment. In a few days he became somnambulist, and manifested precisely the same phenomena, making allowance for his age, as other patients who have been placed in the same state. In a few weeks he was cured, continued subsequently free from all those spasmodic attacks, and is at this moment the model of a strong and healthy youth."—(Isis Rev., i. 47–8.) In his magnetic practices Dr. Wienholt was assisted by Drs. Olbers, Heinechen, Treviranus, and others, all of whom were perfectly satisfied of the treatment and the reality of the phenomena.

About the year 1825, MM. Dupotet, Foissac, and other medical men, who had more particularly devoted themselves to the observation of these effects, urged upon the physicians of Paris the necessity of reopening the question by another commission, on the grounds, first, that the proceedings and report of the committee of 1784 were partial and unfair, as was proved by the dissentient report of Jussieu; secondly, that many effects had been since discovered; and, in fine, that this branch of medical science had attained to a much more advanced state. Induced by these considerations, the Royal Academy of Medicine appointed a committee, consisting of MM. Adelon, Burdin the elder, Marc, Pariset, and Husson, to inquire and report upon the proposition thus made. This committee, on the 13th December 1835, recommended that the question of animal magnetism should be submitted to a new investigation. This proposition was debated for three days in the Academy; and being finally decided in the affirmative, a committee was accordingly appointed to investigate the phenomena, consisting of MM. Bourdois, Double, Itard, Gueneau, de Hussy, Guersent, Fouquier, Leroux, Magendie, Marc, Thillaye, and Husson.

Although emanating ostensibly from the incorporated profession of medicine in France, and composed of members selected as not being biassed in favour of the question, this committee found their operations and inquiries obstructed by every means to which it was possible for the medical profession to resort. Private patients were for obvious reasons difficult to be procured who would submit to be operated upon in the manner the committee considered indispensable. Recourse was consequently had to the hospitals, as a matter of necesssity; but "here," say the committee, "other and more powerful obstacles arrested our labours: the causes from which these obstacles proceeded are unknown to us; but, in virtue of a decree of the general council of the hospitals, which prohibited the use of every new remedy which had not previously been approved of by a committee appointed by the council, the magnetic experiments could not be continued at the hospital."

The spirit in which the inquiries of this committee were conducted may be collected from the following observations preliminary to the report:—

"The committee proceeded to fulfil their duties with the most scrupulous exactness; and, while we do justice to those who assisted us, we must, at the same time, destroy even the slightest suspicion which might arise with regard to the share which others may be supposed to have had in the investigation of this question. The committee invariably suggested the methods of experimenting — traced the plan of inquiry — directed the course to be pursued — followed its progress — and

described and recorded the particulars. No experiment was made without the presence of the committee, even by members of the Academy. Whatever confidence the spirit of confraternity and mutual esteem may have inspired, we felt that, in a question whose solution is so delicate, we are to trust none but ourselves, and you can rely on our guarantee alone."

* * * * *

"It is with magnetism as with other operations of nature,—a certain combination of conditions is necessary to the production of certain effects. Whether these conditions be external or physical, or whether they be internal or moral, it is enough that they exist to make it incumbent upon your committee to endeavour to unite them, and to make it their duty to submit to them. It was, however, neither our duty nor our inclination to have divested ourselves of that indefatigable curiosity which induced us to vary our experiments, and, if possible, to set at fault the practices or promises of the magnetisers. We sought only to be inquisitive, mistrustful, and exact observers.

"In all our experiments we invariably observed the most rigorous silence, because we conceived that in the development of phenomena so delicate, the attention of the operator and the patient ought not to be distracted. Besides, we did not wish to incur the reproach of having injured the success of the experiment by conversation or by other causes of distraction; and we always endeavoured that the expression of our countenances should neither operate as a constraint upon the operator, nor inspire doubt into the mind of the patient. Our position — we are anxious to repeat it — was always that of inquisitive and impartial observers."

Thus minded, the committee proceeded with their interesting observations, which were continued for a considerable length of time, and the particulars of which they detail in the report. In the conclusion of that report there is a short summary of the principal inferences which they consider may be deduced from what they had observed. They admit generally specific effects produced by the process of magnetising, which cannot be ascribed to imagination, imitation, or any known agent. After stating shortly the mode of operation, they proceed to say that persons are not susceptible of this influence in a state of health, and that only particular classes of invalids are affected by it; that sometimes the effects produced are insignificant or evanescent, and such as might proceed from hope, fear, *ennui*, and the effects of imagination.

"A certain number of the effects observed appeared to depend upon magnetism alone, and were never produced without its operation. These effects were very various; they agitated some, soothed others, produced a momentarily accelerated respiration and circulation, feverish symptoms, convulsive motions resembling electric shocks, numbness, heaviness, sleepiness, and in a small number of cases the state called by magnetisers somnambulism. * * *

"We may conclude with certainty that the state of real magnetic somnambulism exists when it gives rise to the development of new faculties, which have been designated by the names of *clairvoyance*, *intuition*, and *prevision*; also when it produces great changes in the physical economy, such as insensibility, sudden and considerable increase of strength; examples of all of which were witnessed by the committee. * * * *

"We hold it as demonstrated that sleep has been produced by magnetism in circumstances in which the patients could not see, and were ignorant of the means employed to occasion it.

"When a person is once made to fall into magnetic sleep, it is not always necessary to have recourse to contact to magnetise him anew. The look of the magnetiser, his volition alone, possesses the same influence.

"The patient can not only be acted upon, but be thrown into a complete state of somnambulism, and recovered from it without his knowledge, by an operation out of his sight, at a certain distance, and with doors intervening.

"In general changes, more or less remarkable, are produced on the perception and other mental faculties of those individuals who are in a state of magnetic somnambulism.

"Some, amidst the noise of a confused conversation, hear only the voice of the operator; some will answer questions addressed to them by persons placed in magnetic connexion with them; others carry on a conversation indifferently with every one around them.

"The eyes are usually closed; the eyelids yield with difficulty to the efforts which are made to open them; the ball is found convulsed, and carried upwards, and sometimes towards the lower part of the orbit.

"Sometimes the power of smelling appears to be annihilated. The patient will inhale muriatic acid or ammonia without inconvenience; nay, without perceiving them. The contrary, however, takes place in certain cases.

"The greater number of somnambulists we have seen were completely insensible. We might tickle their feet, their nostrils, or the angle of the eyes with a feather; we might pinch their skin, so as to leave a mark, prick them with pins under the nails without producing pain, and without their even perceiving it. Finally, we saw one who was insensible to the most painful operation in surgery, during which she did not manifest the slightest emotion by her countenance, pulse, or respiration.

"While in the state of somnambulism, the patients retained the faculties which they possessed when awake. The memory appeared to be more faithful and more extensive; they remembered every thing that passed at the time, and at every previous time in which they were placed in the state of somnambulism.

"Upon awaking, they seemed totally unconscious of all that took place during their somnambulism.

"We have seen two somnambulists, who, with their eyes closed, perceived the objects placed before them; they distinguished the colour and the value of cards without touching them; they read words traced with the hand, as also some lines of books opened at random. This took place when their eyelids were kept closed by the fingers of a member of the committee.

"In two somnambulists we found the faculty of foreseeing the acts of organism more or less remote. One of them predicted, several months before, the day, hour, and minute of epileptic fits. The other announced the period of his cure. Their previsions were realised with remarkable exactness.

"We found one somnambulist who declared the symptoms of the diseases of three persons placed in magnetic connexion with her.

"Considered as a cause of certain physiological phenomena, or as a therapeutic remedy, magnetism ought to be allowed a place within the circle of medical sciences; and, consequently, physicians only should practise it or superintend its use, as is the case in the northern countries."

Such are the principal points touched upon in the general conclusions of this report. We shall now proceed to state the particulars of some of the most interesting and best attested cases, as well those related in the report of the commissioners and other authentic publications as those of which we have been ourselves witnesses.

In following these recitals, it is necessary that the reader should remember that the individuals who are susceptible of magnetic somnambulism are almost invariably endowed, as it were, with two personal identities; since everything of which they are conscious in their natural waking state seems to be obliterated from their mind when thrown into a state of magnetic somnambulism; and, on the other hand, all the ideas and circumstances with which they are conversant, in the latter state, seem to be forgotten when restored to the former state. Since the limits of this paper must be circumscribed, we shall pass over cases, however well authenticated, of slight though decided effects of magnetism. We might mention effects produced on some of the members themselves of the committee of 1826; but, as effects of a more striking character are equally well authenticated,

we shall proceed to lay before our readers some of the more remarkable of them.

CASE OF MADAME PLANTIN.

Paris, April, 1829.

Attesting Witnesses.—M. Jules Cloquet, the eminent anatomist and surgeon; M. Chapelain, M.D., physician attending on the patient; M. Pailloux, pupil of the Hospital of St. Louis, assistant to M. Cloquet; M. Moreau, secretary to the surgical section of the Royal Academy of Medicine; M. Dronsart, physician.

Madame Plantin, residing in the Rue St. Denis, Paris, had suffered for several years from a cancer in the right breast, which was combined with a considerable swelling of the corresponding axillary ganglions. M. Chapelain, the physician in attendance on this lady, had for several months recourse to animal magnetism, with a view of reducing the swelling of the breast, but had succeeded in obtaining no other result than a profound sleep, during which all sensibility of the patient appeared to be annihilated; but her ideas retained their clearness. M. Chapelain, seeing that no hope of cure remained, except by the extirpation of the tumour, ventured to propose this operation to Madame Plantin, but she recoiled from the idea with horror.

Under these circumstances, the physician applied to M. Cloquet, the eminent surgeon and anatomist, and proposed to him to perform the operation on the patient while she was in the state of magnetic somnambulism, provided her consent was procured while in the same state. To this proposition, under the circumstances, M. Cloquet acceded; and, M. Chapelain having thrown Madame Plantin into a state of somnambulism, proposed to her to submit to the operation, and succeeded in obtaining her consent. So little fear did the idea inspire, in this state, that she conversed calmly upon the subject of the operation with M. Chapelain.

Upon the day appointed for the operation, M. Cloquet, arriving at half-past ten in the morning (Sunday), found the patient dressed and seated in an elbow-chair, in the attitude of a person in a quiet natural sleep. She had returned about an hour before from mass, and since her return M. Chapelain had placed her in a state of magnetic sleep. She conversed with great calmness of the operation she was about to undergo; and every thing having been arranged for it, she undressed herself, and placed herself in a chair.

M. Chapelain supported the right arm, the left being permitted to hang down at the side of the body. M. Pailloux, pupil of the Hospital of St. Louis, was employed to present the instruments and to make the ligatures. A first incision, commencing at the arm-pit, was continued beyond the tumour as far as the internal surface of the breast. The second, commencing at the same point, was carried below, and continued till it met the former on the inside. The tumour being thus cut around, the swelled ganglions were dissected with precaution on account of their vicinity to the axillary artery, and the tumour was finally extirpated. The operation lasted from ten to twelve minutes.

During all this time Madame Plantin continued to converse calmly with M. Cloquet, and did not exhibit the slightest sign of sensibility. No motion of the limbs or of the features was perceived; no change either in the respiration or in the voice, nor any alteration in the pulse, was discernible. The patient continued in the same state of indifference and impassibility in which she was some minutes before the operation. There was no occasion to hold, but only to support her. A ligature was applied to the lateral thoracic artery, which was open during the extraction of the ganglions. The wound was united by means of adhesive plaster, and dressed. The patient was put to bed while in a state of somnambulism, in which she was left for forty-eight hours. An hour after the operation, there appeared a slight hæmorrhage, which, however, was of no consequence. The first dressing was taken off on the following Tuesday, the 14th, and the wound was cleaned and dressed anew. The patient exhibited no sensibility or pain, and the pulse preserved its usual rate.

After this dressing, M. Chapelain awakened the patient, whose sleep had now continued since an hour previous to the operation, that is to say, for forty-eight

hours. The lady did not seem to have any consciousness of what had passed in the interval; but, on being informed of the operation, and seeing her children around her, she experienced a very lively emotion, which the magnetiser checked by immediately setting her asleep.

Madame Plantin had a married daughter, Madame Lagandré, who then resided in the country, and had been unable to repair to Paris until some days after the operation had been performed upon her mother. This lady being susceptible of the magnetic influence, was operated upon by M. Chapelain; and being thrown into somnambulism, manifested, in a high degree, the faculty of *clairvoyance*. It was proposed to question her upon the state of her mother, and for this purpose Dr. Chapelain threw her into somnambulism on the 26th; fourteen days after the day of the operation. Being questioned respecting her mother's complaints, she gave a circumstantial and accurate description of them, and predicted her death on the 28th, in spite of all that could be done for her. On the 27th, M. Chapelain, on visiting his patient, Madame Plantin, found that the prediction of the somnambulist was about to be verified. She was evidently much worse. M. Cloquet requested M. Chapelain to place Madame Lagandré again in a state of somnambulism, which being done, he put several questions to her relative to Madame Plantin. She answered, that her mother had become very weak during the last few days; that her life was only artificially prolonged by magnetism; and that, notwithstanding every effort, she should die early next morning without pain. When asked what were the internal parts diseased, she gave a minute description of them.

During this day, M. Chapelain magnetised Madame Plantin several times with great energy, but scarcely succeeded in even setting her asleep. When he returned next morning, about seven o'clock, the patient had just expired.

The two physicians, naturally anxious to ascertain the correctness of the declarations of the somnambulist respecting the internal state of the body, asked and obtained the consent of the family to examine it. M. Moreau, secretary to the surgical section of the Academy, and M. Dronsart, a physician, were requested to attend as witnesses; and it was resolved that the examination should take place next day, in their presence. It was conducted by M. Cloquet and his assistant, M. Pailloux.

A short time before the hour fixed upon for the examination of the body, M. Chapelain threw Madame Lagandré into somnambulism. The medical gentlemen present then requested to know again from her own mouth what she had previously said she saw in the interior of the body of Madame Plantin. The somnambulist repeated in a firm tone of voice and without hesitation what she had formerly announced to MM. Cloquet and Chapelain. The latter then conducted her to a room adjoining that in which the operation was to be performed, — the door between the rooms being exactly closed. Madame Lagandré was still in a state of somnambulism, and, in spite of the barriers which separated her from these gentlemen, she followed the bistoury in the hands of the operator, and said to the persons around her, "Why do they make the incision in the middle of the breast, seeing that the effusion is in the right side?"

The examination of the body fully verified all that the somnambulist had stated respecting it. The *procès verbal* of the examination was drawn up by M. Dronsart, and attested and signed by all the persons present.

[*To be continued.*]

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THE

MONTHLY CHRONICLE.

LETTERS BY AN ENGLISH MEMBER OF PARLIAMENT TO M. DE ——, OF THE CHAMBRE DES DEPUTES.

No. II.—On Political Coalitions.

Sir,

You tell me, that in certain political circles in Paris, they who profess to be skilled in English affairs — sage augurs who foretell storm or sunshine in our horizon by picking the brains of every bird that flies over the Channel— openly predict an approaching coalition between the Government and the leaders of the Opposition. I am not surprised at these vaticinations, for in England, especially in the provinces, a similar belief has recently prevailed. It is boldly expressed, and curiously reasoned upon in many of the ablest provincial papers. "The Hertford Reformer," a journal conducted with considerable talent, and, from its connection with an active and distinguished member of parliament, generally characterised by sound and accurate political information, not only prophesies the speedy ratification of the league, but calculates, already, on the consequences that would ensue, and the new parties that would arise. Many belonging to the section of the Liberal Reformers in the House of Commons share the same opinion, and argue, in private, with much plausibility, on the certain fulfilment of their predictions. For these reasons, I will venture to treat the rumours you refer to more seriously than, in themselves, they deserve. At the first glance, there is, indeed, something to give colour to the suspicion that has crept abroad. It is true, that on the Irish Corporation Bill, Sir Robert Peel, by demanding so high a rate of franchise, has re-awakened much temporary bitterness of party, and thrown new obstacles in the way of compromise; but there can be little doubt, that all differences will be patched up and amicably settled in the course of the session; and that in the moderate councils of men like Lord Eliot, Mr. Lascelles, and Mr. Pusey, we trace the certain omens of an adjustment which either party will sacrifice much to effect. Carrying our views, therefore, beyond the present session, and contemplating the prospects of the next, we behold the questions which ostensibly separated Lord Stanley from the Whigs — which made the chasm between the moderate men on either side — which dissolved the Government of Sir Robert Peel, and gave life and union to that of Lord Melbourne — peaceably laid at rest. Where, then, we are asked, do we look for differences of opinion? — not, we are told, between the Conservatives and Whigs, but between the Government and the Radicals. Ireland and her grievances withdrawn from the field of contest, we see the questions of Triennial Parliaments, and Vote by Ballot, more obtrusively presented to public notice, forcibly wrenching the Government from their followers—insensibly uniting the Government to the Opposition. The Radical party, it is contended, hitherto kept back by a feeling of sympathy for the Irish Reformers, with whom they act and vote, will no longer hesitate to press forward all subjects of disagreement with

ANIMAL MAGNETISM.

[*Continued from Vol. I. p.* 306.]

The committee of the Royal Academy of Medicine of France, appointed in 1826, adopted a resolution not to advert in their report to any facts or phenomena which did not come under their own immediate observation. To this resolution one exception only was admitted, — the case of the operation performed on Madame Plantin, by M. Cloquet. This case had been admitted by the College of Surgeons, and was considered to be so well authenticated, that it would have been improper to have excluded all notice of it from the report.

The committee devoted five years to the prosecution of their inquiries, and did not make their report till June, 1831. During this period they examined numerous cases, in several of which no discoverable effects were produced. In others, the effects were slight, but well ascertained, and in several all the higher and more extraordinary phenomena were evolved. The limits of these articles do not permit us to enter on many of the details even of the most important cases which they have put on record, especially as it is our purpose to state some facts, scarcely less important, of which we have ourselves been witnesses. We shall therefore limit ourselves to a few of the many cases, attested and recorded by the committee.

Among the subjects experimented on was M. Itard, a member of the committee; and though none of the higher phenomena were developed, effects were produced quite decided and unequivocal, and such as the committee considered could not be ascribed to imagination or any known physiological agency. In reference to this case, and two others not less remarkable, the committee observe: —

> These three cases appeared to your committee to be altogether worthy of remark. The subjects of the first two — one a child of twenty-eight months, the other a deaf and dumb boy, — were ignorant of what was done to them. The one indeed was not in a state capable of knowing it, and the other never had the slightest idea of magnetism. Both however manifested the effects of its influence, and most certainly it is impossible in either case to attribute this sensibility to the imagination. Still less is it attributable to this in the case of M. Itard.
>
> It is not over men of our years, and, like us, always on our guard against mental error and sensible delusion, that the imagination such as we view it has any sway. At this period of life, we are enlightened by reason and disengaged from those illusions by which young persons are so easily seduced. At this age we stand upon our guard, and distrust rather than confidence presides over the several operations of our minds. These circumstances were happily united in our colleague; and the Academy knows him too well not to admit that he really experienced what he declares that he felt.

The next case we shall quote is one in which some of the higher effects were produced.

CASE OF PIERRE CAZOT.

Paris, August, 1827, to May, 1828.

Attesting Witnesses. — MM. Bourdois, Double, Itard, Gueneau de Hussy, Guersent, Fouquier, Leroux, Magendie, Marc, Thillaye, and Husson, members of the committee appointed by the Royal Society of Medicine of France; M. Foissac, physician attending on Pierre Cazot.

Pierre Cazot, aged twenty years, a hatter by trade, was born of an epileptic mother, and had been subject to epileptic fits, which usually occurred five or six

times a-week. He was admitted to the *Hôpital de la Charité*, in the beginning of August, 1827. He was immediately subjected to the processes of magnetising, and sleep was produced at the third sitting. At the tenth sitting, on the 19th August, at nine o'clock in the morning, he exhibited the usual appearances of magnetic somnambulism in the presence of the members of the committee. He then declared, that at four in the afternoon of the same day he would have an attack of epilepsy, but that it might be prevented by previously magnetising him. The committee preferred to await the fulfilment of his prediction. The fit took place precisely at the time foretold by the patient.

On the 21st August, being thrown again into somnambulism, it was determined to ascertain whether he acquired the usual insensibility of the skin. M. Fouquier, one of the hospital physicians, suddenly thrust a pin an inch long between the fore-finger and thumb of the right hand; he also pierced with a pin the lobe of the ear: the eyelids being separated, the conjunctiva were struck several times with the head of a pin. The patient evinced no sign of sensibility.

On the 24th August, being magnetised and thrown into somnambulism, M. Fouquier thrust a pin an inch long into his fore-arm, — another, the sixth of an inch long, under the breast-bone (*sternum*), — a third into the pit of the stomach, and a fourth into the sole of the foot. M. Guersent, a member of the committee, pinched him in the fore-arm so severely as to produce a livid spot. M. Itard, another member, leaned on his thigh with the whole weight of his body, — all without any manifestation of sensibility or consciousness on the part of the patient; nevertheless, he heard, understood, and answered questions put to him by the committee, and the following dialogue took place: —

Q. How long will your fits continue?
A. For a year.
Q. Do you know whether they will follow close on one another?
A. No.
Q. Will you have any this month?
A. I shall have one on the 27th, at twenty minutes past three o'clock.
Q. Will it be severe?
A. Not half so bad as the last one.
Q. On what day will you have another?
A. (*after showing signs of impatience*) On the 7th September.
Q. At what hour?
A. At ten minutes before six in the forenoon.

On the day on which this conversation took place, Cazot was obliged to leave the hospital in consequence of the indisposition of one of his children. An accident prevented his return to the hospital on the 27th, the day predicted for his next fit, and his medical attendant having thrown him into a magnetic sleep just before the predicted hour, the fit did not take place.

On the 6th, Cazot was again admitted to the hospital. It is necessary to bear in mind that in his waking state he had no consciousness of what had passed in the intervals of his magnetic somnambulism, and consequently had no knowledge of the prediction he had formerly made, that he should suffer a fit on the 7th. After his admission to the hospital on the 6th, he was again thrown into the state of somnambulism by the usual processes, in the presence of the committee. He then repeated his former prediction, that he should suffer a fit at ten minutes before six the following morning. Measures were taken on this occasion to conceal from Cazot the presence of M. Foissac, who operated upon him, to obviate any effect, which might be produced either by imagination or deceit on the part of Cazot. It was arranged, that when Cazot was to be awakened, a signal should be given to that effect to M. Foissac, and that the latter should awaken the patient by a mere act of his will, without any motion or sign. While the attention of Cazot was engaged by the questions addressed to him by the committee, the signal agreed upon was given by M. Fouquier, *upon which M. Foissac, by the mere act of his will, awakened the patient.*

The committee assembled next morning to witness the fulfilment of Cazot's prediction. They met at a quarter before six, and in five minutes the fit commenced in their presence, and was attended by all the usual symptoms.

It was determined now to place the magnetiser, without informing the patient, in an adjacent room, and to try the effect of the customary operations through the wall, or partition. Accordingly, on the 10th September, Cazot was invited to the house of M. Itard, at seven o'clock in the evening, it having been arranged that M. Foissac should not come till a later hour. M. Itard and the other members of the committee entered into conversation with Cazot, and thus engaged him during the evening. At half-past eleven o'clock, M. Foissac arrived, and being conducted to an antechamber, separated from the room occupied by Cazot and the committee by two doors, both of which were closed, proceeded in the usual manner. Three minutes had not elapsed when Cazot said, "I believe M. Foissac is there, for I feel myself stupefied." At the end of eight minutes he was put in the state of somnambulism, and foretold that, on the 1st October next following (in three weeks from that day), he should have a fit at two minutes before noon.

This fit took place exactly at the moment predicted, and was witnessed by the members of the commission. It was more than usually violent and severe, accompanied by tetanic rigidity of the trunk and limbs, convulsive contortions of the eyes, decided *opisthotonos*, stifled and tremulous respiration, and pulse from 132 to 160.

As frequent communication necessarily took place between Cazot and his medical attendant from the time of its prediction to the access of this fit, it occurred to the committee, that persons not having the personal knowledge of and confidence in M. Foissac which they had, might imagine some collusion between him and the patient. To meet such a possible objection, they determined to lead M. Foissac into an error with regard to the next prediction.

On the 6th October at noon, Cazot arrived at the house of M. Bourdois, having no reason to know that M. Foissac was expected. In half an hour afterwards M. Foissac arrived, and was conducted, without the knowledge of any of the parties, to an adjacent room. A person was sent by a concealed door to inform him of the position of Cazot, with a request that he would set Cazot asleep and awaken him.

At thirty-seven minutes past twelve, while Cazot was engaged in conversation with the commissioners, and in examining and commenting on the pictures which hung round the cabinet, M. Foissac commenced his operations in the drawing-room. At the end of four minutes Cazot winked slightly, and became restless; and at the end of nine minutes he fell asleep, and somnambulism ensued, when the following dialogue took place: —

M. Guersent. Do you recognise me?

Cazot. I do; M. Guersent.

M. Itard. When shall you have another fit?

Cazot. In four weeks from this day, at five minutes past four in the afternoon.

M. Itard. When shall you have another?

Cazot. (*Collecting himself, and hesitating*) In five weeks afterwards, at half-past nine in the morning.

The two days thus predicted were the 3d November and 9th December next succeeding.

The procès-verbal of this meeting being afterwards read over to M. Foissac, in order that he might join the commissioners in attesting it, the reader was instructed to read the day predicted for the first fit the 4th, instead of the 3d November; and the time of the second fit was, in like manner, misstated. M. Foissac took notes of these times.

M. Foissac, as Cazot's medical attendant, was accustomed to put him in a state of somnambulism occasionally, to relieve him from headaches, to which he was subject. Some days after this meeting, conversing with the patient in that state, he questioned him about the time of his next fit, to verify the result of the conversation with the commissioners; and Cazot informed him, that the day would be the 3d and not the 4th November. M. Foissac, conceiving that an error had crept into the procès-verbal, immediately informed M. Itard of this.

The committee subsequently witnessed the two predicted fits: the first took place at *six* minutes past four, instead of five minutes, as predicted; — and *it was*

remarkable that the fit commenced when Cazot was in a profound sleep, in which he had been for two hours before. The fit predicted for the 9th December took place at a quarter before ten, instead of half-past nine, and was, like the former, preceded by a deep sleep, in which it commenced.

On the 11th February, 1828, Cazot predicted a fit for the 22d April, at five minutes past twelve o'clock, which was afterwards witnessed by the committee. It commenced at *ten* minutes past twelve, and was remarkable for its violence. In his fury, Cazot bit his hand and fore-arm. After it had continued thirty-five minutes, M. Foissac magnetised him. The convulsions soon subsided, and were succeeded by somnambulism. In this state he predicted two fits; the first for the 25th June. In two days after, on the 24th April, he was thrown down by a restive horse, which he tried to stop, and was so severely injured, that he died of the contusions on the 15th May.

CASE OF PAUL VILLAGRAND.

Paris, August, 1827.

Attesting Witnesses.—The Committee of the Royal Academy of Medicine, before mentioned; and M. Foissac, Doctor in Medicine, and others.

Paul Villagrand, a student at law, aged twenty-four years, was afflicted in 1825 by paralysis of the whole of the left side of the body. He was admitted to the *Hôpital de la Charité* in April, 1827, after being treated, without effect, by acupuncture, seton in the neck, and applications of *moxa* along the vertebral column. At the time of his admission to the hospital he was unable to support himself on the left leg, walked on crutches, and could not lift his left arm to his head. He was very hard of hearing with both ears, and saw very imperfectly with his right eye. M. Fouquier, the physician of the hospital, observed in him, besides paralysis, the symptoms of enlargement of the heart. Up to the 29th August, 1827, bleeding, purges, and blisters were used with very little effect. On this day he was magnetised by M. Foissac, by order and under the inspection of the physician of the hospital, M. Fouquier.

At this first sitting, he immediately experienced a sensation of warmth, followed by twitchings of the tendons. After many visible and ineffectual efforts to keep his eyelids open, his head at length fell upon his breast, and he slept. From this period his deafness and headaches ceased; but it was not until the ninth sitting that he slept profoundly. At the tenth, he answered questions inarticulately. At a later period, in his somnambulism, he declared that he could not be cured by magnetism; and he prescribed for himself a continuation of pills composed of the extract of *nux vomica*, which he had before taken, with sinapisms, and baths of Barèges. On the 25th September, the committee, wishing to examine the state of his body, caused him to be undressed, and ascertained that the inferior left leg was thinner than the right,—that the right hand closed more strongly than the left,—that the tongue, when drawn out of the mouth, was carried towards the right commissure,—and that the right cheek was more convex than the left.

Being then magnetised, and placed in a state of somnambulism, he repeated his former prescription of treatment, desiring that on the same day a sinapism should be applied to each of his legs for an hour and a half; that the next day he should take a bath of Barèges; and that, upon coming out of the bath, sinapisms should be again applied for twelve hours without interruption, sometimes to one place and sometimes to another; that, upon the following day, having taken a bath, blood should be drawn from his right arm to the extent of a *palette* and a half. Finally, he added, that by following this treatment, he would be enabled, on the 28th, to walk without crutches. The prescribed treatment was followed; and on the 28th, in the presence of the committee, he came, supported on his crutches, into the consulting-room of the hospital, where, being magnetised as usual, he was placed in a state of somnambulism. He then declared to the committee that he should return to bed without the use of his crutches, and without support. Upon being awakened he called for his crutches. The committee told him that he had no need of them. He rose, and supported himself on the paralysed leg, passed through the crowd, who followed him, descended the step of the consulting room, crossed the second court of the hospital, ascended two steps, and, when he arrived at the

bottom of the stairs, he sat down. After resting two minutes, with the assistance of an arm and the balustrade, he ascended twenty-four steps of the stairs which led to the room where he slept, went to the bed without support, sat down again for a moment, and then took another walk in the room, to the great astonishment of all the patients, who, until then, had seen him constantly confined to bed. From that day he never resumed his crutches.

On the 11th October following, the committee having repaired to the hospital, he was again magnetised, and announced that he would be completely cured at the end of the year, if a seton were placed two inches below the region of the heart. At this sitting he was repeatedly pinched, and pricked with a pin to the depth of a line, in the eye-brow and in the wrist, without producing any sign of sensibility.

On the 29th October, the committee, having repaired to the apartment of the patient to examine the progress of his cure, ascertained, before he was magnetised, that he walked without crutches more firmly, to all appearance, than at the preceding sitting. His strength was tried with a dynamometer. When pressed by the right hand, the instrument indicated 60 lbs., and by the left, 24 lbs. When pressed by the two hands together, united, it indicated 62 lbs. He was then magnetised, and in four minutes became a somnambulist, when he declared that he would be completely cured upon the 1st January. In this state his strength was tried again with the dynamometer; when the right hand exerted the force of 58 lbs. and the left 52 lbs., and the two hands united 90 lbs.

While in a state of somnambulism he walked cleverly, hopped upon the left foot, and knelt upon the right knee. He raised up the body of M. Thillaye, a member of the committee, turned him round, and sat down with him on his knees; and drew the dynamometer through the whole scale of its traction. Being requested to go down stairs, he took the arm of M. Foissac, and descended and ascended the stairs two or three at a time, with a convulsive rapidity. On awaking he lost this astonishing increase of strength; his walk was slow but sure, — he could no longer sustain the weight of his own body on the left leg, and he made an ineffectual attempt to lift M. Foissac.

A few days previous to this experiment he lost two pounds and a half of blood, had still two blisters on his legs, and a seton on the neck and breast. It will, therefore, be observed how great an increase of strength attended the process of magnetism, seeing that during the whole time the somnambulism continued, the strength of the body was more than quadrupled.

After this Paul renounced all medical treatment; and towards the end of the year, as he expressed a wish to be placed and kept in a state of somnambulism, in order to complete his cure by the 1st January, he was magnetised on the 25th December, and continued in a state of somnambulism until the 1st January.

During this period he was awakened for about twelve hours at unequal intervals; and on these occasions he was persuaded that he had been only a few hours asleep. During the whole of this period his digestive functions showed increased activity.

On the 28th December, having been then asleep and in a state of somnambulism for three days, he set out on foot, accompanied by M. Foissac, from the Rue Mondovi, in search of M. Fouquier at the hospital, where he arrived at nine o'clock. He there recognised the patients and the pupils, and read with his eyes closed, a finger having been applied to his eyelids, some words which were presented to him by M. Fouquier. All the committee had thus witnessed, seemed to them so astonishing, that, being desirous of following out the history of this somnambulist to the end, they assembled on the 1st January at the house of M. Foissac, where they found Paul still asleep, in a state of somnambulism. Fifteen days before that, the setons had been removed from the neck and breast, and a cautery had been established in the left arm. Paul declared that he was cured, and that, unless guilty of some imprudence, he should live to an advanced age, and should die of apoplexy. While in this state, he went out of the house, walked and ran in the street with a firm and assured step, and, on his return, carried with the greatest facility one of the persons present, whom he could scarcely have lifted before he was set asleep.

The committee now determined to investigate the power alleged to be possessed by the patient, of receiving perceptions of sight with the eyelids closed; and wishing that every possible precaution should be taken that no part of the organ should remain uncovered, it was arranged that members of the committee themselves should hold the eyelids down with their fingers, so that the upper eyelid should be constantly pressed upon the under. On the 12th January they assembled for this purpose at the house of M. Foissac, where there were present, besides the committee, M. Las Cases, deputy, M. de ———, aid-de-camp to the King, and M. Segalas, member of the Academy. The patient, being as usual put into a state of somnambulism, MM. Fouquier, Itard, Marc, and Husson, members of the committee, alternately kept the eyes closed with their fingers, as agreed upon. A new pack of cards being provided, which had not before been opened, the sealed paper bearing the government stamp was broken, the cards shuffled, and particular cards, selected at random by the committee, were successively presented to the patient, who immediately recognised them. Those cards were — the king of spades, the ace of clubs, the queen of spades, the nine of clubs, the seven of diamonds, the queen of diamonds, and the eight of diamonds.

The eyelids being still kept closed, as before, M. Segalas presented to the patient a book, which M. Husson had brought with him. The title of this book was as follows: *Histoire de France dépuis les Gaullois jusqu'à la Mort de Louis XVI. par Anquetil*, 13 *vol.* 8*vo. Vol. VII. Paris*, 1817. This titlepage being presented to the patient, he read the words in large characters "Histoire de France;" he could not distinguish the two intermediate lines, but read the name "*Anquetil.*" The book was then opened at the ninety-eighth page, and the patient commenced to read the first line, *le nombre de ses* (here he passed over the word *troupes*, and continued) *au moment où on le croyait occupé des plaisirs du carnaval.* He also read the running title *Louis*, but could not read the Roman cipher XVI. which followed it. A piece of paper was presented to him, upon which had been written the words *agglutination* and *magnétisme animal;* he spelled the former, and pronounced the latter. Finally, the *procès verbal* of this sitting was presented to him; and he read very distinctly the date, and some of the more legible words. Throughout the whole of these experiments the fingers were never removed from his eyes, constantly pressing the upper upon the under lid. It was remarked that the ball of the eye moved in the manner it would do were it directed to the objects of its vision.

Similar experiments were repeated, in the presence of the committee, on the 2d and the 13th of February. On the latter day, Mr. Jules Cloquet, the anatomist and surgeon, being present, kept the eyes of the patient shut with his fingers.

The conclusions to be drawn, says the report of the committee, from this long and curious case, are easy; they flow from the mere exposition of facts reported:

1. *The patient, whom a rational medical treatment by one of the most distinguished practitioners of the capital failed to cure of a paralysis, was cured by the process of magnetism, in consequence of following exactly the treatment prescribed by himself.*
2. *In this state his strength was remarkably increased.*
3. *He gave the most undoubted proofs that he could read with his eyes closed.*
4. *He predicted the period of his cure, and this cure took place accordingly.*

CASE OF MADEMOISELLE CELINE SAUVAGE.

Paris, 1826-7.

Attesting Witnesses. — The Committee of the Royal Academy of Medicine, before mentioned; M. Foissac.

Mademoiselle Celine Sauvage was a patient susceptible of somnambulism by the magnetic process, and was put into that state at various times, in the presence of the committee, in the months of April, June, August, and December, 1826, and January and February, 1827.

In this state, her sensibility was almost entirely annihilated, for she made several inspirations, having a bottle filled with hydrochloric acid under her nostrils, without manifesting any emotion. M. Marc pinched her wrist; a needle, used in acupuncture, was thrust a quarter of an inch into her thigh; and another, of

the same depth, into her wrist. These needles being united by means of a galvanic conductor, perceptible convulsive motions were produced in the hand; but the patient was quite unconscious of all that was done. She heard the voices of persons who spoke close to her; and touched her, but she did not remark the noise of earthenware broken by falling beside her.

The power of this patient to distinguish the internal diseases of persons placed in magnetic connection with her was tried, in the presence of the committee, in three different cases: first, with M. Marc, a member of the committee; second, with a young lady, a patient of M. Husson, member of the committee; third, with another patient of M. Husson, a young married woman, Madame La C———.

In the case of M. Marc, the patient having applied her hand to his forehead, and to the region of the heart, declared that the blood had a tendency to the head; that, at that moment, he had a pain on the left side of the head; that he suffered oppression after having eaten; that he was subject to cough; that the lower part of the breast was gorged with blood; and that something impeded the alimentary passage. She prescribed bleeding, hemlock poultices; that the breast should be rubbed with laudanum; that he should eat little and often; and that he should abstain from exercise immediately after a meal.

M. Marc confirmed these declarations, so far as admitting the oppression after meals, the cough, and the pain on the left side of the head, at the time of the experiments.

In the *second* case, the patient whose diseases the somnambulist was made to examine, was a young lady suffering under dropsy of the abdomen, accompanied by various internal diseases, the particulars of which need not here be detailed, but the nature of which had been ascertained by operations previously performed by M. Le Baron Dupuytren; and among the remedies prescribed by that physician, was the use of the milk of a mercurialised goat. On the 21st February, 1827, M. Husson, without any previous notice as to his intention, called on M. Foissac and Mademoiselle Celine, and conducted them to a house in the *rue Faubourg du Roule*, without intimating to them the name, or the residence, or the nature of the disease of the person whom he wished to submit to the examination of the somnambulist; nor had the committee the slightest reason to believe that either M. Foissac or the somnambulist had any previous knowledge of the patient, or of the intention of the committee to submit her to examination. Before the entrance of the patient to the room with Mademoiselle Celine, the latter was thrown into a state of somnambulism by M. Foissac; the patient was then brought in, and her hand placed in that of the somnambulist. The latter examined her for eight minutes, — not as a physician would do, by pressing the abdomen, by percussion, or by scrutinising it in every way, but merely by applying her hand repeatedly to the stomach, the heart, the back, and the head.

Being interrogated as to the state of the patient, the somnambulist described the state of the intestines; and her description was found to be in accordance with what had previously been ascertained by M. Dupuytren. She prescribed various remedies; and, among others, *the milk of a goat which had been previously rubbed with mercurial ointment.*

In the *third* case, of Madame La C———, the whole right side of the neck was deeply obstructed by a great congeries of glands close upon each other. The committee proceeding in this case in the same manner as in the former, the somnambulist declared that the stomach was attacked by a substance like poison; that there was a slight inflammation of the intestines; that, in the upper part of the neck, on the right side, there was a scrofulous complaint; and prescribed a mode of treatment, which being followed for some time, a perceptible amelioration of the symptoms took place. But the patient, not thinking her recovery proceeding with sufficient rapidity, induced the family to call another consultation of physicians, who ordered her to be again placed under mercurial treatment. She became worse, and expired after two months of acute suffering. The body was examined, and a *procès verbal* of the result was signed by MM. Fouquier, Marjolin, Cruveillier, and Foissac: it verified the existence of a scrofulous obstruction in the neck, and the diseases of the stomach.

The committee thus sum up the result of their observations with the somnambulist: — First, that, in the state of somnambulism, she discovered certain diseases affecting three persons placed in magnetic connection with her. Secondly, that by the declaration of the first, the examination of the second by puncture, and the *post mortem* examination of the third, the annunciations of the somnambulist were confirmed. Thirdly, that the modes of treatment she prescribed were within the limits of those remedies with which she might have been acquainted, and the order of the things which she might reasonably recommend; and, fourthly, that she applied them with discernment.

Although this committee emanated from the Academy itself, was composed of members who were known not to be believers previously in the alleged phenomena of animal magnetism, and had prudently confined themselves to the mere statement of the facts they had witnessed and the tests by which they had decided on the reality of these facts, yet their report was received by the majority of the members of the Academy with the most clamorous and indecent hostility and opposition, as will be seen by the following account of the proceedings on that occasion: —

The hall, in which the Academy assemble — so empty on ordinary occasions — was crowded upon that day, and even the passages were obstructed by the curious. It might have been supposed that one of those decrees on which the weal or woe of the nation depend, was in agitation; and all the members of the Academy, even those enfeebled by their age, were at their posts. The meeting was then opened, and M. Husson, the reporter of the committee, appeared at the bar, with a voluminous roll of papers in his hand, and delivered, in a grave and measured tone, the report. During the commencement, the members of the Academy listened with uneasiness to the detail of the facts; but, when the reporter arrived at the point of his narrative in which he detailed the magnetic phenomena of somnambulism, lucidity and prevision, a murmur arose among the assembly, which gradually increased until several of the learned physicians jumped from their seats, and apostrophised in terms of unmeasured indignation and contumely the distinguished members of their own committee, who related conscientiously the facts which they had seen and publicly attested.

An outcry was raised on all sides against the members of the committee, whose cause, however, was immediately espoused by the few partisans of animal magnetism then present, who retorted by such exclamations and charges as the following: 'You do not believe in the facts of magnetism? be it so: but in this very place the circulation of the blood was denied; yet the blood does circulate. In this place, they who first practised inoculation were denounced as impostors, and the patients as dupes and idiots; yet was the inoculation no imposture, nor were its subjects in a state of idiotcy. In this place, the physicians who first prescribed tartar-emetic were put on their trial and expelled the Academy; yet you yourselves now employ it in enormous doses. This is the institution which ridiculed those who affirmed that stones fall from the sky; yet meteoric stones do fall.' Thus, the sanctuary of science was rendered a scene of Babel-like confusion.

The question was now raised, whether the report of the committee should be printed; which, after another stormy contention, was negatived. As, however, the members wished a copy of it for their own use, they committed the incredible folly of following up their vote against its being printed by another — that it *should be lithographed for their own use;* as if, in the present age, such a document, after such a proceeding, could by any possibility escape publication.

A few years ago the subject of animal magnetism was revived in this country by the late Mr. Chevenix, who succeeded in convincing Dr. Elliotson, then physician to St. Thomas's Hospital, of the reality of several of the reported effects, by actually producing these effects on hospital patients who were under the care of Dr. Elliotson himself. The subsequent

visit of the Baron Dupotet gave a further stimulus to the inquiry, by the public exhibition of still more extraordinary effects; and within the last two years, the magnetic treatment has been resorted to as a curative agent by Dr. Elliotson, in University College Hospital; and several cases have there occurred which must, we think, convince every mind not under the bondage of prejudice, that the time has arrived when the scientific community, and more especially the medical branch of it, are imperiously called upon to institute an inquiry respecting the nature, the laws, and the effects of this new physical agent.

In most of the cases in which this treatment has been pursued in the University Hospital, beneficial effects have followed: in some the maladies of the patients have been subdued, in others mitigated, and in a comparatively small number the treatment has been ineffective. Our present object, however, is not so much to direct attention to the therapeutic effects of these processes, as to regard them as indicating the existence of a new physical agent, the laws of which cannot fail to be an interesting subject of inquiry and examination, not for medical men only, but for all who take an interest in the progress of science.

One of the cases in which the greatest variety of phenomena have been developed is the following: —

Elizabeth O'Key, age sixteen, a housemaid, was admitted to the hospital on the 4th April, 1837. She had suffered epilepsy for twelve months previously; the fits occurring once or twice a week, and frequently several times on the same day. She also suffered headaches, which were generally worse in the morning and evening. For the first two months she was treated with small doses of mineral medicines, without much effect. In the month of June following, such remedies having failed, the Baron Dupotet, with Dr. Elliotson's permission, commenced the process of mesmerising or magnetising her. After several sittings sleep was produced, and her epileptic fits became less frequent. The operation of magnetising has been constantly, almost daily, practised on her from that time to the present.

The phenomena of sleep or coma, sleep-waking, somnambulism, and extatic delirium, attended with external insensibility, have been all successively developed. Her epileptic fits ceased altogether in last October; since which time she has no bodily illness, save headache, which has constantly afflicted her, though in a less degree than formerly.

This girl, when in her natural state, has great intelligence and sound sense combined with the timidity of character and modesty of manner proper to her age and sex; her temper is of remarkable sweetness, her disposition singularly affectionate, and her countenance is characterised by a corresponding expression. In the presence of strangers she is silent and reserved, never speaking except in answer to questions directly put to her; her replies are then sensible and judicious, never more or less than the questions require, and uttered in a low and gentle tone, with rather a downcast expression of countenance, apparently resulting from great modesty of disposition.

When by any of the usual manipulations she is magnetised, her countenance changes its expression, — her eyes become fixed — the optic axes inclining slightly to the nose, one rather more than the other; the eyelids droop, but do not quite close. By further manipulations she falls into magnetic sleep, in which she remains for a short time. She awakens spontaneously, always with a slight exclamation indicative of agreeable surprise; her eyes open, and her whole countenance is changed, assuming an expression of singular activity and liveliness. She becomes forward and loquacious, humorous, witty, and sarcastic; she utters sallies of irony, and mimics various persons with irresistible humour; she criticises the costume and appearance of those around her, expressing pleasure at neatness of appearance and brilliancy of colours. She also recoils with fear from countenances having an appearance or expression (as those of foreigners) with

which she has not been familiar; all her natural timidity is apparently removed, and her phraseology totally changed: she often repeats, accompanied by sallies of laughter, the vulgar cant which she has heard among the lower classes of people: she sings, with great sweetness of voice and correctness of tune, airs which she has learned — mixing in a ludicrous manner the serious with the comic, the religious with the profane. She will, for example, commence the 100th Psalm or the hymns of the church service, and then suddenly commence *Jim Crow.* In the same manner she will recite Scripture alternately with the slang she has learned from the lower orders. She will proceed in this way before an assembly of several hundred persons, quite unconscious of any cause for restraint or reserve: her moral qualities, however, remain unimpaired; and, indeed, (being stript of the reserve imposed by her timidity of character, when in her senses,) are rendered still more striking. To the persons with whom she is in daily intercourse, such as her medical attendants and the hospital nurses, she now evinces the most unreserved feelings of affection, — often embracing them, pressing their hands, and showing the most touching tenderness towards them.

When in this state her body is deprived of all external sensibility. Her hair may be pulled, her flesh pinched or bruised, the point of a pin or needle may puncture her, without any consciousness of pain being evinced. On one occasion it was thought advisable to insert a seton in the back of her neck, with a view to the relief of her headaches; this was done while delirious without any indication of consciousness on her part, by one person behind her back while another was talking to her in front. After she was awakened and restored to her natural state, she immediately felt the wound, and was greatly astonished on being informed of what had been done.

When in the state of magnetic delirium just described, this patient can, at any time, be thrown into the state of sleep or coma by a simple motion of the hand within a short distance of her person; and the effect will be equally produced whether the motion be made before or behind her, or in any other position. We have also seen the effect produced when she was sitting near a closed door, the operator being on the other side of it.

If, instead of moving the entire hand, a single finger be presented to her, and moved in the same manner, she is thrown into a peculiar state, intermediate between coma and delirium, which Dr. Elliotson calls the state of *somno-vigilium,* or *sleep-waking.* This state more closely resembles natural somnambulism than any other of the magnetic phenomena which we have witnessed. In it the patient is sufficiently awake to stand steadily upright; the eyes are nearly closed, — the eyeballs fixed, and the features and limbs generally in repose; the patient is sensible to words spoken in a whisper at her ear, and will sometimes reply in a low and scarcely audible tone, but is alarmed and starts if the voice of the speaker be raised much above the tone of a whisper, — in which case she usually complains that the speaker is *cross.*

In this state some of the most remarkable phenomena are developed in this patient.

If a person present the points of his fingers near one of her limbs, — say her hand,—and draw them gradually away, and perform this operation repeatedly, the hand of the patient will slowly move in the direction of the motion of the hand of the operator; and this motion will continue until the hand and arm of the patient follow that of the operator, as far as the mechanism of the patient's limb will permit. The same effect will be produced, if the hand of the operator be directed to the leg or foot of the patient.

Again, if the operator bring his fingers in contact opposite the mouth of the patient, and slowly separate them, by moving one hand upwards and the other downwards, the jaws of the patient will receive a corresponding motion, — the mouth opening by reason of the upper jaw following the ascending, and the lower the descending hand of the operator.

If the hands of the operator, instead of being separated by a motion upwards and downwards, be separated by a horizontal motion to the right and to the left, the lips of the patient suffer a corresponding motion.

In the same manner, if the hands be brought opposite the closed eyes of the

patient, and be separated, by raising one and lowering the other, the eyelids will suffer a corresponding motion, the upper eyelids ascending and the lower descending, leaving the eyeballs uncovered, and giving to the countenance a wild and terrible stare. After the mouth and eyes have been thus caused to open, the whole countenance of this sweet and timid girl assumes the most ghastly and insane expression.

These and many other similar phenomena may be produced at will by any operator; and we have seen persons visiting her for the first time, never having before witnessed any of the magnetic phenomena, produce them when directed to make the proper movements.

Although no one who has had an opportunity of knowing the amiable and artless character of this little girl could for a moment entertain the idea of her being an impostor (to suppose which it would also be necessary to believe her to be the most consummate actress in the world); yet it was thought right to submit the process to such tests as would put aside the supposition of imposture. With this view Dr. Elliotson, and subsequently Dr. Lardner and others, caused screens of various opaque substances, such as pasteboard, wood, metal, &c. to be interposed between the operator and the patient, so that the patient should not be aware of the motions which the operator wanted to produce. The effects under such circumstances have always been the same as when no screen was interposed; with this exception, that they were slower in being produced, and somewhat less in degree when produced. The fact was also by these means satisfactorily established, that the influence, whatever it is, which produces these phenomena, is capable of being transmitted through the various substances which were used as screens.

To remove still more effectually the possibility of collusion between the patient and the operator (were so monstrous a supposition admissible, the rank and respectability of the medical men engaged, and the simplicity and artlessness of the poor little patient, being considered), after having interposed the screens, several visitors directed what motions the operator should make, — the operator himself not knowing previously what those directions would be; and, in such cases, the same effects ensued. On one occasion, the patient being placed in a chair, at some distance from a pair of folding doors which separated the apartment from an adjacent one, the operator was placed in the other apartment; the doors being closed, it was suggested by Dr. Lardner what motions should be made. The patient was affected in the usual way through the doors, — the motions of her limbs corresponding with those which the operator had been instructed to make.

Although the hands and fingers of the operator are the most usual instruments by which these effects are produced, they are not the only ones.

The patient being in the sleep-waking state already described, the operator stands behind her, his face being presented to the back of her head at a distance which may be varied within considerable limits; but, generally, the intensity of the effect will diminish as the distance increases. Thus placed, if the operator throw his features into any particular position and retain them so for about a minute, the features of the patient will undergo a corresponding change, and imitate those of the operator: thus, if the operator open his mouth, the mouth of the patient opens also; if the operator smile, the patient smiles — but the smile is evidently mechanical and superficial, the mind having no share in it; if the operator impart to his features the expression of anger or horror, frowning, or wildly staring his eyes, the countenance of the patient indicates the same expression. This will happen if an opaque screen be interposed between the operator and the patient; but, in that case, as before explained, the effect is produced more slowly and less decidedly.

The patient and operator being in the same position, if the operator throw his limbs into any particular attitude, the limbs of the patient will take the same attitude; and, in a word, the whole body of the patient appears to be goverend by the motions similar in all respects to those of the operator.

In the production of these phenomena the great difficulty is, to prevent the pa-

tient from falling into a state of magnetic sleep, or coma; for the very actions or motions of the operator, which she is expected to follow, have frequently also the effect of magnetising her, and throwing her into sleep.

Having ascertained that the magnetic or mesmeric influence is transmitted through every material substance on which experiments have been made, it occurred to Dr. Lardner to institute an inquiry as to its capability of reflection, and to determine whether the physical laws of that reflection bore any analogy to those which are known to prevail in the cases of the reflection of light, sound, and heat. In the course of the observations made upon the patient, it had been found by Dr. Elliotson that if she were induced to present her hand towards her own person and move it in the same manner as another operator would do, she would produce in herself the same effects, throwing herself from delirium into sleep-waking, or coma; and it was also ascertained that by making the same motions of the hand at her image in a common looking-glass, a like effect would be produced.

In order to submit this question to a more conclusive test, Dr. Lardner proceeded in the following manner: A mirror was placed, at a distance of several feet from the patient, having its plane at an angle of about forty-five degrees with a line drawn from the person of the patient to the mirror. Another mirror was placed at a distance of from twelve to fifteen feet from the first, receiving on its plane the rays from the first, also at an angle of forty-five degrees. Dr. Elliotson presented himself to this second mirror in the direction of the ray reflected from it. By this arrangement, the operator was placed in an apartment at a considerable distance from the patient. The two reflections would thus carry the ray of the magnetic influence (if it were subject to the same laws as those which govern light) from the patient to the operator, or *vice versa*. Things being thus arranged, Dr. Elliotson made towards the second mirror the motions of the hand which, when made towards the person of the patient, usually throw her into a state of coma; after eight or ten motions thus made, the patient dropped off in a magnetic sleep. This operation was repeated sufficiently often to render it certain that the sleep was not casual, but that it was connected with the movements of the operator by the relation of cause and effect.

This experiment by the multiplied reflection was subsequently tried by Dr. Lardner, assisted by Mr. Wood of the University Hospital, and others, very frequently, and in the presence of many witnesses, and always with the same effect.

It may be objected, that in these experiments the patient saw the operator by the reflection of the mirrors. But to this it is answered, that the same effects were produced, 1st, When the patient's eyes were closed; 2d, When she was turned from the mirror; 3d, When the operator was placed in a dark apartment, and did not stand opposite the mirror towards which he made the passes; 4th, That the operator could not be seen by another person looking into the mirror from the place occupied by the patient.

It having been ascertained that the influence proceeding from the operator to the patient penetrated through screens of various substances, it occurred to Dr. Lardner to inquire whether the influence reflected from the mirrors had the same power of penetration. For this purpose, the mirrors being adjusted as before, a silk handkerchief and a cotton towel were successively thrown over the first mirror, and the operator proceeded with the usual manipulations for a considerable time without producing the slightest effect. A person stationed near the first mirror was now directed to remove the cloth from it—the operator never ceasing the manipulations; immediately on removing the cloth from the mirror, the usual effects were produced on the patient, and she dropped into a state of coma.

The same experiment was tried, with the same result, by placing the cloth upon the second mirror, by interposing it between the two mirrors, and by interposing it between the person of the patient and the first mirror.

Thus it appears that the magnetic influence is so far enfeebled by reflection, that it loses its power of penetrating substances through which it passes freely when not reflected.

It was also ascertained that when either mirror was put out of that position which the law of reflection requires, the effect was not transmitted to the patient; but that the moment it was restored to the same position, the effect was produced.

Mr. Herbert Mayo, who was present at some of these experiments by multiplied reflection, proposed to try the effect of the influence reflected from metallic surfaces: it was accordingly tried by him, assisted by Dr. Lardner and Mr. Wood, with surfaces of tin, zinc, and copper. It was found that the two latter surfaces, being unpolished, failed to reflect it; but the surface of tin did so, although with an intensity very inferior to that of a mirror.

Wishing to ascertain whether the magnetic influence was either all, or nearly all, reflected from the surface of the mirror, it occurred to Dr. Lardner to try whether any portion of it could be transmitted through the mirror. With this view he placed the mirror between the operator and the patient — the reflecting side being presented to the operator. After continuing the manipulations for a considerable time, the usual effect was produced: thus it is evident that, as in the case of light, the reflection of the magnetic influence is not complete, but a portion of it is transmitted, although the greater portion is reflected.

To ascertain whether the reflection takes place chiefly from the anterior surface of the glass, or from the posterior or silvered surface, an experiment was tried to reflect the influence from a plate of unsilvered glass; but, though the process was continued a considerable time, no effect was produced.

The method which had been used to throw this patient from her natural and waking state into the state of somnambulism had been invariably to present the fingers to her head, and hold them there for a certain length of time. It occurred to Mr. Wood to ask her, when in a state of sleep-waking, whether there was any other process by which the same effect could be accomplished. After some consideration, she informed him that it might be done by pinching her ears. The experiment was tried, and immediately succeeded; and this is the method which is now used by the operator.

The method of throwing her into coma when in a state of somnambulism was, to wave the hand towards her person. She was asked in the same manner, whether there was any other way in which she could be thrown into coma. She answered, that if the thumbs of the operator were pressed upon the palms of her hands, the effect would be immediately produced; and also that if the operator pressed his hands upon her shoulders four successive times, she would be restored to her natural state. Experiments were accordingly afterwards tried, and always succeeded.

In her waking or natural state, this patient is totally unconscious of every thing which occurs in her sleep-waking or ecstatic states. If, after several hours of this state of delirium, she is restored to her natural state and interrogated as to the time she came into the room, she is only conscious of having lately entered it; and she is utterly ignorant of the persons with whom she had been but recently in conversation. Her sense of hearing, in the delirious state, is unimpaired so far as regards the loudness of sound, but she loses all judgment as to its direction: thus, for instance, if Dr. Elliotson or Mr. Wood—with whom she is very familiar, and to each of whom she is affectionately attached — speak, she will hear and recognise them; but will be quite unable to discover what part of the room they are in. If she is told that they are in the pocket of a person who happens to be opposite to her, she believes it, and straightway commences a search. On one occasion she was assured that Dr. Elliotson, who was standing beside her and speaking to her, was inclosed in the glass of a gentleman's spectacles who sat opposite to her, and she straight set about, with the utmost anxiety, to pick the physician out of the glass. She loses, in this state also, much of the judgment and sense derived from experience: she will believe, for example, that her mother is a man, or any other absurdity of the kind: nevertheless, at any time, she can, by single manipulation, be restored in a few seconds to the full possession of her senses, and be invested with that

amiable character and appearance which we have described at the commencement of this statement.

It has been supposed by some persons who have devoted attention to animal magnetism, that the intention or will of the operator is essential to the production of the phenomena. With a view to test this, Dr. Elliotson instituted the following experiment: —

A child of seven years of age, who was also an epileptic patient, and who was known to be entirely ignorant of the process and effects of magnetism, was placed before the patient, and instructed to move her hand in the manner which usually throws the patient into a state of coma. At first no effect ensued; but, after the motions had been repeated six or seven times, the somnambulist became dull and silent, and her countenance lost all expression. She was thrown into a state of sleep-waking intermediate between delirium and coma. The motions were continued, but no further effect was produced; and after they had been repeated nine or ten times more, the patient recovered herself, and was restored spontaneously to the state of delirium.

The child was now again desired to move her hands as before; but it occurred to Dr. Elliotson to try whether the contact of his own hand with the person of the child would have any effect upon the process. He accordingly placed his hand on the shoulders of the child, while the latter made the prescribed motions. These motions had not been repeated more than half a dozen times, when the somnambulist fell into a state of perfect coma. This experiment was repeated sufficiently often, both with and without the contact of Dr. Elliotson, to establish clearly the fact, that the coma could not be produced in the child without the contact of a second person.

This analogy was pursued farther. Dr. Elliotson desired another gentleman to place his hand on the other shoulder of the infant operator, so that two bodies should be in contact with her. Under these circumstances, three motions of the hand produced perfect coma in the patient. Pursuing further the same analogy, five persons next laid their hands on the person of the little operator; and a single motion of the hand, under these circumstances, suddenly produced a state of perfect coma in the patient.

It appears, therefore, evident, that several persons being in contact with the operator, the efficiency of the operation is in proportion to the total mass of animated matter thus in contact. Analogy suggested a corresponding inquiry as to the patients, viz. whether two or more patients being in contact possess a common susceptibility; and, if so, whether the operation produced upon one will be transmitted to the other undiminished, or shared among them so as to diminish its intensity upon each.

With this view, three patients (each of whom was capable of being thrown into coma by presenting the points of the fingers at the head for a few seconds) were placed in contact with each other; the hand of the operator was presented to one of them, and it was found that coma was produced, but not until after the lapse of a much longer time than would have been sufficient to produce it in the same patient had she not been in contact with the others. It was also observed that in one or two seconds after the first patient fell into a state of coma, the second fell into the same state; and, after a like interval, the third. This experiment was also repeated sufficiently often to connect the effect with the cause clearly and satisfactorily. The patients were separately thrown into coma, out of contact with each other, after a very short interval; while, when in contact, the effect was produced, as stated, only after the lapse of a considerable time, — but then it was produced on all of them.

The patients being in a state of coma, processes were known by which any of them could be awakened. One of these processes was, drawing the fingers over the eyebrows, commencing from the nose outwards. This method, repeated two or three times, was always sufficient to awaken any of the patients from the state of coma; but, when all the three were in that state, holding each other's hands, it was then always found to require a very long continuance of the motion upon

the eyebrows to awaken any one of them; but the moment any one awakened, all the three awakened.

Thus it appears that the magnetic influence is transmitted by contact from the body of one patient to the body of another, and the whole effect produced by the operator, acting upon one of them, is distributed equally among all who are in contact.

It occurred to Mr. Ward to investigate experimentally the mechanical force which would be capable of resisting the attraction by which the limbs of the patient were drawn by the operation of the magnetiser; and, with this view, weights were attached to the hand of the patient, which she must lift, in order that her hand should follow that of the operator; in this way various heavy weights were raised by her with facility, which she could not have lifted in her natural and waking state. Mr. Wood asked her, when in the sleep-waking state, what quantity of weight might be attached to her arm, when submitted to the attraction of the magnetiser, and she replied that *an hundred weight might be raised, but that her arm would probably be hurt by it, so that she should not recover the injury for several days.* She was then asked what was the greatest amount of weight which might be attached to her arm without injuring her, and she replied *eighty pounds.*

The following experiment was in consequence made on one occasion in the theatre of the University Hospital, in the presence of an assembly of several hundred persons. A surgical bandage was attached to the arm, to prevent the strings by which the weight was suspended injuring the flesh. The patient being in the delirious state, and the arm hanging downwards beside the body, the strings of the bandage were passed through the rings of two weights, one of fifty-six pounds, and the other of twenty-eight pounds, amounting to eighty-four pounds, and were so connected with the bandage that the arm could not be moved upwards without raising the weight. The amount of weight being rather more than that which the patient had named as the greatest amount which could be safely suspended, Mr. Wood addressed to her the inquiry, whether the weight then suspended from her arm, which was eighty-four pounds, could be lifted by her without injury; she replied that *it was more than she had told him, and she did not like it.*

It was then thought advisable to detach the twenty-eight pounds weight, and to replace it by one of fourteen pounds, as no division of weights happened to be accessible which exactly amounted to eighty pounds. Seventy pounds were therefore now attached to the arm of the patient, and Mr. Wood proceeded to present his fingers towards her hand, and to move them repeatedly upwards. The patient being seated on a chair, her arm at first indicated strong efforts to follow the hand of the operator upwards, and a slight motion was imparted to the weights, without, however, raising them. After the operation was continued for rather more than a minute, the patient rose from the chair, drawing her hand up, and extending it at the same time slightly outwards towards the operator, and lifting the weights with considerable effort: immediately, however, on attaining the erect posture the mechanical effect of the weights taking the centre of gravity from over her feet, drew her whole body downwards, and she fell in the direction of the weights and towards the operator; not, however, until the weights were raised five or six inches from the ground.

It is needless to state that this girl would, in her waking or natural state, have been totally unable to raise any weight even approaching in amount to seventy pounds. She was subsequently thrown into a state of delirium, and then restored to her natural state, and was desired to raise in each state the fifty-six pounds weight, which she tried in vain to do.

The fact, that in the sleep-waking state the patient imitates the motions and gestures of a person placed near her, suggested the inquiry, — whether a like effect would ensue if combined positions were taken by two or more operators. With this view, the patient being in a state of sleep-waking, two operators placed themselves near her, each laying his hand on the person of the other. After the lapse

of two or three minutes, the hands of the patient gradually moved until they took the same attitude as the hands of the two operators. The patient then approached them, and slowly advanced her hands until she placed one of them on the hand of each operator; after which, in a few seconds, she dropped into a state of coma.

In this experiment, if the hands of the operators be crossed, the patient will also cross her hands; and, in a word, will imitate the position of the operators as nearly as circumstances will permit.

Although it appeared sufficiently evident that, in this experiment, the patient was not guided by sight; yet, to test that, the patient being placed in the sleep-waking state, Dr. Elliotson and Dr. Lardner placed themselves behind her, and united their hands in a crossed position, each holding the wrists of the other with the alternate hands. After the lapse of some minutes, during which the patient expressed in her features much anxiety and vexation, and even shed tears, she raised her hands gradually to the horizontal position, and crossed them at the wrists; she then turned slowly round, and advanced towards the operators, until her wrists were immediately over theirs, at a distance of about eighteen inches from them; then stooping and preserving her arm in the same position, she gradually lowered herself until her hands were placed upon the wrists of either operator: immediately when the contact was established, she fell off in a state of coma.

In all these experiments the eyes of the patient were closed as in sleep.

The manifest connection of the phenomena of animal magnetism with the nervous system naturally suggested the inquiry, — how far the operation of electricity upon that system would be modified by it.

With this view, galvanic and electrical apparatus were prepared by Professor Wheatstone, and administered to the two patients, Elizabeth and Jane O'Key, by Professor Wheatstone and Dr. Lardner, in the presence of Dr. Elliotson, Dr. Roget, and a great number of medical and scientific men. The shock of the galvanic apparatus was taken by some gentlemen present, among others by Sir William Molesworth, and in each case produced a very severe effect; when administered, however, to the two patients, no visible effect whatever was produced: they held the ends of the wire steadily, and apparently without any sensation or consciousness of any particular effect. It was observed, however, that a contraction of the muscles of the hands was apparent, and the patients were not able to disengage their hands from the extremities of the wire. Leyden phials were subsequently charged by an electric machine, and the shock taken by each of the patients without any effect, except an expression of surprise, and a burst of laughter on seeing the spark pass between the jar and their hands. These experiments were performed on the patients in the state of delirium.

The opposition of the general body of the medical profession to the prosecution of this inquiry, and the ridicule which they endeavour to cast upon all who even evince a willingness to witness the reputed effects, must, no doubt, obstruct the investigation; and, what is still worse, by bringing it into discredit with the public, throw into the hands of ignorant and uneducated charlatans an agency the power and importance of which are still unascertained. Yet, if we recur to the history of medicine, we shall find abundant evidence how little value ought to be placed upon the adverse opinion of the medical profession, *as a body*, upon any new discovery in physics, but especially in therapeutic science. In the whole records of the progress of the medical art, it is a remarkable and instructive fact, that not one great discovery can be found which was not, when first promulged, encountered with hostility, opposition, and ridicule, by that profession. Yet each of these discoveries has forced its way through professional darkness by the light of its own truth. The immortal Harvey was covered with ridicule for his doctrine of the circulation of the blood; and the public deeming him an unsafe adviser, he lost an extensive practice. When the

virtues of antimony were made known, in the middle of the seventeenth century, the incorporated medical profession of France denounced it as a dangerous and ignorant innovation, and prohibited its use. Soon afterwards the same body issued its anathema against the use of a then newly discovered remedy called Peruvian Bark. So recently as the middle of the last century the medical profession was thrown almost into a state of phrenzy at some rash enthusiast who actually proposed to infect children purposely with the smallpox, pretending thereby to anticipate the voluntary approach of that destroyer of human life, and thereby to disarm him of his terrors. A proposition so monstrous was declared to be "mercenary cruelty and direct murder." Dr. Wagstaffe, physician to Bartholomew's Hospital, the most eminent and learned physician of that day, declared it to be "contradictory to reason," denied its influence in resisting future infection, and condemned it as keeping up a perpetual source of pernicious contagion. As in all cases of incipient knowledge, its advocates fell into contradictions and inconsistencies, owing to the limited number of instances on which they were compelled to found their generalisations. Dr. Wagstaffe, taking advantage of this, declared that such inconsistencies proved the doctrines they advocated to be altogether unworthy of confidence.* Finally, the pulpit lent its aid; and the oracles of the church declared that inoculation proceeded "from the hands of Satan, and that the whole art was of infernal invention." The Royal Academy of Medicine of France seconded the exertions of the medical faculty of Britain, and proscribed the process, as "murderous, criminal, and magical.† Whatever, therefore, may be the result of the inquiry respecting the alleged facts of animal magnetism, we presume the opposition of the medical profession, here or elsewhere, will not weigh much in the estimation of well-informed persons.

The subject has recently been forced upon the attention of scientific men by the startling nature of the effects exhibited, not by unknown pretenders, but by qualified members of our College of Physicians, graduates of our old established universities, and professors of established character in our medical schools. Among these, Dr. Elliotson holds the foremost and most honourable place. With a moral courage which does him honour, and with a philosophical spirit worthy of a Laplace or a Cuvier, he has prosecuted these inquiries, discarding all theories and hypotheses, and confining himself in the first instance to the collection and classification of phenomena. He has also afforded every possible opportunity, not only to the medical profession, but to scientific men generally, to witness the extraordinary phenomena which have been developed, and to propose such tests of their reality, and to adopt such means for removing delusion and collusion, as they might think fit. In these proceedings he has encountered every species of petty annoyance and obstruction; and we grieve to be compelled to say that the liberal council of the liberal University College have lent themselves to these most discreditable proceedings. On one occasion, being desirous to submit the phenomena to the observation of a number of scientific men, and thinking the theatre of the hospital too small for the due development of the effects, he sought and was refused the use of one of the larger and more commodious theatres of the College. And recently we learn that he has been compelled to discontinue these demonstrations altogether. His medical colleagues, with the exception of the enlightened

* A respectable weekly journal (the Athenæum) adopts precisely the same ground of objection against those who advocate the facts of animal magnetism.

† 1745.

and philosophical Drs. Grant and Lindley, and Professor Graham, have studiously absented themselves on these occasions, although we have seen frequently present the leading medical professors of that branch of the metropolitan university which, with less clamour about the principles of liberalism and toleration, seems better to understand their practice. The effect produced on the minds of several physicians who have attended these demonstrations has led to the formation of a committee of Fellows of the Royal Society—including, it is said, Dr. Roget, Mr. Mayo, Professors Faraday, Wheatstone, and others—to investigate the phenomena. It is gratifying to know that this step has at length been taken, were it only to rescue, as we are sure it will ultimately do, the names of Dr. Elliotson and other ardent and sincere inquirers from the vituperation of certain journals, whose respectable conductors have been induced to lend themselves to the opposition to this inquiry.*

The reported facts of animal magnetism are either real or they are not. If real, they are subjects of vast importance, whether regarded as appertaining to general physics or to the special science of medicine. The question therefore is, has not a sufficiently strong case been made out to render the subject deserving of any serious attention from scientific men?

So long as these phenomena were only pretended to be produced by persons admitted to no station in the community of science, vain and shallow enthusiasts, or by persons stigmatised with the reputation of quacks and charlatans, they might have justly been deemed unworthy of serious investigation; but this has long ceased to be the case; and if it shall appear that men holding the highest intellectual position in human society have recorded their assent to any of the alleged phenomena, can it be doubted that they are fit and proper subjects of inquiry for all who take an interest in the advancement of physical science, and that to investigate their reality, their laws, and therapeutic influence, is eminently the duty of that profession to whose skill and care the health and physical well-being of the community are confided?

It cannot be supposed, by any individuals of that profession, that, in a country like ours, blessed with a free and intelligent press, they will be allowed to stifle an inquiry thus circumstanced, and to shrink from the investigation of a question, the importance of which is attested by the suffrages of some of the most eminent philosophers who have enlightened the world in the last half century.

Among the authorities which have assented to the reality of a specific agent producing the effects ascribed to animal magnetism, are the names of such men as Laplace and Cuvier. Laplace, in his *Théorie Analytique du Calcul des Probabilités*, says —

"Of all the instruments by which the imperceptible agents of nature can be discovered, the most sensitive are the nerves, especially when their susceptibility is exalted by particular causes; it is by their means that the slight electricity developed by the contact of different metals is discovered. The singular phenomena which result from the extreme sensibility of the nerves in particular individuals, have given rise to various opinions relative to the existence of a new agent denominated

* The Times newspaper stigmatises those who endeavour to investigate these effects as *quacks*; and the Athenæum warns the committee off, roundly declaring that "every scientific man who regards his own character should keep aloof of them, and refrain from sanctioning, by direct participation in their proceedings, a transaction so likely to lead to mischievous consequences." We suspect that such men as Faraday, Roget, Mayo, and Wheatstone will hold this sagacious advice very lightly, especially as the writer develops his views more fully by declaring that "mankind is more benefited by doubt, *whether reasonable or not reasonable*, than most persons imagine." They will hardly confer upon mankind the great benefit of *unreasonable doubt*.

Animal Magnetism; to the action of common magnetism; to the influence of the sun and moon in some nervous affections; and lastly, to the impressions which may be experienced from the proximity of the metals, or of running water. It is natural to suppose that the action of these causes is very feeble, and easily disturbed by accidental circumstances; but, because in some cases it has not been manifested at all, we are not to conclude it has no existence. We are so far from being acquainted with all the agents of nature, and their different modes of action, that it would be quite unphilosophical to deny the existence of the phenomena, because they are inexplicable in the present state of our knowledge."

"We must confess," says Cuvier, in his Comparative Anatomy, "that it is very difficult, in the experiments which have for their object the action which the nervous systems of two individuals exercise upon one another, to distinguish the effects of the imagination of the individual upon whom the experiment is tried from the physical result produced by the person who acts upon him. The effects, however, on persons ignorant of the agency, and upon individuals whom the operation itself has deprived of consciousness, and those effects which the lower animals present, *leave no doubt that the proximity of two animated bodies in certain positions, combined with certain movements, have a real effect, independent of imagination.* It also clearly appears that these effects arise from some nervous communication established between the individuals."

In the discussion to which these phenomena have given rise, it is often asked how these effects can be accounted for? and this is asked in a manner which implies that the inability to account for them is sufficient to set aside the reality of the facts themselves. Nothing can be more unsound in philosophy, or untenable in logic, than such an inference. We know that the gravitation of the sun is transmitted through space to distances of hundreds and thousands of millions of miles; that at this distance it produces enormous mechanical effects; yet, if we are asked to account for these wondrous effects — can we do so? Newton investigated their laws, and placed us in a condition to predict with certainty their succession for countless ages to come; but he utterly failed in accounting for them, and in showing by what particular agent it was that they are conveyed through the universe with a speed so inconceivable, and to distances so immense.

The progress of all knowledge requires that the individual facts should be first well ascertained; that as their number is multiplied, and their relation developed, they shall be classified; that then the general laws which govern them shall be rendered manifest; and the last result at which the human mind arrives is the theory by which these facts are accounted for. How absurd, then, and how unphilosophical must be the notions of those who now, in the very dawn of the science of animal magnetism, (if so it can be called,) when we are in possession only of a few scattered and isolated facts, and even these few matter of dispute as to their reality and as to their concomitant circumstances, expect that a satisfactory and sufficient theory shall be furnished to account for them!

In conclusion, — without affecting indifference to the threats of those journalists who offer us the pleasant alternative of being posted as quacks or dupes, — our reverence for truth overbalancing our fear of their ridicule, we are compelled to admit that many of the facts of animal magnetism have been established by evidence, to our minds, as conclusive as any of the proofs on which other physical facts repose; that the facts thus established require the admission either of an agency in nature hitherto unnoticed, or, what is tantamount, the admission that new functions shall be ascribed to some known agent; that this agency is material, is propagated through space in straight lines; that various corporeal substances are pervious by it with different degrees of facility, and according to laws which still remain

to be investigated; that it is reflected from the surfaces of bodies, according to definite laws, probably identical with or analogous to those which govern the reflection of other physical principles, such as light and heat; that it has a specific action on the nervous systems of animated beings, so as to produce in them perception and sensation, and to excite various mental emotions. Of these several propositions we cannot discover any grounds of doubt which would not shake all the foundations of physical science.

The phenomena recorded and observed also suggest some probable conjectures, which may be confirmed, modified, or overturned by more extended and varied experiments. It appears probable that, whatever may be the *medium* by which this action is *propagated* through space, its proximate exciting cause is animated matter; that the energy of the action has a necessary relation to the quantity of animated matter in the agent; that this energy is weakened according to some definite relation to the distance through which it is propagated; that, without any visible external movement on the part of the agent, a mere mental operation or emotion, by affecting his nervous system, may cause the latter to excite the requisite action in the propagating medium, which being conveyed to a distance, may affect the nervous system of another animated being, and thereby produce in it corresponding mental perceptions and emotions. If the power of the mind of the agent to produce mechanical motion in his nervous system be admitted, — and this cannot be denied, — there is nothing in the last conjecture which is not in perfect accordance with all that we know of the organs of sense, and the way in which they are affected.

We may be wrong in these guesses at what we think the observed facts have already shadowed out; but even though wrong, we shall still be more content with the course we have taken than if we followed the safe counsel of a contemporary writer, and expressed doubts, *whether reasonable or unreasonable.* We may be ridiculed, should the event not confirm our anticipations; but we shall be ridiculed in good company, and shall receive countenance of our fellow-sufferers, the shades of Cuvier and Laplace.

Since the preceding article was put in type, several new facts developed in the practice of Dr. Elliotson have come to our knowledge, which corroborate strongly the inferences to which we have arrived. We regret that the limits and objects of this journal will not allow us to lay the statement of them before our readers.

We are authorised to say, that Dr. Elliotson is willing and anxious to submit them to the observation of any medical or scientific men who are desirous of prosecuting the inquiry, and to institute any tests on their reality which may be suggested to him, provided the council of University College can be induced to withdraw their opposition to the investigation.