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LECTURE

ON THE

PHENOMENA OF DREAMS, MESMERISM, CLAIRVOYANCE,

&c.,

BY THE

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INTRODUCTORY REMARKS.

THE circumstances which led to the delivery of the following Lecture are narrated in the *Zoist* (No. 39), and are briefly as follows :---

In April last the town of Northampton was visited by an itinerant lecturer on "Electro-biology." The experiments exhibited by this person excited much wonder and enquiry, and for several weeks the lecture room was attended, night after night, by crowds of spectators drawn from all classes of the people.

The Lecturer, without offering any explanation or proposing any theory, declared that all his effects were produced by electricity emanating from a small disk of zinc and copper, upon which his subjects were required to fix their eyes for a given time,—which electricity was to be applied and directed by certain passes and movements of the hand, wherein the secrets of his art were said to consist. He asserted

that his *new science* was a totally different thing from mesmerism, and declared that he and his party had discovered "the principle of human life."

These exhibitions were so long continued and with so much profit to the lecturer, that many persons whom, "for a consideration," he had initiated into the mysteries, hoping to glean some portion of the golden harvest, announced entertainments of a similar character, and experiments were exhibited and classes for practice and instruction formed in various parts of the town, at the small charge of *twopence* per head to those attending them.

A more serious evil arising from the display of these phenomena, and from the erroneous statements put forth by the exhibitors, was the inference which the *infidel* party drew from them in support of their soul-destroying tenets. They professed to regard the *electricity*, which was declared to be "the principle of life," as the author of all rational as well as physical effects; they ignored the existence of an immortal soul, and represented the human creature as consisting only of two material elements,—the invisible electric fluid and the visible organised body.

It was with a view to counteract these evils, to separate truth from error, and to allay the existing excitement, or at least to turn it to good account by placing the phenomena of mesmerism before the people in their true light, that the following lecture was announced.

The theory advanced has no claim to originality :

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the manifestations of forces in the galvanic battery have long been regarded by men of the highest scientific authority as closely allied with those of vital force : it must necessarily be very difficult to arrive at any conclusion on this head ; but the facts of mesmerism are so substantial, its truths so curious and valuable, that however we may differ about *theories*, all who candidly investigate and judge for themselves will acknowledge their reality and their importance.

The curative powers of mesmerism are so well known aud have been so often exhibited, that it is wonderful that it should meet with adversaries amongst educated men whose peculiar office it is (or should be) to heal disease in the quickest and most effectual manner possible. But there are some persons in every profession, whose minds are so unphilosophical that they cannot get beyond the precincts of the school in which they have been trained. Like blinded horses, moving on steadily in the beaten track round the mill-shaft, they not only make no advance themselves, but are ignorant or incredulous of all the progress that is made by those around them. Others, again, though naturally more enlightened, follow their blind leaders, (like the dog at the horse's heels), not from any admiration of the course he takes, but because they are not accustomed to move independently,---they fear to express opinions not ~ generally received, and to sacrifice self-interest for the sake of what they believe and know to be the truth.

If they were satisfied to go on quietly in their dull routine we might pass them by with pity and regret; but they are often so much in love with their own narrow circle, that they cannot bear for others to move in a wider sphere; it troubles them to hear of new discoveries; and therefore they exert themselves to oppose and persecute all who venture to assert opinions not in accordance with their own. It has been so in all ages. Every advance in scientific knowledge has been resisted by the professed advocates of science: truth asserted by the few has had to force its way in opposition to the many: the higher and more valuable the principle to be maintained, the greater will be the resistance that meets it, and the more certain it will be of triumphing at last

The Lecture "on the Phenomena of Dreams, Mesmerism, &c." would never have appeared in print but for the efforts that have been made by certain medical men of Northampton to ridicule and misrepresent it. The facts which it asserts have been carefully investigated, and these, it is hoped, will be considered worthy of attention : the theory is offered solely by way of suggestion, and with a view to stimulate enquiry. Whether it be received favourably by the public or not, it will at least be judged *fairly*; it will be allowed to speak for itself, and will shew the injustice and uncharitableness of those who, in entire ignorance of its character, (never having heard it or seen any report of it), have not scrupled to impute to its author sentiments and opinions quite as offensive to his mind as to their own.

It is easy to understand why mere experiments in mesmerism should be discouraged; but why may not those who have seen and felt and applied its healing influence in relieving the most agonising and dangerous disorders, continue their merciful work without being persecuted and reviled? Why cannot we take counsel together for the benefit of suffering humanity, and assist each other in subduing those evils to which we are all equally exposed? Those who practice mesmerism do not despise or undervalue medical science : its best and noblest advocates are at the same time among the brightest ornaments of the medical profession : they merely wish to apply itshealing virtue in aid of other means, knowing that it can cure diseases when no other remedies avail. and can assist all the ordinary methods of cure. Why cannot we, at all events, agree to differ, and each allow the other to pursue unmolested that system which he has learnt to value most?

It has been said that clergymen have no right to interfere with the infirmities of the body, and that souls alone should be the objects of their care; but it is certainly a part of their commission to "heal the sick," and there is reason to think that they, in common with others, have far more power to do this than they have been used to exercise. To cast contempt upon the means that God has given us for the relief of our various ills would be vile ingratitude : to refuse assistance to those who are racked with pain and sickness, when it can be given at the cost of a little time and trouble, would be wicked and barbarous. Many in all parts of England and on the Continent have acknowledged this, and are acting upon the conviction: and we may now confidently hope that ere long the sanative power of mesmerism will be as freely admitted and as habitually and systematically used in all cases of disease as are any of the ordinary medical appliances in the present day.

LECTURE.

WHEN we apply ourselves to the examination of any production of human industry, as for instance, a steam engine or a watch, we are sure that a moderate degree of patience and observation will reveal to us all its mysteries. We can discern not only the use and adaptation of its several parts, but also the cause or power by which they are set in motion. In the watch we may observe the balance wheel controlling by its regular vibrations the movement of the works---we see the several wheels and pinions, duly proportioned both in size and number, by which the progress of the hands over the dial is made to correspond with the hours and minutes into which the natural day is divided-we trace their movement to the round barrel, and at length, within that barrel we discover the strong and flexible spring by which the whole train of wheels is set in motion.

But it is otherwise with the works of God: the contrivances of Nature surpass the contrivances of

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Art in the variety, complexity and subtlety of the mechanism; if we can in some instances discern the different parts of that mechanism and trace the connection between the instrument and the design, yet there we must stop; the cause by which the instrument is set in motion is still hidden from us, unsearchable, beyond our apprehension.

In the human body we discover all the partslimbs, muscles, nerves and organs---necessary for performing the functions of animal life: we recognise also a provision for the repair of the mortal frame, and we can to a certain extent appreciate and understand the process of assimilation by which our food is converted into blood, and the blood into the very flesh and bones of which our earthly house consists. The body is indeed an exquisite machine, and as such we can dissect it and describe it; but it is a machine only; it requires an active principle, analogous to the main-spring of the watch, to endue it with motion and to preserve it from perishing : that principle we call life; that life exists, in man, only in connection with the soul; and as soon as the soul deserts its mortal tenement, the whole fabric ceases to perform its functions, falls into decay and returns unto the dust from whence it sprung. As the body, viewed independently, is a mere combination of natural elements-a mass of corruptible matter, moulded into certain forms and adapted to certain uses, but in itself wholly incapable of action or sensation,-so the soul without the body is an eternal, imperishable essence, unrestricted in its perceptions, endued with the widest sympathies, exercising all its faculties in an infinite degree and possessing, it may be, latent powers and senses of which in the present life we are unconscious.

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Throughout the New Testament the whole man is represented as compounded of spirit, soul and body.* Spirit and body together constitute the natural living creature; but in man the spirit is modified and exalted by its connection with the soul. From this divine and everlasting principle man derives his reasoning faculties, his sense of right and wrong, his power of acquiring and imparting knowledge and his ability to serve God in the exercise of religious faith and duty.

Viewing the *body* then as an exquisite machine, a piece of divine *mechanism*, and nothing more,—the *spirit* as an active and vigorous principle, receiving its impressions from the soul, and exercising its powers of volition upon the body,—and the soul as an immortal and responsible essence entirely distinct from the body, yet intimately connected with it for a time, I purpose this evening to consider the relation subsisting between the spirit and the body in their natural state of union, and afterwards to notice some of the principal phenomena exhibited during the partial suspension of that union, from natural causes or from peculiar and foreign influences.

And let it not be thought that such investigations pursued with a simple and earnest search after truth,

* 1 Thess. v. 23; Heb. iv. 12; Luke i. 46-47. This was also the doctrine of the Pythagoreans and Platonists. Compare the account in the first chapter of Genesis, of the creation of the lower animals and of man.

"God said let the earth bring forth the living creature after his kind; . . . and it was so."

"God said let us make man in our own image after our likeness; . . . and God formed man of the dust of the earth, and breathed into his nostrils the breath of life, and man became a living soul." can be uscless, unprofitable or presumptuous;—apart from those temporal benefits which will naturally follow an accession of knowledge on a subject in which we, as improvable beings, are nearly concerned, where can we find a more profitable or interesting pursuit than the study of nature in its highest and noblest works? What so likely to excite devotion and to induce a lively care and anxiety for our eternal interests, as a science which reveals to us new evidence of the immortality of our souls and wonderful perceptions of their worth and dignity.

First-of the union itself. It is evident that the body derives all its vitality and motion from the spirit.* By this the necessary functions of life are performed : the beating of the heart, the breathing of the lungs, the secretions of the whole system are sustained by the involuntary powers of the spirit; its very presence in the body, even though apparently inactive and unconscious, as during sleep, is sufficient to keep these vital organs in activity. It is in obedience to the spirit that the muscles contract and move the limbs, and it is only through the spirit that the organs of the body are made susceptible to those impressions which they are severally intended to The body cannot exercise its powers or receive. senses in the smallest degree except in so far as it is qualified to do so by the powers of the spirit. The

* In Holy Scripture the word Spirit is sometimes used to denote the reasonable soul of man as well as the life that is in beasts: "Who knoweth the spirit of man that goeth upward and the spirit of the beast that goeth downward to the earth." —Eccles. iii. 21. Wherever this word occurs in the following pages it must be understood to signify not the soul, but the vital principle by which the material body is animated and sustained. eye may be perfect in its structure but it will not seethe ear admirably fashioned but it will not hear-the limbs, nerves, muscles and all other parts and organs fully developed, but they will neither feel nor move unless the principle of life be present with them. Strictly speaking, the body has in itself no feeling : if the hand be touched or wounded, we seem to feel it in the part affected; but if the nervous communication between the hand and the spirit be interrupted, as is frequently the case in disease, then the hand will lose its borrowed sensibility and be quite unconscious of any injury it may sustain.* I shall endeavour to set this hypothesis before you more fully by and by, when speaking of surgical operations endured without pain by persons under the influence of mesmerism or chloroform.

The spirit may be considered as an essence exactly corresponding in figure with the body to which it belongs: † it has its spiritual organs, its eyes, ears, hands and feet; and whatever happens to the body that the spirit perceives and feels in a corresponding part of its own figure, so long, and so long only, as the nervous communication between the material body and the spiritual remains uninterrupted. A

^{*} The Great Dictionary of Medical Science, vol. 60, treating of anæsthesia (loss of the sense of touch), analgesia (insensibility of pain), and amyosthenia (loss of nuscular power), observes that these symptoms are generally the result of a suspension of the action of the nervous fluid which goes to different parts of the body.

⁺ Figure, which in material bodies is the boundary or outline of extension, is here applied to the spirit, as indicating the limits within which its powers of action or perception are confined : in this sense it is plain that the figure of the spirit must be identical with that of the body in which it dwells.

singular illustration of this is presented in the fact that persons who have suffered the loss of a limb seem to feel it in its usual position long after it has been removed, and are often sensible of pain or itching in that place which the hand or foot would naturally have occupied had it not been amputated.

But though the spirit is thus linked to the bodythus intimately joined to every part of it, yet it is not identified with it: it does not dwell in the limbs. nerves and muscles: it is not diffused throughout those various parts which by their sensibility give token of its near existence. If it were so, then the loss of a limb would necessarily be accompanied by the loss of a part of the life. The spirit is so far distinct from the body that it cannot even touch or affect it in any way without some intermediate agent. The mind cannot *directly* move the hand or foot; it cannot contract the muscles or act mechanically upon the limbs. In cases of paralysis, for instance, though the bones, muscles and nerves all remain entire, yet the mind may exert its utmost energy and it will fail to reach them: it cannot by any exercise of its volition cause the hand to rise or the foot to stir. The spirit must have some messenger to do its will-some rare invisible medium through which the impressions of its material organs may be conveyed to it, and by which it can act upon its bodily members.

What may be the nature of that agent which is susceptible, on the one hand, of being set in motion by the will, and capable on the other, of acting upon the material structure of the body, is still a matter for investigation. The wonderful discoveries of mesmerism seem to promise a clue by which, sooner or later, this question may be settled. It may be some element with which we are yet wholly unacquainted, which exhibits itself in no other form and exercises no other office in the realm of nature; or it may be, and there is strong ground for the presumption that it is, another modification of that marvellous fluid to which we have already learned to attribute the various effects of heat, light, electricity, galvanism and magnetism. The electric fluid, so pure, so subtle, so universal, seems a fitting medium of communication between the spirit and the body : it is invisible, ever-present, imponderable, circulating freely through the densest bodies, always in motion, swift in its operations even as thought itself,—yet, with all these immaterial characteristics, capable of acting upon every material substance with irresistible power and with infinite variety of effect.*

That this may be better understood, I will now set before you briefly, some of the general laws and principles of electrical science, proving as I go on the existence of electrical currents in the body, shewing the effect of electricity upon the nerves of sense and motion, and pointing out the principal features of

*" The nerves, being unable to act of themselves or mechanically," as Cuvier says, "draw from the vast reservoir from which they spring, a subtle fluid, nervous or whatever else, no matter what name we give it, probably a modification of electricity, collected no doubt by the gauglionic nerves, at every point where the chemical and physical phenomena take place which support life, elaborated perhaps in the gauglions and transported by them along the same ways by which it had reached them, in the centre of the encephalo-spinal canal" (the canal in the brain and spinal marrow) "for the purpose of being distributed automatically by the nerves of emotion, of the great sympathetic and by the brain itself, and voluntarily by the nerves of motion." (Dicty. of Medical Science, vol 60 : quoted in the Zoist, vol. 10, p. 239.) analogy between the phenomena of electrical action and the effects of nervous force in animal life.

The conventional theory now generally adopted is that electricity is an imponderable form of matter composed of two elements, the positive and the negative electric fluids, which when separated produce analogous effects, but when united, neutralise each other so effectually that the existence of the neutral fluid can never be detected save by separating its component elements.*

Electricity pervades all bodies in nature. It is the effective agent in all decomposition and all assimilation: whatever chemical change occurs in matter, electricity is there actively present. By passing a current of electricity through a compound body, that body may be resolved into its component elements: water may thus be changed into the two gases, hydrogen and oxygen, of which it is composed, and by an electric spark these gases may be re-united and pure water re-produced.

Dr. Faraday has shewn that during the decomposition of a few grains of water a far greater amount of electricity is quietly evolved than would suffice, in a state of high tension, to produce the most vivid flashes of lightning and other awful phenomena of the thunderstorm.

As there is a continual change of substance going on in the body, there is of necessity a constant development of electricity there. The body is indeed a complicated and ever active galvanic battery. Professor Matteucci detected a current of electricity in the recently amputated limb of a man : by making an incision in the muscles and applying to it a gal-

^{*} Electricity and Galvanism, by Dr. Golding Bird.

vanometer, indications of electrical action immediately appeared. His experiments upon frogs are well known; not only did he produce muscular action in one of these creatures when dead, by connecting its nerves with the muscles of another, but by arranging a series of the half thighs of frogs, having their exterior and interior surfaces connected, he constructed a *frog battery* capable of generating a considerable amount of active electricity.

The effects of galvanism on the human body have been strikingly exhibited by various experimenters. Dr. Carpenter says,* "Electricity possesses the remarkable power, when transmitted along the nerves of special sense, of exciting the sensations peculiar to each; and thus by proper management this singular agent may be made to produce flashes of light, distinct sounds, a phosphoric odour, a peculiar taste and a prickling *feeling* in the same individual at one time." Mr. Smee, by his experiments upon living animals, + has shewn that whenever the muscles of the body are employed-as often as the hand moves, the eve sees, or the tongue tastes, electricity is evolved in sufficient quantity to act visibly upon the galvanometer. A wire connected with the muscle of the jaw of a rabbit shewed no signs of electrical action until the animal began to gnaw a piece of wood, when a current of electricity was immediately detected. Another, connected with the eye, exhibited electricity as soon as the light was suffered to reach that organ, none being developed so long as it remained in dark-The same gentleman constructed electric batness.

^{*} Carpenter's Animal Physiology.

⁺ Elements of Electro-biology, or the Voltaic Mechanism of Man, by Alfred Smee, F.R.S.

teries which were set in action by any of those causes which affect the senses of the body. He made, as it were, an artificial eye, which gave out electricity whenever the light reached it; an ear that was similarly affected by sound; an organ corresponding to the hand, that shewed electrical action when touched; a tongue and a nose, in which electricity was developed as soon as they were respectively brought into contact with any savour or smell.

Electricity appears in various forms and aspects : heat, light, and magnetism are but different manifestations of the same fluid, and each of these presents in its peculiar mode of action, many features of analogy with that mysterious principle, the *vis nervosa*, by which the functions of animal life are carried on.

The human body being insulated and connected with an electrical machine, becomes charged over the surface with electricity, and gives off sparks from the fingers, eyes, ears, or any other part that may be touched. In like manner, during frosty weather, the hair crackles and emits sparks when combed or rubbed. The back of a cat exhibits the same effects, the electricity being very small in quantity, but in a high state of elasticity or tension.

Under the stimulus of sudden terror, a creeping sensation is felt over the whole body, and "the hair of the flesh stands up;" the same effect may be produced by charging the body with electricity; the several hairs, being similarly electrified, repel each other, rise from the head and stand on end, "like quills upon the fretful porcupine." In the one case the electricity from the *machine* spreads over the *surface* of the body,—in the other, it may be that, the mind being violently agitated, the electrical force is excited in the brain, and the fluid acts immediately upon the nerves and skin.

Moist, damp weather is always found to affect the nervous system, relaxing the muscles and causing great debility and langour, both of mind and body: it acts in a similar manner upon the electrical machine, impairing its action, and rendering it comparatively useless. The electricity being conveyed away by the moisture of the air, suffers in both these cases a diminution of its quantity or tension.

The secretions of the body are always stimulated by the emotions of the mind, as fear or anxiety. Mesmerism produces the same effect; the watery eye and the moist perspiring skin are symptoms that the mesmeriser looks for when operating upon his patient. Electricity acts in a similar manner. If a vessel, filled with water, having a small hole at the bottom through which the fluid can escape only in single drops, be suspended from the conductor of an electrical machine, as soon as the water is electrified it will run freely through the narrow opening; and, applying this to the body—it will be found that a small wound from which the blood oozes drop by drop, will yield a copious stream if the limb be electrified.

Electricity, when accumulated by artificial means in a state of high tension, discharges itself with sudden violence through any imperfect conductor, or without any conducting medium at all. Thus are produced the vivid flashes of lightning that dart from the thunder cloud, or, on a smaller scale, the bright spark and shock from the Leyden jar. The electrical eel and some other fish possess the power of giving shocks whenever they are touched; and these discharges are proved to be identical in every respect with electricity: the production of electric force in these creatures is perfectly voluntary, and the exhaustion that attends it shews that a considerable change of matter occurs during the process. There is on record the case of a lady who, from diseased organisation, gave violent shocks to every one who touched her,—the natural electricity in her body assuming that unusual character of *elasticity* by which these sudden discharges are occasioned.

The production of animal heat in the system may, with some reason, be attributed, in part at least, to electricity. If this fluid be passed along a conductor of sufficient size or capacity, no effect will be manifested; but if the conductor be too small for the charge conveyed, considerable heat will be produced. A current of electricity may thus be transmitted imperceptibly along a wire of adequate size; but if any part of the wire be removed, and the interval supplied by another of smaller diameter, the effort of the electric fluid to effect its passage will excite such violent vibration of the particles as to produce intense heat, causing even a piece of platinum to melt like wax.

Applying this to the phenomena of animal heat, it may be assumed that the nerves of the body are capable of conveying only a certain amount of electricity; if, therefore, the charge be increased *beyond their capacity*, heat will be generated, and thus a greater or less amount of animal warmth will be produced, according to the health, activity, or energy of the subject.

It is well known that the temperature of a sound limb, through which the nervous fluid circulates energetically exceeds that of a *palsied* one. Mr. Earle found the temperature of a paralysed arm to be 70 deg., while that of the sound one was 92 deg., but on electrifying the affected limb, the temperature rose to 77 deg. Exercise increases animal warmth, because electricity is thereby sent more actively along the nerves and muscles, to set the limbs in motion. M. Becquerel found that on contracting the biceps muscle of the arm, sufficient increase of temperature was excited to produce an electrical effect upon the galvanometer connected with it. This could not be accounted for by increased circulation of the blood, for by the contraction of this muscle circulation is, on the contrary, retarded : it can only be attributed to the greater amount of nervous energy put forth, and to the electric currents thereby set in motion. In this way we can understand how coachmen and others, in winter, warm their half-frozen limbs by a series of violent contractions of those limbs.

The increased heat of local inflammation arises probably from a disordered state of the system, by which the nervous and muscular tissue is so affected that the free transit of the electricity is interrupted. The fluid being impeded in its natural course, exhibits itself in the form of active heat; and being at the same time thrown back, as it were, upon the brain, produces those other effectsfever-delirium-the rapid pulse, &c., which usually attend inflammatory attacks. Certain emotions of the mind, as anger, indignation, or shame, cause blushing and other heating effects: these may be produced by the electricity excited in the brain, and circulating in excesssive quantities, or with unusual force, through the body or through any portion of it.

In the voltaic battery electrical action is impeded by extreme cold: and so in the human body deficiency of warmth will cause the loss of feeling and even of life itself. Cold is very effectual in producing sleep. Persons overtaken by snow-storms become drowsy and unconscious through long exposure to the cold : a cold wet cloth applied to the head will often induce sleep when all narcotics fail. In mesmerism a feeling of coldness upon the patient's head is often one of the first effects of which he is sensible, and this is followed almost immediately by sleep. A current of *galvanism* passed from the head downwards to the feet tends to produce sleep, while an upward current causes wakefulness and irritability. It is the same with the mesmeric passes : downward passes producing in the patient coldness, drowsiness, and sleep, while those in a contrary direction cause heat and cerebral excitement.

A sharp blow upon the forehead, a violent sneezing, or any similar cause, will produce, especially in the dark, a bright flash of light before the eyes : this may be electricity, excited by the sudden disturbance of the organs, and emitted in a visible form. The same effect is observed on applying to the tongue and eyelids a galvanic circle of zinc and copper, the flash being repeated as often as the contact is renewed between the pieces of metal.

A vessel of water may be so charged with electricity that, on immersing the hand, the fingers become violently agitated, and are moved to and fro, in spite of every effort to control them. A stream of voltaic electricity being passed through a coil of wires, the fingers of any one who grasps it will be so forcibly contracted that he will find it impossible to unclasp them or to relax his hold of the instrument. In the first of these cases the hand will be *moved*, in the second it will be *fixed* by the action of the electric fluid upon the nerves and muscles. In the sleep-waking state of mesmerism, precisely the same effects may be exhibited ;—the hand or any other member may be forced to move rapidly, or it may be clasped with spasmodic tightness and rigidity.

Similar effects to these may be produced by galvanism even after death: a strong charge of electricity being applied to the dead body of a man, the limbs will be violently agitated, the teeth will chatter, the eyes will roll, and the hands gesticulate. Dr. Ure, experimenting upon the dead body of the murderer Clydesdale, worked upon the corpse a horrible caricature of life. By calling into action the muscles of the face, all the expression of rage, hatred, despair, and horror were depicted upon the features, producing so revolting a scene that many spectators fainted at the sight.

The precise manner in which electricity causes muscular contraction has been the subject of much controversy. It is well known that the muscle enlarges its diameter as it contracts in length. It may be, then, that a minute portion of the fluid with which its pores are supplied, being decomposed by the electricity, assumes a gaseous form, thus powerfully expanding the muscle at its centre, increasing its thickness, and causing proportionate diminution of its length.

Magnetism is another form of electricity, and approaches much more nearly in its mode of action to the mesmeric influence than any other modification of that fluid. It is generally observed only in the loadstone or in iron or steel, and depends for its existence in those metals on their peculiar laminar structure; but it has been proved that all bodies in nature are more or less subject to its power. All do not, indeed, exhibit the ordinary effects of attraction and repulsion; but every organised body, and many others, if carefully balanced over the poles of a magnet, will obey its influence, and assume a position at right angles to its attractive force. A piece of wood, a leaf, or an apple, will be thus affected; and even a man, if freely suspended over a sufficiently large magnet, will be retained in a position at right angles to its poles.*

Magnetism may be induced in iron or steel, by the action of electrical currents in the human body. By connecting a needle with the muscles of the hand, the forcible contraction of those muscles has been found to render the needle magnetic, causing it to exhibit attraction and polarity, and to become, in fact, a perfect and permanent magnet.

Some persons are more sensitive to the effects of magnetism than others. Some can discern in a darkened room streams of faint blue light emanating from a magnet, and surrounding it with a pale halo. They can detect the same appearances playing round the fingers of a person performing mesmeric operations, and are able to see with their eyes that agent which others can only recognize by its effects.

Magnetism, unlike the ordinary form of electricity, is capable of producing its effects upon other bodies, not only without any conducting medium, but in spite of all obstacles that may be interposed. A strong magnet will attract a piece of iron, though separated from it by a sheet of glass or by any other solid matter. In like manner, the mesmeric influence operates invisibly, without contact, and without hindrance from intervening obstacles; so that a person may be sent into a mesmeric state by one operating upon him

^{*} Electricity and Magnetism, by Dr. Golding Bird.

at a distance, or in a different room. Thus also the clairvoyant receives impressions in the mind of things hidden from ordinary sight by distance, or by the intervention of solid and opaque bodies. There is really nothing more extraordinary in the sympathetic communication exhibited by thought-reading and clairvoyance, than in the influence by which the earth governs the magnetic needle, invisibly, and in spite of all solid intervening objects.

Magnetism cannot be passed, like electricity, along a wire; but it may be induced by one body in another, and by that again in a third and fourth connected with it. Thus in mesmerism, the electronervous fluid, either by emanation or induction, or perhaps by both these processes combined, may control the thoughts and wishes, the organs of sense and the muscular structure of the person influenced, and produce effects exactly corresponding to the volition or suggestion of the operator.

In mesmerism, the fingers of the operator are pointed towards the patient as he makes the downward passes, and turned away from him as he raises his hands to repeat the process; if it were not so, the upward passes would neutralize the downward, and no effect would be produced. It is the same in forming an artificial magnet; the instrument by which the power is to be induced must be applied in one direction only, and reversed or removed to a distance before the repetition of each stroke.

The facts and illustrations I have now brought before you shew us that the effect of mental energy and volition upon the body, whether natural or induced by mesmeric influence, may be not_only *imitated*, but produced with absolute *identity* by the artificial application of electric currents, and thus

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afford strong ground for the conclusion, that the connecting link between mind and matter, the agent by by which the spirit acts upon the body, is electricity.

Assuming this to be the case, we shall find in every instance of voluntary motion the following course of action. The mind wills; electricity conveys that will to the nerves; the nerves contract the muscles; the muscles act mechanically upon the limbs. Again, whenever the bodily senses are exercised, the process will be as follows. The organ (whether of sight, taste, touch, smell, or hearing), receives an impression; electricity transfers that impression to the mind; the mind feels it and apprehends its character in a corresponding part of its own figure.

Let it not be supposed that the electric fluid is in any sense the *autkor* of motion or of sensation: it is only the agent through which the mind communicates its will in the one case, and receives impressions in the other. The mind exercises its volition, and sends its minister to the nerves and muscles by which its will is to be executed. The electric current goes with the speed of thought wherever it is sent, and acts in strict obedience to the living principle.

Having thus briefly considered the relation which the spirit bears to the body, and the medium by which, as I suppose, communication is practically maintained between them, I now proceed to notice some of those phenomena which arise when the connecting link is for a time relaxed or modified by natural or adventious causes.

Such interruptions occur during sleep. When the body is tired and worn out with the labours of the day, the spirit is still active and unwearied : when the organs of sense require their due repose, the mind

exerts herself in her several faculties and continues in action until her partner is again qualified to bear her company : hence those dreams and visions of the night by which all sleepers are visited : I say all, for there is reason to believe that none are actually free from such impressions: light sleepers dream much and remember their dreams; heavy sleepers dream more and forget them; those who, by talking and gesticulation in sleep, give evidence of the activity of their minds, will generally deny most strenuously when they awake that they have dreamed at all. It is the same in the mesmeric trance : whatever is observed during sleep is forgotten immediately after-The more soundly the body slumbers, the wards. more freely the mind relaxes and sports with the imagination; and it follows of course that, the more independent its motions, the less impression they will leave upon the organs of sense.

There seem to be *three* different degrees of somnolency, to which some, perhaps, would add a *fourth*.

The *first* is ordinary sleep—a state of partial abstraction in which the emotions of the mind are conveyed to the brain under a false or perverted aspect, producing ridiculous or frightful dreams. For these, though they originate in the mind, yet the mind is in no degree responsible; the electric agent has done its work without any direct act of volition or control, and has thus impressed upon the memory a distorted or monstrous image of that that the mind has conceived.

The second is the sleep of the somnambulist. Here the electric fluid acts upon the nerves and muscles; it does not limit its eccentric movements to the brain, but extends them to the limbs, producing corresponding effects upon the body; so that the sleeper walks, laughs, speaks, and even writes and transacts business under an influence purely mechanical.

The third is a deeper and more perfect slumber of the senses. Except in regard to those involuntary powers by which the necessary functions of life are still sustained, the mind seems now to be wholly independent of the body; the latter becomes entirely insensible, and the former enjoys, doubtless, a proportionate degree of liberty. What may be the nature of its perceptions during this state of freedom we cannot tell: the mind gives no account of itself: the link that binds it to the world of sense is so far relaxed that no record of its wanderings can be found upon the page of memory.

The fourth degree of sleep—if it may justly be included in the list, is that slumber of the vital organs in which, the soul being separated from the body, all the involuntary, as well as the voluntary powers of the mind, are wholly suspended—that long deep sleep from which there shall be no awaking till the frame that was sown in corruption shall be raised in incorruption, and the soul restored to its changed and glorified dwelling, in which there shall be no more weariness nor weakness, and consequently no more sleep nor death.*

Dreams are regarded in one of Addison's essays, as evidence of the grandeur and dignity of the soul. They shew the agility and perfection which is natural to the faculties of the mind when they are disengaged from the body. The mind is elevated and its powers enlarged and quickened by its connection with the

^{* 1} Cor. xv. 44.

soul: on the other hand, it is degraded and limited in its capacity by the body. Sensuality destroys all high and noble feeling, darkens the understanding, and extinguishes every pious aspiration. Therefore the more closely the mind is linked to the body, the more she is clogged and retarded in her operations. But in dreams it is wonderful to observe with what alacrity she exerts herself: the slow of speech make eloquent harangues; the grave abound in pleasantries, the dull in repartees and points of wit. An ingenious author, giving an account of himself in his waking and dreaming thoughts, says, "The slumber of the body seems to be but the waking of the soul; it is the ligation of sense, but the liberty of reason : I am no way facetious nor disposed for mirth, yet in one dream I can compose a comedy, behold the action, apprehend the jests, and laugh myself awake at the conceits thereof: were my memory as faithful as my reason is then fruitful, I would never study but in my dreams; but our grosser memories have then so little hold of our abstracted minds, that they forget the story, and can only preserve a confused and broken tale of that that has passed."

We may observe also that the passions affect the mind with greater strength when we are asleep than when we are awake. Sorrow and joy give us more vigorous sensations of pain and pleasure at this time than at any other. The emotions of fear or hope produce such vivid impressions upon the brain that they cannot be shaken off until long after reason has resumed her sway.

To this intensity of feeling may be attributed the enchanting dreams and visions of the opium eater: the poison stupifies the body, and, in a proportionate degree, releases the mind, and thus the fancy roams with enlarged capacity through scenes of surpassing delight, forsakes the material world to which she belongs, and revels in a world of her own creation.

But the wanderings of the mind during her hours of relaxation are not always presented to us under a trifling or insignificant aspect. She seems to enjoy communion with other spirits, and to be capable of wider sympathies and perceptions than her bodily organs can afford. Friends and relatives in different countries, separated by rolling seas, meet and converse together, not simply in imagination, but with actual interchange of thought and feeling; so that the circumstances of the one are made known to the other, and are found by subsequent comparison to have been faithfully revealed. That such divinations have been made, none can question who possess the least degree of a common historical faith, there being innumerable instances of this nature recorded by several authors, both ancient and modern, while some have probably come within the limits of our own experience. I am disposed to think that if all those dreams in which we seem to converse and sympathise with our relatives were carefully chronicled and compared with facts, we should find a large proportion of them tallying with so much exactness, as to afford strong evidence of a degree of actual sympathetic intercourse between the parties implicated.

Most of those divinations of which we read refer to the hour of death. This is natural, for those only which make a deep and solemn impression would be thought worthy of being investigated and recorded. But there may be another reason. The soul leaving the body, may, before its entire abstraction, while hovering between the material world and the world of spirits, be capable of holding converse with those towards whom it is attracted by the yearnings of affection: the strong ties of spiritual sympathy may triumph at such a moment over those obstacles of time and space which belong only to material nature, and thus the dying mother may gaze for the last time upon her absent child, or the child appear before the parent's sight as it passes into a higher and more perfect state of being.

It is beyond reasonable doubt that in dreams even future events are sometimes revealed. This assertion may savour, perhaps, of superstition; but our faculties are so imperfect that we have no right to balance private opinion against repeated and accumulated evidence. Incredulity proceeds more often from ignorance and self-conceit than from mature investigation and reason. The powers of the mind are now held in abeyance, being encumbered with bodily organs and restricted from exercise, except through their agency and to the extent of their capacity. Hence, while we can investigate material objects with some degree of accuracy, when we turn to spiritual and invisible agencies, worldly science fails. We are apt to forget the limited nature of our perceptions, and judging by the evidences of sense, to deny the existence of all that we cannot apprehend. This is to confine the empire and operations of God within the limited field of our appreciation, to judge of infinite power and wisdom by our finite and feeble minds.

The world of spirits is not at so great a distance from us as we may imagine; for though, while the soul is closely linked to the body, nothing but what is material can affect us, yet there is around us a more glorious scene, of which we perceive nothing. When we put off these mortal frames, new and surprising wonders will present themselves to our view: the material organs will then be removed, and the soul with its own naked eyes will see what was before invisible.

It may be, then, that during sleep, the mind in its partial abstraction from the body learns from a higher, or at least a more independent order of spirits, those future events which it could not otherwise foresee; or by some latent faculty in itself, pierces the veil of futurity and discerns the appointed order of things to come.

This gives us a very high idea of the human mind and of its ultimate independence of the body: it may teach us to look beyond the narrow sphere of our present existence, to recognise our position as strangers and pilgrims in the world, and to prepare for that higher and more glorious state for which our souls are manifestly designed and qualified.

Leaving the phenomena of natural sleep, we come now to speak of mesmerism. And here it must be remarked, that however desirous we may be to establish a theory and to bring all the facts of mesmerism under one general law, yet neither the want of such a theory nor the imperfections of those which may at any time be advanced, can in the least degree invalidate the claims of these phenomena to our notice. We have before us a vast number of extraordinary facts-facts depending not upon the action of unorganised substances upon each other, but of one organised human being upon his neighbour; and these are stubborn truths which no want of understanding on our part can at all disturb, which are not to be extinguished because our sight is dim, but rather to be investigated more carefully and to be esteemed more highly because so far above us in excellence and grandeur.

In order that I may apply the theory of electrical impression to the phenomena of mesmerism, I must briefly recal your attention to the following points.

It is generally admitted that electricity not only permeates all substances in nature, but also unceasingly emanates from them. The electric fluid, in one form or other, seems to be the effective cause of all motion and of all change in the material world : it is the agent by which all decomposition and assimilation is brought about; the more rapidly these processes are carried on the more freely is the electricity evolved : the pale light emitted from decaying matter, the luminous appearance of the sea when stirred by the oar, the faint halo that can be seen by some sensitive persons hovering over the graves of the deadthese are all different forms of electricity. The natural tendency of the electric fluid is to rest in a state of equilibrium; hence, though we are surrounded by it and full of it, yet we are not usually sensible of its presence: but if that equilibrium be disturbed, it will immediately become manifest; and, once excited, it will continue to shew itself, until by a process more or less rapid, it has regained its natural condition. The shock communicated by a Levden jar is but the effort of the fluid pent up within that jar, to join itself again to the surrounding The flash that bursts from the thunder element. cloud is but a similar effort upon a grander scale. Everywhere we see electricity exerting itself most powerfully when excited, and vanishing as soon as its equilibrium can be restored.

The same rule applies to the mind. By its emotions electricity is excited; and the more energetic its action the greater will be the force and volume of the fluid that is set in motion. Under the influence

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of terror men will perform feats of bodily strength and activity which at other times they would never dream of attempting. Why is this? Because the sense of danger excites an unusual amount of electricity in the brain, which is at once directed to the muscles with unusual energy and power. We can account also on this hypothesis for the effects produced by mental impression upon those organs of the body which are in no degree subject to volition. Why is it that the nerves thrill, the bosom heaves, the tears flow, the whole frame tingles under the fervid eloquence of some lofty orator? Why is it that the body can never rest when the mind is excitedthat fear occasions trembling and palpitation of the heart, and that emotions of joy produce extraordinary feelings of buoyancy and lightness? It is because the mind being unusually stimulated, the brain becomes charged with electricity, which naturally acts at once upon the nerves. Why is it that such excitement is always followed by bodily weakness and depression-(re-action as it is called)? Because the electricity expended so rapidly, must be gradually and naturally replenished before it can again be called into activity.

If the electricity excited by the mind be not expended in muscular exertion, it may be otherwise applied: it will naturally strive after equilibrium, and will not rest until that state has been regained.

Now apply this to the phenomena of mesmerism. Let two persons sit down opposite to each other—the one as operator, the other as his subject. The mind of the operator is *active*: his firm resolution is to control his patient: this excites in his brain a large quantity of electricity which can find no vent but in the direction to which he applies it. The patient, on the other hand, is resigned and tranquil; both mind and body are *passive*; he reclines at his ease, and submits himself wholly to the operator's power. Here then is a strong and increasing charge of electricity in the one,—and in the other a comparative void: the natural result is that the fluid emanating from the operator, finds its way to the brain of his subject, and there takes possession of the nerves through which the organs of sense and motion can be reached and controlled.*

The operator by this means obtains a degree of influence over the brain, nerves, and muscles of his subject, more or less complete according to the *energy* of the one and the submission or inactivity of the other. The electricity by which the mesmerised person perceives and acts, emanates now from the brain of the operator, so that he no longer sees, hears, feels, or moves after his own fashion, but according to the dictates of another. It must not, however, be supposed that electricity is in any sense the *author* of the effects produced: it is but the agent or minister which the mind employs to do its work: neither is there any confusion of identity

^{*} It has been objected that Electricity can only pass along certain conductors; but this is not the case; it can travel without any conducting medium at all; it may be passed through a vacuum; it darts from the clouds to the earth : it emanates from the magnet and draws the iron towards it from a distance; it guides the needle and holds it in the earth's magnetic axis, operating not only without any appreciable means of contact or connection, but in spite of all obstacles that can be interposed. So the electro-nervous fluid can pass along the nerves from one body to another, or even traverse an intervening space and produce its marvellous effects where no actual communication can be discerned.

between the mesmeriser and his subject : the mind of each maintains its individuality and its integrity. The former merely acts upon the senses and organs of the latter by the electric agent which emanates from *his own* person and follows *his* volition.

The following are some of the principal phenomena of mesmerism :----

First, the mesmeric sleep, varying in intensity from mere drowsiness to the deep mesmeric trance. This is induced by passes of the hand before the patient's face; or sometimes by causing him to fix his eyes steadily upon a small disk or any other object placed before him; after a time his eyes gradually close and he falls into a state of somnolency more or less profound. The deepest form of this affection is quite different from natural sleep; it is so intense that the mind seems to be wholly abstracted from the body; the involuntary powers of life alone continue in action; the heart still beats, the lungs play, the stomach digests-but all consciousness, sensation, and volition are suspended. This state continues for hours-sometimes for days, causing no little alarm to the inexperienced mesmerist, but in the end the patient will always awake naturally, much refreshed and invigorated by his unwonted rest. The deep mesmeric trance is an admirable restorative for weak and nervous persons: it is generally more effectual than any stimulants or tonics; it soothes all irritation in the system, and promotes a healthy action of its several organs.*

* "Physioliogists tell us that life is sustained by the involuntary nervous system, and expended by the action of the voluntary and sensory nerves. We thus see how it is that sleep is so eminently restorative of the vital powers. During sleep they gain ; during vigilance they lose. We may thus also perceive A second state of mesmeric impression is described as the *sleep-waking state*. This is analogous to the sleep of the somnambulist. The eyelids are generally closed and the eyes drawn upward—yet the patient is able to discern objects around him as if by instinct, the mind exercising its perception without the use of its bodily organs. Persons in this condition can go from place to place, avoiding dangers, opening doors and windows, and sometimes even reading, writing, and performing their ordinary waking duties with accuracy and precision. Those who understand their own state and mode of perceiving generally say that they do not see through the medium of the eye, but that their perception is in the brain.

It is in this state of impression that the phenomena of clairvoyance, thought-reading, &c., generally occur. The patient acquires the faculty of discerning the thoughts and impressions of those who are brought into sympathetic connection with him: he adopts their perceptions and utters their ideas; there is a silent transfer of thought between the persons implicated independently of the outward organs of sight and hearing, the electro-nervous fluid emanating from the one and producing corresponding impressions upon the other. This gives rise to very extraordinary effects: the person mesmerised is able to describe objects which he has never seen or heard of—he will reveal facts of which

how it is that the deep mesmeric sleep is more beneficial to invalids, whose nervous power is weakened, than natural sleep : it is less disturbed and more profound."—Barth's Mesmerist's Manual.

Dr. Elliotson says, in the *Zoist* :---" If I have my own way, and have no special reason for deviating from a general rule, I would never *wake* a Patient." he had no previous knowledge—he will speak languages of which he is entirely ignorant,—and that not by any power of divination, but simply by adopting the thoughts and ideas of those about him. His knowledge is limited by theirs; he can describe the objects with which they are familiar because they unwittingly supply him with the ideas to be expressed.

It sometimes occurs indeed that the circumstances to be described are beyond the knowledge of any person present. I believe that in most of these cases the patient merely expresses the idea of his own or some other mind upon the subject; and that the statement so elicited has no more claim upon our credit than any of those arbitrary pictures which we are all apt to draw of persons and places in which we feel an interest. Clairvoyance of a higher order is, however, sometimes manifested : instances are not unfrequent in which the clairvoyante actually sees that which no other person can see, and reveals that of which all others are ignorant. Dr. Ashburner has recorded many cases exhibited by Major Buckley, in which the clairvoyante could read the mottoes in a parcel of nuts bought at a pastry cook's, the nuts being taken one by one at hazard from the packet, and held in the closed hand of any person present. The mottoes, which were printed upon small slips of paper and rolled up inside the nuts, were found on being opened to have been accurately read by the clairvoyant.

As in *dreams*, so also in the mesmeric trance, even *future* events have been sometimes revealed : but there is no certainty in these revelations, no dependance can be placed upon them; they are often fulfilled, but perhaps as often fail. Most probably they are

but the deductions which the clairvoyant draws from facts of which he alone is conscious,—reasoning from them with those exalted faculties which the mind enjoys when in a state of partial independence of the body.

The phenomena of thought-reading will explain to us those marvellous instances of Egyptian magic, witnessed and recorded by Lane, Delaborde, and other writers of undoubted veracity. Mr. Lane gives the following account of the performance of an Eastern Magician :--- A boy eight or nine years of age was called in from the street, and a small quantity of ink being poured into the palm of his hand, he was desired to look steadily at it : in the mean time a chafingdish was brought, into which coriander seed and frankincense were thrown, so as to produce a thick smoke: presently the boy became alarmed, and, on being questioned, declared that he could see the figure of a man sweeping. After a short time Mr. Lane was desired to ask for any person whom he would wish to see : he accordingly named two or three in succession, each of whom was accurately described to him by the boy, though they were persons whom neither he nor the magician had ever seen or heard of. Here the idea in Mr. Lane's own mind was conveyed to the senses of the boy : the boy, in a state of extreme nervous susceptibility, adopted the impression transmitted to him by the electric current emanating from his enquirer and merely expressed in words that answer with which Mr. Lane unconsciously supplied him.

A singular instance of thought-reading is presented to us in the case of a German author of unimpeachable veracity, Zschokke. The particulars are to be found in his autobiography. He possessed the power, in regard to a few people, of knowing when he came near them not only what was in their present thoughts, but much of what was in their memories. At first he could not understand this power, and doubted whether there could be any truth in the pictures presented to his mind, but found on enquiry that the facts revealed to him were strictly correct. The persons with whom he entered into sympathy were generally strangers to him, and in whom he felt no kind of interest ; but on seeing them for the first time the events of their past life came before him as in a dream. Once when a young man at the table with him was speaking with contempt and incredulity of all unexplained phenomena, Zschokke stopped him suddenly by offering to reveal the secrets of his past life : the young man defied him, but he did it : among other things he described a certain upper room in which there was a certain strong box, from which certain sums of money, the property of his master, had been abstracted by that young man, who, overwhelmed with astonishment, confessed the theft. Zschokke on one occasion net with an aged peasant in a village on the Alps, who, like himself, possessed naturally the power of discerning the thoughts and reading the memories of some other persons.*

The third state of mesmeric impression, and the last that I shall notice this evening, is called the *mesmeric waking state*. In this condition the patients have every appearance of wakefulness: their eyes are open; they can move and feel; they have memory and power of reason and reflection; they are not always sensible of being under foreign influence,—and

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^{*} Noticed in *Household Words*, No. 95, in a sensible article headed "New Discoveries in Ghosts."

yet they are more or less subject to the control of the operator : he can deprive them of volition, delude their senses and command their movements. A person thus mesmerised may be impressed with an uncontrollable desire to perform some act which the operator by the mere exercise of his volition may dictate; or he may be made to see and hear sights and sounds which exist only in the operator's mind.

The mesmeric waking state may be induced in a lower degree by a process less tedious than that usually employed by mesmerists. By fixing the eyes upon any object and gazing steadily upon it for 15 or 20 minutes, the mind of a susceptible person willingly submitting himself, will become so far abstracted, as to bring him under the immediate control of the mesmeriser. The latter then makes use of suggestion and assertion, distinctly informing his subject of the result that he expects, and so acting upon the credencive organs of the brain. He speaks firmly and decidedly, and his assertion excites a corresponding belief in the mind of his subject, and engages his involuntary co-operation in producing the effects required. This is a lower and less perfect development of mesmeric waking; it is more easily induced, but there is no thought-reading, no sympathetic nervous perception : the will can effect nothing unless it is expressed, and if the operator say one thing and mean another the patient will obey his word without any regard to his intention.

The extent to which the patient can be controlled under this influence is very extraordinary. Persons highly susceptible can be deprived of sight, hearing, feeling, and motion: they can be compelled to walk, speak, sing, laugh, or cry; they may feel themselves suddenly afflicted with any nervous disorder, may be

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catalepsed or convulsed, racked with tooth-ache or gout, and instantaneously relieved. They may be led through scenes pictured to them by the operator, and will see, feel, and act as if all were real : they can be deprived of memory and reduced to a state of idiotcy of mind and entire insensibility of body. A word of the mesmeriser is sufficient to induce all these and many similar conditions, which a word can as easily dispel.

These effects have been set before the public in most parts of England as well as in America, and however the cause may be disputed, the results I have described are undoubtedly produced. They have been exhibited as the fruits of a new science under the name of "Electro-biology," but they are strictly mesmeric phenomena-the only difference between the old and the new system being, that in the former, silent passes alone are generally used, while in the latter the firm and decided assertion of the operator informs the patient of the result that he expects, and induces a more speedy compliance. We are all naturally disposed to believe an assertion, and the credulity of the patient under mesmeric influence removes all power of resistance, and renders him more completely negative in relation to the positive intention of the operator.

There is but one other feature of these phenomena which I have to notice this evening, and that is—the marvellous insensibility to pain which may be induced upon any susceptible person. To understand the cause of this we must again refer to the absolute and total distinction that exists between the spirit and the body.* We must consider that the body, however

^{*} Page 12.

perfect in its organisation, is, in itself, a mere machine: its complicated system of nerves and muscles, its organs of sense, its joints and bands, are but the several instruments through which the spirit perceives, and by which it acts. The pupil of the eye, whereon every object that we view is perfectly delineated, would be no more to us than an ordinary reflecting mirror, but for the spirit to which it is allied: the drum of the ear, though freely answering to every vibration of the air, would be unheard, unheeded, but for this living principle. So with the other senses. The body is incapable of feeling or perceiving except in so far as it conveys impressions to the spirit to which it appertains.

The whole body is so closely supplied with nerves that it is impossible for any part of it to be wounded, even by the prick of a pin, without conveying a sense of the injury to the spirit : the spirit is instantly impressed with pain and is, at the same time, aware of the locality which has been injured; so that the pain seems to be felt there, in the body itself. This is a merciful provision of the Creator, by which we are immediately warned of danger, and instructed where to meet it; it is a salutary impression, admonishing us of injury sustained and instinctively urging and assisting us to our own preservation. Nevertheless it is very obvious that the body does not really feel ; for if the nerves connecting any part of it with the brain be severed or destroyed, then that part may be lacerated or burnt without being at all sensible of the injury.

But there must be not only *nerve*, but also *nervous* communication between the spirit and that part of the body that is affected, before pain can be felt : in other words,—the electric agent must convey the

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impression from the body to the spirit : therefore if we can control that agent and prevent it from performing its office, then it is plain that the flesh may be hacked or the bones crushed, and the mind will know nothing of it.

The effect of cold in destroying sensation has been already alluded to.* It is well known that as soon as the hand or foot becomes frost-bitten, all its sense of feeling is suspended, so that it may be irrecoverably destroyed without its owner being at all conscious of his loss. In such cases the nerves may still be perfect and uninjured, but the cold (which would equally impair the action of an ordinary galvanic battery) checks the circulation of the electricity in the system, and prevents the frozen member from communicating to the mindthe injury it has sustained.

Chloroform and other narcotics seem more immediately to affect the cerebral organs, destroying for a time the conducting power of the nerves, not in their various ramifications through the body, but at that part where they join the brain; communication between the spirit and the body is thus interrupted; the nerves of motion and sensation cannot perform their office; and though the vital organs still continue in activity, every other faculty is suspended. Cases have occurred in which the soporific effect of chloroform has extended itself even to the involuntary organs of the brain: the automatic movement of the heart has then stopped, the lungs have ceased to play, and the stupor of the patient lapsed at once into the *absolute* sleep of death.

Mesmerism seems to affect neither the brain nor the nerves otherwise than indirectly. The nervous

^{*} Page 21.

fluid alone is influenced. The patient may be quite sensible, conscious of all that is going on, and yet one or other of his limbs may be deprived of feeling or motion at the operator's will: the want of sensation may in this case be either partial or entire, the nervous fluid being interrupted throughout the whole system or through a portion of it only.

Mesmerism therefore, is a safer and more desirable anæsthetic agent than any other. The most formidable and tedious surgical operations have been performed upon patients sleeping calmly and unconsciously under its influence. Dr. Elliotson published. some years ago, a report of "Numerous cases of surgical operations without pain in the mesmeric state." In every number of the *Zoist* new instances of these are brought before the public. In India a Government Mesmeric Hospital has long been established, in which the most terrible operations are constantly performed without pain or anxiety to those who suffer them.* These are facts that nothing can set aside-facts that ought to excite in every one the most heartfelt thankfulness to Him who has revealed to us in these latter days a merciful agency by which such terrible diseases may be relieved and so much torture spared. By mesmerism the patient may, without any risk, be reduced from a state of suffering and fear to the condition of a mere machine, his limbs may be carved and dissected and he will know nothing of it, he may endure the most frightful operations and yet feel no more pain than if he were naturally and calmly sleeping in his bed.

And yet the process by which these wonderful

^{*} For instances of these see Note A at the end of the Lecture.

results are brought about is extremely simple : the bodily frame is not injured, the organs are not disturbed; the electricity in the system is alone affected; the operator is able to divert this fluid from its natural course and to suspend its action; and though the nerves, like so many telegraphic wires, retain their position, yet no message is conveyed, no impression is communicated, because the one connecting link between the insensible body and the sensitive spirit is for a time removed.

But the beneficial effects of mesmerism are by no means confined to cases requiring surgical operations. It is difficult to assign any limit to its healing powers. Nervous disorders generally yield very quickly to its influence, while even organic diseases may frequently be cured by it. Mr. Capern in his little volume "The Curative Powers of Mesmerism," has recorded a vast number of cases of nearly every description, which have been cured or relieved by mesmerism. In the thirty nine numbers of the Zoist may be found detailed accounts of cures of numerous and varied disorders : the annals of the Mesmeric Infirmary abound with similar cases; and there are hundreds of persons in all parts of the country to whom it is now as mnch a matter of course, when they feel pains in any part of the body, to ask some person to make a few passes over it, as it would be to ask for a plaster if they had cut their fingers.*

In endeavouring to account for the healing powers of mesmerism I must recur to the theory that has already been advanced. It is now generally allowed that the principle cause of all changes and operations

^{*} See Note B at the end of the Lecture.

in nature is electricity. Electricity, permeating all matter, is the great agent by which all combination and all decomposition is effected. While this element maintains its equilibrium and performs its office faithfully in our bodies we enjoy perfect health, but when its action is disturbed or interrupted disease follows : if then, we can by mesmerism control that fluid, and send it to this part of the body or that, to assist this or that function, to stimulate or restore this or that organ, we are manifestly applying a direct remedy of the exact nature required. The sources of healing are in our own bodies : the vis medicatrix naturæ needs only to be assisted in its efforts to remedy disease, and though medical drugs may in some cases be the agent by which this can most effectually be accomplished, yet it is certain that mesmerism can cure diseases when all ordinary means have failed, and can assist all the established methods of cure.

The benefits conferred by mesmerism are far more general and extensive than has been usually supposed. This sanative agent has often been regarded as a rare gift bestowed upon a few favoured individuals: but there is, on the contrary, reason to believe that all persons are more or less capable of exercising it, and all more or less susceptible of its influence: perseverance will subdue the most stubborn and difficult patient, and it would be well for those who are in health to submit themselves as often as may be needful to the process, that they may be more easily and beneficially affected when sickness overtakes them.

But apart from these sanatory effects of mesmerism, there is another and a higher object to be promoted by the pursuit of this as of every other science. The operations of God, revealed to us under a new

aspect, must excite a more lively appreciation of that wisdom which characterizes all his works. The phenomena we have considered this evening are visible proofs of the greatness and dignity of the soul : they shew us in the grand and varied powers of the mind, an impress of the ever-living principle by which it is elevated above "the spirit of the beast that goeth downward:" they teach us that the soul of man is totally distinct in its existence from the instrument with which it is allied; that it is formed for higher enjoyment and endued with nobler faculties than are developed here, and that when the body moulders into dust the soul shall put on those attributes of immortality which are but dimly seen and feebly exercised while in the flesh.

One word, in conclusion, to those who without inquiry, presume to denounce and ridicule the wonderful discoveries of mesmerism. There have been such objectors in all ages : if they had had their way the world would have been still a level plain with the sun travelling round it : the list of facts that have been scouted thus corresponds pretty exactly with the list of human discoveries down to the present day. Science will make its way in spite of those sceptical unreasonable men who persist in ignoring everything that they cannot understand. We are all more ignorant than wise; the knowledge of the best of us is but a little light that shines in a great deal of darkness; but the light will at length prevail; new wonders of the Creator's power and wisdom will be revealed to us as the world grows older; as "the time of the end draweth near many shall run to and fro, and knowledge shall be increased : " let us look for the signs" of that time as Christian watchmen-laying aside all

pride and arrogance of unbelief, and pursuing our investigations with that spirit of humility and meekness which characterises every genuine enquiry after truth.

NOTE A.

The following account of operations performed in the presence of his Excellency the late Governor-General of Java, M. Rochusen, at the Government Mesmeric Hospital in Bengal, is extracted from the Zoist, No. 39 :---

"We were now introduced to the third ward, where the objects of our visit were dimly seen through the gloom, each with a mesmeriser at his head brooding over him. A door was now opened, and a flood of the brightest light poured into the room, without disturbing the proceedings. The three patients slept soundly as before, and the mesmerisers, all vigorous young men, two of whom were Hindus and one a Mussulman, continued their labours : each, with a serious earnest expression of countenance, bent over his subject's face, as though about to kiss it, breathed on the eyes, and laid his hands on the pit of the stomach, or moved them with hooked fingers before the brow.

"To test the intensity of the coma, the first man was pricked with a sharp pointed knife on the most sensitive parts of the body. As no flinching was perceptible, a live coal was dropped on the inside of his thigh; and, as he still slept profoundly, he was declared ready for the operator. Dr. Webb now drew His Excellency's attention to some of the distinguishing features of the mesmeric trance. The jaw was rigid,

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so that none of us could open it; the eyelids kept up a constant quiver; and the limbs, when litted up, fell back like those of a corpse. He then went to the second and third beds, and treated their sleeping occupants to the same experimentum crucis of fire and steel. There was something awful in the imperturbable repose, which stood out against this. Those who at first thought that they could not endure the sight of blood, were now convinced that there could be no pain, and determined to remain. The instruments, which had been previously examined, were now brought in; and murderous weapons they looked. One, called the bistouri, especially attracted attention, being a long thin reaping hook, and opening from its attached sheath like a pair of scissors. The doctor now donned his hospital suit, which consisted of oilskin trousers, terminating in a pair of fisherman's boots, and an apron reaching to the neck.

"He informed us that it was an unexpected pleasure that he could shew us three cases, as he had heard only of one, for the two others had come in only the day previous. Thev were, however, quite ready. Two were scrutal tumours and the third something else, I think a cancer. The first tumour, the size of a cow's udder, was laid bare, and the bistouri introduced. It was a sickening yet wonderful sight, to see the long knife slashing through the mass, and yet avoiding, as by a miracle, the parts to be preserved; and the fingers of the assistants who pounced eagerly on the spouting blood-The long deep preliminary gashes, the careful dissecvessels. tion out of parts hidden in the centre of the mass, the severance of the tumour, when these were secured, the tying up of nearly twenty blood-vessels-all did not occupy, by my watch, three minutes. While this was going on, the mesmeriser, doubled up at the head of the bed, was pouring his whole soul into the patient's face, who continued to slumber like an infant.

"The second case was then disposed of, but even more quickly and with the same success.

"The first patient, who, after the operation, had been left by the mesmeriser, now began to awake; and the Governor, who was standing near, called our attention to him. He was very composed, but perfectly ignorant that anything unusual had happened; and, on being asked when he would like to have the operation performed, callely answered, 'now.'

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The sheet was removed, and he saw with unutlerable amazement that his burden was gone.

"There was something so touching in his look of surprise when fully satisfied that all was over, something so grateful in his efforts to kiss the doctor's extended hand, that the whole party was affected."

NOTE B.

The President of the Dublin Messneric Association, Capt. Falconer Miles, remarked at a recent public meeting that, of the very numerous cases which had come under his hands, he knew of but one in which the greatest benefit had not been derived : he then enumerated the following various disorders which had either been greatly relieved by him or altogether cured, viz.:—Inflammation of lungs, cancer, gastric fever, tie doloureux, sciatica, deafness, mumps, sore throat, neuralgia, influenza, rheumatism, ear-ache, tooth-ache, absccss, sprained foot, stomachache, coughs and colds, palpitation of the heart, disease of the heart, partial insanity, epilepsy, pains in the back, spinal disease, diarrheza, ophthalmia, cataract, general debility, extreme mental nervous disease.

In Epilepsy and Insanity Mesmerism has frequently effected a perfect cure, and seldom failed to alleviate suffering. In the thirty-six numbers of *The Zoist* may be found detailed accounts of more than *twenty* cases of Insanity, and *forty* of Epilepsy, cured, some by medical men, some by clergymen of unquestioned veracity, by means of Mesmerism. Among these sixty instances of cure are not included some severe cases of Hysteria, of cerebral and nervous excitement, and one of supposed Hydrophobia, all terminating favourably by mesmeric treatment; but any of which was likely, in the case of a pauper lunatic, to end in death or consignment to a lunatic asylum.

In No. XXVIII. of *The Zoist* is the following statement; it is part of an extract from the *Register of Medical Science* published at Calcutta:---

"Dr. Kean," (of Burhampore,) "informs us that since the employment of Mesmerism almost all difficulty in the management of patients has vanished. Formerly there were always a number of noisy and violent patients; and a few who slept neither day nor night for weeks together, in spite of every remedial measure. Now, the whole are as orderly and quiet as an equal number of patients in any other house, and all enjoy natural rest. So great is the change that Dr. Kean says he could, with additional *burkundauzes* (jail guards), as easily manage 500 as 50 patients."-p. 136.

Another account from Dr. Kean states,-

"Taking a hasty glance over the years 1847 and 1848, I see that about *seventy-four* patients were mesmerised, and that of these *sixty-four* were discharged, cured to all appearance; and I think it has been successful in every case of Epilepsy."

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