THE DUBLIN

UNIVERSITY MAGAZINE

A

Literary and Political Journal.

VOL. XXIII.

JANUARY TO JUNE,

1844.

DUBLIN:
WILLIAM CURRY, JUN. AND COMPANY
W. S. ORR AND COMPANY, LONDON.

MDCCCXLIV.

MESMERISM.

BY IRYS HERFNER.

"For so, under the strangest new vesture, the old great truth (since no vesture can hide it) begins again to be revealed: That man is what we call a miraculous creature, with miraculous power over men; and, on the whole, with such a life in him, and such a world round him, as victorious analysis, with her physiologies, nervous systems, physic and metaphysic, will never completely *name*, to say nothing of explaining. Wherein also the quack shall, in all ages, come in for his share."

THOMAS CARLYLE.

THE magnet—which, if we consider the import of its name, according to the most probable etymology, seems, even from the period of its discovery, to have stood in mystic repute, as a vehicle of powers akin to those with which the MAGIC of that early time had to do—concentrated on itself, in a remarkable degree, the scientific curiosity of the sixteenth and seventeenth centuries. A closer attention than the subject had, before that era, received,—observation more exact, and a course of experiments more systematic and more extended, — had brought into view the wide range and manysidedness of the magnetic phenomena, had revealed the curiously complex and harmonious working of the laws under which those phenomena stand, and opened glimpses into a region of speculation irresistibly inviting to the genius of an age susceptible, perhaps, beyond any that had preceded — certainly beyond those which have, up to the present time, succeeded it, to the fascination of the marvellous and the occult. Of the natural philosophy of that epoch, magnetism (proper) is, accordingly, the fundamental and the pervading thought. The spirit of philosophical investigation had, one would say, committed itself to the same guidance which, from immemorial time, had directed the path of geographical research; and the wondrous agency that gave certainty to the course of the navigator over the untracked deep, was now to point the way also to the adventurous intellect, embarked on the eventful voyage of philosophic discovery. It was a time of the hopefullest bodings. Never had the prospects of physical science worn an aspect so fraught with promise. The riddle of ages seemed to hasten to its solution. With a deep joy, not unmixed with awe, the observer of the results of magnetic experiment saw the moment approach, when the "veil of Isis" should be lifted by the hand of the goddess herself, and the lips, sealed from eternity, should unclose, to pronounce the key-word to the secret of secrets. Nay, was not the word already pronounced? in a low tone, indeed, but which the quick ear of Paracelsus had caught. Was it not—magnetism? Was not here the talisman to which, rightly applied, the sealed inner-chambers and alchymic workshop of nature would, nay did already in a sort, stand open? Was not here the key, whereby the cabalistic handwriting with which her works were inscribed was to be deciphered? Was not here the dial-finger that told how her hidden mechanism went?

These questions, the age, with characteristic promptitude, answered in the affirmative; and now unfolded themselves into fair form and goodly proportion, systems of the universe, in which a certain divinatory instinct, or poetic anticipative sense, held the place which a later method of philosophizing has assigned to the inductive process. In these systems, framed on the principle (since fallen into desuetude) of encumbering the movements of theory with the least amount of experiment possible, the collective phenomena of nature in all its departments were resolved into one vast and infinitely modified manifestation of the magnetic force: all operations, all processes, all of power, and life, and movement, that the great frame of physical being discloses, were made to

revolve around and refer themselves to the agency observable in the loadstone, as the heaven with all its lights revolves around the star to which the loadstone points, and by its relation to that star is every other star known in its place. Arabian fiction is not more prodigal of its wonders than were Paracelsus and his disciples when the magnet was the topic of discourse; nor would it be easy to specify a curious effect, presenting itself in the region of animal or of vegetable life, of organic or of inorganic being, that this school—including Van Helmont, Agrippa von Nettesheim, Kircher, and other acute and comprehensive intellects—do not trace to the operation of magnetic agencies. Magnetism was, to these theorists (men of experiment, too, and to whom physical science owes much), the one universal cosmic force, the ethereal primal-substance and ground-element, that pervaded and informed with life all that subsists in space, the basis of all natural properties and effects, the integrating principle, that held all parts of the universe in organic relation to each other, and knit them, not as by mechanical outward connexion, or mere hooking together, but by inward living affinities, into an indissoluble whole.

When every thing was thus referred to the magnet, and its influence was but seen in various modification in all the conflicting and consenting activities, the manifold antagonisms and harmonies of life in its several forms, it is not to be wondered at that the ground of medicinal efficacies should be sought in the operation of the same principle, and that the physician should come upon the thought of a direct exhibition of the magnetic agency in the treatment of diseases. If the whole *materia medica* acted no otherwise than magnetically, it seemed an inevitable conclusion, that the substance in which the magnetic virtue was most nakedly and in its least differentiated form developed should combine in itself the operation of the whole *materia medica*, and that the use of it was the plainest and shortest road to the object in view.

Accordingly, we find magnetism already in the 17th century in a certain degree of reputation as a curative agent: not, however, animal magnetism, or what we now call Mesmerism; but what may be termed *crude* magnetism, the use of the loadstone itself. Medical orthodoxy set, perhaps, little store by it; but it was greatly relied upon by the Paracelsists. Van Helmont, whose merits in chemical discovery are acknowledged,—the *medicus per ignem*, as he styled himself,—was the most distinguished magnetizing physician of the seventeenth century; and his work, "De Magnetica Vulnerum Curatione," is a fair exponent of the views and practice of his school. Burggraf's "Balneum Dianæ Magneticum, 1600," Kircher, "De Arte Magnetica, 1643," and Maxwell's "Medicinæ Magneticæ libri tres, in quibus tam theoria quam praxis continetur, 1679," are works based on the same views.

An extract which shall here be laid before the reader, from the writings of Van Helmont (*opera omnia*, Frankfort, 1682), may show in what light the subject was considered by explorers of nature in that century. The learned Dutchman is defending his practice against the Jesuit Robert, who had, like some sagacious and particularly anti-Jesuitic folks in our own days, denounced the magnetic procedure in medicine as an employment of "Satanic agency." An application of some of the following remarks may possibly suggest itself to the reader, more recent and nearer home than is furnished by the times and the whereabout of the ingenious Jesuit. Van Helmont *loquitur*—

"He who holdeth magnetical cures to be devilish, must from the same grounds argue the foundation of *all* magnetical phenomena to be sorcery and the devil's art. Magnetism, which is an every-where-operative force, hath, bating the name, nothing new; nor yet any thing absurd, unless it be for those who either laugh at, or set down to the operation of the devil whatsoever they do not understand. Magnetism is an unknown, peculiar power, of celestial nature, having great similarity to the influences of the stars, and limited by no distance of place. Every created being possesseth its proper heavenly power. The outward man is of animal nature, yet withal the true image of God; wherefore, if God acteth by word and sign, so must also man be capable of doing; else were he no image of a living spirit, but of something inert and

without action. And, name we now this (the acting by word and sign) *magic*, only the ill-instructed can take fright at this word: name it, if that please you better, force of spirit. This magical faculty lieth hid in the inner being of man; it sleepeth, and beareth itself as one drunk within us; through sin it is gone to sleep, and behoveth therefore to be waked up again; for in the inner being, in the domain of the soul, is God's kingdom, and here dwelleth the hidden secret power to work out of one's self, barely through the will and through a sign, and also to impress upon others the acting of this power, which worketh upon the remotest objects: which thing, as the great secret, I have hitherto shunned to reveal. Now if this proper power of man be thus proved to be a natural power, it was very absurd to believe, as hath been done, that the devil had a hand in it. Do but open your eyes. The devil hath to this time, through your prodigious ignorance, stood in great fame; ye have been bringing him, all this while, as I may say, the incense of fame; the while ye have been robbing yourselves of your natural dignity, as well as of the sight of your eyes, that ye might make the same an offering to the devil.

"Yea, the will that is in man is the first and highest of all powers, the ground-cause of all movements; for through the force of will in the Creator was all made, and this same will is a property of all spiritual beings, only these are more or less limited in the putting forth of it, each by other's counteraction. According as the force is greater on the part of the in-working agent or of the withstanding, will the working be with or without effect. The occult force inherent in man is a certain ecstatic power (of working without the limits of his material organization), which is not brought into action save through the impulsive agency of imagination, kindled by desire. It is a spiritual force, which cometh not down from heaven, much less ariseth out of hell, but is of man himself, as the fire is of the flint. Out of the will, namely, floweth the animal spirit, which taketh ideal subsistence, and, mediating between spirit and body, worketh thitherwards whither the intention of the will is to direct it."

Thus far Van Helmont, in a style smelling perhaps less of the lamp than of the laboratory, where he lived, ate, slept, and did whatsoever else is indispensable to be done by mortals, thirty years, in an atmosphere fuliginous enough, poking, one might say, in the bowels of nature, while a whole generation of men less learned than he were rejoicing in the light of her face. Here he saw, as he assures us, in the year 1633, in a very distinct manner, his own soul, the seat of which he ascertained to be in the stomach and the spleen: it was, he relates, a spiritual substance, of a crystalline appearance, luminous, and having the figure of a man*; a description of this part of our economy, which the reader will not find the less remarkable, nor, one hopes, the less authentic, for the very close correspondence it bears to that given by a visionist, or illuminated person, in the early church, as recorded by Tertullian. "Among other things," declared this primitive *estatica*, "was shown to me the soul, in a bodily wise. I saw it, a spirit, in thinnest reflected radiance, luminous, of a celestial blue colour†; for the rest, in a form in all respects human."

From the foregoing we gather that, however the medical magnetism of the two preceding centuries differed in the form of its exhibition from that taught by Mesmer in the latter half of the eighteenth, the leading conception of a universally diffused fluid, or cosmic

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* We cannot but recognize here the same phenomenon which afterwards obtained the name of magnetic sleep-waking and self-intuition. Van Helmont himself gives elsewhere an account of the means by which he came into this state; it was by tasting, in the course of his experiments in vegetable poisons, the root of the aconite:—

"My intuitions," says he, "immediately became much stronger and of greater compass, and this mental clearness was combined with a feeling of extraordinary pleasure. I slept not; I dreamed not; my health was perfect. I felt, perceived, and thought no longer with the head, but in the region of the stomach, as if knowledge had now taken her seat in that part."

† Doctor von Meyer speaks of a *blue* phosphorescence as characteristic of the psychic principle in its manifestations, and refers to this head the case of "The Blue Dog," in the "Diary of a Late Physician"—dogs having, according to the learned burgomaster, blue souls, as well as men.

force, is common to both systems, and the aim of both is to bring this force to bear on the cure of diseases; an object, the ground of the feasibility of which is placed in the affinity of this universal force with the principle of animal life.

Anton Friedrich Mesmer, in whose hands the doctrine of therapeutic magnetism was to assume a new and considerably simplified form, was a native of the canton of Thurgau, in Switzerland, and a graduate in medicine of Vienna. Endowed with his full share of the somewhat mystical temperament of his nation, it is not wonderful that the speculations of the imaginative theorists of the era referred to in the foregoing pages, and in particular those of his countryman Paracelsus, should have had a profound charm for his mind. In the year 1766 he came before the scientific public of his time with a dissertation "On the Influence of the Planets on the Human Body." The same agency, he taught, which gave such unequivocal tokens of its presence in the flux and reflux of the sea, in a great multitude of atmospheric phenomena, and in the ceaseless revolutions of the vegetable world, had as direct an operation on the animal economy, and was to be traced in the periodical changes and stages of development observable in the body of man. As the vehicle of this influence he assumed a subtle fluid, diffused through the universe, pervading with equal facility the densest and the loosest material textures, as little resisted by the solid ground that supports our tread, as by the light air that yields to the play of our respiratory organs. With this fluid for its medium, the planetary influence announced itself in the heightened or lowered intensity of weight, cohesion, elasticity, irritability, and other properties observable in bodies, whether referable to mass or to organization. To observe the workings of this influence in the course and issue of diseases was now Mesmer's occupation for a series of years; and, through the experience gained during this time, he found himself, as he believed, in a position to predict with certainty the successive phases and vicissitudes which would present themselves in the course of a disease. This conducted him to the second great feature of his doctrine, namely, that a reciprocal influence, corresponding to that of the heavenly bodies on each other, subsists also between the different bodies on the earth, and in particular between living organisms, and between the different parts of the same organism,—an influence capable, like other forces in nature, of being brought under the control of art, and directed to the arbitrarily producing, or, as it were, forcing, of the natural revolutions in our vital system. To this end we find him, in the year 1773, in consonance with the doctrine and practice of the elder magnetists, using the mineral magnet (magnetized rods of iron) in the treatment of diseases. His method appears to have been similar to that adopted afterwards by Perkins, the inventor of the metallic tractors. He stroked, with his magnetic rods, the parts in which disease manifested itself, and accomplished, we are told, cures of a remarkable character. One of the most distinguished experimental philosophers of the age, the Jesuit Hell, then professor of astronomy at Vienna, who took a lively interest in the investigations of the Swiss physician, is said to have suggested to him this use of the magnet, as well as to have prepared for him the magnetic rods with which he operated.*

* That a Jesuit—and the Jesuit HELL—should have assisted, so to say, obstetrically, at the birth of animal magnetism, is a fact which, with whatever reluctance one may admit the conviction of it, *does* tell terribly on the side of those ingenious people who consider the whole Mesmeric business as a covert and insidious agency the most improper; of being designed, on the one hand, to confirm my Lord Shrewsbury in his attachment to the mass, and on the other, to encourage M. Jules Cloquet, and gentlemen of the medical profession in general, in the illaudable practice of not going to church. The Jesuit Hell! Is here no hint to him that hath understanding to take it? Did such a conjunction of names and characters bode nothing? Doth not "Mystery of Iniquity" stand written on the forehead of it? Should not the Penny Pulpit, small copper kettle-drum ecclesiastical, be beat to defy the thing thus ushered into life under the conjoined auspices of Pan-

Mesmer did not long continue this direct application of the magnet. Circumstances did not escape his quick eye which led him to suspect that the curative effects which had been attributed to the mineral, were in reality produced by the hand that held it; and that, like a superfluous wheel in a machine, the employment of the material loadstone did but encumber without helping. Here, then, the Swiss physician began to diverge from the path pursued by his predecessors, and to place in the human body itself the influence which they had supposed to reside in the magnet. The circumstance that confirmed him in this view was one which presented itself on the occasion of an operation with the lancet, when the blood issued from the incision or retreated—flowed or ebbed, one might say—according as the operator (Mesmer himself) approached and touched, or receded from the patient.

This curious circumstance suggests two trains of thought, one of which arises out of the analogy between this influence of the magnetizer on the course of the fluids in his patient, and that of the moon on the flux and reflux of the sea. It tells for the truth of Mesmer's hypothesis of a reciprocal influence of terrestrial bodies, especially of living organic systems, on each other, corresponding to that of the celestial—man acting on man, as planet on planet; and it leads us to the conjecture that the moon may affect the mass of waters in our planet, not merely by its gravity, but by certain relations of polarity, akin to the magnetic or the electric influence. Would not an effect of gravity tell still more markedly upon the far lighter and more mobile mass of the atmosphere, so that every fluctuation of the sea should be accompanied by a corresponding and still more forcible impression on the currents of the air? Now that the moon does exert an influence on the atmosphere is undoubtedly true; but it is an influence different in kind from that which she has on the waters; and this seems to point to dynamic affinities of different kinds. The German astronomer, Bessel, observed in the nucleus of the comet of 1835, a regularly oscillating motion, which he explained by the hypothesis, that the sun did not only exercise a gravitative attraction on that body, but that sun and comet also stood in a polar relation to each other. Hence Bessel was led to adopt the law of polarity as an element in astronomical calculations. "To the theory of a polar attraction and repulsion between the planets," says Doctor Passavant, (*Inquiries respecting Vital Magnetism and Clairvoyance*, 1837,) "certain anomalies in the proportion of their distances from one another, lend probability; some planets standing nearer or farther asunder than they should, according to the law Wurm has laid down for their relative distances. According to this law, the distance of the earth from the sun should be 210 semidiameters of the latter; instead of which it is 216. The distance of Mars from the sun should be 336 semidiameters, but is no more than 329. Thus the earth is six semidiameters of the sun farther from, and the planet Mars seven nearer to, that body, than the law of gravitation would assign to these orbs as their respective places. This is hardly to be conceived as possible, but on the hypothesis of *qualitative* attraction, an assignable ground of which we have in electricity and magnetism."

The other subject of reflection which the phenomenon, observed by Mesmer, suggests, is that of a belief, prevalent in the middle ages, that the wounds of a murdered person would bleed if the body were approached by the murderer. The persuasion referred to was not confined to the vulgar, but was judicially recognised, and made the ground of an ordeal, to which persons suspected of murder were compelled to submit. On what observation of facts the belief in question may have

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demonium and the Propaganda? To be sure, we have a Jesuit Robert on the other side, seeming, at least, to take our view of the subject. But what if this were a blind—a strategic artifice of one who fain masks his play; and, of his store, surely could spare a Jesuit to fight, or seem to fight on the adverse side? Suppose this Jesuit Robert a spy in our anti-Mesmerite, anti-mystery-of-iniquitarian camp!

rested, it would be beside our present purpose to inquire: supposing it not without foundation, it would point to a magnetic relation between the murdered and murderer; a ghastly conception, but which contains the solution of a great riddle—that *vis sanguinis ultra mortem*, which, in a good and an evil sense, has formed an article of the belief of all ages, and of the most different tribes of men. On this subject Franz Baader is luminous:—

The *life*, he remarks, is in the blood; but, when the blood is murderously spilt, this "life," (a subtle essence, which, after Jacob Böhm, he names the *tincture* of the blood—properly the assimilative, or sanguinific principle, which combines and, as it were, alchemically transmutes into blood the various material substances into which that fluid is analysable by the chemist,) being divorced from its proper sanguineous vehicle, is drawn to, and absorbed by, the blood of the murderer, which, on some unfathomable ground, (whereof, however, Baader appears to have got to the bottom,) in this moment stands open to it. By this (so to speak) transcendental *transfusion*, a "relation," or *communio vitæ*, is violently established between the murderer and the murdered; which relation (a certain consanguinity) reveals itself in sundry ways, and, in particular, by the perturbation and doleful unrest in which it holds both parties—the dead and the living. Herein, then, lies the force of the expression—to *require at the hand* of the slayer the blood of his victim:—the blood of the victim, at least the "tincture" of it, the "life" that dwelt in it, is actually *in the slayer's possession*: he is a debtor; and the taking of his life is an act of justice, not to society (which thereby does but lose two members instead of one) but to him whose life he *has taken*—whose life he *holds*, bound up in such mystic intimate union with his own life, that only through the taking away of the latter can the former be given back to its rightful claimant. Thus, the soul of a murdered man haunts his murderer, not of free-will, but by inward constraint: it does not relentlessly pursue him, but he irresistibly draws it after him; for in his blood dwells the sanguineous tincture which it cannot leave, around which it hovers fascinated, to which it ever strives in vain to re-unite itself, so that it cannot rest, nor suffer *him* to rest who holds it as it were charmed—spun round with invisible magic threads, which it cannot break if it would. And therefore, also, can he that has shed blood not escape from the spot where he has shed it, but will circle round the same, and stealthily return to it, and is drawn towards it, from whatever distance, as by magnetic force; because that "tincture," which has entered into his own blood, yearns still towards the blood it has left. But we digress.

We have seen, then, Doctor Mesmer discontinue the use of his magnetic rods, being convinced that they had either had nothing at all to do with the beneficial effects his treatment, up to this period, had been attended with, or had, at most, acted merely as conductors of the virtue resident in his own person. Any other rod, probably, would have served the purpose as well as one of magnetized iron, the real service rendered by all such auxiliaries being that of concentrating, or fixing and directing on a given point, the force of the operator's imagination and will. Perhaps the manipulations, magnetic passes, breathings, and such like, to which Mesmer afterwards had recourse, did but serve the same end, of giving, as it were, a body, a form, to the operator's intention. The effects produced by Perkin's *metallic tractors* were, it is said, equally produced by metallic-*looking* tractors of painted wood. Of course they were. Perkinism was, as far as one can see, but an ill-understood and worse applied Mesmerism; and the "tractor," in the one system, did what the magnet did in the other—it gave a mould to the mental act: it was to the imagination what the plummet is to the eye: or, might not one say, it was a *chiroplast*, proper to give steadiness to the play of a beginner on the human pianoforte. Be this as it might, Mesmer had, to use another figure, now learned to swim without the aid of his corks, and so threw them away. Henceforward, also, he distinguished animal from mineral magnetism; and in the year 1775—Doctor Stork, the empress's own medical adviser, having no ear for his doctrine—he laid his theory of reciprocal influences (*der Wech-*

sel-wirkungen) formally before the world, in a letter to a foreign physician.

This theory was already somewhat modified by the experience he had gained since the appearance of his first dissertation, but was as yet far from having acquired the form which the present doctrine of animal magnetism, *honoris gratia* termed Mesmerism, wears. In Vienna it was misunderstood, partly confounded with mineral magnetism, partly misrepresented with intention, made an object of odium and persecution, its founder stigmatised as a visionary, and such persons as had submitted themselves to his curative treatment, declared dupes or impostors. In spite, however, of a hostility somewhat unscrupulous in its choice of weapons and mode of attack, Mesmer's reputation gained instead of losing ground. In the years 1774–5 he visited Sweden, Switzerland, and Bavaria, in which last-mentioned country his character of scientific foreigner procured him easy access to the elector, Maximilian Joseph III. This prince, who had received a better education than it is often the lot of royal personages to enjoy, and whose personal thirst for knowledge, and zeal for the propagation of it among his people, were equally great, heard with interest the doctrines propounded by the learned stranger; and Mesmer was, not long after, created a member of the Academy of Sciences at Munich, founded in 1759 by Maximilian himself. The year following he was invited into Hungary, where, we are told, he effected important cures. Hence he returned to Vienna.

Loath to encounter a renewal of the bitterness of which he had already been the object in the imperial city, he resolved now to refrain from all medical practice; but, whether by the persuasion of others, or by the restless impulse to activity, and to the amassing of new experiences, which could not fail to make itself sensible to a mind like his, he was soon brought to renounce a resolution so little congenial to the temper of an enthusiastic explorer of nature: he took several patients under his care, among whom, a source to him of much subsequent vexation, was the celebrated vocalist, Paradies, then in her eighteenth year. She had at the age of four or five years lost her sight, through an affection of a paralytic nature, and was the victim of a nervous melancholy, with convulsive fits, and periodical accesses of madness. Mesmer had her under his hands for a considerable time, during which he was watched by a host of eyes, that wasted for very longing to discover something equivocal, some false step, some evidence of incapacity, or, better still, of duplicity, of wittingly false pretension, in the proceeding of the hated innovator, who would detrude from its place, with quite *new* mystification, that which was established and venerable. Indifferent to the petty arts of annoyance of which he found himself the object, (and to which the relations of the patient appear to have lent themselves in a remarkable way,) our magnetizer went on with what he had taken in hand, and at last, to the astonishment of all Vienna, pronounced that Fraulein Paradies could see. The family of the young lady, however, denying that such was the fact, while Mesmer, on the other hand, adhered resolutely to his assertion of it, a special commission was named by Maria Theresa—whose namesake and *protégée* Fraulein Paradies was—to examine into and report upon the case.

In the presence of this commission Mesmer presented to his patient a number of objects, the several colours of which, on being asked, she correctly stated: there was, or appeared to be, sure enough, a restoration of vision, dim indeed, but promising to become clearer, the cure being but in its first stage. Mesmer believed his cause triumphant. The commission, however, was not so soon satisfied; the magnetizer was required to leave the room, and the experiments already made were repeated—with a totally different result. The patient was unable to distinguish the colour of any object presented to her: she was evidently as blind as ever, as blind as the most clear-sighted anti-Mesmerite could wish. The commission gave in its report, the tenor of which was, that Mesmer, in asserting that Fraulein Paradies had, under his treatment, recovered her sight, had been guilty of falsehood; and further, that her having *apparently* distinguished the colours of the objects presented to her by the magnetizer, was no doubt the result of a

preconcerted system of signals between her and him.

This report placed Mesmer in the position of a social and professional outlaw: there was nothing which it was not permitted to say of him, and there was a pretty general disposition to say the worst. Dispirited at length, or disgusted, by the untiring animosity of his opponents, he resolved on quitting, not only Vienna, but Germany, which he did in 1777. It is to be observed, however, that he never retracted or qualified his statement as to the cure of Fraulein Paradies, but to the last maintained—let an imperial commission report as it pleased—that the blind songstress had, under his hands, become, to say the least, a purblind one. The truth of the matter, as well as we can judge it now, appears to be this:

Fraulein Paradies, under the magnetic process employed by her physician, had come into a state of *clairvoyance*, (lucid vision,) and, that peculiar relation, (community of sensorial power, developing itself in the patient as a negative, in the agent, as a positive polarity,) termed *rapport magnétique*, subsisting between them—she had, in somno-vigil, really distinguished the colours of the objects upon which his attention was fixed, and which he presented to her. At this period Mesmer was as yet unacquainted with the now familiar phenomenon of *clairvoyance*, and it is not wonderful that he mistook it, as it presented itself in his patient, for a restoration of ordinary vision. But when the commission ordered Mesmer out of the room, it is very conceivable that the *clairvoyante* should have had no perception of the objects presented to her by its members, inasmuch as no one of these gentlemen was, so to speak, her sensorial positive pole. Had the magnetizer been called in a second time, and the experiments been once more repeated through his instrumentality, sapient commissioners would, very probably, have gone away not much the wiser for this new trial; but it is just possible that they might, by a somewhat less slovenly attention than they appear to have bestowed upon his operations, have been led at least to spare him, as well as his patient, the odious imputation of having first concerted a lie, and then juggled together in confederation to support it. For the rest, this was no doubt the easiest solution of the riddle, and the way to get rid of Mesmer.

It may here be observed, that the blindness of Paradies was not of a kind *formally* incurable: it was the effect of functional disease. There was no disorganization—the structure of the eye remained unaltered; it was the sensibility of the nerve of vision alone that was impaired. The loss of sight was but symptomatic—as were the convulsive fits and the manifestations of mental disorder—of general nervous derangement; defect of action in one part of the system involving excess of it in another. The object of the Mesmeric treatment was to effect a due distribution and equilibrium of nervous activity: with the recovery of sight was to be expected the cessation of the convulsions: the periodical frenzy would have disappeared along with the habitual melancholy.

That she should have been able, with the first glimmerings of returning vision, not only to distinguish different colours, but at once to give each colour its right name, implies an act of memory, a recalling of impressions received in earliest childhood, hardly less trying to our powers of belief than the restoration of sightitself. But an almost preternatural clearness of memory is among the most constant phenomena of the state of magnetic sleep-waking, in which the remotest past stands out again into the foreground of consciousness, and we discern with a feeling of awe that the vanished has not ceased to exist, that the forgotten still hovers near us, that whatsoever we have done, and suffered, and seen, has entered into us, and is inseparable from us, and that we have but to go into our deeper being to find it. Truly a strange significance lies in the fact—that we remember. It tells us that the past, the *whole* past, is with us in the present—that the past, the *whole* past, is accompanying us into the future—yea, that *out* of that very future into which we are travelling, the reflected image of the past, the *whole* past, is coming up to meet us. How often in dreams, especially in the dream of fever, which has ever something of the character of sleep-waking about it, are we carried back to the scenes of a long-forgotten time—to some moment of peril—some hair-breadth 'scape—or perhaps to some occurrence of an in-

significant kind enough—the sight of some building, some garden, some bend of a road, of a river with a bridge, some group of people, that gleams upon us, clear, minute, living, as a *camera-obscura* picture: which we relate afterwards as the phantasy of our dream, but which they under whose eye our childhood was passed, can tell us was no phantasy, but a memory.

"A patient of mine," relates a physician in Prussia, "in a paroxysm of intermittent fever, saw herself, as a little child, lying in a loam pit, and a nurse-maid wringing her hands on the brink. The scene changed, and she saw herself as a child somewhat older, sitting at the foot of a bed, in which her mother lay, and repeating a certain prayer. She held all this for the mere creation of her delirious fancy, but her father, to whom she related it, assured her that she had seen true images of her earliest life; that she had indeed, when quite an infant, fallen into a loam pit through the negligence of the maid who had the care of her; and that, some years later, during a dangerous illness of her mother, she had sat continually at the foot of the sick bed, and repeated the prayer of her dream, which had been taught her by her mother when she was but beginning to speak. In a state of health the patient had not the slightest recollection of either of these occurrences: the early-learned and long-forgotten prayer has since the period of her dream remained fixed in her memory."

In 1778 Mesmer made his appearance at Paris. Here he laid the principles of his doctrine before the *savans* and physicians in a series of theses; and was fortunate enough to accomplish a number of cures, of a kind calculated to draw attention, the rather as his patients chanced to belong to the more conspicuous classes of society. The medical faculty looked, however, with not inexcusable suspicion on one who made a mystery of his mode of practice; and national prejudice wrought strongly against the credit of a discovery claiming for its author not only a foreigner, but a German. The temper of the age was averse to every doctrine that did not base itself on the tritest materialism, or that suggested the (however remotely) possible existence, within the wide compass of heaven and earth, of something more than was—we will not say dreamed of—but, with a clear waking sense apprehended, and comprehended, and definitively placed, and *named*, and explained, in the philosophy of a French *encyclopédiste*. It was the shallowest era of human intellect, wide awake to all that lay on the surface, but without sense for aught that had its seat beneath the very outer husk of things. In Mesmer's own manner of procedure there was, also, much that was of a nature to impress even unprejudiced observers unfavourably, and as wearing an air of calculated *prestige*. Arrangements savouring of the theatrical; halls which a softened light pervaded; a subdued strain of music, that died and came again and again—and again sank and rose; and the doctor himself gliding about in long stole, not of any fashion affected by the time; his patients, the while, sitting mute and expectant around "their Magnetic Mystery, which to the eye was mere tubs with water." What could be farther than all this was, from any semblance of an intelligent medical practice? or what could be more repugnant to the spirit of a class of men by habit sceptical, more acute than profound, shrewd, more open to the impressions of the ludicrous than of the solemn, more familiar with the weaknesses of human nature than with its strength—with its ridiculous than with its sublime aspects—and quick to detect, in the sublime itself, the latent ridiculous: men, generally, of a good heart, but of a wicked wit, to whom, through the high epic, the element of the burlesque is ever peeping out, and who are equally awake to, and intolerant of, all "humbug" that is not professional and of a certain standing?

At the same time, it would perhaps be hasty, at once to set down the complicated machinery of the *baquet*, with the accompanying wizardry of music, the Egyptian habit, and so on, to the score of quackery, and affectation of the mysterious. Mesmer probably believed all these auxiliaries needful to the effects he had in view; it was by slow degrees that he learned to simplify his practice. Besides, he had to act on the nervous system, and made no secret of the important part which the imagination of the patient had to play in the cure. And, as Dugald Stewart argues, if a man can be

cured through his imagination, why should any doctor scruple so to cure him? Is it more professional to kill a patient by potion and pill, than to cure him by pantomime and the music of Oberon? It may be more suitable to the dignity of medical science, but the question is—will the patient like it as well? Mesmer's practice might be dupery; but it was pleasanter to be duped into staying in this world, than to be sent in the most honourable and above-board manner possible into a better. It was an affront, to be sure, but one which it required no superhuman effort of meekness to pocket.

One would not, for all this, deny that an element of charlatanism does seem to have entered somewhat largely into Mesmer's character, as it does into that of his nation (not the German, but the Swiss) pretty generally. It was certainly more like the quack than the loyal servant of science to keep his alleged discovery secret, and to traffic with it as he did, refusing the offer of the French government to purchase the disclosure of it for twenty thousand livres, and selling it to private persons, when once his subscription-list of a hundred could be got full, at a hundred louis a head. The spirit of trading is in its place in what belongs to the mechanical arts; but the nobleness of science repudiates it. The physician who believes himself to have made an important discovery in therapeutics will, if he understand and be worthy of his high vocation, hasten to promulgate it, and not keep shop with it, taking care of number one, and counting science and the welfare of men as secondary things. But for this also the misfortune of Mesmer's birth is the best excuse. *Point d'argent, point de Suisse*—the old proverb did but find a new verification—"the wise saw" a "modern instance."

Mesmer's fame spread rapidly among the noble, the literary, the gay and beautiful of the French capital, and his mystic halls became a favourite resort both of those who were, and of those who fancied themselves ill. *Ennui* brought many. People were tired of being eternally witty, eternally philosophical, eternally shut up to the driest prose and matter-of-fact of life. A moment's escape from *bon mots* and *la raison*, let what would offer it, was felt to be a blessing. Then they had parted with their Christianity, and wanted something to believe in. So they sat, linked together by the fingers, in circles, each circle round a covered tub, in which was water, with broken glass and scoriæ of iron, laid in strata, and, at the bottom, bottles, with more water and some iron filings, placed star-wise round an iron rod, that went up through a hole in the middle of the tub-cover; and, round this centre hole, other holes in a circle, and other iron rods that went up through them, and which, at a certain height, bent off at a right angle, each rod to a separate patient; and the patients held each his (or more generally her) rod, (when they did not hold each other's hands,) moving the point of it gently up and down, or from side to side; and Dr. Mesmer or Dr. Deslon from time to time laid hold of the centre rod, moving, or, as it were, churning with it up and down in the tub. The centre rod itself was bent at the top into a kind of finger, which could be made to point to this or the other quarter of the heavens, as the magnetizer judged it expedient, thus putting the tub *en rapport* with the universal frame of things. Hempen cords, afterwards exchanged for woollen, were also attached to this middle rod, and extended to each of the patients, who could put them round their respective waists, arms, legs, or elsewhere at pleasure, according to the seat of disease. Two years later, a globular mirror was added to the apparatus. It stood on the top of the middle rod, so that the patients, as they sat, could see themselves, diminished and somewhat caricatured; which, as Wolfart in his *Asclepieion* tells us, "sensibly heightened the effect of the whole, and brought on both more swiftly and more surely the states of magnetic sleep and sleep-waking."

Thus, then, they sat, *en rapport* with their doctor, and with each other (to say nothing of the elemental influences, streaming from the quarter of the heavens to which the "central rod" was pointing,)—a communion, not of saints exclusively, "expecting," as Mr. Carlyle has it, "the magnetic afflatus, and new-manufactured heaven-on-earth;"—expecting, at least, *emotion*—of which waking life was become—by very dint of being *too* wide awake—deplorably barren to them.

This went on—the medical faculty sneering, but the patients, or a good proportion of them, getting well, or fancying that they got well—until the year 1784, when the king, Louis XVI., after the example of his mother-in-law of Austria, appointed a commission to examine into a thing which was making so much noise. This commission consisted of four members of the medical faculty of Paris, to whose number, at their own request, were added five members of the Royal Academy of Sciences.

The task laid upon this commission was principally to investigate the *facts* of Mesmerism, and to give an account of the same. It is worthy of remark that the commission did not, in conducting its examination, enter into communication with Mesmer, but with Doctor Deslon, his associate, and with his colleague Jumelin. A report appeared, but as, instead of giving an account of the facts observed, it addressed itself, almost exclusively, to the object of proving that the effects of the magnetic processes were to be attributed solely to the power of imagination, the Society of Medical Science appointed another commission with the same task, and published also its report, which agreed on the whole with that of the former. Jussieu, however, a member of the royal commission, not only declined to append his name to the report of his colleagues, but published one of his own, differing essentially from theirs, and much more favourable to magnetism.

Both reports, namely, that of the royal commission, and that of the commission of the society, were received with some disappointment in the scientific circles of Paris. Men had waited with impatience for a statement that might be relied on, of the facts of the case, and were not satisfied to get, instead of this, the opinion of certain academicians, who, in a matter as new to them as to other men, and of which many hundreds had seen at least as much as they, with questionable modesty offered to the French public their individual persuasions for truth admitting of no further discussion. The royal mandate had been, *See* for your fellows—the commission understood it to run, *Think* for your fellows. But really, royal authority to examine into a thing seems to act like a kind of mental *gutta serena*. The judgment of one man, who goes to see for himself, is worth more than that of forty that go to see for the king: the one goes, because he wants to see; the forty go, because they have to report. Learned corporations and faculties, also, are, in what relates to learning, conservative to a degree, and seem to exist, primarily, to the end of taming down all undue ardour in the investigation of truth, and of placing a salutary check upon some presumable tendency in knowledge to a too rapid expansion. And how should commissions of such learned bodies not be as the bodies that commission them? Will not the learned body commission just those—can it commission any other than just those, who are surest to bring it no light? King Louis commissioned those, whom a royal personage was likely to commission: the Society of Medical Science commissioned those, whom a royal society was likely to commission; and so king and society got from their respective commissions just what it was most natural, but least important, for them to get: they got, namely, not so much an account of what Doctor Mesmer did, and which happened or did not happen in consequence, as a statement of the impression of a small number of medical and non-medical gentlemen, that, whatever the doctor might do, and whatever might be the effects consequent upon his proceedings, these effects were not attributable to the cause the doctor supposed, but to another.

"All effects of the imagination!"—Perhaps so, gentlemen: but suppose you were to consider for a moment—What *is*, then, the imagination? And, wherein are "effects" the worse for being of its producing? Is the imagination a certain capability of being made to hold that to *be*, which *is* not? Has it no other part to play in our curious spiritual economy than that of being lied unto? Is *to imagine* merely to represent to ourselves the unreal as real, or things in general as being any thing, every thing, but what they are? It were but bad psychology to say so. But of this elsewhere.

The academicians knew how to make their views the current ones at court, and in the *salons;* or perhaps it would be juster to say, that their report was but the reflection of the

views already, and *a priori*, formed in those high regions, in which a previous knowledge of facts had never been found necessary to the formation of a judgment; nay, would in most cases have materially interfered with the delightful facility of that process. It is, perhaps, not more than will now be acknowledged by most well-informed people, that the report, about which so much noise has been made, really owed the respect with which it was received in Europe far more to the names appended to it than to any thing more intrinsic. Of these names, one of the most illustrious, that of Franklin, belonged to one now in his seventy-ninth year, included in the commission, one cannot but think, chiefly *honoris gratia;* and who, sick in body, and laden with cares of state, took little or no interest in the matter to be investigated, and saw no better way of returning the compliment paid him, than by subscribing without captious or mistrustful questionings whatever men, so distinguished as his colleagues, had seen good to present as their report and his. Of the remaining names, there is not one that outweighs that which Jussieu threw into the opposite scale.

The opposition of the medical profession, and of the *philosophes* generally, did not prove altogether so fatal to the new doctrine as might have been expected. At Paris, Strasbourg, and elsewhere, associations were formed, under the name of *Sociétés Harmoniques*, the object of which was to keep pure, and further to illustrate and develope by means of experiment, the doctrine of Mesmer. Puysegur, at Strasbourg, and Barberin, at Lyons, may be considered to have founded the most important of these societies. These two magnetists departed widely from the mode of treatment which Mesmer, at least in his earlier practice, employed. Mesmer, holding the cause of morbid action in general to be defect of irritability in the muscular fibre, beheld in magnetism, chiefly, the means of supplying this defect, and herein supposed its remedial efficacy to reside. Conformably to this view, the magnetic influence was strengthened as much as possible, till it was heightened to a degree that generated vehement reaction, which presented itself under the form of convulsions, or at least of violent spasms. This was what he called the "crisis," which he looked upon as a necessary remedial process of nature, a reaction of the solid parts upon the exciting causes of disease (which he placed in the obstructed flow, and consequent depravation of the juices), tending to restore the balance and harmonious working of all vital activities. On this account he, and the magnetizers of his school, had their so called *chambres de crise*,—chambers, the floor and walls of which were covered with mattresses, that the *crisiacs*, in their pythic fury and convulsive writhings and tumblings, might not be in danger of hurting themselves. At a later period Mesmer followed the example of Puysegur, in discontinuing the use of these chambers, which the latter magnetist, not altogether without justice, named "*chambres d'enfer*;" and which a gentler method of magnetic treatment rendered unnecessary. Puysegur, with his friends at Strasbourg, eschewed the stormy and tumultuous "crisis," and excluded from his practice all that went beyond the producing sensations of repose and well-being. He rejected the use of the *baquet;* and the manipulations to which he sometimes had recourse were of a much less forcible kind than those employed by Mesmer, who seems to have kneaded and *shampooed* his patients, without much tenderness: the agency on which he chiefly relied was that of the will, fixed in its highest concentration upon the patient. Barberin employed this psychic agency exclusively, admitting only volition in faith as the instrument of producing all the magnetic effects. This was, in some measure, a return to the doctrine of the elder magnetists. We have seen how Van Helmont speaks of the power of the will. To the same effect Paracelsus says, "You are to know that the operation of the will is a great point in medicine. The imagination is the engine to effect what the will intends. The imagination is enforced and perfected through faith, for all doubt breaketh the work: faith must confirm the imagination, for faith is that that determineth the will: imperfection in men's imagining and believing is the cause that their arts are uncertain, which yet but for this might be of fullest certainty." In entire conformity with this doctrine, Barberin directed his will by a strenuous and

sustained effort upon his patient; and although to this mental act Puysegur added a certain external process, the latter seems to have been intended only as a help to the bringing the will into the direction and activity desired. The outward play of the hand was, as the use of the magnet was in the hands of Van Helmont or Kircher, a vehicle to the inward act of the spirit. And it is remarkable that, under this new and more spiritual procedure, a new class of phenomena, of a highly spiritual character, presented themselves,—phenomena unknown to Mesmer, though familiar to those elder practitioners in magnetism. It was in Puysegur's hands that the sleep-waking state first assumed a distinct form; at least he was the first to notice and describe it, though we have seen it, or something like it, occur, unrecognized, in Mesmer's practice at Vienna, in the case of Fraulein Paradies. Van Helmont had evidently had experience of this state, and even of that of *clairvoyance*, in his own person: witness his account of the soul, her locality and appearance. And we should perhaps not be very far from the truth, were we to adopt the converse of a proposition already referred to in these pages, viz.: that Mesmerism is Satanic agency; and say, that the greater part of the alleged Satanic agency of the Middle Ages, was Mesmerism, in its higher and spiritual forms.

The French revolution coming on, Mesmer withdrew from the disturbed land, and took up his abode in his native Thurgau, where he lived in privacy, practising the improved manhetism of the Strasbourg school, only for the benefit of the poor,—the rich, it is possible, preferring other doctors and another method of treatment. At an advanced age, twenty years after the appearance of his *Letter to a Foreign Physician*, he gave his doctrine, rectified and confirmed by the experience of that time, again to the world, and had the satisfaction to perceive that it no longer met with the passionate rejection which had attended its first promulgation, though it was as yet far from receiving the general recognition subsequently accorded to it. In 1787, Lavater communicated it, in its reformed shape, to Wienhold at Bremen. Gmelin, of Heilbronn, learned it at Strasbourg, and brought it into his native Suabia. Wolfart, of Berlin, made a journey to Switzerland for the express purpose of having it at the lips of Mesmer himself, whom he found a venerable grey-headed man, leading a patriarchal life, held in great veneration by those around him, and possessing, even in the advanced years which he had then attained, so much magnetic energy, that he could produce magnetic effects by merely stretching out his hand. Mesmer died at Mörsburg, in the year 1815.

The subsequent history of Mesmerism is a history of steady progress, and development in various directions. That it has advanced *more* in Germany than in any other country is, perhaps, owing to the fact, that the Germans are more patient in making experiments, and more candid in admitting the conclusions to which the results of them lead, than any other people. That England is, of all countries, that in which the study of Mesmerism has gained *least* ground, is also no wholly inexplicable phenomenon. "Slow and sure" are, according to the Englishman's own boast, the grand characteristics of the English mind. The boast is not a vain one: the English mind *is* "slow," and it *is* "sure:"—very "slow" to move in any direction, and very "sure," as a general principle, that there lies no existing thing in any direction worth *its* moving for. Mesmerism is not the only thing, divine or human, in which the English mind is so *very* far—so out of all sight—in the rear of the general mind of Europe, as to seem to itself, in the touching simplicity which characterizes it, to march in the van of all.

Mesmerism, after all, cannot with any propriety be said to have as yet attained to the rank of a science. Its procedure is not sure: there is something in it still of a shooting-at-random, productive of an appearance of caprice or inconstancy in the results which leads theologians of a certain calibre—gentlemen who should have lived in the times of the witch-trials, (the rather as they would certainly have had nothing to fear from the keenest witch-finder)—to tell us that, if it be not mere "human fraud for gain's sake," it is beyond all question, "Satanic agency." "Magnetism," says Ennemoser of Munich, "has but too evidently been, up to this time, more

in the hands of abuse than of right use; and, instead of serving to its legitimate end, the healing of sickness, it has been too much a subject of curious dilettantisms, and of unseasonable, ill-understood, and therefore, for the most part, mischievous experiments." It is impossible not to subscribe to the truth of this. Magnetism is, as Hoffman aptly describes it, "a dangerous edge-tool, in the hand of a child;" and one cannot but wish to see the wholesome restrictions which the Prussian government has placed on the use of it generally adopted; to see an agent so powerful, so enigmatical, and so difficult to guide, taken out of the hands of strolling lecturers, physicasters, and wonder-mongers, redeemed from the unworthy service of affording an evening's entertainment to an audience totally unqualified to bring away from the spectacle one useful thought, and committed authoritatively to the hands, we will not say merely, of the graduated physician, but of the physician specially and approvedly qualified to wield an instrument, of the nature and use of which they who know most feel the most sensibly how little they know. The dread secrets of our being into which Mesmerism affords a far-off and uncertain glimpse, are not the stuff of which raree-shows should be made; neither do coma, catalepsy and hysteria, yield the materials of quite so innocent an exhibition as tricks on cards, and "the gun delusion." We have seen, in the case of Van Helmont, that some of the most remarkable of the effects of Mesmeric treatment may, under certain circumstances, equally be produced by the use of narcotic poisons. What should we say to the invitation of some itinerant scientific showman, to come and see him, at half-a-crown a head, experimenting *in corpore vili* (to wit, on some young lady travelling with him in the capacity of philosophical *souffre-douleur*) with small doses of henbane, thorn-apple, and deadly nightshade? Deeply worthy of consideration, as dictated by sound wisdom and true philanthropy, is that *twenty-ninth conclusion* of the French commission of 1831, here subjoined:—"Considered as a cause of certain physiological phenomena, or as a therapeutic remedy, magnetism ought to be allowed a place within the circle of the medical sciences; and, consequently, *physicians only should practise it, or superintend its use*, as is the case in the northern countries."

M. Lafontaine, however, who visited England in 1841, and held *conversazioni* on animal magnetism in this city in the summer of the following year, certainly merits better than to be ranked with the common herd of exhibitors and lecturers-errant to whom the foregoing observations are applicable. The Mesmeric phenomena developed at his *conversazioni*, were indeed of a common-place and every-day character enough, rising in no instance above the point of simple sleep-waking—Kluge's *fourth degree* of magnetic affection. But his visit, viewed in reference to the results by which it has been followed, may be said to form an epoch in the history of Mesmerism in these countries. An impulse has been given to inquiry, public curiosity has been engaged, in a degree which has attended the labours of no former preacher of the Mesmerite doctrine among us.* The study of Mesmerism in the British islands, it may be confidently stated, has made greater progress within the last three years than it had done within the preceding thirty. In Scotland, the new impetus has made itself most forcibly felt. The Scot is a more consequent thinker, and has an intellect less riveted to the material, than his

* No doubt, the effect of M. Lafontaine's demonstrations has been powerfully seconded by that of a remarkable sermon, preached on the occasion of that gentleman's appearance at Liverpool, by the Rev. Hugh M'Neile, a popular minister of that town, and extensively circulated through the medium of what, with an equivocal sort of felicity, is designated the "*Penny Pulpit.*" The very title of this sermon, *Satanic Agency and Mesmerism*, is calculated to invest the subject, for a numerous class of minds, with a certain thrilling interest, or horrible fascination, sure to lead them to plunge into it; while the sermon itself, should any one actually read it, cannot fail to allay any fears, which may have presented themselves to persons of a timid or scrupulous turn, of there being something more than is quite "*canny*" at work in those mystic passes, in that spectral stare, which are followed by effects so bewildering, and like "the stuff that dreams are made of." He that

southern neighbour. The old Saxon element is a far more fundamental one, and exists in a much less modified form in the Scottish than in the English nature; and, after Germany, there is perhaps no country more likely to afford to Mesmerism scope for an interesting development than Scotland. One learns, accordingly, with the less surprise, that "there is now no community of the slightest importance in the north, which does not contain a numerous body of believers in the truths of Mesmerism." Such is, at least, the intelligence imparted, in a tone of gratulation, by Mr. Lang, of Glasgow, in a little work, as interesting in its contents, as it is unpretending in its form, recently issued from the press;* with some gleanings from which these concluding pages, of a perhaps somewhat over-lengthy dissertation, shall be enlivened.

A rapid sketch of the history of Therapeutic magnetism, from Van Helmont to Mr. Dove, occupies the first chapter. The second briefly notices some of the theories which have been put forth by various writers, in explanation of its phenomena, and concludes with the very just remark, that "as we are almost daily receiving fresh knowledge on the subject, there need be no hurry in building up a theory. The phenomena of Mesmerism (observes Mr. Lang) are in themselves true, whatever theory may ultimately be adopted, and probably inquirers would, for the present, be most usefully employed in scrutinizing and recording facts, and leave the rest to time."

In his third chapter, which treats of the Mesmeric phenomena and states, Mr. Lang presents us with the "conclusions" appended to the report of the French Commission of 1831, adopting, as he advertises us, the translation of Mr. Colquhoun. This commission, appointed by the Royal Academy of Medicine at Paris, in 1826, but which had had a multiplicity of delays and hindrances to contend with, acknowledged, when it at length found utterance, the truth of Mesmerism (understanding thereby not the theory of Mesmer, but the existence of the agency to which he had called attention) to the fullest extent; wherein, however, it had been already preceded by the Academy of Sciences at Berlin, as well as by an imperial commission in Russia. A few of the conclusions of the French commissioners are here presented to the reader:—

"1. The contact of the thumbs or of the hands; frictions, or certain gestures which are made at a small distance from the body, and are called *passes*, are the means employed to place ourselves in magnetic connection, or, in other words, to transmit the magnetic influence to the patient.

"2. The means which are external and visible, are not always necessary, since, on many occasions, the will, the fixed look, have been found sufficient to produce the magnetic phenomena, even without the knowledge of the patient.

"7. Sometimes, during the process of magnetising, there are manifested insignificant and evanescent effects, which cannot be attributed to magnetism alone; such as a slight degree of oppression, of heat or of cold, and some other nervous phenomena, which can be explained without the intervention of a particular agent, upon the principle of hope or of fear, prejudice, and the novelty of the treatment, the *ennui* produced by the monotony of the gestures, the silence and repose in which the experiments are made; finally, by the imagination, which has so much influence on some minds and on certain organizations.

"8. A certain number of the effects observed, appeared to us to depend upon magnetism alone, and were never produced without its application. These are well established physiological and therapeutic phenomena.

"10. The existence of an uniform character, to enable us to recognize, in

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could continue to suspect either Mesmerists or their opponents of any thing verging on conjuration, after reading the sermon of the minister of St. Jude's, were, one should fear, reason-proof. It is difficult to think that the Jesuit Robert himself, did he live in our nineteenth century, and—feeling curious about our smaller theological currency—take in the Penny Pulpit, could have read "Nos. 599—600" of that publication, without feeling somewhat ashamed of his doctrine—without confessing that he had not believed it possible to present it under an aspect of such ludicrous intenability, and that Van Helmont might, very safely, have left it to be dealt with by Mr. M'Neile.

* Mesmerism; its history, phenomena, and practice: with reports of cases developed in Scotland. Fraser & Co. Edinburgh; Curry & Co. Dublin. 1843.

every case, the reality of the state of somnambulism, has not been established.

"13. Sleep, produced with more or less promptitude, is a real, but not a constant effect of magnetism.

"14. We hold it as demonstrated, that it has been produced in circumstances in which the persons magnetised could not see, or were ignorant of the means employed to occasion it.

"15. When a person has once been made to fall into the magnetic sleep, it is not always necessary to have recourse to contact, in order to magnetise him anew. The look of the magnetiser, his volition alone, possess the same influence. He can not only act upon the magnetised person, but even place him in a complete state of somnambulism, and bring him out of it, without his knowledge, out of his sight, at a certain distance, and with doors intervening.

"16. d. The greater number of the somnambulists whom we have seen, were completely insensible. We might tickle their feet, their nostrils, and 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, &c., without producing any pain, without even their perceiving it. Finally, we saw one who was insensible to one of the most painful operations in surgery, and who did not manifest the slightest emotion in her countenance, her pulse, or her respiration.

"17. Magnetism is as intense, and as speedily felt, at a distance of six feet, as of six inches; and the phenomena developed are the same in both cases.

"18. The action at a distance does not appear capable of being exerted with success, excepting upon individuals who have been already magnetised.

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

"25. In two somnambulists we found the faculty of foreseeing the acts of the organism more or less remote, more or less complicated. One of them announced repeatedly, several months previously, the day, the hour, the minute of the access, and of the return of epileptic fits. The other announced the period of his cure. Their pre-visions were realised with remarkable exactness. They appeared to us to apply only to acts or injuries of their organism.

"26. We found only a single somnambulist who pointed out the symptoms of the diseases of three persons with whom she was placed in magnetic connection. We had, however, made experiments upon a considerable number.

"28. Some of the magnetised patients felt no benefit from the treatment; others experienced a more or less decided relief,—viz. one, the suspension of habitual pains; another, the return of his strength; a third, the retardation, for several months, of his epileptic fits; and a fourth, the complete cure of a serious paralysis of long standing

"30. Your committee have not been able to verify—because they had no opportunity of doing so—other faculties which the magnetisers had announced as existing in somnambulists; but they have communicated in their report, facts of sufficient importance to entitle them to think that the academy ought to encourage the investigations into the subject of animal magnetism, as a very curious branch of psychology and natural history."

Names, as distinguished as any that the medical profession in France has to boast, are appended to the report of which the foregoing are some of the conclusions. It is curious that, while we are so often assured that French physical science repudiated Mesmerism as long ago as 1784, we are generally left to find out for ourselves that she took it into favour again in 1831. But the probability is, that the loudest of our anti-magnetic polemists are possessed of much the same degree of acquaintance with the history as with the doctrine and use of the object of their denunciations.

The Mesmeric *states* are given by Mr. Lang, after Kluge, who has enumerated them as:—1. the state of waking—sense open; 2. half-sleep, or imperfect crisis—sense closing; 3. magnetic sleep—sense closed; 4. somnambulism, or perfect crisis—sense opening inwardly; 5. self-intuition, or clairvoyance—sense open inwardly; 6. universal lucidity, or ecstacy, also called disorganization—a state of rare occurrence, and of which one may doubt whether it be ever produced by the simple operation of magnetic influences; or whether other causes, wholly independent of these, and only accidentally acting in concert with them, constitute the true ground of it. It is not so much a higher degree of magnetic affection, as a state *sui generis*, which may present itself in

subjects not Mesmerised, although a condition of Mesmeric lucidity offers peculiar facilities for its development.

Mr. Dove reckons *nine* stages of Mesmeric affection, as follows: 1. contemplative abstraction; 2. ordinary vigil; 3. ordinary reverie; 4. ordinary dreaming; 5. oblivious sleep (Kluge's magnetic sleep; 6. lucid dreaming; 7. lucid reverie; 8. lucid vigil; 9. devotional ecstacy.

This division is essentially the same as Kluge's, and it may be doubted whether the alteration in the form is for the better. "Devotional ecstacy" belongs, still more emphatically than the "universal lucidity" of Kluge, to an essentially higher order of phenomena, which may open itself spontaneously to the Mesmeric patient, but into which no "passes," nor "volition in faith" of the Mesmerite physician break a forcible way.

In a chapter on the application of Mesmerism to medical science, Mr. Lang places before us the melancholy and humiliating record of the reception which physical truth, in most of her *avatars* and discoveries of herself to men, has met with at the hands of her chosen priests. Galileo greeted with the epithets of "plagiarist! liar! impostor! heretic!" Harvey rewarded for his great discovery with "general ridicule and abuse, and a great diminution of his practice." Sydenham stigmatized as "a quack and a murderer." Ambrose Paré, who first substituted the ligature for boiling pitch in amputations, "hooted and howled down by the faculty of physic, who ridiculed the idea of hanging human life upon a thread, when boiling pitch had stood the test of centuries." The prescribing of antimony made penal by an act of a French *parlement*, passed at the instance of a French college of medicine. Jesuit's bark promptly rejected by Protestant England, as a phase of the "mystery of iniquity." Doctor Groenvelt "committed to Newgate, by warrant of the president of the College of Physicians, for discovering the curative power of cantharides in dropsy." Inoculation denounced by the medical faculty as a murderous folly; and by the theological, as an impious defiance of Providence; and the common people taught to hoot at Lady Mary Wortley Montague, for introducing it. Vaccination ridiculed by the learned profession of medicine, and discovered by popular preachers of that day to be Antichrist. The Newtonian philosophy, encountering the reception which Doctor Chalmers, in his sonorous Tron-Church-bell style has so chronicled; "authority scowled upon it, and taste was disgusted by it, and fashion was ashamed of it." The project of lighting our cities with gas, declared by Wollaston as insane a one as would be the attempt "to light London with a slice from the moon." Atlantic steam navigation demonstrated by Dr. Lardner to be impossible. Percussion and auscultation treated by the doctors with ridicule," with "absolute indignation," with "silent contempt," pronounced, in grave medical lecture, "nonsense, or worse," and dismissed, one hoped, for ever, with the character of being "just the thing for Elliotson to rave about!"—the said Elliotson, for years after he published his work on prussic acid, "not only ill-spoken-of, for recommending what was useless, but condemned for using dangerous poisons." These cases (and they might be reinforced with a host of similar ones) would almost justify the suspicion, that bigotry is not the exclusive characteristic of *one* of the "learned professions," that there exists a feeling which we might name "*odium collegiale*," of which the much-decried *odium theologicum* is only a modification; that medical men, *as a class*, are not one whit less narrow than priests; are, with far less excuse, (inasmuch as they do not claim for their system the authority of a divine revelation,) quite as ready as these to reject, as bearing in its very novelty evidence of its heretical character, every thing new in therapeutic doctrine or practice—every thing implying that the existing state of their science still leaves room for further development, still admits a possibility of progress—perhaps of correction.

The *cases* reported by Mr. Lang are, perhaps, as interesting as any that have as yet presented themselves in these countries, but they are too long to be transferred to these pages: that of the "Mesmeriser Mesmerised" is extremely pleasant. The little volume will well repay an attentive perusal.

MESMERISM.

BY IRYS HERPNER.

(Second Article.)

Among the most interesting results yielded by the labours of recent explorers in the domain of physical science, must be reckoned the views which they have opened to us of the nature and mutual relations of those subtle and pervading agencies—call them imponderable elements, cosmic forces, or what other name best expresses the little, at bottom, we know about them—which reveal themselves to our senses in the phenomena of heat, light, electricity, and magnetism. Intimate connections, pointing to a common origin, have been developed between these agencies, multiplying themselves at every progressive stage of the experiments to which they have been subjected. A mass of observations has exhibited them in such rigorous interdependence—the presence of any one of them involving the nearness of all the rest—as to render it very difficult to consider them otherwise than as phases of one and the same principle, modifications of some expansive ground-force and primal activity of matter, universal as gravitation, and probably antagonist thereto. To borrow the language of the distinguished reviewer of Whewell's *Philosophy of the Inductive Sciences* in this journal:—*

"The researches of all the latest inquirers seem to have left no doubt as to the identity of all the species of electricity. . . . The heating power of the magnetic fluid has now fully identified it in one of the most remarkable characteristics of electric action, with the voltaic and the common electricity; while the magnetic influence in its turn is found to belong to them all, and common electricity is at length discovered to deflect the needle. Animal and thermo-electricity, as well as magnetic agency, decompose water. As far as their powers can be summoned into sufficient activity, they all appear to perform each other's work; and it seems an exaggeration of timidity to hesitate in pronouncing them the various manifestations of some single and pervading principle. The intimate connection of this principle, again, with heat and with light, which is perhaps little more than the peculiar effect of the vibrations of heat upon the optic nerve, plainly associate these with the former, and invite us to expect the near approach of some decisive discovery, which, in combining them all, shall indeed lift the veil of Isis, and form before long, the great philosophical glory of the nineteenth century."

Should such "decisive discovery" ever accomplish itself, there will probably be seen, taking its place in the circle of the powers here referred to, and asserting a cognate relation to them, a fifth power—that, namely, which announces its existence in the phenomena of mesmerism. If such a power exists at all, it exists, assuredly, not in a state of isolation, as something *sui generis*, but is, with all other forces and activities that are found in the universe, a ray broken by the great world-prism of sensuous being into refractions infinitely diverse in direction and colour, the *maximum* of deflection being perhaps just at this point where Mesmerism shows itself.

"Many organic forces," says Passavant, "have in their working much similarity with the powers of inorganic nature, yet are not identical with these. Now since, in nature generally, subsistence is ever evolved out of subsistence, it seems more in accordance with nature's economy to contemplate the organic forces not as an absolutely new order of powers, but as modifications of those already observed in the wider field of the inorganic, the modifying agency being that of the vital principle (and the will, where this power gives to the vital principle a particular character or direction), which works upon and

* Vol. xviii. p. 557.

assimilatively transforms these powers, in the same way as it transmutes the inorganic material substances into organic. Those phenomena of electricity and light, which are subject to the individual vitality of inorganic bodies, and even to the will of certain animals, here form the transition and mediative link."

Certainly, if ever we possess a satisfactory theory of Mesmerism, it must be one which will base itself upon this principle—the essential unity of the organic and inorganic forces of nature, and show that the necromancy which our witch-finders of the nineteenth century espy in "a pass of the thumb or a movement of the fingers, and signs, and talismanic tokens," as Mr. M'Neile hath it, is the very same which their great prototypes of the twelfth century detected in the crucible of the chemist and the decoctions of the apothecary.

"As we are almost daily receiving fresh knowledge on the subject (of Mesmerism), there need be no hurry," remarks Mr. Lang, "in building up a theory. The phenomena of Mesmerism are in themselves true, whatever theory may ultimately be adopted, and probably inquirers would for the present be most usefully employed in scrutinizing and recording facts, and leave the rest to time."

This is true: the time is not ripe for a theory of Mesmerism that will stand—a theory that will account for all phenomena observed, containing at the same time nothing that observed phenomena will not bear out. Nevertheless, theorizing is a spontaneous operation of the mind. The first facts observed suggest, however little we may be conscious of it, certain involuntary speculative stirrings within us—an obscure instinctive seeking for some common ground to refer our observations to, without which there were no alternative but to dismiss them as mere phantasm and optical illusion. While we are observing facts, our theory is silently forming itself; for what else, indeed, is a theory but a beholding? My theory of the Mesmeric phenomena is, in other words, my way of looking at, my view of the Mesmeric phenomena—what *I see* in the Mesmeric phenomena. Not to theorize is not to look, but passively to suffer the shapes of things to flit over the incognizant sense, passing away unapprehended, and without having added an impression to the store within. Let us, then, "scrutinize and record facts:" that is indispensable; but while the eye and the registering hand are busy, let not the faculties of thought and imagination be idle: let us theorize (provisionally) as we go on, were it but to enliven the, else, all too dull work of observing and recording. The very terminology of our record will depend in some measure on the theory—on the light in which, on the medium through which we see.

Now this is just what the German magnetizers have done: they have scrutinized and recorded facts; but facts are, to a German explorer, the characters of a mystic language, the deep sense of which he must fathom, or know no rest. Hence, in Germany, theory has from the first gone hand in hand with observation. Mesmer's own hypothesis of a fluid filling universal space, and, by reason of its extreme subtilty, freely pervading all bodies, was perhaps as apt a one as the existing state of physical science in his time could afford. Most of the early French magnetizers, influenced by the materialistic tendencies of the age, propounded views not essentially differing from this: Villars and Barberin, however, took a directly opposite course, rejecting all explanations derived from material grounds, and resolving the whole into a mysterious operation of the human will; a doctrine which also Puseygur, and after him Deleuze, adopted with little modification. The "Exegetic Society" of Stockholm, in a letter addressed to the "Society of Friends" (not Quakers) at Strasbourg, in 1778, assigned, as the sole cause of all Mesmeric effects, a super-sensuous agency of angels and other spirits, which view the modern mystic school, with Von Meyer of Frankfort at its head, on the whole supports.

"The German *Philosophy of Nature*," says Doctor Ennemoser, "contemplates the animal-magnetic phenomena as necessary effects of dynamic relations of polarity, and ascribes these effects neither to physical nor to psychic influences exclusively, inasmuch as this philosophy admits no absolute separation

of the material from the spiritual, but holds the former to be from eternity the expression of the latter. Friedrich Hufeland (he adds) here claims especial mention, as a luminous expositor of these views of the magnetic effects."

Weber offers a "dynamico-psychic" explanation, on the ground that "body and soul constitute man, who is the unity of these two opposite modes of being." Others, again, assume a subtle medium, the "æther" of the celebrated mathematician Euler, which they also term vital or nervous spirit. This æther is the vehicle of, and immediate agent in, all such workings, be they physical or ghostly, as *seem* to contradict the axiom, "nothing can act where it is not." Its vivifying presence is every where felt—in the organic as well as the inorganic region of nature, revealing itself in the latter as light and heat, electricity, and the power developed in the loadstone; in the former as nervous force, with its modifications of animal heat, animal light (in the glow-worm and fire-fly), animal electricity (in the torpedo, as well as in the galvanic phenomena generally), and Mesmerism, or animal magnetism. It is the mediating principle between spirit and matter, between force and subject of force; nay, it is assumed to be absolute substance and *prima materia*, the ground-element of all corporeal being, the world-essence, so to speak, of which all visible creation is a precipitate, and the higher invisible spheres of created existence a sublimation. Jung Stilling, Jean Paul, Herder, Kluge, Kerner, Passavant, with many others, are numbered among the adherents to this "æther theory;" and as it is the one which seems most to commend itself to permanent recognition, and perhaps has the most of intrinsic beauty and completeness, we—the present reader and writer—will go a little more at large into it, taking for our guide herein, principally, the admirable work of Passavant, entitled, *Inquiries respecting Vital Magnetism and Clairvoyance*, availing ourselves, however, also, as we see occasion, of Ennemoser's very instructive book, *Magnetism in its relation to Nature and Religion*, of Schubert's *History of the Soul*, of Justinus Kerner's *Magikon*, and even, at a pinch, of our own wits.

The most universal agency in the material world is that of gravitation: the first attribute of *all* body is that it gravitates, and that in constant proportion to its mass. This is the expression of the unity of corporeal nature.

But there is no body, the *only* property of which is weight: that is, there is no body which is mere quantity: all bodies have their particular qualities, their essential differences, according to which they are defined. In other words, in all bodies other agencies are found to be present and operative, besides that of gravitation; forces, which often exhibit themselves in counteraction of the great centripetal force, as in electric or magnetic attraction, in sundry chemical processes, in elasticity, and, above all, in the action of organic forces in all animal motions, and in many workings of the animal economy.

The principal of these qualitative forces are those to which reference has been made in the foregoing columns, the subtle and problematical agencies which, in their manifestation, are known to us as light, heat, electricity, and magnetism. These principles resemble one another so much in their laws and general character, that the theory of any one of them gives the type for that of all.

"The views," says Passavant, 'which have been entertained, in reference to the nature of these powers, may be reduced, essentially, to two. Either they are specific material substances, which enter into and pervade other bodies, in like manner as the air insinuates itself into the interstices of many bodies, or else they are activities, motions of a corporeal medium, similar to those vibrations of elastic bodies, which announce themselves to our ear as sound.

"The grounds which bear against the former theory, are, on the whole, so preponderating, that it is scarcely possible, in the present stage of physical science, any longer to regard these forces as particular material substances. As the controversy on the subject has turned chiefly on the nature of light, we here adduce the weightiest reasons against the assumption of a proper lucific matter; and it will be seen that essentially the same reasons hold good against the hypothesis of specific material substances in the cases of the cognate forces, heat, electricity, and magnetism.

"The transparency of the air, and of diaphanous bodies in general, is wholly inexplicable, if we suppose that a foreign body, emanating from a source of light, (for instance, the sun,) transmeates them; for this supposition would account for their transparency, if at all, only in the direction of the rays which traverse them, whereas they are transparent in *all* directions.

"Such a body, which were at the same time warm, and electric or magnetic, must, on the assumption of an advening substance of light, of caloric, and of an electric and magnetic fluid, be so porous that there would remain no room at all for the proper substance of the body. And yet it is just in the bodies of greatest specific density, (as the metals,) that these powers are in the highest degree operative.

"Against the emanation of light, a further argument is, that radiant bodies lose nothing of their substance, and that irradiated ones, even those which most absorb light, gain nothing. The extreme velocity, and at the same time uniform movement of light, is, on the supposition of a lucific matter, the more inconceivable, as it is highly probable, from the resistance which, according to the observations of Encke, comets have met with in their progress, that a material substance also occupies the space between the planets and the sun. Finally, there are various optical phenomena, in particular that of the interference of light, which cannot be explained on the supposition of a lucific matter. For, in that, through the meeting of two rays of light under certain conditions, darkness is produced, it is easy to conceive how two motions should arrest or neutralize each other, as is the case with the undulations of water and of air, (of which we have an instance in the analogous phenomenon of the interference of sound); but it does not so readily appear how two material substances should annihilate each other.

"The grounds which contravene the assumption of a specific matter of light, are for the most part equally forcible against that of a material caloric. The motion of radiating heat, the laws of the refraction, reflection, absorption, interference, polarisation, and double refraction of the rays of heat, all of which coincide so perfectly with those of light, hardly leave room to doubt that these are only modifications of *one* fundamental force.

"But as light and heat pass mutually the one into the other, so do they also present themselves as causes of electricity and magnetism. Light frequently generates heat, and heat electricity. A metallic ring, for instance, heated on one side, becomes on one side positively, on the other negatively, electric. When the two electricities combine, (or the electric tension resolves itself,) light and heat are produced. Then, electricity calls forth magnetism, and *vice versa*. Thus, these fundamental powers generate and determine one another, reciprocally, and so yield a ceaseless round of phenomena, manifestations of the universal vitality of nature, ever renewing themselves, under a succession of ever-varying aspects.

"As any one of these powers is ever found to evoke and determine another, it is not easy to say which of them is the original power, and base of all the rest. Every thing, however, in nature proceeds from a unity, which first developes itself into antithetic contrast of its elements, and finally re-produces itself in its unity by the reconcilement of these. As we must consider the primary qualitative force as one working expansively, and we know that heat so works, we might look on this as the primary force in question; but since, as we have remarked, heat and light seem to be but modifications of *one* principle, we are led to assume, as first and fundamental power of all, fire, contemplated as *luminous heat*, or as the principle of which light and heat are alike manifestations. This principle or element, then, of fire we assume as ground of the qualities of bodies, and all the other so-called imponderables, we regard merely as modifications of this—electricity, namely, as fire become polar."

To state Passavant's theory of the imponderables, or cosmic forces, in the most general terms,—the first or ground-energy of the *prima materia*, or æther—which we must conceive as an impulsive force, acting from the centre outwards, and therefore as expansive, (though at the same time held within limits by the continent force of gravitation,) and which appears to us as *heat*, or as fire—generates, where its working is not uniform, according to thermo-electric laws, positive and negative *electricity*, and these two, in recovering their equilibrium, yield *light*. Or thus: the æther, unequally expanded, becomes polar. Polar æther, is electricity: the collapse of æthereal polarity is light. On which hypothesis the different imponderables were different *motions*, engendering different *states* of the æther; which states may pass one into another—light into heat, heat into electricity. Where these

motions are suspended—that is, when the æther is comparatively in a state of rest—there are exhibited cold, darkness, and cessation of the electric and magnetic tension.

This theory leaves untouched the question whether the undulating æther itself pervades the corporeal substances which its motion encounters, or whether it merely propagates its undulation through their mass, by communication of motion to their atomic particles.

The solar light we may consider as generated by the continuous resolution of a continually renewed electric tension between the body of the sun and his atmosphere, or between the different strata of the latter, producing a phenomenon similar to what we call sheet-lightning, or to the aurora borealis, but more general, uninterrupted, and intense.*

This incessant alternation of electric tension and resolution in the sun's atmosphere would find a sufficient ground in the supposition of a polar antagonism between the sun and the bodies which revolve round him. For the different points of the sun's surface, as they presented themselves to any one of these orbs, would necessarily acquire an altered electric tension, thus giving room for a new equalization of electricity, that is, for a production of light. Now, as these points of (so to speak) *quasi*-contact are perpetually changing, (especially when we take into account the different influences of the comets,) it is evident that the balance of electricity in the sun must undergo perpetual disturbance, and be perpetually in the condition of resuming its equilibrium, which, however, it finds, only to be thrown out of it again the same moment. Thus, the generation of light and heat at every point of the sun's surface proceeds without interruption.†

The action of the sun upon the earth and her atmosphere generates, as the successive parts of her surface are, by her diurnal revolution, presented to his rays, an electric current, and at right angles to this, a magnetic. Where the influence of the sun is most direct and powerful, within the tropics, the electric light is frequently seen to traverse the atmosphere as a continuous stream, indicating a process analogous to that which we have supposed to take place in the sun himself. In our latitudes, where the electric balance is less violently shaken, the recovery of its equilibrium is announced in the separate lightning-flash. The light produced by combustion, by fracture, pressure, and friction may, as well as the solar and meteoric light, be referred to different modes of electric action.

If we know but little, and that not certainly, of the nature and origin of the imponderable agents, their effects, at least, are more familiar to us; and it may be shown that they are immediately or mediately, the causes of most of the qualities of bodies, or that they afford the conditions under which those qualities are to be developed. Colour and temperature refer themselves at once to light and heat. Heat also determines the density of bodies, or the degree of cohesion of their particles. The influences of electricity on the form of bodies is proved by the phenomena of crystallization; and this agency, as the ground of chemical affinities, presides also over the combination of the elements of which bodies are constituted. Ritter has conjectured that cohesion has its ground in magnetism.

The progress of physical research is showing more and more how great are the modifications to which these agencies are subject. The rays of heat are, no more than those of light, alike in their capability of traversing those bodies which are their proper conductors; so that, according to Melloni, we have to admit colours of heat as well as of light. Electricity presents greatly modified appearances, according as quantity or intensity predominates in its action; hence the most important differences are observ-

* When a piece of charcoal, under an exhausted receiver, was subjected to the action of the voltaic pile, a light was evolved as strong as that of the sun. The charcoal, naturally, underwent no loss of substance, as no combustion could take place. Here, then, was presented an artificial sun.

† The dark and bright spots in the sun arise, on this hypothesis, from lowered or heightened electric action in his atmosphere.

able in the working of electricity, according to its immediate origin, as electricity of friction, thermo-electricity, or electro-magnetic influence. According to Delarive's observations, the electric currents themselves are not homogeneous, but present as great, and even greater differences than those observed by Melloni in the rays of heat. Who knows but magnetism, which we have at last learned to recognize as a power equally enlarged in its sphere of action with electricity, may, to our further research, exhibit corresponding modifications, and enable us to account for many qualities of bodies as yet unexplained? The definite relation in which magnetism stands to heat gives a new proof of the intimate connexion and interdependence of these universal powers.

From the forces of inorganic nature we pass to those the agency of which is observable in organised bodies. The alchemic power of assimilation is one of the most remarkable properties of the living organism. Recent experiments have shown that the organic principle does not merely effect new combinations of the substances which it takes up in the way of nutriment, but that it has the power of actually transforming into other substances those which our chemistry contemplates as primary or simple substances. Thus Schrader and others sowed cress in powder of sulphur, flint, oxide of lead, &c. The germinating plants were irrigated with distilled water. In the ashes of these plants were found exactly the same constituent parts which are found in the ashes of such as grow in the open field.

Now as organic bodies, by virtue of the principle of individual life that works in them, impress their own peculiar character on the substances which they take up, so do they possess the power of doing this also with the universal forces of nature. The organism takes in and interiorly subjects to itself the cosmic (ethereal) fire, which it modifies according to its own ends.

It is, on the whole, much more natural to seek in the organic forces only, modifications of those of [universal nature—though how these modifications are wrought by the principle of life, remains unknown to us—than to assume a number of powers and of substances, essentially different from and without relation to those which present themselves throughout nature generally. The error is, however, to be guarded against, of making forces identical that are only analagous; of asserting, for instance, that the nervous and electric agencies are one and the same, instead of only referring them to a common ground. The organic phenomena may be expected to exhibit every where resemblance to those of light and its cognate forces, but no where entire sameness with these. In the low and imperfect organisms of certain fishes, worms, and insects, these forces present themselves in their least modified form, affording hereby a presumption that in the more highly developed systems of the superior animals, and above all in our own cerebro-nervous system, as the most perfect organism existing, these universal activities are more and more altered, more and more assimilated to the principle of life and of psychic action which they serve. A higher agency nowhere, be it in the domain of nature or of spirit, abolishes or extinguishes a lower; but subdues, appropriates, and assimilates the latter to itself. The evolution of light by the glow-worm, by the minute phosphorescent *infusorium*, is a phenomenon of higher order than the gorgeous coruscations of the aurora borealis, or the terrible unloading of the thunder-charged strata of the clouds, for it is a phenomenon of life; but the process in the higher and in the lower phenomenon is at ground the same; the life that is seen directing the former does but impress its own character on the elements which it has taken from an inferior and wider sphere.

The experiments of Rengger prove that the shining of the eyes of different animals at night has another ground than that of a mere reflection of the light from without. The eyes of the night-ape were observed to shine only when the darkness was very profound, and the light they then emitted was so strong as to render distinguishable objects at a distance of eighteen inches from the eye of the animal. In the *canis azaræ* the shining ceased when the optic nerve was divided, or injured; but injuries of the cornea or the iris did not affect it.

The phenomenon of animal heat is too general to need being particularly dwelt upon. The extremely low temperature at which animal life can subsist, as well as the high degrees of heat which the living organism can support, proves how much this power stands under the control of the vital principle:—

"The doctrine," remarks Schubert, "promulgated chiefly by Lavoisier, that the heat of the body is produced by the combination of the carbon and hydrogen of the blood with the oxygen of the atmosphere, in respiration, has been amply refuted by the observations of Brodie and Chossat. Heat ceased to be generated, nay, the upper part of the body (in which the function of respiration takes place) was the first to exhibit a deathlike coldness, as soon as the influence of the cerebral upon the ganglionic nervous system was arrested, by injury of the spinal cord above the fourth vertebra, or by deep wounds of the brain, although respiration, and consequently the therewith connected process of combustion in the lungs, held its accustomed course, and carbonic acid and hydrogen gas were generated in no less volume than before.

"De la Riva's hypothesis, then, would appear not to be without foundation, that animal heat is produced by a reciprocal action of the cerebral and ganglionic nerves, in the same way as heat is generated between the points of two wires, by which the positive and negative electricities discharge themselves."

It is evident, from the foregoing generally, that many of the processes of organic life are nothing more than modifications of the action of the imponderables in inorganic nature, the principle of individual life being the modifying agent. The way in which the individual organs and the systems to which they belong act and re-act upon each other, resembles the mode of action observed in the imponderables. In like manner, the relation between the organism and the external world, where it is not merely mechanical, is in a great measure a mutuality of action and re-action between these elemental forces and their cognate, the nervous fluid.

The proper conductors of a dynamic working in the living body are the nerves; but that such workings also take place without the intervention of these conductors, the sympathies often observed between one particular organ and another are a proof. It often happens that the sympathizing organs stand in much slighter and less direct nervous connection with each other than with other organs lying in their neighbourhood; yet this does not lessen their mutual influence, which perfectly resembles that of two poles, of which each, notwithstanding the distance between them, determines the state and action of the other. The nature of the interjacent organs has no influence on these sympathies: the action of the engaged parts on each other is as little intercepted by the structures that separate them as that of the magnet on the iron is by an intervening slab of marble or wood.

The wonderful sympathy which subsists between mother and fœtus is the transitionary link between that of organ with organ in the same body, and that of two bodies separately existing. Hence it is the key to all immediate, (or what we may call preter-organic,) actings of organic beings upon each other. For here intersect one another the orbits of our two-fold life—the individual life subsisting for itself, and the life in common with others, as parts of a whole. Every separate organ has a certain, though very subordinate, self-subsistence; a higher self-subsistence has the germinating new life within the organism of the mother; a far higher the child, that draws its sustenance from the mother's breasts; but mother and child abide yet ever inly bound together, be the individuality of the latter at what stage of its development it may.

A similar action of one living organism on another, without organic mediation, also takes place in the incubation of birds. A pair of cropper-pigeons—so relates Stark in his *Pathological Fragments*—had lost one of their lately hatched young, by death: to repair this loss, a young tumbler was put into the nest; while the old doves fostered this new nursling, an additional number of their own young were hatched, and this new progeny showed no resemblance to the parent-birds, but were in all respects like the nursling.

Bechstein set pigeons of a particular species to hatch the eggs of another species, varying markedly from these, both in form and colour. The young

brood presented not a trace of their real parentage, but perfectly resembled their fosterers.

Thus the energy of *life* tells, in ever widening circles, without mediation of material conducting machinery, first from organ to organ of the same body, then upon the life germinating into separate subsistence in the midst of the mother-organism, next upon the egg already loosened from its connection with this organism, and finally upon strange eggs. The vital principle draws, under certain circumstances, even the strange organism into its sphere of action, and works on this, as on its own body: the dynamic working, in such cases, becomes at last a material, *plastic* working; the imagination, from a subjective, becomes an objective *imaging power*. Thus *life* acts, alchemically, upon other life, that comes into its sphere of action,—transforms, assimilates other life to itself, and makes this its own organ. Such a sympathy presents itself sometimes between wholly separate individualities, carrying us a step farther than the relation of the embryo to the mother: of this kind is the extraordinary *communio vitæ*, often observable between twins.

Rey gives an account of two twin brothers, of whom it seemed saying somewhat less than nothing, to say they were like each other: you were rather inclined to say they were one man in two subsistences—an identity twice told, an individual who had the power of appearing double. The mental correspondence was as perfect as the bodily. They devoted themselves simultaneously to commerce; simultaneously they became tired of buying and selling, and took military service. They had so absolutely the same exterior, that any person, to whom they told their names, if they thereupon withdrew, and returned again the next minute, found it quite impossible to say which was which. Indeed, this point, which was which, seems to have been a point which, to the last, never was settled to the satisfaction of any one but themselves. If there *was* a difference between them, they alone were privy to it. Voice and speech, manner and gesture, were the same; not a trick of hand, eye, foot, not a pet expression, had the one, but the other had it also. The Christian name was the only distinction between them; but which was John, and which James, was a secret of which their own breasts were the sole depository, and the secret died with them.

The twin-brothers, Laustaud, male sick-nurses at the hospital St. Eloi, in Bordeaux, always took ill exactly at the same time, and both together became subjects of cataract.

The foregoing has shown us how the imaginative power of the animal soul acts immediately, that is to say, without the mediation of organs, upon strange bodies. The *rationale* of this mode of action lays open the whole region of those forces to which animal magnetism belongs.

In the lower grades of animal life, the organic force does not yet definitely develop itself as nervous force: the nervous system lies, as yet but potentially existent, in the indifferent corporeal mass. Nevertheless, sensation is already present, even in these imperfect organisms, though obscure and indistinct, before the nervous structure has evolved itself out of the slimy substance of which these lowest animals consist.

Where a nervous system exists, it is (at least in a healthy state) the sole vehicle of sensation, and the sole operator of animal motions. But the nervous energy is capable of extending its operation beyond its material organ. Instead of terminating its action at the extremity of the nerves, the point at which sensation arises, it oversteps this limit, and exercises an immediate influence upon objects more or less remote. This seems to be the most natural explanation of all the phenomena of animal magnetism.

The decided resemblance which the nervous force, in its ordinary way of acting, presents to the imponderable agents, makes it the more conceivable that the former, like the latter, may also be capable of propagating its action through a certain interval of space, the interjacent media, such as the air, here serving as conductors. The facts adduced above, of the working of the mother upon the embryo, and of the incubating bird upon the egg, here find their explanation; as does also the undeniable influence, which the eye, the touch, the very proximity of some men has upon others, especially upon such as are of a susceptible nature.

The temporary insensibility of the nerves in cataleptic and ecstatic states, the extensive loss of substance which the brain may suffer with little or no disturbance of the mental functions, and the specifically different sensibility of the different nerves of sense, (the nervous substance presenting no difference), render it probable that a subtle organic fluid, as substratum of the nervous force, permeates the palpable substance of the nerves, and is capable of retiring from, as well as of passing forward beyond their extremities. For this hypothesis of a nervous fluid, distinct from the palpable nervous substance, speaks also the capability of particular nerves to take up vicariously the functions of others.

"There is, without doubt," says Treviranus, "a specific difference in the functions of the different nerves; but, nevertheless, there must be at the same time a capability in them, in a great measure, to act one for another. There is no nerve of motion that has an uninterrupted course from the brain or spinal marrow to the exterior of the body, wholly without the power of sensation; and, perhaps, the proper nerves of sensation are incapable of exciting motion, only because their action is not directed upon muscles. In some animals the place of the optic, in others that of the olfactory nerve, is completely, or for the most part, supplied by branches of the fifth pair; and animals exist which manifest an intense sensibility to light, without being furnished with eyes."

The existence of a nervous fluid, (organic æther,) seems to be further indicated by the peculiar sensation which magnetizing and magnetized persons very commonly experience, as of an efflux and influx, such as is felt in electrical operations, and a feeling as of cobwebs at the fingers' ends, or of a wind playing about those extremities. The electrical character of the agency here at work, is placed almost beyond doubt by the fact, that sparks are sometimes evolved from the operator, though only in the case of men endowed with a more than usual share of Mesmeric influence.

Thus, when Richter, the magnetizer of Lutheritz, brought the points of his fingers into contact with the palm of the hand of a susceptible person, at the same time that he applied his other hand to his back, and, after some seconds, when the hand was warm, drew the points of his fingers smartly away, the patient felt an electric shock, and, if the experiment was made in the dark, a spark was perceived. In patients afflicted with gout, he detected the seat of the pain, and the extent of its radiations, by an influence which held his hand fixed, as soon as it touched the affected parts: he felt also, in the case of flying pains, in what direction their course was. His hands exhibited moisture when he rubbed the diseased parts; but as soon as perspiration presented itself in these, his hands became dry. These appearances prove that the magnetic influence reacts upon the nervous economy of the operator.* Richter did not willingly Mesmerise when the weather was cloudy, the reaction on his system being at such times more severe.

If we be right in placing the magnetic influence in a nervous principle, extending its operation beyond the palpable nervous substance, it is easy to see with what force psychic influences must, in all exercise of this agency, come in. If the soul can, by means of the nervous principle, mould and transfigure even the solid parts of the organism, so that, for example, in the features of the face, the degree of mental elevation or debasement, cultivation or rudeness, permanently imprints and expresses itself, it may well be conceived that this psychic influence should be as great, and still greater, where the nervous principle, in its ministry to the modifying soul, is no longer bound to a corporeal organ. The more susceptible to magnetic influences any one is, the more sensibility will he also have for the psyshic ele-

* Mesmeric reaction, to any extent involving inconvenience to the physician, is, according to Ennemoser, of rare occurrence. As an instance of it, however, he mentions the case of a friend of his own, who, having a dropsical patient under magnetic treatment, was alarmed to perceive the *rapport* announce itself in the swelling of his hands; a circumstance which induced him to give up magnetic practice altogether.

ment contained therein. Thus, the effects of animal, or, better, vital magnetism (*Lebensmagnetismus*) have a widely extended compass. From the lowest manifestations of animal life they reach up to the highest workings of the soul, of which also the nervous principle is the organic medium. Hence the great difference in the dignity of these effects. Many phenomena of life, in the lower animal world, find in this zoomagnetic agency their explanation. Here, the organic principle ministers to the mere animal impulse—to instinct. The highest expressions of spiritual activity, the immediate influence which the inspired or the energetic man exercises upon other men, likewise find in this same zoomagnetic agency their explanation. Here the organic principle is the minister of the free-will. Between these two extremes, the gradations are infinite, rising, step by step, from the incipient stirrings of life, in a region where the operation of material laws is only a shade less absolute than in the processes of the inorganic world, up, first, to the ordinary life of man, wherein the bodily and the spiritual exist in a state of hollow alliance and mutual compromise, and hence, ascending by loftier and loftier flights, to a region in which the spiritual, the will, sways and determines the natural, modifies, dispenses with, subordinates to its own freedom the material law, makes of its whole environment, animate and inanimate, the organ in which, and by which, it acts, while it is itself the organ of the absolute will, out of which all laws of all existence, psyshic and material, in the beginning went—and ever do go—forth.

The nervous force, acting beyond the sensible limits of the organism, is, according to the above, the cause of the phenomena termed, not very happily, Mesmeric. The organs by which chiefly such an extraorganic direction and activity are impressed on this force, are the hand and the eye.

"The most usual way of magnetizing," says Ennemoser, "and, as many erroneously believe, the only way, is by the hand. The hands are the proper organs of the will, through which volition becomes act: as the body in general is the visibility of the soul, the manifested psychic subsistence, so the hands are, especially in their movements, the physiognomic indices or features of the will in its constitution and manner of working. But in like manner as the hands execute what the spirit within determines, so are they also the most natural conductors of the direction and fixation of physical energies."

"The hand," says Passavant, "is the organ in which the sense of feeling becomes sense of touch, and thus emerges into freedom, in the power of seeking and examining its object. Through the erect posture of man the hand is an emancipated organ, which, instead of serving to the support or the progressive motion of the body, becomes a comprehensive organ of the spirit. From the continual activity of the sense of touch, a greater consumption of nervous force goes on at the hand, particularly at the extremities of the fingers, and in consequence, probably, an increased efflux of the nervous æther: this process may be heightened in intensity through the influence of the will. In all ages a healing virtue has been attributed to the touch, to the imposition of the hand on suffering parts of the body; and from the earliest epochs of man's history has this organ been lifted up to bless and to curse. A custom in which all nations and all times have shown so singular an agreement, can have no mere arbitrary or conventional ground: it must find its import in the nature of the organ itself; and this is contained in the circumstance, that the hand is, in man, the freest member of the body, and that, as organ of the sense of touch, it is ordained to be the dispenser of the effluent nervous æther."

Passavant's directions for the magnetic manipulation are exceedingly simple. The hand is to rest either on the parts affected (where the disease under cure is local), or on those places where the most important nervous structures are situated—namely, in particular, upon the head, and upon the region of the stomach, the former the centre of the cerebral, the latter of the ganglionic nervous system. Passes made with the points of the fingers or the palm of the hand, whether with or without contact, must (as a rule), in order to work beneficially, be carried from above downwards, from the brain towards the extremities. According to Ennemoser, the greater the quietness and uniformity with which the process of manipulation is carried on—the less there is of bustle, gesticulation, and ceremony—the more advantageous will it be to the patient, whose imagi-

nation should be as little as possible appealed to, his composure as little as possible disturbed, by what may strike him as oddity in the procedure he is subjected to. It were best if the manipulation wholly escaped the notice of the patient; so that the magnetic effects should steal upon him unawares, without his having been previously agitated by the expectation—perhaps the fear—of a mysterious power, strange to his experience, and the anticipated approach of which must involve, one should think, feelings of a somewhat uneasy curiosity.

Next to the hand, the eye is the organ through which, principally, man exercises an immediate psychic influence both on men and beasts. From of old has the power of working magically, that is, of carrying the impulses of the will without the limits of the organism, been attributed to the eye. The fixed gaze of a malignant soul, which, as St. Thomas says, is often to be met with in old women (*ut in vetulis sæpe contingit*), was supposed to work with deadly effect upon unresisting subjects, particularly upon children, and even to exert a baleful influence on the atmosphere. Virgil has indicated in the line—

"Nescio quis teneros occulus mihi fascinat agnos,"

the belief of his time on this point; and Rousseau assures us that he killed four toads in Egypt by what Mr. Tappertit would call "eyeing them over." However, on making the experiment on a toad at Lyons, the reptile, being no benighted Egyptian toad, but an enlightened French one, and on a level with the intelligence of the age, not only did not die, but returned his look with such malign effect, that he swooned on the spot. The eye, as Passavant remarks, has this in common with the hand, that it not only receives but gives—not only is itself the subject of sensation, but causes sensation in others. While the senses of taste, smell, and hearing are only receptive, the hand and the eye are at the same time acting, magically working organs.

"The eye," he proceeds, "is the telescope through which the soul discerns, the mirror in which she is discerned, and the telegraph whereby she announces the hiddenest feelings. No passion so base, no dignity of soul so high, but it speaks out and reveals itself in this transparent organ."

Jean Paul says in a letter to a friend—

"Twice, in a large company, I nearly put Frau von K. to sleep, through mere fixed gazing on her with that intention, whereof nobody knew: her heart palpitated and she turned pale, to that degree that S. had to doctor her."

But magnetic workings may take place without employment of either the eye or the hand. The approach of the physician is fraught with a powerful influence on the patient; and Friedrich Hufeland's conjecture seems not to be without foundation, that physicians often exercise a magnetic power without having themselves suspicion of it, and benefit their patients more hereby than with their prescriptions. Mr. Braid's method of "hypnotising" perhaps derives its efficacy in part from the magnetic influence which he unconsciously exerts: it may be doubted, at least, whether his patients would not take much longer to become "hypnotised," if they sat and squinted at their eyebrows in a room by themselves.

Continued and repeated magnetizing produces frequently, though not always, sleep. This is, according to Ennemoser, one of its most salutary properties.

"Sleep," he remarks, "is the first of medicines in all such diseases as consist in, or are accompanied by an inordinate degree of excitement and over-activity of the system, and in which the inward harmony of the different organic workings is disturbed. When once we are fortunate enough, in nervous affections, in fevers, in pains of whatever kind, in mental diseases, in madness, &c., by any means to procure sleep, crises of amendment begin to present themselves; but in no case so strikingly and so surely as in consequence of the sleep produced by magnetism."

The great advantage of this kind of artificial sleep, besides its extreme profoundness, involving insensibility as of death, is that it avoids the use of those narcotic substances which, whatever immediate relief their employment may bring, are, through their deleterious

action on the brain, fatal to the subsequent healthy working of the functions both of mind and body.

"The magnetic sleep," says Passavant, "distinguishes itself from ordinary sleep, inasmuch as it is deeper, and thus that the connection of the sleeper with the external world through the common organs of sense is in a higher degree suspended. In ordinary sleep, the susceptibility of the senses to outward impressions does not wholly cease: a light, a sound, a touch would, were this the case, not be capable of awaking us. But in the deep magnetic sleep the cessation of sensibility is complete: the most dazzling light, the loudest noise, nay, sometimes pinching, cutting, and burning cannot awaken the individual sunk in such sleep. It is a transient sleep of death."

The question here arises—How does magnetism produce sleep? How can the working of the nervous principle of one man upon that of another, cause, in the latter, such a withdrawing from the external world, and such a concentration within himself?

When the magnetic agency has been but a short time employed, for example, in cases of local working upon parts affected with pain, this does not take place; but only there, where the whole nervous system of the patient is forcibly and for a length of time acted upon by the magnetic power of the magnetizer. The most natural explanation, *i. e.*, that which most connects itself with already known laws in nature, seems to be this: when the separate nervous forces of two persons are brought to bear upon each other, with a preponderance of activity on the one side, and of passivity on the other, there is formed a relation of polarity between the two nervous principles. Now since, in the individual man, nervous polarity expresses itself in the contrasts of waking and sleep, of a radiation and a concentration of the nervous force, there will, when the forces of *two* nervous systems become polar in relation to each other, be presented the same contrasts in the two subjects of this relation. In the same nervous system the contrasted actings could only manifest themselves in alternation: the *rapport*, or interpenetration of sensorial life between the Mesmeriser and his patient, first renders possible the exhibition of them simultaneously. The above is Passavant's representation. Friedrich Hufeland puts it somewhat differently, though the principle is essentially the same. According to this distinguished physiologist and physician, the sympathy which unites the magnetizer and the magnetized, like every dynamic combination in nature generally, can take place only through the medium of antithetic interdetermination of positive and negative. But if the several parts of any one organism possess a polarity, similar to the magnetic, which connects them into a living whole, then, since the Mesmeric agency can only be brought to bear upon the peripheric pole of the subject to be Mesmerised, and this must be considered as *homonymous* with the peripheric pole of the Mesmeriser, to render an agency of the latter upon the latter possible, an *inversion of the poles* must take place, according to the well-known law by which, in the inorganic region, the stronger of two magnets, the homonymous poles of which are brought into contact—north pole with north, or south with south—has the power of inverting the poles of the weaker, so that the poles in contact become contrary, and, instead of repelling, attract one another. This phenomenon, according to Hufeland, expresses the law, from which the effects of Mesmerism must be deduced. The *rapport* will, accordingly, be the more easily established, the weaker the polar force at the extremity of the nerves of the patient is.

In the successive development of the Mesmeric stages, as given by Kluge and others, the sensorial power is seen passing from the positive pole, (where it is in the state of ordinary waking,) through the centre of indifference, (magnetic sleep,) to the negative pole, which thus becomes positive (in clairvoyance), while the ordinary positive pole becomes negative. The sense, open to outward things, gradually closes to them, and, after an interval of total abeyance, opens again as gradually in the opposite direction, to the apprehension of an inward region. "In sleep," says Novalis, "body and soul are in a state of chemical combination; the soul is distributed in equilibrium through the body; the man is neu-

tralized. Waking is a state of disengagement of the antagonist forces, a state of polarization; in the waking state the soul is determined to a point, localized." What Novalis here says of sleep in general, is true, to its full extent only of the magnetic sleep, in which sensorial life hangs balanced in the point where the opposing attractions of two spheres of being, an outward and an inward, meet and destroy each other, so that the patient's existence, in this state, is a formless dark void, and interval of chaos, through which lies the wondrous way, from the world that surrounds us with its illusions to the world that opens in its deep reality, far, far within us.

The susceptibility to Mesmeric impressions, according to Ennemoser, is in the inverse proportion of the general organic force, and, more particularly, of the nervous power, of the patient. "For, as the individual nerves of the system acquire their polarity from the brain as its central point,—the more powerful the *tension* they receive from within, the more energetically will they, necessarily, work outwards. If the tension be weak, as in sickness is oftenest the case, then will each several part of the system exhibit but a weak polarity, and the whole will be, in relation to a vigorous organism, acting upon it, just what the weak magnet is to the powerful one: in other words, its polarity will, in coming in contact with the other become inverted, and it will be attracted by the organism, of the solicitations of which it is the object. *This attraction often becomes sensible to the eye*, and the cause of it seems to be that the cerebral nerves of the person attracted do not receive their polarity from within, but from without, namely, from the organism of the magnetizer, hereby becoming as it were parts of the latter, incorporated with him and dependent upon him. Thus, the two persons standing in this relation of sympathy towards one another become in a measure fused and blended together into one individuality; and so the phenomena of *rapport*, between the patient and the physician, those mysterious transferences of sensation and of sentiment, find their explanation in known laws of physiology."

The sensible attraction here referred to, between the magnetizer and the magnetized, is a phenomenon by no means uncommon. Professor Agassiz, in his highly interesting account of his having been Mesmerised by Mr. Townshend, having described his sensations during the process, the state of half-sleep into which he was brought, and his being finally recalled to a waking condition, says, "he (Mr. Townshend) then told me, and M. Desor repeated the same thing, that the only fact which had satisfied them that I was in a state of Mesmeric sleep was the facility with which my head followed all the movements of his hand, although he did not touch me, and the pleasure which I appeared to feel at the moment when, after several repetitions of friction, he thus moved my hand at pleasure in all directions."

In cataleptic states, particular parts, as the hands and feet, may be brought into my position, at will, by the hand of the magnetizer, which they follow as the iron does the load-stone; and Ennemoser relates, not only that the hand of a patient followed all the movements of his finger, without contact, but that, when contact took place, the two surfaces (of the operator's finger and the patient's hand) adhered with such force that demagnetizing passes were necessary to separate them. But effects still more striking attended the experiments of Doctor Nick, who, merely holding the points of his two thumbs towards those of his patient, as the latter lay in magnetic sleep on the floor, lifted her up, and placed her standing, unsupported except by his neuro-magnetic attraction. Doctor Spiritus records a similar case of electric (?) attraction with the thumbs.*

But it is not only by their magnetizers that patients under the influence of this singular agency are attracted. Ennemoser saw the hand of a magnetically-sleeping female drawn to an iron nail, from which it required a greater degree of violence than he

* A glimpse of the cloven foot! Doctor Spiritus!! Doctor Nick!!! The very *incognito* laid aside! It is of a piece with the Jesuit Hell. If *this* does not open people's eyes it is to be feared the Penny Pulpit never will.

judged it expedient to employ to bring it (the hand) away again. Again, some persons under magnetic influence are attracted by liquid surfaces, though the very reverse was the case with Kerner's patient, the world-renowned Seherin von Prevorst, for whom water had such a repellency that it was impossible to get her into a bath, with her own and her attendants' greatest efforts. This reminds us of one of the commonest witch-ordeals of the middle ages. Little doubt can be entertained that the greater part, if not the whole of the bewildering effects which that era set down to the account of necromantic or demoniac agencies, had their true ground in the zoo-magnetic principle. That the unfortunate beings accused of witchcraft, in many cases believed themselves guilty, does not militate against this solution of the riddle. Nothing is more common than for a Mesmeric clairvoyante of the present day to describe herself, with perfect good faith, as being in communication with angels, and with the souls of departed men, good and evil. Spirits of health and goblins damned enact, before the inward eye of the entranced sleep-waker, the wonderfullest dramas, by no means classical, but of the Shaksperean-romantic stamp, such as no Greek or Frenchman could abide to behold—for your Greek and your Frenchman, look you, shall desire to see a world as it ought to be, as a cook and a dancing-master, a tailor and a philosophe would have made it, had circumstances allowed—and not in any wise a world as it is, as One made it, who also made the things which have made themselves cooks and tailors, dancing-masters and philosophes—but this is a digression.

Whether the purely spiritual element, the will exercised in faith, or the mechanico-material element, a system of passes and manipulations, and the therewith connected agency of a fluid, differing from any drug in the chemist's laboratory only in the degree of its subtilty, be the true cause of the Mesmeric phenomena, is a controversy which has been carried on to this day, with great heat, and with very little insight. The advocates of the spiritual and those of the material theory are, probably, both of them right in their affirmative, and wrong in their negative—both of them in error only inasmuch as they are exclusive, in so far as each does not recognise, in the system of the other, the complement of his own. Each is right in holding himself to be right; each is wrong in holding his opposite to be wrong. The truth includes both doctrines; not as being eclectically made up of whatever is best and truest in what both sides respectively hold—for the being of truth is as far as possible from the constitution of a mental pic-nic—but as being that original unity, of which two conflicting parties do each behold one of two inseparable aspects. Of how few controversies, religious, political, or philosophical, is this not the *rationale*. Every where it is the shield, with its side of silver, and its side of gold—and so few have thought and patience to ride round, and see both sides. Of most disputes about principles, the true word of reconcilement, and resolution of discord, were the enunciation of the law of polarity.

Schopenhauer seems to have propounded the best solution of the question between the spiritualist and the materialist parties, wherein the compatibility of their opposite doctrines, and even the need which they have of each other as corresponding opposites—as obverse and reverse of the same medal, is shown:—

"Since," says this writer, "according to my doctrine, the organism is nothing else than the will itself manifested in an objective form, the outward act of manipulation coincides with the inward act of volition. But when effects are produced without the former, this is in a certain degree artificially done by a circuitous way, the phantasy supplying the place of the outward act; but this way is more difficult and seldomer effectual, as Kieser truly says that the spoken command, 'Sleep!'—works more effectually than the bare inward volition of the magnetizer. On the other hand the manipulation, the outward act in general, is an infallible means to fix and engage the will of the magnetizer, just because outward acts without volition are not possible. Hence we see how magnetizers sometimes operate without a conscious effort of will, and almost without thought, and yet produce effects. As a rule, it is not the consciousness of volition, the reflection thereupon, but the pure act itself, as little as possible made an object of

cogitation, that works magnetically: hence, all thinking and reflecting, as well of the physician as of the patient, upon that which on either side is done or suffered is expressly forbidden, and it is recommended that the whole process be carried on, as far as may be, without being brought before the tribunal of consciousness. The true ground of all which is, that here the will, in its primary being, in and for itself, is operative."

We may briefly say, an action without the organism is as dependent upon the will as an action within the organism; but as the will, acting within the organism, indispensably needs the ministry of the nervous principle, so neither, in extending its action beyond the limits of the organism, can it dispense with this ministry. What it cannot do within the organism, if the nervous communication be interrupted (if the nerve of motion going to a particular organ be cut), that it cannot do in a foreign organism, having no communication therewith. The body does nothing without the soul; the soul nothing without the body; for the body and the soul are one, a living and working whole—and either without the other is, practically, a nullity.

Mr. Braid's experiments, interesting and instructive as they are, do not afford a basis of sufficient width for the theory which he builds upon them, neither does this theory by any means explain all the phenomena of Mesmerism. The whole subject of what is called *rapport*, namely, as well as that of the lower sleep-waking, to say nothing of clairvoyance, lies, so to speak, out of its beat. So do all magnetic effects, produced without the previous knowledge of the patient, such as Jean Paul's, one is pained to say, quite indefensible proceeding towards the Frau von K., such as Mr. Townshend's not much more commendable operations in regard of a fellow-passenger by the mail-coach, and a host of other cases. Mr. Braid, while holding his lancet-case for his patient to stare at, is magnetizing the latter by his volition, without suspecting it; and there is reason to believe that he would, by magnetizing with his eye or hand, produce effects which would surprise himself. There is, however, such a thing as self-magnetizing, without help of another, which no doubt here also plays its part. Jacob Böhme fell at once into ecstacy and lucid vision of the highest degree, by an accidental look into a bright tin platter. Light, direct or reflected, is a powerful magnetizer. If Mr. Braid made his patients stare at the moon, instead of his lancet-case, the effects would probably be curious. Light has a peculiar affinity to the nervous fluid, perhaps the nearest in nature. For the rest, this mode of casting into the magnetic or nervous sleep, while it spares the physician, throws too much exertion upon the patient, and seems less to avoid the deleterious effects of narcotic medicines than any of the more common Mesmeric processes.

In conclusion, a word of warning:

"Let no one," says Dr. Ennemoser, "magnetize merely for experiment, or in order to gratify one's own or another's curiosity. Such experiments lead to nothing profitable, and may have embarrassing consequences."

By a single magnetizing a latent germ of disease is sometimes awaked, and a rapid development of the evil follows, which he who has called it forth may not be able to control. It is impossible to read without indignation the directions given to amateur magnetizers by a Mr. Gardiner, of Roche Court, as quoted by Mr. Lang in his valuable little work, (of which the intrinsic worth is indeed in the inverse ratio of its bulk):—

"Advance to your subject as an experimentalist. Say nothing to any body; select for your trials a person of a sedate character, and not too young. Shut yourself and the patient into a quiet room, with no spectators."

Then follow directions as to the process to be used, whereby, we are told:—

"It is more than probable that, ere the lapse of many minutes, you will feel and see the establishment of your power. . . . . Should no effect ensue in half an hour, I would advise you to desist, and try another patient. If effects be produced within that time, go on until you see that they do not increase, and then demagnetize, &c. . . . and try the same

patient again the succeeding day, and go on till you produce all the higher phenomena."

This is deserving of the strongest reprobation: such tentative magnetizing is a sporting with bodily and mental health which cannot too severely be censured, and which would least be tolerated in countries in which the effects of the formidable agency thus rashly summoned into exercise are best known. In this first half hour's operations, just the most important, though least immediately perceptible, effects may be produced. The dilettanti may find that he has put machinery in motion which it exceeds all his powers and his skill either to direct rightly, or to stop. It is easy to say, "demagnetize by transverse passes, and blowing on the face and head upwards from the neck, or other means;" but cases are daily occurring which show that the laic in these things may find it a far more difficult task to bring the luckless subject of his foolish experiment out of, than into, a very alarming state of coma. An American writer on Mesmerism, the Reverend Le Roy Sunderland, on this point says very wisely:—

"But it often happens that persons succeed in putting others to sleep, and find it impossible to waken them again. What shall be done in such cases? Answer—learn to be more careful how you meddle with an agency of which you know so little. We have known serious results to follow the operations of persons when the motive has been mere curiosity."

If the first half hour's efforts produce no (apparent) effect, the "experimentalist is advised to "desist, and try another patient," dismissing the first as impracticable, or, as Mr. Gardiner expresses it, "tough." But no magnetic procedure abides wholly without consequences, though these may escape the cognizance of an unpractised eye. A "tough" cord may not betray, to hasty observation, the effects of the tension it has undergone, though this has brought it to the very point of snapping.

The only legitimate way of studying Mesmerism is as pupil of some intelligent practitioner, just as any other branch of medical science is to be studied. Let the student accompany the magnetizing physician in his professional visits; let him see the procedure of his teacher, and when the latter judges it fit, operate under his superintendence. Not by blind experimenting and feeling of his own way, but by witnessing the practice of one who already knows what he is about, let him learn to recognize the symptoms of Mesmeric affection, so that when they afterwards present themselves under his own hands, he may not be taken by surprise, nor see himself suddenly placed in a labyrinth to which he has no clue. With all the variableness and inconstancy alleged as characterizing these symptoms, there is yet on the whole such a degree of general uniformity as to enable the experienced Mesmerist to discern the bearings of the case, to find his latitude, and judge what he has done, and whether he is in the way to do good or not.

But never should Mesmerism be applied otherwise than remedially, and with the defined and exclusive intention of curing a present disease. To this object should the operator go by the straightest course, and have done with his case as soon as possible. There should be no secondary or collateral views—of making experiments, of satisfying one's own or other people's curiosity, of parading marvels, of making converts. As in general medical science, so here, that practitioner will institute the most instructive experiments who thinks not of experiments at all; and the discoveries most conducive to the further progress of knowledge will spontaneously evolve themselves from the procedure of him who with most singleness of intention applies to the benefit of his patient the knowledge already attained.