PHILOSOPHY

OF

MYSTERIOUS AGENTS,

HUMAN AND MUNDANE:

OR THE

DYNAMIC LAWS AND RELATIONS OF MAN.

EMBRACING THE

NATURAL PHILOSOPHY OF PHENOMENA, STYLED

"SPIRITUAL MANIFESTATIONS."

By E. C. ROGERS.

"The relations of Physical agents to the animal economy are infinite."—Edwards.

"We stand in connection with the universe by a new and hitherto unsuspected reciprocation."—Reichenbach.

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220. The electrical character of the phenomena in this last case is too obvious to be disputed. The only characteristic we observe in it varying from the law of common frictional electricity is, that this lady could become charged with the agent without that insulation, which, under the former, is found necessary. In this respect there is a perfect analogy with all the other cases mentioned. Thus we have the evolution of the following as a law of this form of electricity; namely, that of a natural insulation in the organization.

221. If now we consider the habits of the electric fish, we see the same law manifested. It retains this agent until the moment of discharging it at its prey. Its action, therefore, is unlike that of the same agent when evolved by a mechanical process, which requires the insulation of the receiver in order to become charged.

222. Organization, then, under peculiar circumstances, alters the condition of electric action from those observed in its usual development in unorganized matter. In the latter there is a uniformity with regard to insulation or non-insulation; for instance, the Leyden jar will not become charged without artifical insulation, whereas in the organism the electric insulation may or may not exist; when the natural does exist, there is of course no need of the artificial. In the fish this natural insulation is uniform, constant; but in human beings it is not uniform, and must therefore depend upon some peculiar conditions. The organism of the Strasburg girl had the power of retaining this force, with which the former became charged, up to a certain degree. The same is manifest in the electric girls of Smyrna.

223. It is evident, therefore, that, under peculiar circumstances of the human system, it possesses a natural electric insulation. Such circumstances may be of rare occurrence, yet one case makes the fact evident; and inasmuch as it *naturally* and *constantly* exhibits itself in the organism of the electric fish, it would be folly to doubt its possibility or probability in man.

224. Now let us notice that in the electric fish the condition which favors this natural insulation is a *nervous*

condition; that is, it depends upon a certain arrangement, disposition, or habit of the nervous matter.* It must, therefore, follow, that an organism brought into this peculiar condition, has been thus brought about by a change in the nervous system.

225. If, now, we turn to the cases we have already enumerated in this chapter, and notice the circumstances attending them, we shall find this inference corroborated by fact, in two of them, which will force the deduction that the same principle holds good in the other also, and would hold good in all cases of a similar type. The Strasburg girl was thrown into this condition by fright, and a consequent nervous derangement. The "electric lady had for two years suffered from acute rheumatism and neuralgic affections with peculiar symptoms." During a somewhat extraordinary display of the Northern Lights, she became so highly charged with electricity as to give out vivid electrical sparks from the ends of her fingers. Had this been merely a charge from the uncommon electrical tension of the atmosphere, existing at the time, it would have ceased with the "heavenly phenomenon;" instead of this, however, it continued for several months, during which time she was constantly charged and giving off sparks to every conductor she approached.

A question arises here of no trifling interest; namely, how far these phenomena, and others we have presented, proceed from the evolving energy of the organism, and how far they depend upon the agent outside of the organism.

* The condition of the other materials of the organism may also enter into the category of circumstances, yet the primary condition must be allowed to be in the nervous system.

CHAPTER VII.

THE EVOLUTION OF ELECTRICITY IN THE ANIMAL ORGANISM — WHAT ARE FACTS ON THIS POINT?

Development of electricity in the animal organism — Matteucci's experiments on muscular contraction — Dr. W. F. Channing's idea — Electric emanation during muscular contraction discovered by M. Boys Raymond — Humboldt's testimony — Muller's discovery — Smee's experiments — Those of Prevorst and Dumas — Ahran's and Paph's — M. Hemmer's — Sir James Murray's discovery of the electric powers of the spleen — Matteucci's experiments on electric currents in the muscles — Nervous current not electric — Influence of the will over the electric discharge — Electric fish — Its electric organ — Power of discharging a current of force from the organism — The decision as to the discharge and direction depending on an action of the brain — The electric power related to the will — The odylic related to the automatic action of the brain — Important difference.

226. It is well known to every chemist, that wherever there is chemical action there is an evolution of electricity. Now the vital force is constantly keeping up a chemical action in the animal organism; it must follow, therefore, that there is a constant evolution of electric agency in that organism. "It would be absurd to suppose," says Matteucci,* "that the chemical actions of living beings, all of which develop heat, and often light, would not be accompanied by the production of electricity." The experiments of Matteucci, upon the muscles of animals, show that they act as elements of a voltaic pile. Thus, "when we connect the interior and the surface of the muscle of a living

* See Lectures on the Physical Phenomena of Living Beings. By Carlo Matteucci, Professor in the University of Pisa. Philadelphia, Lea and Blanchard, 1841. p. 177.

or recently killed animal, by means of a conducting arc, the existence of an electric current is then vigorously demonstrated. This current is always directed from the interior to the exterior of the same muscles. It exists without the direct influence of the nervous system, and is not modified even when we destroy the integrity of the latter."* Further on the same philosopher states "that the existence of an electric current in the muscles has been well demonstrated, and that its principal laws are established. The origin of this current," he continues, "resides in the electric conditions which are produced by the chemical action of the nutrition of the muscles. The blood charged with oxygen, and the muscular fibre, which becomes transformed on contact with this liquid, compose the elements of a pile; they are the liquid acid and zinc."†

227. It is not, however, from the nutrition of the muscular system alone that the evolution of electricity takes place; nor is it to chemical action alone that it can be attributed. It is found also to be evolved in the molecular changes which take place in substances. In fact, it is well known to all philosophers that every change of matter, however slight, occasions an electric development. The conversion of fluid into vapor; the condensation of gases into liquids; the mixture of fluids; the solution of solids in fluids; the local action of heat; the disintegration of substances, or the breaking up of larger bodies into particles; alterations in the relative position of particles; the friction of one body upon another,— all are sources of electric development and action. Now, in this catalogue of material changes, there is scarcely one that is not, more or less, constantly taking place in the animal organism. There is not a muscular movement, voluntary or involuntary, that does not break up portions of the organism into particles; neither is there a motion of the brain, indeed, by thought, passion or emotion, that does not produce the same effect. This change of matter in the organism,— this constant disintegration,—

* Lectures on the Physical Phenomena of Living Beings, page 185.
† Ibid., page 188.

must, therefore, constantly evolve the electric agency. Respiration, circulation, digestion, secretion, excretion, are constantly giving freedom to this force.

228. We may well say, then, in the language of Dr. W. F. Channing, "Not only the exertion of muscular power, but every exertion of vital power, *follows the law of elimination of material forces*, the development of which, from latent conditions, is inseparably attended by a change of form in the associated matter."*

229. It should follow from this, that, by fulfilling the proper conditions, the evolution of electricity during muscular contraction may be detached. Accordingly, M. Emile du Boys Reymond, and after him Humboldt and other philosophers, have, by a very delicate instrument, detected the electric current excited during the contraction of the muscles of the arm.† The current is found to direct itself from the hand to the shoulder. M. Reymond observed the deflection of the needle to amount to 30°, and even beyond this, by alternately contracting the muscles, first of one arm and then of the other, in time with the oscillations of the needle. "On bracing simultaneously the muscles of both arms, very small deviations were observable, sometimes in one direction and sometimes in another. These minute deflexions were evidently caused by the difference between the contractile force of the two limbs. Hence it arises, that when the experiment is repeated

* See Notes on the Medical Application of Electricity, by W. F. Channing, M. D. Boston, 1849.

† The manner of effecting this is thus given by M. Reymond in a letter to Humboldt, which the latter sent to the Paris Academy of Sciences, in May, 1849. Two slips of perfectly homogeneous platina are fixed at the extremities of a very sensitive galvanometer. These slips are immersed in two vessels filled with salt and water, into which also the experimenter introduces two corresponding fingers of his two hands. When this is done the needle must stand at zero, while no exertion is made with the muscles of either hand or arm. If he now strain all the muscles of *one* arm, so as to establish an equilibrium between the flexors and extensors of all the joints of the arm, there will be at once a movement of the needle.

See *Comptes Rendus*, May 28, 1849. Also Annual of Scientific Discovery for 1850, p. 114.

many times successively, the results diminish gradually in amount."

230. "The amount of deviation depends upon the degree of development and exercise of the muscles. The habitual superiority of the right hand over the left, in this experiment, is to be interpreted by the preponderance of the amount of deflection produced by the tension of the right arm."*

231. M. de Humboldt says:† "The fact of the experiment affecting a magnetic needle by the alternate tension of the muscles of the two arms, — an effect due to volition,— *is established beyond the shadow of a doubt.* Notwithstanding my advanced years and the little strength that I have in my arms, the deflections of the needle were very considerable."

232. "Since the announcement of these experiments many persons have tried similar ones, and only in a single case, that of M. Becquerel, has there been any failure noticed."‡

233. Thus we have the highest scientific authority for the fact, that there is not only an evolution of electricity in the muscular system, but that it is appreciable by the galvanometer during the contraction of the muscles. It is due, however, to one of our own countrymen, Dr. Wm. H. Muller, of Pittsburgh, to say, that this latter fact was discovered by him as early as the year 1842. The following is his own language in a communication to the Magnet:§ "What I have ascertained is this, namely, that a comparatively large amount of electricity can be developed in all persons, I may say, of both sexes and all ages, by *muscular contraction*, in a certain position, and only in such a position, together with a proper dryness of the surrounding air. If these conditions are not observed no electric manifestations occur." As his experiments are novel and important, we will state some of them in this place. Dr. Muller had attempted in several instances to verify the results of M. Hemmer's experiments with regard to the electric

* See Annual of Scientific Discovery for 1850, p. 115.
† Ibid. ‡ Ibid., p. 115. § See Magnet for Feb. 1843.

force of the human organism. Having failed, however, he at length hit upon a new experiment. To see what effect a benumbed limb would have upon a gold-leaf galvanometer (the limb having gone to sleep while it lay across the back of a chair), he *arose hastily* and applied his fingers to the cover of the instrument. "The gold-leaf flew instantly to the sides of the glass." This at first he supposed to be owing to the peculiar condition of the hand. He soon discovered his mistake; for, "on rising again, and applying the other hand, which was in its natural state, the same phenomenon occurred." On varying his experiments, he soon found that the phenomenon depended on his rising from a sitting posture. He then tried this upon other persons, with some of whom it succeeded on the first trial; while, with others, it was at first a failure, but ultimately successful. He experimented upon thirty persons, of both sexes, different ages, and in different rooms, with "complete success." "A little girl of seven years," he remarks, "has shown very strong electric powers. To cause a movement of the gold-leaf of half an inch from the perpendicular is but a weak manifestation." In some of his experiments he found the electric emanation during muscular contraction "sufficient to tear the leaf, causing it also to adhere to the side of the glass." "It is not necessary for me," he says, "even to *touch* the cover of the instrument; nearly as striking results will follow if I bring my hand near the cover, say within an inch or more." This electric phenomena did not arise from friction; his precautions against this rendered it impossible.

234. The following are the conditions which he observed to be necessary in order to effect the results:

First, A proper dryness of the atmosphere. This condition is very important, as well as,

Second, A dryness of the surface of the body.*

* "It was for want of attention," he observes, "to having the air dry, and to my overlooking a cause of moisture, that I was, at first, in doubt whether the electricity did in fact arise from the body without the aid of clothing." Hence, perspiration dissipates the electricity, and is to be avoided in the experiments.

Third, The position of the body, which must be a quiet, sitting posture, from the feet to the knees perpendicular, the thighs horizontal. The body must be easy, rather relaxed.

Fourth, From this posture rise quickly and touch the cover of the electrometer.

235. Any position which does not call into action the proper muscles, or impedes their complete action, lessens or entirely prevents the development of electricity.

236. Alfred Smee, of England, in his experiments upon the muscular contraction of the lower animals, has also succeeded in detecting electrical currents by the galvanometer. We accept his facts, but leave him his "Electro-Biology."

He informs us* that he experimented upon a rabbit thus: He introduced a steel needle into the masseter (a muscle of the lower jaw, situated upon the side of the face, and exercised in closing the jaws); a second needle he introduced into the sub-cutaneous cellular tissue. The creature attempted to bite his finger, and at this instant there was a development of electric phenomena in the instrument used for detecting it.

237. Prevorst and Dumas also assert the development of an electric current during muscular contraction, particularly when the contraction is induced. In the latter instance they assert its development "in all cases."†

238. Ahrans and Paph,‡ in their investigations upon the electricity of the organism, detected this force. The results of their observations seem to show,

First, That, as a general rule, the electricity of the human organism, in a normal state, is positive.

Second, That nervous and sanguine temperaments, and the sanguine or nervous-bilious, have more free electricity than the lymphatic or phlegmatic temperaments.

* See Principles of the Human Mind and Electro-Biology, by Alfred Smee.

† See Edwards on Physical Agents. Appendix.

‡ See Meckles' Archives, vol. iii., p. 161.

Third, That when the body is cold no evidence of electricity is shown.

Fourth, As the body becomes warm the electricity becomes manifest.*

Fifth, That during the continuance of rheumatic affections the electricity of the body seems to be reduced to zero; but as the disease subsides the electricity becomes manifest again.

239. Mr. Hemmer,† of the Manheim Electoral Academy, from nearly two thousand five hundred experiments, was led to the following deductions:

First, That electricity is common to all men.

Second, That it is sometimes negative, but oftener positive, and sometimes wanting.

Third, That it is produced without friction, and is evolved from the naked body.

Fourth, That its quality is altered by certain circumstances, and is changed from one to the other kind by sudden, violent motion; by cold is changed from positive to negative, or lessened in amount.

Fifth, That continued mental exertion increases the positive electricity.

Paph and Ahrans found that the female was most subject to constitutional electrical changes.

240. Sir James Murray, after twenty years' experiments and observation upon the spleen, with reference to its functions, has made the following deductions:‡

First, It appears that a series of electric currents emanate from the spleen to the stomach during digestion.

Second, That the activity of these currents varies according to the degree of splenic distention by the blood through the vessels of the spleen.

Third, That the currents of electricity are more intense in proportion to the heat of the blood, to the pressure exerted

* Dr. Muller observed the same fact. See his statement in the Magnet, before referred to.

† See Zillach's Magazine, vol. v.

‡ See Boston Medical and Surgical Journal, August, 1850. Also, Annual of Scientific Discovery for 1851, p. 349.

on the spleen during inspiration, and to the impulse and friction of the circulation in the large splenic arterial branches.

Fourth, That, in a minor degree, similar phenomena ensue even out of the animal, when a recent spleen is insulated and then injected with warm water, but still more so when injected with hot liquors containing such saline ingredients as prevail in the blood.

Fifth, That a spleen recently taken from an animal, when insulated and injected with tepid fluid, determines a positive current towards the gastric surface of the spleen when tested delicately by gold and silver wires.

Sixth, That disks or slices of spleen, placed upon each other, were in most instances better voltaic piles than similar batteries constructed from equal weight of *brain*, liver, kidney, pancreas, or even of muscular flesh.

Seventh, That slices of spleen are better conductors than equal sections of any of the above materials, particularly when moistened by warm saline fluids, or even by tepid distilled water.

Eighth, That the intensity of galvanic currents along vasa brevia, from the spleen to the stomach, continues through the gastric coats in the recently-swallowed ingesta (or nourishment), and that the liquor called gastric juice seems thereby to derive and exert some galvanic influence upon the pulpy aliment, whereby a chemical action and digestive assimilation appear to be set up and maintained among dissimilar atoms of nutriment.

Ninth, That, therefore, the spleen is endowed with active powers of generating or creating voltaic evolutions, under favorable degrees of repletion of its vessels, tension of its erectile tissue, and of auxiliary thermo-electric principles.

241. We have already referred to the electric current detected by philosophers in the muscle, passing from the interior to the exterior surface (see § 226). This, however, is not the only electric current that has been found to arise in the muscle under favorable circumstances. "Galvani discovered, and all philosophers after him have observed, that a frog, prepared according to his usual

method, contracts when we bring the lumbar nerves in contact with the muscles of the thigh or leg."* This results in consequence of, or simultaneously with, a current of electricity which passes from the lower portion of the muscle to the upper part, or towards the upper portion of the animal. This fact of the existence and direction of such an electric current was detected by Nohili, in his admirable experiments. His method was to prepare a frog in the usual manner, and "place it between two small glasses containing distilled water, in such a manner that on one side the lumbar nerves, and on the other the legs, were immersed in the liquid. Matters being thus arranged, the circuit is closed by plunging into the two glasses the two platina extremities of a galvanometer." At this instant the needle is found to deviate in some instances 15°, and indicates by its direction the circulation of an electric current from the legs to the upper part of the animal.

242. This muscular current, it will be seen, is analogous to that we have already noticed as detected by M. Reymond, and, after him, Humboldt and others (see § 229). On the contraction of their arms the current was found to pass from the hand to the shoulder in the limb whose muscles were made to contract. In both, the contraction and the electric current are simultaneous.

243. This current in the frog was at first supposed to be peculiar to that animal, and was consequently called "the current of the frog." "But, for this name," says Matteucci, "I afterwards substituted another, that of the *proper current of the frog*, because, until recently, it was in the frog alone that we could recognize its existence. Recently, by studying more attentively the proper current, I have satisfied myself that it is a phenomenon which appertains to *all animals*. Here is the enumeration of the fact: in every muscle endowed with life, in which the tendinous extremities are not equally disposed, there exists a current directed from the tendon to the muscle, in the interior of the latter. All animals have some muscles in

* Matteucci on the Phenomena of Living Beings, p. 208.

which one tendinous extremity is narrower than the other, and which at one part forms a kind of cord, and at the other part becomes broader and ribbon-like. In the frog, and many other animals, the gastrocnemius has this character; in birds, the pectoral muscle presents this arrangement. When we form a pile with the muscles, we find a current circulates in the muscles, from the tendinous extremity to the muscular surface. The existence of the proper current of the frog in all other animals, in the way described, was found at the same time by M. Cimon, by M. Reymond, at Berlin, and by myself." *

244. In the muscles, then, two electric currents have been detected, and it is important to distinguish them. The first is called by philosophers the "muscular current," and is common to every form of muscle. Its course is from the interior to the exterior surface. The second current is not (according to present indications) common, like the first, to all the muscles, but is peculiar to those whose tendinous extremities are unequal. The direction of this is from the tendon to the interior of the muscle.

245. These two currents, according to Matteucci, have a community of origin, and the proper current has a connection with the muscular current. Their community of origin, he asserts, is "principally demonstrated by the identity of action which the different circumstances that modify the organism and life of animals exercise upon the muscular current. In fact," he continues, "whether the current be muscular or proper, the action exercised on it by heat, narcotics, sulphuretted hydrogen, and the degree of integrity of the nervous system, is the same." †

* See Matteucci's Lectures on Living Beings, pp. 210, 211.

† We may not dismiss this great philosopher on this point, without adding here an important conjecture with regard to the connection of the two currents. After stating the fact that "anatomists, and especially Bowmen, have demonstrated that the elementary muscular fibres are immediately continuous with the tendinous fibres, and that the sarcolemma which invests the muscle ceases abruptly where the tendon begins," he then infers that the tendon is in the same electric condition as the interior of the muscle, and, therefore, that "when we form, by means of a good conductor, a circuit or communication between the tendon and the sarcolemma, we put into circulation a portion of the *muscular current.*"

246. From the foregoing facts, it must be seen that it is far from being a matter of mere conjecture that there are electric forces in the human organism; not only those of a general character, but those which are special and particular. And it must have been seen already, that these forces, especially as developed in the muscles, are analogous to those elsewhere seen in nature. "The attractive force," says Dr. W. F. Channing, "developed in muscular and other living tissues, producing the effect of motion, bears a close analogy to the attractive force so suddenly communicated to and withdrawn from the particles of magnetizable bodies by electricity." *

247. It has been seen that the electric current excited during muscular contraction, and that which Matteucci terms the proper current, have the same tendency, namely, from the muscle toward the nerve. Now it is the positive body that *gives out* a current of force, and the negative that receives it. It follows, therefore, that the muscle on contraction is a positively-electrified body. This cannot be otherwise, since no negative body can give out positive electricity.

248. From this it still further follows, that muscular contraction does not arise from a current of positive electricity emanating from the nervous system, since the positive current is in the opposite direction; it passes *from* the muscle to the nerve. It is absurd, then, to suppose that the nerves charge the muscles.

249. It was observed, in the case of the Smyrna girls, that an agent emanated from them which bore in certain essential respects the characteristics of electricity (see preceding chap., §§ 203, 204); that this force operated on a table at a distance from it, and caused its oscillation and movement, yet, that the whole phenomenon was effectually stopped by throwing a key upon it. The case immediately following this, exhibited electric phenomena of a different character, and shows that, under peculiar

* See Notes on the Medical Application of Electricity, by Wm. F. Channing, M. D., p. 7.

circumstances, this agent may be discharged from the organism by an effort of the will, and receive an intelligent direction, as it is known to take place in the case of the electric fish.

250. We have seen that the vital processes and the action consequent on the fulfilment of the animal functions, give constant development to the electric force. Thus, the sources of this agent, as manifested in the cases just referred to, are made evident.

251. In the electric fish there is an organ purposely designed as a battery, to supply the demands which the habits of this fish exhibit. In different species this organ is located in different parts of the organism. In the torpedo it is situated in the lower part of the brain or the top of the spinal cord, and is composed, according to Matteucci, of from four to five hundred prismatic masses comparable to grains of rice placed side by side. Each of these masses is composed of minute vesicles. The entire organ resembles an honey-comb; numberless minute fibres of nerves are distributed over the walls of these cells and ramify through them. Some of these nerve-fibres, on passing out from this organ, unite like the fibres of a thread, and pass to the gills and other organs; others pass to the surface of the fish; some pass to the optic ganglia and other organs in the upper portion of the brain.

252. However strange it may appear to the general reader, it is nevertheless true, that, with this apparently insignificant arrangement of apparatus, the electric torpedo is capable of giving a very powerful shock. It is, also, capable of measuring the amount of the shock to be given; for, according to Matteucci, different parts of the organ are capable of being discharged without a discharge of other parts. This was detected by irritating separate nerves which run to the organ, which would discharge the electricity in the particular part to which those nerves run.

253. Again, the *direction* of the current of the electric force which the fish discharges through the water, is evidently as by a law of intelligence. On seeing its prey

it arranges itself accordingly, and, like a sure marksman, discharges its agent with fatal precision. If the first discharge is seen not to be quite sufficient, another is given. And all this may take place at a distance of several feet. The water then is the medium, and the circuit is formed through this. There is, therefore, no *special* conductor. It is purely the element in which the creature lives. Many hows and wherefores may be asked, in reference to all this, which would puzzle the profoundest philosopher to answer. There is mystery here as well as in the "Rappings."

254. Now what the electric organ is to the fish, the spleen or a class of muscles may be in a case like that of the Strasburg girl, who shocked her brother at a distance of several rooms. It is certain, however, that whatever part of her organism acted as the organ of the electric force to supply the vast amount of this agent that was discharged from her system during the twenty-four hours, her brain or the cerebrum could no more have acted this part, than it does in the electric fish; for, while the discharge takes place from one organ, the *cause* of the discharge and its direction originates in entirely different parts.

255. So the physical force (of a somewhat different character) which is discharged from the organism of a "medium" is decided and directed, as we shall demonstrate, by the action of the brain, while the battery of the agent, so to speak, may lie in the other portions of the organism. It matters little as to the latter, however; it is not so much a point of discussion in this place, as the circumstance of the direction of the force.

256. We would here say, that we have facts to show that, as in the case of the fish, the decision and the direction of the discharge of force depend upon previous action of the brain proper, in some of its local points; so the decision of the discharge and the direction of force in the "medium," depend upon a previous action of some local portions of the brain.

257. It is to be remarked, still further, in drawing this

parallel, that as, in this discharge in the fish, the decision and the direction is by a law of instinct and an automatic action of the brain; so it will be seen that, in the like action of the brain of the medium, it is not by a law of spirit, but by a law of the automatic susceptibilities of the brain, itself.

258. This is not to deny the power of spirit, but to deny that material action is spiritual action, or that the immediate cause of a physical phenomenon is a spiritual agent. Spirit has its powers, but it is folly to confound them with those that are material. Matter is susceptible to impressions, and is capable, under the action of irritants or excitants, of performing certain functions. This subject, however, belongs to the second part of our work. We will, therefore, close this chapter with a few more facts and observations on electric power in the organism.

259. It is important to remark, in this place, that the *will* seemed certainly to have something to do in the electric discharges effected by the Strasburg girl. And it may be observed, that something analogous to such a power seems to be possessed by the electric fish. Mr. Fishbow relates the case of a person, "who, by the mere effort of his will, could fill his hair so full of electricity, that, on passing a comb through it, it would appear to be almost in a continuous flame, emitting sparks, and slight, but distinctly perceptible, shocks, when the knuckle of another person was presented. On diverting his mind from the object, the electricity would, in half a minute, all disappear, so that not a single spark could be generated, however violent the friction. Then, on assuming the previous mental condition again, the electricity would gradually appear, until his hair was charged as before. The writer saw this experiment repeated several times, and under circumstances which excluded all possibility of mistake. There was, at the time, no electric machine in the room, or in the house, and the man was standing, or walking about, on a woollen carpet. He explained, in vague terms, how he did it, but it was altogether by a psycho-

logical process, of which any one in a perfectly normal condition would be incapable."

260. Electric phenomena seem to have more to do with the will, while we have not found but few cases where a "medium" for odylic phenomena has been able to control the agent. The discharge of this depends more upon the *unconscious action of the brain.*

261. The difference appears to be plainly this, that while the electric condition seems more in accordance with a high degree of self-*conscious* power and activity, and wide-awake life: the odylic state is that wherein the person is *passive*, easily played upon by others, and is indeed an automaton. The former is more consonant with the higher inspiration, — that of pure thought, reason, from the bracing power of absolute truth and goodness, without the destruction of the personality, the will, the self-conscious energies; while, on the contrary, the odylic condition prostrates the reason, the *will*, and often the very sense of personal identity. True, it affords floods of ideas, but they either have their source in the involuntary imagination, or find a channel through the automatic play of the imitative organ from the brains of others. This subject, however, should be left for the second part.

CHAPTER VIII.

Recapitulation — Prof. Faraday — Magnetic power of oxygen — This power set free in the organism at the moment of the union of the oxygen with the carbon of the system — Phenomena in muscular contraction, showing an agent differing from electricity — Matteucci's experiments on the induced contraction — Thilorier's and Lafontaine's experiments — Discovery of a new agent in the human organism — Reichenbach's discovery of a new force — Characteristics of the new agent — The difference between it and electricity — Between it and magnetism — Transmissible through electric non-conductors — Force manifested in the modern phenomena — Comparison with that already exhibited — Identity with the Odyle of Reichenbach — Polarity of this agent as in magnetism — Polar forces at the extremities of the organism — Movement of objects in the modern phenomena according to a law of polarity — Attraction and repulsion of objects.

262. The reader will notice that, from § 202 to § 220, we present phenomena of an electric character, which exhibit the emanation of this force from the organism under peculiar circumstances of the latter, demonstrating the reäction of this agent upon external things, in an unusual manner, causing their movement (as in the case of the electric girls of Smyrna), producing physical effects at a distance (as in the case of the Strasburg girl). We have followed these cases with an enumeration of facts from the best authorities, showing the evolution of the electric agent in the organism, in the operations of every chemic or vital function, and especially in the functional operations of the spleen and muscles. Thus we have shown the source of that power which in the last cited phenomena was so remarkably exhibited.

263. The attentive reader will also call to mind that,

from §67 to §172, a class of phenomena is presented so like those usually exhibited by the electric force as to demand a new name for their agent, inasmuch as their characteristics are so entirely at variance with those of every well-known agent. We have searched diligently for those facts which might establish the identity of this agent with that of electricity, and shall directly advance them so far as they have exhibited themselves to our notice. The subject is exceedingly intricate, and demands a power of mental vision that can penetrate deeply into the correlations of the physical agents, gather to a focus every ray of light, and mark at the instant the relative value of each in pencilling the whole picture.

264. The case of Angelique Cottin,—a type of all others of this class,—presented to the eye of M. Arago an anomalous agency. The phenomena could be classified neither with those of electricity nor magnetism proper, and yet they seemed to blend in some unaccountable manner the characteristics of both. On approaching a table, even before she touched it, it would be driven from her; and at other times the same object would be attracted towards her. Here, there seemed to be a magnetic action; yet she received no influence from the objects, while the north pole of the magnet gave her a shock as if it were a Leyden battery strongly charged; and still further, what seemed like electricity, any person closely approaching her during one of her paroxysms, received a shock like that which she received from the north pole of the magnet.

265. It is evident, from the influence of the magnet in this case, that the agent had something to do with magnetism; it was, therefore, magnetism or something associated with it. We also noticed, in the case of Frederica Hauffe, a great sensitiveness to the magnet, and also to other metallic as well as many mineral substances. But as the peculiar influence of the magnet is a thing to be noticed here, particularly, with reference to the direction of our present inquiries, we will leave the sensitiveness to other things, and ask what relation this force can have in the

organism to the magnetic power? In other words, what foundation can such a force have in the organism?

266. At the close of the last chapter we made known the magnetic character of oxygen, and stated that this gas, constantly received into the organism, combines with the blood, and is thus distributed to every part of the system; the amount of oxygen, according to Lavoisier and Seguin, being 15,661 fresh grains daily. It was also shown that the presence of oxygen in the animal organism is absolutely necessary to the performance of its functions, and that the power of muscular contraction is, as a general rule, in proportion to the amount of oxygen absorbed into the system. It was also shown that, according to the decision of all chemists, oxygen is a negative electric of the highest character; that the negative attracts and contracts; and also that, at the instant oxygen loses its character by a combination with carbon, muscular contraction takes place. In other words, the particles of which the muscle is composed are attracted towards each other in one direction.

267. Now these facts have all a common centre,— the positively magnetic and negatively electric power associated with oxygen. Here, at the same point, magnetism and electricity meet, and we have, at the instant of the freedom of this agent consequent upon change of the oxygen, attraction of particles. We have now arrived at a very interesting stage in our inquiries; and it is hoped the general reader will feel sufficient interest to make a careful study of it. The following facts open to the mind a new view of the dynamics of the animal organism, and the deductions which result force themselves upon our reason with a power hardly to be resisted without immense prejudice.

268. That oxygen holds within itself a magnetic power, especially with reference to other gases, was demonstrated a few years since by Prof. Faraday, of England. As early as the year 1847, in a paper on the diamagnetic conditions of flame and gases,* as the results of his experiments,

* See Philosophical Magazine for 1847.

he shows that oxygen acts powerfully in repelling the other gases. Nitrogen, hydrogen, carbonic acid, nitrous oxide, coal acids, olefiant gas, were all driven away or repelled by the oxygen. In his Beckerian lecture he gives his method * of determining these results. He made use of delicate soap-bubbles, containing a given gas, and then, when held in the magnetic field, they would be attracted or repelled according as the gas in them was magnetic or diamagnetic.† Oxygen he found to be attracted towards the magnetic axis; it is, therefore, magnetic; other gases were repelled by the oxygen, which showed them, relatively to the latter and to the air, to be diamagnetic. He also made use of glass bubbles. These he attached to a differential torsion balance which he had constructed for the purpose. The instrument is thus described:‡ "A horizontal lever was suspended by cocoon silk, and at right angles to the end of one arm was attached a horizontal cross-bar, on which, at about an inch and a half apart, and equi-distant from the horizontal lever, were suspended the glass bubbles; the whole being adjusted so that one bubble should be on one side of the iron core and the other on the other side." Any difference in their tendency to attraction or repulsion, or "to set inwards or outwards from the axial line, causes them to take up their places of rest at different distances from the magnetic axis; and the power necessary to bring them to an equi-distant position becomes a measure of their relative magnetic or diamagnetic force.

269. "In the first place, different gases were tried against each other, and when oxygen was one of them it went inwards (or was attracted), driving every other outwards." The other gases appeared more equal to each other. Other trials were made with more delicate instru-

* See notice of it in American Annual of Scientific Discovery for 1851, p. 133. Also, Brewster's Philosophical Magazine, Supplement.

† This force differs from the magnetic, as it acts, so to speak, at right angles with or across the line of the magnetic force. We shall more fully explain this soon, but would add here that the magnetic repels the diamagnetic. See paper on Diamagnetism, by Prof. Philosophical Magazine, July, 1848.

‡ See American Annual of Scientific Discovery, 1851, p. 133.

ments, which resulted in the most striking effects. When oxygen and nitrogen were placed against each other, the oxygen bubbles drove out those containing the nitrogen in a most powerful manner.

270. Thus it is found, that, as to their relative forces, oxygen is magnetic and nitrogen diamagnetic. The magnetic repels the diamagnetic; oxygen repels or drives out nitrogen (other gases also). With these facts before us, let us look into the organism of the muscles and their functional operations once more, premising, however, that oxygen and nitrogen united in common air are neutral, but on their separation by a membrane, as in the bubbles of Faraday, there is the above-described manifestation of magnetic dynamics in relation to each other.

271. Now nitrogen is an indispensable agent in the organization of the muscular system. In fact, it is as essential to the composition of the muscle and the performance of its functions as oxygen is to the blood. There can be no animal organization without nitrogen.* It is an absolutely-essential constituent of the febrine of the blood, which enters so largely into the composition of the muscles. "All parts of the animal body which have a decided shape, which form parts of organs, contain nitrogen. No part of an organ which contains motion and life is destitute of nitrogen. The chief ingredients of the blood contain nearly seventeen per cent. of nitrogen; and, from numerous analogies, it appears that no part of an organ contains less than seventeen per cent."† "Chemical researches have shown that all such parts of vegetables as can afford nutriment to animals, contain constituents which are rich in nitrogen; and the most ordinary experience proves that animals require for their support and nutrition less of those parts in plants in proportion as they abound in the nitrogenized constituents. Animals cannot be fed on matter destitute of these nitrogenized constituents."‡

* Liebig's Organic Chemistry.

† Ibid. See, also, Chemistry as Applied to Physiology, p. 28. Fowler & Wells.

‡ Ibid., p. 29.

272. Not only is nitrogen a necessary constituent of the organized substance of the system, and for this purpose is received in the aliment; it is also taken into the organization in its gaseous state. The atmosphere, which is composed of oxygen and nitrogen, is inspired by the lungs, and not only the oxygen, but a portion of the nitrogen, taken into the blood. The proportion of oxygen absorbed is greater than that of nitrogen, as the former passes through the membranes of the lungs with greater facility than the latter.*

273. Again, not only are oxygen and nitrogen thus taken into the system in the components of food, by absorption through the lungs, and we may also add to a certain extent through the skin, but other gases are found within the organism; some of them formed in the system, as carbonic acid; all repulsed from it again except oxygen. This is never given forth again in its simple form.

274. Now it is at every point of the organism that the oxygen and nitrogen are required, and it is at every point that the former repels the latter; but the moment the oxygen becomes changed by its union with carbon, constituting carbonic acid, the force with which it parts excites the attractive force. Hence, the muscle that is not exercised is not nourished, while moderate exercise promotes its growth; absolute cessation of action would be certain death. There is, therefore, a constant development of attractive and repulsive force in the system; every atom is made to act either as a magnetic or diamagnetic point. Iron is a magnetic substance, and found everywhere in the blood. In its magnetic character it stands side by side with oxygen, and hence a strong affinity between the two.

275. Reasoning from these facts alone, we might conclude that there is developed in the organism a physical force or agency differing in some essential respects from that which we usually distinguish by the term electricity; and where should we find it to be more easily detected than in the muscular system? True, we have here seen the electric force developed, and its characteristics plainly manifest; but this is not inconsistent with the idea of the devel-

* See Carpenter's Principles, § 766

opment of some force that transcends the laws of mere electric action. And now for the question, — Does experimental science furnish us with facts which show the evolution of an agent or force in the organism, that varies in its characteristics from those of electricity as generally understood? The answer to this question gives us the facts of the THE NEW AGENT.

276. Philosophers have, now and then, in their experiments and observations on the phenomena of forces, come suddenly athwart anomalous agencies, or such phenomena as were not attributable to any well-known forces; and they have been obliged to leave such cases for further discoveries of science to explain, or have based upon them new theories with regard to the modified action of old agents. In physiology this has occurred as well as in other departments of science.

277. Matteucci, among his numerous experiments, found, in those which he instituted upon what is termed "induced contraction,"* (that is, the contraction of one muscle caused by that of another), that the contraction of the second muscle, or the induced contraction, took place from the emanation of a force from the first on its contraction, and that this force transcended the known laws of electricity.

278. We will give a description of these important and interesting experiments, that the facts may be better understood. Two muscles are made use of, the first by its contraction causing the contraction of the second. The second muscle has the string of a nerve attached to it. This nerve of No. 2 is laid *across* No. 1; when No. 1 is irritated and made to contract, it, through the nerve, causes the contraction of No. 2.†

279. Whatever stimulus be made use of to cause the contraction of the first, the same results follow.‡ Every time the inducting muscle (No. 1) contracted, there was invariably induced contraction, whether the nerve by which

* See Matteucci on the Physical Phenomena of Living Beings, §§ xiv. and xv.

† Ibid., p. 264. ‡ Ibid., p. 277.

this last (No. 2) was excited was previously irritated or not; and, consequently, when even the muscle on which this contraction took place was already contracted."*

280. The question now arose, What is this force emanating from one muscle and acting upon another? Is it any agent the characteristics of which are already known? Is it electricity or magnetism as generally understood? Hence Matteucci's experiments.

281. It is well known that, in the propagation of electricity from one point to another, if certain substances are interposed between the two points, the current of force will not be propagated. For instance, glass, wax, varnish, and certain other substances, prevent the passage of electricity from one body to another, and hence are called non-conductors. It is certain, therefore, that a current of force which does readily pass through these substances is not electricity as generally understood. It is plain, therefore, that if the force emanating from muscle No. 1 was a current of mere electric agency, it would not be able to pass through an electric non-conductor.

282. Matteucci, to test this, applied various non-conducting substances. For example, he covered the muscle with "resinous spirit varnish" † (a non-conductor), but found this did not prevent the force from acting as before. To satisfy himself still further, he then made use of "the almost solid Venice turpentine, rendered more or less liquid by the addition of a small quantity of the oil of turpentine." ‡ With this he varnished the first muscle, and also the nerve of the second; but all this did not prevent the transmission of the force. "The induced contraction continued, notwithstanding," says he. Thus the substance which would prevent a current of electricity passing between these two points, did not prevent this new force. But Matteucci had doubts yet to be settled. He, therefore, applied a current of galvanic force to the first muscle, that it might pass through this membrane of varnish if it would;

* See Matteucci on the Physical Phenomena of Living Beings, p. 277.
† Ibid., p. 281.
‡ Ibid., p. 282.

but he could not effect it. Thus, while the electric force from the galvanic battery refused to pass through this coating, the current from the muscle itself would. He, therefore, concludes that "these experiments prove, that induced contractions exist through an *insulating layer, capable of intercepting not only the proper electric currents*, but that even of the (galvanic) pile," &c.* Thus, he shows that this force is not the proper electric force he had before spoken of as circulating in the muscle.

283. Again; to determine what influence the skin might have in the passage of this force, he made several experiments,† in which he demonstrated its passage through that membrane. This fact Matteucci considers not only very curious, but "from its consequences," says he, "I believe it to be important. This experiment," he continues, "constantly succeeds, whether the induced contraction be excited by means of the electric current or by any other stimulant applied."

284. In these admirable experiments of Matteucci, we have exhibited the following important facts:

First, That a power resides in the muscular system whose characteristic law of action differs essentially from that made known as the peculiar characteristic of electricity.

Second, That this new power or agent is capable, under favorable conditions of the muscles themselves, of emanation from them.

Third, That, on its emanation, it is capable of reäcting upon an outer substance or body, which is made to stand in a given relation to it.

Fourth, That among the characteristics of its law of action is, first, a ready transmission through electric non-conductors; second, a ready transmission through the skin that covers the muscles.

285. Now it has been shown that, at the time of the action of the muscles, oxygen unites with carbon, constituting carbonic acid; that carbonic acid is a diamagnetic

* Matteucci's Lectures, p. 282. † Ibid., pp. 283, 285.

as it is repelled by oxygen; that when oxygen enters the system carbonic acid is immediately expelled from it. Let it be distinctly remarked, in this immediate connection, that the new force of Reichenbach was observed to be evolved, in its positive form, in all chemical action where carbonic acid was driven out. His language is, "In the driving out and gasification of the carbonic acid, positive odyle was necessarily set free." It is very evident, therefore, that the new force, observed by Matteucci to be evolved in the contraction of a muscle, is in some very essential manner associated, or it is identical, with the odyle of Reichenbach. Indeed, we shall soon very definitely establish the fact of its identity.

286. Again, it should follow, if Reichenbach is correct, that positive odyle is eliminated and set free at the instant that carbonic acid is driven out in chemical processes; that it should not only be set free in the sphere of the muscular system, but in that of the nervous, also; in the brain, spinal system, and sympathetic ganglia; for here is great consumption of oxygen, and, therefore, much carbonic acid formed and expelled. Let us observe, then, whether we have met the evidence of the evolution of the new force here.

287. About the time of the above experiments of Matteucci, MM. Thilorier and Lafontaine made an extensive series of observations and experiments on the physical force emanating from the nerve-centres. A lengthy memorial was prepared by them of the results of their labors. The subject was laid before the Paris Academy. In this paper* they give facts which show the evolution, from the nerve-centres, of a force differing essentially from the characteristics of mere electricity or pure magnetism, and yet in certain respects partaking of the character of both these agents. They found,

First, That, like electricity, this force was transmissible through the medium of a copper-wire, to a distance. But,

Second, That, like magnetism and unlike electricity, *it*

* See their Memoir before the Paris Academy, 1844.

was also transmissible through electric non-conductors; glass, wax, varnish, &c., did not prevent its passage.

288. These characteristics of the physical force emanating from the nerve-centres, then, are essentially the same as those observed by Matteucci emanating from the muscles. It would be interesting now to show what relation this new physical force of the nerves and muscles has to that we have considered in the few first chapters of this work. But this will be more fitting as we give our attention to the experiments of another philosopher with regard to a similar, if not this identical, agent of the organism.

289. Reichenbach, whose master powers of observation are so grandly exhibited in his late work,* was engaged in his experiments in Germany, at the time MM. Thilorier and Lafontaine presented their memoir before the Paris Academy of Sciences. It was about the same time that Matteucci instituted the experiments we have detailed; and, what seems a singular coincidence, at nearly the same period M. Arago made his observations on the wonderful case of Angelique Cottin, in which is exhibited the same anomalous physical agent emanating in a most mysterious manner.

290. The researches† of Reichenbach, as we have before hinted, bring to view a new force analogous to that we have already so fully dwelt upon. This will be seen in the following:

First, He found this force as it emanated from the organism, transmissible "not only through metals, but also glass, resin, silk, &c., as if they were perfect conductors."‡ The analogy here is beyond all question; on this ground MM. Thilorier and Lafontaine with their new agent, Matteucci with his anomalous agent, and Reichenbach with his odyle, met in common.

Second, Reichenbach, found that this new force "may be transmitted to unisolated bodies, and accumulated in

* See his Dynamics of Magnetism, translated by Ashburner, First American edition. Redfield, N. Y.

† Ibid.

‡ Ibid., § 226.

them to a certain extent; * while electricity can be conveyed and condensed only upon isolated, by no means unisolated, bodies." There is, however, as we have already shown, a natural power of insulation in the animal organism, under certain conditions, with regard to the latter force; but, with regard to the odylic† agent, this is sometimes very marked and striking.

Third, When the free odic force is thus accumulated in a body, it is retained in it in such a manner that it does not readily escape, as is the case with electricity.‡ This is what takes place in the case of some mediums, who become powerfully charged with the odic force; and it is under the circumstance of a sudden change of the nerve-centres of the organism that this force escapes, as was witnessed in the case of Angelique Cottin (see chap. ii. §§ 85—90); at this moment there were, in her case, severe nervous paroxysms, a tremor of the muscles, and at this instant everything would be overthrown which she touched or even approached without touching.

291. Now, the difference between the case of Angelique Cottin and that of the so-called "*mediums*" of the present day, with regard to the discharge of the odic force, is this. With the former, the cause of the discharge lay wholly in the sympathetic and spinal nerve-centres. The unusual accumulation of this force, in the first place, was caused by a peculiar abnormal action of the lower sympathetic nerves, mostly connected with the uterine functions. This accumulation of force arrived at its maximum between the hours of seven and nine in the evening. Its infringement upon the spinal system at the time of its discharge caused the spasms. The muscles, also, became charged with it from the sympathetic centres, causing their tremor; and, what is worthy of observation, the parts where the discharge of this force was very intense would have a peculiar trem-

* Reichenbach's Dynamics of Magnetism, p. 284, § c.

† We shall hereafter use the term odyle as synonymous with the new force.

‡ Ibid., p. 285, § b.

bling, "which," says Arago, "communicated itself to the hand which touched the parts."

292. This, plainly, was a case of the *induction* of the new agent which Matteucci observed and we have already described. We appeal to these two analogous phenomena as proof of the identity of the agents which gave them development.

293. We say that the difference between this case and the "mediums" of the present day, in whose presence tables are made to move, sometimes without contact, is, that the force in the case of Angelique discharged itself by causes acting below the psychological centres; whereas the discharge of the force from the organism of the "mediums" is more at the command of the brain-centres.

294. It is certain that every case will vary precisely according to the specific cause of the abnormal evolution of this force in the organism, the part or parts in which it is most intensely excited, the point from which the discharge takes place, and the specific influence which causes and directs the discharge. If an abnormal accumulation in the organism, and its discharge depend in any case upon causes acting in the brain, then the outer motions or physical phenomena will have all the appearance of intelligent direction. This point of our subject, however, is to be treated in Part Second, where we present facts demonstrating this in the most convincing manner.*

295. No person can be a medium for the odylic phe-

* We may here say, however, that, by an investigation into the psychological and voluntary nature of man, we find the new force to be controllable under the former, while the electric is more controllable by the voluntary power. There may be cases of slight variation on both sides; but that we are correct in stating this as a general law we can prove by a very large array of facts. The reason of this we conceive to be, that the involuntary actions of the brain are conducted downward upon the sympathetic centres, while the voluntary are conducted to the automatic centres, in the cerebro-spinal axis, or the centre of the spinal marrow, and thence to the electric force of the muscles through the fibrous nerves of the so-called voluntary system. In the phenomena of the present day, there is, in the case of every "writing medium" we have inquired of, a peculiar current of sensation, commencing generally in the shoulder, and passing down the hand, at the time the hand is about to move involuntarily.

nomena who has not the conditions within him of its accumulation and control, from the brain, more or less perfectly, at the time of its discharge; and where these two conditions are most perfectly fulfilled the phenomena are the most astonishing, ay, incredible.

296. Reichenbach found, in his experiments, that the odylic agent naturally accumulated itself in polar forces at the extremities. Both the hands and feet possessed this polarity, and the left side stood in polar opposition to the right; indeed, that the whole of one side of the body was possessed of an opposite polar force to the other; that the left side was positive, or gave out the repulsive force, while the right possessed the negative, or attractive force.*

297. If we compare this grand fact of his discoveries with the observation made by Arago in the case of Angelique Cottin, we shall be struck with the wonderful exactness of the analogy in the two. In the case of this unfortunate girl, it was observed by Arago (see § 89), that it was the left side of the lady which appeared to acquire this *sometimes* attractive, *but more frequently* REPULSIVE PROPERTY. A sheet of paper, a pen, or any other light body, being placed upon a table, if the young girl approached her *left* hand, even before she touched it, the object was driven to a distance as by a gust of wind. The table itself was overthrown the moment it was touched by her hand, or even by a thread she might hold in it.

298. It is also seen, in the case of some mediums, that the same anomalous agent acts in polar forces from the hands, and even from the feet (also from the vertex of the head, as we shall soon notice particularly); as in the case of Angelique, the extension of the hands of such mediums towards an object like that of a chair or table, will cause its movement. It also emanates in sudden discharges through the hands or feet under favorable circumstances (such as we have already mentioned), in which instances there will be concussive sounds. But a great deal of this kind of phenomena depends so much upon local conditions

* Reichenbach's Dynamics of Magnetism, §§ 254, 23. Conclusion 22 (§ 226).

of mundane force that their absolute law cannot yet be established.

299. It is certain, however, that the polar forces of the corresponding extremities are not to be considered as uniform under all circumstances. As it varied in the case of Angelique Cottin, under varying conditions, so we find it to vary in the case of mediums. The left side is, however, as a general thing, positive, and gives out a repulsive force; and this, in a great many mediums who elicit the raps and the movement of things, is the prevailing force; then it is seen that objects move from the medium, and the sounds are made to recede from his person. Other persons present having a predominance of the negative of this agent will, other conditions being equal, have the object move towards them. This was observed in the case given in § 69. Says the writer of this case: "I saw the chairs move; a large dining-table was thrown against me, and a small stand, on which stood a candle, was tossed up and thrown into my wife's lap;" in other words, was attracted to her person; while on the part of the young girl whose system was positively charged with the odylic agent, these things were repulsed.

300. In the Stockwell case, also, we witness the like action of this agent upon external things, developing the law of its positive and negative, or repulsive and attractive forces (see § 95). The case shows, also, that the polar action of this force manifested itself even in the articles themselves (see § 76). "Very often one article would be attracted by another, or they would fly towards each other, and, striking together, fall upon the floor, as if both had been charged with some physical agent which made them act like opposite poles; then, moreover, one would fly *from* another as by repulsive forces. Everything that Mrs. Golding had touched seemed to have been in some way affected, so that afterwards, on the approach of the maid, it would be broken to atoms," &c. The force here exhibited was developed in those objective substances by the influence of these two organisms to a surprising degree of intensity.

301. The action of like polar forces is presented in § 169, where M. D. D. Hume was the medium, and gave the repulsive side, or was the positive pole, and Prof. Wells, B. K. Bliss, and Wm. Bryant, were each a negative polar point. In this case the table became positive to both parties. Thus they say, "It (the table) was forced against each one of us so powerfully as to *move us from our positions, together with the chairs we occupied*, in all, several feet." This powerful exhibition of the force is mentioned by Arago in the case of Angelique Cottin. "One day," says his report (see § 89), "a chest, upon which three men were seated, was moved in the same manner." (That is, "thrown far from her," — see previous paragraph.) In these cases, however, there were no observations made as to which side was most affected by the force either positively or negatively.

302. Yet we see in these cases the like exhibition of the law of the polar action of material force, if not as to the two sides of the same person, certainly as to two different persons. One gives out the positive force, as in the case of Angelique, Mr. Hume, and all similarly affected persons, where there is a repulsive energy exhibited on the one hand and an attractive on the other. The table (in the case of Mr. Hume, the Springfield medium) stood to him in the same polar denomination when its repulsion took place; for it is always and everywhere a law of polar forces that like poles repel and opposites attract. Hence, when the table had become charged with this force (as Reichenbach in his experiments has demonstrated can be done), from the person of Mr. Hume, it was repelled. The persons present, standing in an opposite state of polarity, attracted it. The strange phenomena, therefore, are, in every case, in accordance with the polar law of natural agencies. We also see exhibited in these cases that physical law we may term dynamic induction, that is, the transmission of power from one body to another, or the charging of one body by another.

303. That the odylic power or agent is susceptible of this induction — that one body excited by it is capable,

under favorable circumstances, of exciting it in another—is equally determined, not only by numerous facts of this class, sufficient to fill a large volume, but by the admirable and precise experiments of Reichenbach and Matteucci.

304. The cases already given also show that the *induction of this force* is not only by an organic body upon an organic body, as we have seen in the experiments of the latter philosopher on "induced contraction," but by an organic body upon an inorganic body. The polar force in Mr. Hume induced a like polar force in the table. That in Angelique Cottin induced the same, not only in a table, but in all sorts of inanimate things. Reichenbach, in his experiments, found that the odic force "may be transferred from a person to water," so that it shall become charged with its property; also wood, and other substances, in the same way. "I have examined the reäctions countless times in hundreds of modifications; they gave the always constant result, that every living creature at once propagates an influence not only immediately, but even mediately, through various kinds of bodies, &c., like all the odyle-diffusing objects of inorganic nature." *

DEDUCTIONS.

First, It is evident from the facts exhibited by Matteucci with regard to the anomalous agent manifest in the experiments of the "induced contraction," and those observed by Thilorier and Lafontaine with regard to an anomalous agent acting from the nervous system, that they are one and the same, inasmuch as both fulfil the same conditions as to conductors and non-conductors.

Second, It is also evident that this force is neither magnetism nor electricity, inasmuch as it does not fulfil the *essential* conditions; that is, inasmuch as it does not have the essential characteristics of either.

Third, Inasmuch as it bears certain characteristics of its own, and these characteristics are essentially like those

* See Reichenbach, § 253.

of the odyle of Reichenbach, we are forced to admit the identity of the agents.

Fourth, It is, furthermore, evident that, as the law of the elimination of this new force in the organism is the same with that which governs the evolutions of electricity and heat, it must follow that every change of matter that the system undergoes, whether generally or locally, normally or abnormally, must necessarily more or less give development to this agent.

Fifth, It follows, therefore, that, as the processes of mutation are constant, and the change of oxygen into carbonic acid perpetual, there are perpetual sources of this new agent in the animal economy.

Sixth, It also follows, that every change of matter in the brain, as well as in the muscles and nutritive system, evolves this agent.

Seventh, From all that has been shown, it is further evident, that, under the exalted action of any of the organs of the human being, there must be a proportionate increase in the elimination of this force; that, if any one class of conditions and circumstances more than any other favors its undue development, the establishment of those conditions will inevitably give rise to the phenomena; that, if these conditions are established in the organism solely *below the brain*, the phenomena will *not* exhibit the characteristics of intelligence. This was the case with Angelique Cottin, and most of the examples presented in the first few chapters of this work, where the movements of objects in relation with their persons occurred without visible instrumentality.

But if, in addition, certain necessary conditions of the brain are established (as is found in the case of particular "mediums" of the present day), *then the eliminated physical agent will bear the characteristics of those actions which may be automatically performed by the cerebral organs.* In Part Second this is clearly demonstrated.

CHAPTER IX

Force of the magnet on living organized matter — On the nervous system — Angelique and Frederica — Petetin — Early observations — What is this force of the magnet that influences the nervous and muscular systems — Hahnemann's experiments — Becker's — Observations of similar effects of iron by Noankes and Trinks — Effects in cases of St. Vitus' dance — Reichenbach's experiments — Important cases given — Tests made by him and Baumgartner — Operation of the agent through a thick stone wall — Demonstrated not to depend upon the imagination — Influence of this agent in producing catalepsy — Power of attraction — Ashburner's experiments — Catalepsy and tonic spasms produced — T. C. Hartshorn's and Dr. Haddoc's observations — Magnet affects the brain in trance, attracts the organism — Force from the magnet produces trance and somnambulism, clairvoyance — Exclusive attachment to it as to the living operator — Case of this kind given — Important deductions — Identity of the agent of the magnet and that of the operator under similar circumstances — Deductions to the same purpose given by Reichenbach from his class of experiments — The identity of the odyle of Reichenbach with the mesmeric agent, a legitimate deduction — The materiality of this agent — it belongs to all matter — has specific influence upon the brain — causes its automatic action — is the medium of reflection from the brain-centres as well as to them — The whole external world thus in relation to the brain and *vice versa*.

305. ANOTHER important class of facts is now to be considered, exhibiting, in a striking manner, the identity of the force we have considered in the outset of this work with the odyle of Reichenbach. It will be recollected by the reader, that Arago observed, in the case of Angelique, that she "presented a peculiar sensibility to the action of the magnet; that when she approached the *north pole* of the magnet, she received a violent shock, while the south pole produced no effect; so that if the experimenter changed the poles, but without her knowledge, she always discovered it by the difference of sensations which she

experienced. But he found that the young girl could cause no deviation of the needle of the compass.* Thus, it is plain, in this case, that while the magnet excited a peculiar force in the girl's organism, the latter could not reäct upon the magnet in turn, as would have occurred if it had been magnetism proper. It is, however, declared, by another reporter of this case, that there were *times* when this force did cause a deviation of the magnetic needle. C. Crow says: "A needle suspended horizontally, oscillated rapidly with the motion of her arm, without contact; or remained fixed while deviating from the magnetic direction."

306. This would *seem* to indicate that the agent was susceptible of change or an approach to a deviation from the characteristics of the well-known magnetic force. We shall not, however, admit this point till further considerations make it more evident.

307. We have shown, moreover, in the case of Frederica Hauffe, investigated by Kerner, of Germany, that the magnet had a very powerful influence upon her nervous system; not, however, as with Angelique Cottin, in producing shocks, but in producing an *involuntary muscular contraction*, "cramping the muscles in the most horrid manner, which would not pass off for several days." What is worthy of remark is, that, in both cases, it was the *left* side of the body that seemed to be most susceptible to this influence.

308. In the former, this peculiar susceptibility coëxisted with the power of the organism to give emanation to a force that moved things without visible instrumentality, and even without contact, and also with clonic spasms, &c. In the latter, this susceptibility coëxisted with a tendency to clonic and tonic spasms, with the phenomena of somnambulism, clairvoyance, with sounds without visible instruments, and the strange movement of objects in the presence of her person.

309. The fact of a magnet having a decided effect upon

* See chap. ii., § 89, ¶¶ Twelfth, Thirteenth.

the organization of certain susceptible persons, has been demonstrated in thousands of instances. The facts given by Reichenbach, on this point, are sufficient, alone, to convince any honest sceptic. Many European savans, previous to the observations already alluded to, had observed the same general phenomenon.

310. As early as 1788, Petetin had proved the fact of the attractive power of the magnet upon the human organism, and numerous other physicians had repeated the same experiments with like results. If it were our object merely to confirm this fact, we might array an army of respectable testimony, and there leave the subject. But we have something to do with the facts. It is an important inquiry, what are the effects of the magnet, what are the peculiarly susceptible points of the organism upon which the force of the magnet acts, and what is this force? Is it magnetism, or something like it associated with the magnet? And what relation does it hold to the forces we have already exhibited as being evolved in the process of the organic and animal functions? It is necessary, then, to bring out the facts which experimenters have elicited, and to give them careful consideration. We shall do this without respect to doctrines, schools, or sects.

311. More than fifty years ago, Hahnemann instituted experiments* with regard to the effects of the magnet upon the human system, in order to obtain data for deciding upon its therapeutic or curative value in disease. The results of his experiments were, that he found it to have a very decided action upon a certain class of organisms; that this action was by a very different law from that established with regard to its action upon iron. He was hence obliged to discard the application of it according to any magnetic formula previously established.

312. Becker, of Muhlhausen, took up these observations subsequently to Hahnemann, and, after numerous careful experiments instituted in various ways, was forced to consider the peculiar influence which the magnet exerted upon

* See his Materia Medica Pura (Magnetism).

the susceptible organism, was not purely from the magnetic force,* for he found a similar influence exerted from crystals and other substances. His experiments also resulted in the discovery of a number of remedial applications of this agent, especially as it emanates from the magnet.† One curious experiment which he gives is worthy of notice, as it supports the conclusion, that the agent from the magnet which affects the organism, is not the *proper magnetic force*, but something *associated with it.* He formed, at the suggestion of Nobili,‡ a hollow magnet, of two parts. When these parts were fitted together, he found that they lost in their magnetic power upon iron; but, to his surprise, its action upon the nervous system was greatly increased.

313. It would seem natural to infer, that if this force is increased in its action upon the sensitive organism, under such circumstances, the same force may be found associated with iron. The phenomena exhibiting this fact are not wanting. Noanks and Trinks give several instances where the mere contact of a piece of iron with the sole of the foot of a person, produced tonic spasms of the thigh and leg; where, also, in another case, a feeling of violent coldness and rigidity, and spasmodic contractions of the fingers ensued, when an individual, laboring under St. Vitus' dance, was touched with a piece of iron. These phenomena took place, however, only when the iron was applied between the paroxysms; and what seems exceedingly curious is, that if the iron was applied when the patient was in one of his paroxysms, the spasms immediately ceased. Another case is given of an individual, subject to chorea, who was thrown into violent *convulsions* if the schneiderian membrane was touched with a piece of iron. In several instances, previous to the paroxysms the mouth would be closed by means of a key, and when the paroxysm set in, the patient was absolutely *jerked from his bed under a table near by.* This, it is stated, happened twice in succession. Additional

* See "Mineral Magnetism," &c., Mühlhausen, 1829.
† See Hygea, vol. xxi.
‡ See Poggerdoff's Annals, xxxiv., p. 271.

facts on the action of iron upon the human subject might be given, but these are sufficient.

314. There are two points clearly exhibited throughout this class of phenomena, namely, the action of the force emanating from the magnet and from iron; first, upon the nervous system; second, upon the muscular. In the latter case it may be indirectly through the irritation of nerve-centres.

315. To place this matter beyond all question, and to show as far as can be what the agent is, we shall now turn to the experiments of Reichenbach. The baron commenced his experiments with the magnet upon sick and cataleptic patients. In the case of Miss Nowotny,* a cataleptic, he brought a twenty-two pound magnet to her hands while in the unconscious condition. They at once adhered to it in such a manner, that, when the magnet was raised, or moved sideways, backward, or in any desired position, the hand remained constantly attached to it, as if there had been a piece of iron clinging to it. The attraction was so strong, that when the magnet was drawn in the direction of the feet, beyond the reach of the patient's arm, she not only did not leave it, but, in an unconscious state, rose up in the bed and followed the magnet with her hand as long as it was at all within her reach. "This I saw daily," says the baron, "between six and eight o'clock in the evening, when the patient had her fits;" and these phenomena, he remarks, were usually witnessed by "eight or ten persons, physicians, physicists, chemists, and friends of science."

316. He also made experiments on this patient when not in the cataleptic state, when in her "best and clearest moments of consciousness. Her hand," he continues, "followed the magnet which I placed on it, exactly in the same way. * * * She described her sensation as an irresistible attraction, which she felt compelled to follow unconditionally and involuntarily, and which she was obliged to obey even against her will."

317. All this seemed so strange to the baron† that he

* See Dynamics of Magnetism, § 23, Second Treatise.
† See note on p. 44 of Dynamics of Magnetism.

seriously doubted its genuineness, and hesitated to receive what he witnessed as veritable facts. The "thing stood too completely in contradiction to the known laws and powers of magnetism," says he, "for me to see my way clearly," and he even doubted whether some intentional deception was not going on, "however much this might stand in opposition to the visible, manifest honesty of all around, and the respectability of the patient." He determined, therefore, to test it thoroughly.

318. He concerted with a friend, to take his station on the other side of the stone-wall against which the bed stood. This friend, without the patient's knowledge, held a powerful magnet, capable of sustaining ninety pounds, near the wall opposite the patient's head, and by a given signal removed the armature. "Scarcely was the armature removed," says the baron, "when the patient became restless, and complained that a magnet must be open somewhere, desiring that some one would look, and relieve her from the pain; for large magnets always caused her great uneasiness from over-excitement. The armature was replaced without her knowledge, and she became quiet again." This was repeated several times with the same effects.

319. "The magnet, therefore, acted through a stone-wall, without the patient being aware of its vicinity, exactly in the same manner as it did when lying open before her; in correspondence with the known laws of magnetism, which penetrates irresistibly through all bodies."

320. It produced a varying, unnatural redness in her countenance,* which appeared and disappeared during the experiment of removing and applying the armature. Thus showing that the force emanating from the magnet had an effect directly or indirectly upon the circulation.

321. Another test still more satisfactory, as well as curious, was the following. This was undertaken by M. Baumgartner, formerly professor of physics. "When the phenomena with the magnet had been exhibited to him, and their strange effects upon the patient had been repeated

* See note, page 45 of the baron's work.

one after another before his eyes, he took from his pocket a horse-shoe magnet of his own, which he told the bystanders, in the presence of the patient, was the most remarkable of all the magnets in his collection of apparatus, and that which had always proved itself the strongest; he was desirous, therefore, of knowing the strength of the action it would exercise upon the patient. "To our astonishment," adds the baron, "Miss Novotny declared that she could not confirm this; on the contrary, she not only found it much weaker than any, even than the weakest, of the magnets present, but it seemed to her almost without influence. M. Baumgartner laughed at our astonishment, and now told us that the magnet, which was indeed his best, had been deprived of its magnetism before he left home, by friction in the reverse direction, and therefore its power had been reduced almost to nothing." Other tests were made, but those we need not mention, as they add nothing, and these alone are sufficient as demonstrative evidence of the existence of an agent in the magnet, which reacts upon the sensitive organism; and that the phenomena cannot be, in reason, charged to the influence of an impression made upon the mind. It is useless to add words here. There is enough said to convince the honest, and only such, we expect, will read this work.

322. In other cases where the baron experimented, new phenomena presented themselves. In the case of Angelica Sturmann,* nineteen years of age, suffering from tubercular affection of the lungs, the magnet had a very singular power over her organism. At a considerable distance from her person, and in a darkened room, a magnet was brought of 90 pounds' power, when she immediately fell into tetanic spasms and complete unconsciousness, on pulling off the armature.

323. The phenomena of spasms and catalepsy were, however, foreign from the object of the baron in these cases, and he considered them as misfortunes † when they occurred, as, in such cases, he could not follow every inves-

* See the baron's work, p. 26, § 4. † Ibid., p. 28, § 7.

tigation on odylic light quietly to the end. These are important to us, however.

324. These different cases, compared with those we have presented, and others of a like kind, mentioned by Petetin, Rick, and many others, leave no doubt of the correctness of the fact, that, in certain diseases, especially those in which catalepsy exists, not only a distinct attraction occurs between the human hand and strong magnets, but there takes place a decided action upon the automatic or nerve-centres, not only of the spine, but of certain centres of the brain itself.

325. There is an importance connected with this species of phenomena which will not allow us to dismiss them without gathering others. We must notice here those facts which Ashburner, of England, has recorded.

326. This gentleman had prepared a dark room, in which he had arranged magnets, as the baron describes he had done in his experiments in Germany. "Into this room," says Ashburner, "I have introduced persons,— without their knowing the object,— who instantly *fell asleep*, *became clonically convulsed*, and *passed rapidly into the deeply rigid or tonic spasm*, so that I have withdrawn them into another room, while they have been as stiff as if they were frozen. By the application of unmagnetized iron to the nape of the neck," he says, "I removed the rigid condition of the muscles, and removed, also, the somnolence." He also remarks, that "some individuals, under these experiments, woke up by the ordinary *mesmeric manipulations*, remaining *fixed with tonic spasm*, however, until he applied the unmagnetized iron. He also mentions three different females who were made exceedingly ill, and were seized with painful spasms, if he happened in their presence "with a *middle-sized magnet concealed in his coat pocket*." Dr. Elliotson mentions several similar cases in the volumes of the Zoist.

327. T. C. Hartshorn, in his appendix to Deleuze's work on Animal Magnetism, gives several cases where both the magnet and unmagnetized iron had very sensible

effects.* In one of the cases mentioned by him, the magnet had a similar effect upon a mesmerized patient that it had upon Angelique Cottin, as observed by Arago.

We shall now close the details of this class of facts with two cases, which open to us still further a new field of inquiry of more intense interest. The first is given by Dr. Joseph Haddock.†

328. Wishful to induce the mesmeric sleep on a lady, for the relief of a rheumatic affection from which she was suffering, and finding the continual stare very fatiguing to his eyes, and also expecting to be called away by patients, Dr. H. suspended a small magnet by a wire from a hook in the ceiling, for the lady to stare at. At this time his regular mesmeric patient (Emma) was in a room *under where this arrangement was made.* "In a few moments," says this gentleman, "the smell of burning linen arrested my attention; on which I sent my daughter below to ascertain the cause, when she immediately called me. I found Emma mesmerized, and on her knees before the fire, engaged in sweeping the hearth, and her apron on fire, of which she was *unconscious, and her attention was wholly directed to a point in the ceiling of the room.* Having asked what she 'was doing or looking at?' she replied, '*I want that magnet.*' Upon inquiry, I found that she had been engaged under where I was sitting; the influence had passed through the floor and ceiling, and affected her *unconsciously in the room below.*"

329. It is evident, from the phenomenon with regard to the magnet, on comparing it with the mesmeric phenomena under similar circumstances, that the agents in both are identical, certainly in the results of their action, if not the same every way. We will, however, before presenting this as an absolute deduction, give the following case, which exhibits the subject in an unquestionable light.

* See Practical Instruction in Animal Magnetism, by J. P. S. Deleuze. Translated from Paris edition, by T. C. Hartshorn. Appendix, pp. 38, 41, 43, 44.

† See Psychology, or the Science of the Soul, &c., by J. Haddock, M. D., p. 82. New York, Fowlers and Wells, 1850.

The case now to be noticed is given in a letter to the "Magnet" by "an intelligent minister of the gospel," well and extensively known.

330. "Rev. and dear Sir: — Agreeably to your request, I herewith transmit the facts respecting the influence of the *magnet*, in producing the magnetic sleep in the case of my little son. I first magnetized him about the 20th of February, 1842. His age is 15. For some days he was put to sleep each day, for about half or three-quarters of an hour. After that, each alternate day, for about three or four weeks.

"About ten days since, he was playing with a small horse-shoe magnet, capable of sustaining about twelve or fourteen ounces. In a short time I perceived that he was asleep, and exhibited the usual symptoms of the magnetic state. I attempted to arouse him, and he immediately opened his eyes, but said, 'I am in the magnetic state; I can see everything just as when I am magnetized.' I attempted, by the usual passes, to remove it, but found I could not. He said, 'It is the magnet that has produced this state, and you cannot take it off.' I then took the magnet in my hand, and tried the effect of making the several passes with that; but it only increased the difficulty. I then proposed to send the magnet away to a distant place, but he objected with great earnestness, and even with tears. I then persuaded him to go with me into another room, twenty or thirty feet distant from the magnet; and after staying there a short time, he consented to have the magnet removed.

"I again tried, by the usual passes, to remove the influence from him, but could not. He remarked that nothing I could do would remove it, but that it would pass off, of itself, in about an hour, and that he should '*come out of it with a shudder*.' During all this time *his eyes were open*. He could hear and converse with me and with persons *who were very near him*, after they had been near him for a few moments, but with no others.

"He was playful, and apparently happy. In about an hour, he started suddenly, and with a violent spasmodic

shudder, and appeared to be restored to his natural state. Of nothing that had passed had he any recollections, and the only difference that I could discover between this and the state in which he had usually been when magnetized, was that in this *his eyes were open;* he had none of the usual attachment for me; all seemed transferred to the magnet, and I had no power to remove it. The magnet had been removed to a distant chamber; but he expressed a strong desire to go to it. I then took the magnet away, *unknown to him*, and, passing out of doors, carried *by a circuitous route*, and placed it in a pile of lumber, distant about seventy or eighty feet. It was past nine o'clock at night, and very dark, and he had no means of knowing, by the ordinary senses, that it had been removed. He said, however, that it had been removed, and went on to tell me which way he would take to find it, and said he would not go directly to it, but would find it by a circuitous route,— that he would go out round the house, in about the same course that I had taken in conveying the magnet there! But he said the magnet was wrapped up in a paper, and put in a pile of lumber, which was the fact.

"I then went and removed it to still greater distance, where I left it till the next morning. He said he had *a strong impression on his mind* that it had been removed to a more distant place, as I have described it, and that from that time he lost all interest in it. This was more than an hour from the time that he came out of the magnetic state with a shudder, as above described. Since then he has manifested no desire for the magnet, but when it was afterwards brought near him, even within several feet, he said, after a few minutes, that he felt the same influence coming over him, and immediately caused it to be removed.

"I might add, that the application of living magnetism in his case, was in a course of medical treatment for a spinal disease, and was generally applied under the direction of experienced physicians, and apparently with very happy results. "Respectfully yours,

"_____.

"Philadelphia, April 17, 1842."

331. We might add to these facts many others of a like character, that we have been for a long time collecting, but these are sufficient to warrant the following deductions:

First, That the magnet gives emanation to an agent which has, under peculiar conditions of the organism, a specific action upon the muscular system directly or indirectly.

Second, That, particularly under certain conditions of the automatic centres in the spinal axis, the peculiar force acts as a specific irritant upon them, causing automatic spinal action, or involuntary movements, shocks, spasms, tonic and clonic, and apparent attraction.

Third, That, furthermore, the same material agent, under favorable conditions of the centres of the brain, has a specific influence upon them also, causing somnambulism precisely analogous to that produced by the mesmeric operation, effecting also an exclusive attachment to the magnet, as is produced towards the living operator. This special relation, thus established between the magnet and the patient, under peculiar condition, is so perfectly and permanently established, for the time being, that the usual living operator has no power to remove it.

Fourth, That this peculiar material agent establishes, under favorable conditions, a clairvoyant condition of the brain, with regard not only to the magnet, but with regard to the relative position to other things.

Fifth, It is, therefore, inevitable, as a deduction from all the facts of this class, that the agent by which the mesmeric operator and the magnet effect their analogous results on the brain and nervous system of the patient, is the same.

Sixth, That this being a material force from the magnet, the force from the magnetizer, that produces the same results, is also material.

Seventh, It follows, therefore, that the automatic action of the spinal and the psychological centres in the brain, is subject, under peculiar conditions, to the influence of a purely material external agent.

Eighth, That this force (under peculiar conditions),

when put in action in the brain of one person, may act, as to a distance, with reference even to an inanimate object; and that, therefore, the state of clairvoyance, to a certain extent, as well as mere somnambulism, is a susceptible condition of the brain, with reference to the material conditions of other things external to itself.

Ninth, That this force, in acting from an object upon the organism of a person, may find its passage as readily through walls and other intervening substances, as is found to be the case with magnetism.

Tenth, That this agent can also act as readily, under a favorable condition, at a distance, as is found to be the case with the electric agent.

332. Everything asserted by Mesmer, then, relating to the action of the magnet upon the human organism, cannot, in reason, be cast aside as fabulous or imaginary. The cases we have given show that the fundamental facts of Mesmer on this subject are true, namely, that "magnets do act on the organism like the human hands;* and that, when passes are made with them, the same sensations are experienced, as when the operator uses his hand." *

333. The same fact of identity we have thus exhibited, was noticed, therefore, by Mesmer. Reichenbach has added facts to the same purpose, but he found the same force that emanated from the magnet, to which certain organizations were peculiarly sensitive, reacted in the same manner also from other substances. The following are some of his more important deductions, which we present to the reader, and leave him to consult the baron's work † for the details.

334. *First*, This agent is found not only to emanate from the magnet, but also from crystals. That all bodies of matter, when in the regular form of crystals, give it forth, in such a manner as to produce a specific influence upon certain persons. The polarity of this force, which he found in magnets, he also found in crystals; thus showing that the phenomenon of polarity was attributable to the molecu-

* See Professor Gregory's Letters on Animal Magnetism, p. 193.
† See his Dynamics of Magnetism. Redfield, Clinton Hall, N. Y.

lar arrangement of the matter of the crystal; for other substances, such as were not crystallized or regularly formed, gave emanation to this agent, but *not in a polar manner.*

335. Of course, the scientific mind would naturally infer, if polarity of force depended upon the regular arrangement of the molecules or particles of matter composing a body, that any such agent in the animal organism must have its poles of action. The truth of this, however, was not left to rest upon mere inference; it is demonstrated by numerous experiments.

336. *Second*, The action of all the other agents, as heat, light, chemical action, electricity in its every form, frictional and voltaic, excited the development of this new agent, which he denominates odyle.

337. Hence, in all the numerous material processes in the earth and in the heavens, this odylic agent is set free or thrown into development. It is then constantly emanating from the earth, and as in some localities, owing to chemical processes, electric currents are excited by mineral veins, subterranean currents of water, &c., &c., this odic force must, of consequence, arise in more powerful currents, in such localities.

338. Now, is it at all surprising that the human organism, being peculiarly susceptible to this agent in such localities, is the more susceptible under derangement, and should exhibit strange phenomena heretofore unaccountable? Have we not already seen, in the case of the Seeress of Prevorst, that among the mountainous regions, where the subterranean forces were naturally more energetic, she was more subject to her mesmeric (rather odylic) trances, and her cataleptic conditions? Rhabdomancy is not so unaccountable under the light of the facts before us. It now, indeed, throws itself into our hands as a higher fact. For it is in this, that the forms of mere mundane force are made to meet the same agent as it plays its part in the organism of man; and is it not where the two meet, that the motion of outward bodies takes place? Here is room for speculation; we will not stop, however, to occupy it at present.

339. *Third*, This force is identical with that by which one individual affects another, as in mesmerism, &c., in as much as *it has the like action from the human hand that it has from magnets, crystals, and the earth.**

340. *Fourth*, That it is, therefore, in immediate association with the brain of every human being, as well as with every other form of matter, and is thus the medium of a close and intimate relation between proximate, and even distant points of matter, and the living brain.

341. *Fifth*, That this identical, essential force of all dead and living matter may be (under proper conditions) transferred from one body to another, even without contact.†

342. *Sixth*, That, wherever this force emanates in a sufficient degree of intensity, *flames and vaporous luminosity* are made evident to the sight of persons, whose nervous systems are in the proper condition for appreciating them,‡ and other necessary conditions are fulfilled.

343. Now, all these facts and principles of the new agent are more or less developed in the material phenomena of the modern manifestations. The physical question, then, is settled with regard to the latter; that their agent is material or physical, and is identical with that we have exhibited, — identical with that witnessed by Arago, in the case of Angelique Cottin, — with that witnessed by Matteucci, in his experiments on the induced muscular contraction, —

* No part in the baron's researches is made more evident than this. "The parallel between the two," says he, "is evident and complete, and the agreement of the forces, in their general expression, so perfect, that they evidently become identified." (See Dynamics of Magnetism, p. 115.) Again, he says, "This force, which physicians have called animal magnetism, possesses the following properties:" after enumerating which he concludes thus: "All exactly as the crystallic force is, with which it thus coincides, and in all particulars, obeys the same physical laws." Thus, "the part of the force residing in the magnet, the crystallic force, and the force which is the basis of the so-called animal magnetism, coincide in their essential nature, under one common point of view." Ibid., p. 116.

† Ibid., p. 169.

‡ This is not only beautifully demonstrated by the baron, but has been confirmed by Professor Gregory, of Edinburgh, and numerous others. See Gregory's Letter on Animal Magnetism.

with that observed by Thilorier and Lafontaine, in their researches on the nervous system, — with that witnessed by Thouvenil, in his experiments and observations upon Bléton, — Ritter and Amoretti upon Campetti and others, — and with that discovered by Reichenbach, and named odyle, and demonstrated to be identical with the animal magnetism of Mesmer,* and that it is a material force, differing essentially from electricity and magnetism proper.

344. It follows, therefore, that the agent which has been developed in the experiments of mesmerizers, is not an exclusive agent of the human organism, but is a universal force in nature. That, inasmuch as the human nerves and the centres of the brain are peculiarly susceptible to its influence, the whole outward material world is, through the medium of this agent, brought into an intimate relation to the centres of the human organism.

345. Furthermore, inasmuch as one human brain stands in a closer relation to another human brain than it does to a mere inorganic point, it follows, that it should be more susceptible to its influence; and inasmuch as this influence takes place without necessarily involving the action of the mind, that it is *not*, therefore, necessarily connected with the spiritual world.

346. Again; inasmuch as the tendency of the influence of this natural agent, when acting powerfully upon the brain, is, to suspend the conditions under which the self-conscious, self-determining, self-governing, thinking intelligence has its freedom, and to open the brain to the influences of material changes, it follows, that the state of

* As this was about going into the hands of the printer, we received the work of Mr. William Fishbough, entitled "Macrocosm and Microcosm," in which he endeavors to support, by an ingenious hypothesis, the spiritual theory of modern "spiritual manifestations." He, however, recognizes the material character of the force that acts directly in their production, and mentions, as a fact, the identity proved by Reichenbach. "Indeed," says he, "Reichenbach actually proved its identity, in the general sense, with the medium through which one human being produces those effects upon another, commonly known as 'Magnetic' or 'Mesmeric;' and the world is indebted to that philosopher for *physical demonstrations* in this department, which place the fundamental doctrines of animal magnetism beyond all possible doubt." p. 106.

trance, somnambulism, ecstasy, clairvoyance, consequent upon this nervous condition, is directly opposite to a purely spiritual condition, as a state of disease is opposite to a state of health, as a state of fiction is opposite to a state of absolute truth.

347. The verity of this deduction will be still further demonstrated by additional facts and reasonings as we progress in this work. It is a painful thing to announce it, as it was indeed so when it was forced upon our convictions by the overwhelming accumulation of facts crowded upon us during this investigation. We had been a believer in the spiritual character of the clairvoyant and ecstatic condition, till driven to abandon the delusion by witnessing their material causes and earthly conditions, the effects of drugs in producing and removing them, and the suspension of the noblest powers in these conditions, and in observing the automatic susceptibility of nearly every organ of the brain. We have not hastily arrived at our conclusions, as will be seen when the reader comes to notice all the facts given in the sequel of this work.

348. We have now arrived at that point in our researches where we can see the relation of the material agent which reäcts from the organism upon external things, &c., to the unconscious psychological centres in the brain. We shall now, in Part Second, open upon the facts which show the government and control of this force from the same centres. This will be demonstrated to be the case, and we shall show also that the fact is virtually admitted by some of the most intelligent among the advocates of the spiritual theory.

349. There are many facts we have not considered in this first part, which will fall in as we pass along. And the reader will not expect that all the phenomena of the manifestations will be explained on a few pages, as they are very numerous and diversified, and involve many principles which must be considered in their proper relations in order to understand thoroughly the ground of their philosophy.

PART SECOND.

ON

PHYSICAL PHENOMENA

BEARING THE

CHARACTERISTICS OF INTELLIGENCE.

PHENOMENA, SHOWING

THE

INFLUENCE OF THE BRAIN

ON THE

PHYSICAL AGENT.

CHAPTER I.

Notice of the classification made in the outset — Class of phenomena now to be treated — The grand question to be settled in this inquiry — First fact — What it declares for itself and for the class to which it belongs — The "raps" and the intelligence — Certain habits of the brain manifested in the case given — Demonstration — Words impressed without the cognizance of the mind — Without impressions no communications conceded by "Supernal Theology" — Analysis — Unconscious receptacle of unconscious impressions — Interesting case — Impressions unconsciously made, unconsciously exhibited — Automatic play — Deductions — Interesting case — Physician's daughter a medium — Fictitious identity — spiritual plagiarism — "Foot-steps of angels" — Declaration of facts — What they demonstrate — Impressibility, what is it? — Automatic action — Predilection of the brain — Conditions required in the medium — Passiveness — Declaration of the "Spiritual Telegraph" — Philadelphia declaration — Prof. Gregory on the same — Next question — Conditions.

350. THE phenomena of which this work specially treats we have already noticed to be divisible into two general classes.

First, Into those that indicate the action of some sort of agent, more or less intimately associated with particular

persons, upon external things; affecting the latter visibly, even by mere contact, and sometimes without contact, even at a distance; producing sights and sounds, which affect not only the senses of men, but of animals; producing, also, shocks, trembling, spasms, tonic and clonic, and even, as in one instance, the extinction of animal life (§ 55). This *first* class was shown to be divisible into two other or sub-classes. The *first*, bearing no characteristics of a directing intelligent influence. The *second*, exhibiting these characteristics (§ 56).

The *second* general class we named as consisting of those more immediately connected with the organism of certain persons; such as various involuntary movements of the voluntary muscular system, divisible also into two sub-classes. *First*, those involuntary motions which are irregular and spasmodic, without bearing the characteristics of intelligence or intelligent direction. *Second*, those which show the involuntary motions to be guided by a more or less intelligent influence.

Of the first division of the first general class we have given numerous examples, and have demonstrated that the agent is a physical one, and, therefore, not spiritual, inasmuch as the characteristic of spirit is a free intelligence.

The physical agent, then, engaged in the production of the physical phenomena of the first sub-class, is the same as that which operates in the production of the *second* sub-class; and the only difference between the two is, that, in the *first*, the physical agent is excited into development without an intelligent direction; whereas, in the *second*, it has this intelligent direction.

The same analysis gives the same results with regard to the second general class of phenomena. The first division of this class consists of those movements of the voluntary muscles which are excited into action without intelligent direction. The second division consists of those involuntary movements that are excited and directed by psychological power.

351. Our grand question now, and that which the community most anxiously hang upon for a satisfactory answer

is, whence this intelligence? How is the table, the chair, made to move as by a law of intelligence? And how is it that the medium's hand is made to move without their own free-will with ten-fold the rapidity in writing intelligent words than the medium can *voluntarily* execute? In short, whence is all this apparent intelligence, without the *conscious effort of any mortal present?*

In answering this question, we must, as in answering that which we have already discussed, have to do with *facts.* Here we must plant ourselves, and as every fact of a given class tells something for the class as well as for itself, we are not to cast any one of them out of the analysis or synthesis.

PHENOMENA — SECOND SUB AND SECOND GENERAL CLASS.

CASES OF FIRST AND SECOND SUB-CLASSES. INTELLIGENT CHARACTERISTICS ACCOMPANYING PHYSICAL PHENOMENA.

352. The first fact we shall present of this character is one which *we* have not only repeatedly observed, but, perhaps, hundreds of others, and has been a matter of discussion in several publications devoted to the "spiritual theory." We refer to that where, in both the phenomena of the raps, movement of the table, &c., and the involuntary writing, the *grammatic characteristics of the medium have been exhibited.*

Case. Ellen Galaga, an Irish servant-girl, a medium for "raps," and the movement of the table,— quite intelligent. Her habitual orthography in certain words is false. For instance, she always spells possible, "*posebel,*" belief, "*beleaf,*" lose, "*luse,*" honest, "*onest,*" preach, "*prech,*" centre, "*senter,*" home, "*hom,*" doubt (a word which has frequently occurred in the communications, as in the expression, "You must not doubt"), is spelled "*dout.*" The

phenomena of the rappings in this case, would occur on the table, the backs of chairs, and sometimes on the walls of the room without her contact. But in the movement of the table or a chair, which, however, seldom took place, she would have to touch the article, and at the time of the movement she would experience a tremor over her system that sometimes seemed to commence in the hands, and at others in the feet. On touching the article, the table for instance, it would soon commence to jerk *away* from her; moving in this jerking manner some foot and a half, or two feet, after it had left her hands. The communications were generally spelled by sounds upon the table, without contact. But whether the communications purport to come from Channing, or Jonathan Edwards, or Noah Webster, Paul or "Jemmy Cullen," "you must not *dout*," is given always with the same orthography on the last word. Perhaps this may be explained on the ground that Noah Webster had introduced the "short hand" method of spelling among spirits. This will not, however, explain the orthography of "*posebel*" for possible, "*beleaf*" for belief, "*prech*" for preach. It may be answered, by some one deeply initiated into the mysteries of the spiritual world, that the spirits of Noah Webster, Walker, and Johnson, have introduced a new orthography on all these words, to be made use of especially through such mediums. But it happens that this kind of spelling is *habitual with the* "*medium.*" When *not acting* as such she spells the same words in the same way. We might refer to other cases of the same character. But this is sufficient, even if it stood entirely alone, to prove that,

353. A specific or characteristic action of a part of the brain of this medium controlled the physical agent in producing the sounds.

354. Now, what is true in this case, of a bad spelling medium, or in a medium whose characteristic bad orthography is represented in the "raps," is true of all mediums whose characteristic bad orthography is represented not

only in the sounds but in the movement of objects, and the involuntary motions of the hand as in writing mediums.

355. It follows, therefore, inevitably, *that the peculiar physical agent which we have, in the earlier chapters of this work, proved to have, under favorable circumstances, an emanation from the organism, is also, under specific conditions, commanded and directed by the brain-centres.*

356. It must be evident, also, that if *no words* had been impressed upon the organ of language, in the medium above noticed, there could have been *no communication*, for the same reason that the bad orthography was communicated when the communications were made. It must be conceded, then, even supposing that spirits do make communications through "mediums" in this manner, *that they depend upon the conditions of the brain.* Indeed, this point is conceded by O. G. Warren, and "one of the medical faculty," in their celebrated work.* Thus, "they (the spirits) cannot write well, through infant children, without difficulty,— because *words* [their own emphasis] have not been formed in their minds. Through older persons, who have full language, they write more freely, and express themselves better, because *they find words ready-made in the mind.* Thus, when an Italian was speaking through a medium who did not understand the language, he desisted after a few lines, alleging, that the vocal organs of the child had not been accustomed to the sounds he wished to produce. Yet it is certain, that the medium's mind is not cognizant of the idea which the spirit is conveying, and often finds it impossible to decipher what has been written."

Mark the expression, "Yet it is certain that the medium's mind is not cognizant of the idea, &c., and often finds it impossible to decipher what has been written," and we may add, to tell what words or ideas have been spelled out by the alphabet and the sounds, when the communication is made in the latter way.

* Supernal Theology, p. 67.

357. Let us analyze this. Notice, first, that "*the words must be in the mind of the medium.*" Second, that the *mind* of the "medium" *does not know when they are made use of in the communications.*

Now it is certain that to have a word in the *mind*, is to *know it. To know* a word, is to be *conscious of it.* Should the *mind*, therefore, express the word, it would do it *knowingly, consciously.* It follows, therefore, that if a word is expressed without knowledge, without consciousness, it did *not* come *from the mind.* That is, it did not come from the intelligent, thinking, self-conscious, self-determining, responsible agent.

Either, therefore, there must be two totally distinct minds to one person, one self-conscious, &c., and the other unconscious,—which is a solicism,—or a mind which is always necessarily conscious of its *own acts*, and, therefore, *responsible for them*, and *another* part which is *not* the *mind*, and is *not necessarily conscious of its own acts*, and is *not, therefore, a responsible agent.*

358. Those mediums, whose characteristic bad spelling is made a characteristic in the communications, are not conscious of what takes place. The bad spelling, then, in this case, is not an act of the *mind* of those mediums, but of that *part of them which acts without the conscious knowledge of the mind.*

359. Now it is well known to every one, that there is one part of himself (call it what you will) that receives impressions and acts from them or reflects them back without the necessary conscious knowledge of the mind. Not only words, but combinations of words, sentences, and whole paragraphs, nay, pages, may be impressed upon it without our being aware of what is taking place within us. The case mentioned by Coleridge is one of this kind, where a child, residing with an old divine, unconsciously received impressions of whole pages of "*Greek*," "*Latin*," and "*Hebrew*," from his repeating them to himself, aloud, when walking his hall every morning. Many years after, the girl, who had grown to womanhood, was attacked with inflammation of the brain; was taken to an hospital, and

there, in her delirium, to the astonishment of the learned, repeated for hours those classic passages which, on comparison with those the old gentleman had left copied among his papers, were found to be exact.

360. This case exhibits the automatic play of the organ of language in a most remarkable manner. It also shows that the unconscious impressions received in *childhood may, under peculiar conditions of the brain, be thus automatically displayed.*

361. Now place these evident facts by the side of that with regard to the medium we have just mentioned, and we get the following result. A person's characteristic bad spelling is represented in certain sounds. Her *brain*, alone, could have been the source of this pantomimic representation; from that alone could this precise reflection of its own every-day habit take place. The action of this part of the brain, in this process, took place *without the consciousness* of the *person's mind.* The same organ of a person, under peculiar circumstances, also represents in pantomime the unconscious impressions that *years before had been made*, and *this* without the *conscious knowledge of the mind.* It follows, therefore, as inevitable deductions,

First, That a particular organ of the brain may receive impressions unconsciously to the mind.

Second, That years after those impressions have been made, and in a peculiar condition of the brain, they may be *automatically represented in pantomime without the conscious knowledge of the mind.*

Third, That the impressions may not only display themselves by the unconscious action of the vocal* organs, but by the *unconscious emanation of a physical force*, which we have *proved to have* an action in the human organism, even in the muscles and in the nerves, as well as in all external things.

362. Now take the following case, the like of which we have seen in several other instances: Jane A. D., daughter of a physician, had become a "writing and tipping

*In both cases the impressions were unconscious, and had happened in childhood, and were reflected under peculiar conditions of the brain

medium," and could obtain slight responses by the sounds. She believed herself to be a "medium" for communications from a deceased cousin, who, with herself, had been passionately fond of poetry. Jane carried on these communications by herself for some time, for her own satisfaction, but mostly as a writing medium. She had not, after some few of the first communications, the slightest doubt of the reality of all this being the work of a pure spirit, until the following circumstance took place. A communication was made of a beautiful stanza of poetry, from what purported to be the spirit of her young friend, and was declared as original. Jane was so much delighted with the remarkable circumstance, and with the perfect sweetness of the lines, that she took them to her father and related the circumstances. He saw that the style of hand-writing was that of his daughter's late friend, and was greatly amazed at the mystery. The fact of the identity of the hand-writing was not, indeed, to be questioned; and since he knew his daughter to be truthful every way, he determined to examine into the wonderful phenomena. The following evening was, therefore, spent in experiments and conversation upon the subject. Everything was, however, to be kept profoundly secret in the family, as there was so much said in derision of the "rappers." "That night," says Jane, "while I was dwelling on those beautiful lines, and my heart was swelling with joy, that my own dear parents had become interested in the phenomena, it flashed across my mind that I had either heard or read the same lines before, *somewhere*. But I did not wish to think so, and yet I desired to know the truth. It, at last, appeared to me, fresh in my memory, the very place where and when, I had read it. It was while alone and lonely, just after the setting of a beautiful September sun, and the lines were from that sweet poem of Longfellow, 'The Footsteps of Angels.'

> 'Uttered not, yet comprehended,
> Is the spirit's voiceless prayer,
> Soft rebuke, in blessings ended,
> Breathing from her lips of air.' "

363. Now, it will not do to say, that it was a false spirit that caused this young medium to play this plagiarism. None but the most fanatical would attempt to give such a solution.

This case falls precisely under the same law as the others we have given. It belongs to that class, and we are bound to treat it in the same way. It declares something for itself; let us hear it.

First, It testifies to the fact, that an impression made upon the brain may, under peculiar circumstances, afterwards be reflected outwardly without the knowledge and the volition of the mind.

Second, That the power of the brain (that may, under certain circumstances in its action, assume any personality, from that of a divinity to that of a toad) had under a specific influence assumed the personality of Jane's departed friend.

Thirdly, That, under this peculiar action of the brain, there is a certain fanatical assumption, that can give to falsehood the *appearance* of truth.

Fourth, It demonstrates, also, in conjunction with the other cases, that it is no proof that a purported communication is from the spirit world, simply because it is not at the time *known* to any person present. Jane's hand wrote involuntarily what she, at the time, believed to be a communication from a spirit friend. In the communication, that friend is supposed to give a piece of poetry as her own, composed impromptu, as a purely spiritual production. Jane finds this to be *false;* that, some time before, she had received an impression of it on reading it under peculiar circumstances; that it did not dwell in the *mind* at the time of writing it involuntarily, and that not until after it had been thus written did it occur to her mind where and when she had read it.

Fifth, The same law in this case explains the phenomenon of Jane's imitating, involuntarily and unconsciously, the chirography of her deceased friend. She had received an impression of it in the same way she had received all her other impressions that had been involunta-

rily written out. The philosophy of this, as well as of all the other points, will, however, be more fully treated in their places, to the satisfaction of the candid reader.

364. That an impression may be made upon the brain or any part of it, in accordance with the law of sympathy that resides in this form of matter, and then outwardly reflected in involuntary, even in unconscious action, a long period after, has been demonstrated in the case given by Coleridge, and in numerous others of a similar character.

365. And now, in the outset of this part of our work, as we have entered upon the fact of impressions made upon the organs of the brain, we might as well state the principle of this, namely, that *impressibility*, in the sense spoken of here, is a property of matter under certain conditions. Iodine and bromine, on the daguerreotype plate, through the medium of light, receive an impression of objects brought within the focus of the camera. This may be said to be by a chemical law; true, and so when an image is impressed upon the retina of the eye through the same medium. It is not only, however, through the medium of light that impressions are made, but also through the medium of every form of imponderable or primary agency, — through heat, magnetism, electricity, and odyle. This latter agent, we have demonstrated by two different classes of experiments, is the necessary material agent of the brain and nervous system, and is the medium by or through which impressions are made, not only of the condition of one brain upon another, but of the condition of external inanimate objects and events upon the brain. We *have shown it to be the agent that is put in action in the mesmeric processes.**

In this process, the same thing takes place, therefore, that transpires every day; so that it is not necessary that a person be thrown into a mesmeric trance in order for an impression to be made or a predilection of the brain to be effected. It is strange that it has not been seen that the mesmeric phenomena are but the *extreme* developments of

* See chaps. VIII. and IX.

the common principles of humanity — *the law of every man's every-day life.**

366. "A bias, a prejudice, a predilection" of the brain may or may not become known to the mind of the person. Most persons will deny their existence in themselves. Even the honest do this; and it is because *their mind does not take cognizance of unconscious impressions.* It is only by the severest mental or spiritual discipline that a person becomes the *master* of his brain. And even with this, he never can be able to *prevent* the impressions which some objects will make upon the delicate brain-centres. It is, indeed, the property of the brain to receive impressions; but it is the prerogative of the *self-conscious, self-determining, disciplined mind, to reject or to receive their influence.* And this is the reason why a highly-disciplined *mind* prevents a person from *becoming a medium.* Because an undisciplined mind has not a control of the brain, it cannot prevent the influence of others in making impressions upon it; and, when made, it cannot prevent their reflex action or reflection back upon the outward world.

367. This is also the reason why, in order to develop a medium, *a suspended state of the mind — a passive will,* is found necessary. This condition is precisely the same with that which the mesmerist requires. Let us compare. Says Mr. Brittan, editor of the Spiritual Telegraph:

"A state *of mental passivity and physical repose seems to be even more indispensable than either intelligence or virtue"* to constitute one a medium. "Persons of *great mental powers and attainments are, perhaps, less likely to become susceptible* to spiritual influences, for the reason that *constant activity and independent thought render the mind less subject to the control of foreign masters.* When the mind is most vigorously exercised, it is, of course, least inclined *to yield to any power foreign to itself;* as the nerves of motion will not

* This subject opens to the view an entirely new aspect of human nature, and will be exhibited more fully in the sequel of the work.

readily obey an external agent *when they are acted upon by the individual will*, and made to vibrate to their utmost tension. *The strong repel foreign influences of every name and kind. Passive or negative natures yield, while the positive man opposes an effectual resistance.* Here, then, is the first thing requisite. We must sustain a *passive or negative relation* to the intelligences who seek to impress us; and, *without a due regard to this most essential condition, the highest intellectuality and the severest moral discipline will not avail.*" *

The reader will please observe, particularly, the lines we have italicised, as they exhibit the precise condition which we have been speaking of. We find the same conditions, implied or expressed, in nearly every work issued by the advocates of the spiritual theory. Thus the Star of Truth † gives the following:

"When you meet in a circle, you should be calm, and, as much as *possible, dispossessed of thought. A passive state is the only one we can operate in.* Please remember this."

Again, on another page:

"Numerous pages of spiritual writings have been given by spirits, and the spirits promise to impart the knowledge they have obtained from the highest sources, *on the condition that I remain* PASSIVE."

Thus, again, the Philadelphia ‡ work says:

"In order to prepare a medium, the person to be prepared must give up all *self-control, all resistance.*"

We could give a hundred other similar quotations from as many different books, pamphlets and periodicals issued in favor of the spiritual theory. It is, indeed, the everywhere acknowledged law of these phenomena, that they depend, more or less, upon a *non*-interference of the conscious powers — the *reason and the will*, and that the former take place independent of the latter.

* See Spiritual Telegraph for June 19, 1852.

† A spiritual monthly, published for a while in Boston. Vol. I., No. 1.

‡ History of the Recent Developments in Spiritual Manifestations in Philadelphia, by a Member of the First Circle, p. 11.

368. Compare these conditions, now, with those laid down by writers on mesmerism, pathetism, biology, &c. &c., which they have found necessary to the development of their phenomena. Let the following observations of Professor Gregory, of Edinburgh, be compared with those made by Mr. Brittan, already quoted. Says the professor:

369. "A powerful and very active intellect in the subject is not exactly opposed to his being magnetized, but renders it *often more difficult*, because the *constant activity of the mind* OPPOSES the concentration of the thoughts on the object of being magnetized, which is so desirable, and also counteracts the attempts to *attain that* PASSIVE STATE *which may be called essential to the result.*" Again he says, "One reason why so many susceptible subjects are found, especially in public exhibitions, among the less educated classes, is, that their *intellectual powers are not in so constant activity*, as is the case with men, for example, engaged in business or in professional and scientific or literary pursuits. *They become, therefore, more readily passive.* I have already observed that the Hindoos, and the natives of India generally, are more uniformly susceptible, even to men of their own nation, than Europeans. *This depends on the temperament.* It would appear that negroes also are both highly susceptible subjects and very powerful magnetizers. The obi of the West Indies and of Africa depends for its influence on their susceptibility." *

Thus, also, Mr. Sunderland, on Pathetism:

"The patient should become *passive*, and *settle his mind upon the result.* His *sight* and *hearing* should be *fixed* or *suspended*, so that he may sink, without interruption or resistance, into a state of *revery.*"

370. So far, then, as the conditions of the brain are concerned, and the suspended or *non*-interfering state of the mind, that of the "medium" and that of the *mesmerized* or *pathetized* subjects *are the same.* This point is demonstrated.

* Letters on Animal Magnetism, by Wm. Gregory, M. D., F. R. S. E., p. 96 See, also, p. 76.

371. The next question is, namely; on the action of the brain, without the governing and controlling power of the mind, do we not have the development of the same law, whether this take place under the name of "spiritual manifestations," mesmerism, pathetism, witchcraft, St. Vitus' dance, St. John's dance, tarantalia, preaching mania, barking mania, wolf mania, insanity, natural somnambulism, clairvoyance, &c. &c. &c.? If in all the same law of specific influences is put in operation, and the same conditions are established, why, it may be asked, are the results so different? The answer is demonstrably this: *The results are always precisely according to the specific influence on the brain at the time, and according to its preëstablished condition.*

372. The preëstablished conditions are, first, a *non*-controlling state of the *mind*, as to the action of the brain under the influence of external agencies; second, a consequent readiness on the part of the brain to be played upon by the external agencies, or to be impressed by them as they are evolved from related external objects; third, as a still further consequence, a promptness of the brain to give a reflex action of these impressions back upon the outward world through the medium of the automatic apparatus in the bodily frame, or through the odylic agent that we have proved to emanate therefrom.

CHAPTER II.

Reflex action of the cerebrum — Rev. Adin Ballou's concessions on "spirit-rappings" — Conscious influence of some "mediums" over the "rapping" power — Bias — Prejudice — Predilection — Will in the demonstrations — Mr. B.'s experiment — Confirmation — Medium's will no power to procure the physical agency — Characteristic of odyle not controlled directly by the will or by any function of the mind — Its development by change of matter in this case — Illustration — Telegraph — Fulfilment of material conditions — Loss of "rapping" power consequent upon change of the nerve matter by sickness — Case given, the medium Julia — Similar case by Gregory of Edinburgh — Deduction — Similar influence of the molecular change of a piece of iron — Action of the mind upon the brain — The new personality in the medium governed by the *will* of the "medium" — Is this new personality that of a spirit from the other world? — No evidence of it — It is controlled by the medium in the cases mentioned — Fictitious personalities in the brain of the insane — In dreamers — Professor Gregory's facts — Facts of psychologists — The prerogative of the mind — Another important concession — Wherein surrounding persons control the "raps."

373. We have several cases, which we might relate here, directly bearing on our subject, demonstrating, like the first we have given in the preceding chapter, the reflex action of the brain, not only upon the automatic centres of the spine and muscles, but also upon the agent emanating from the bodily system, giving sounds, producing movements of objects as by a law of intelligence. It would be of little use, however, to occupy room with such details, if all that such cases declare in this respect has been observed by intelligent advocates, and they concede this in unequivocal words.

374. Such observations have been made by Rev. Adin Ballou, than whom there is no one more honest and intelligent among the spiritual advocates.

In Chapter V. of his work* in favor of the spiritual theory, he makes the following honest concessions. There seems to be no disposition, on his part, to hide unfavorable facts, as is manifested on the part of some spiritualists:

"I am now to treat," says he, "of cases under class second: i. e., those in which some of the important demonstrations were probably caused, or greatly affected, by *un*departed spirits. I mean, by *un*departed spirits, persons in the flesh, who, by their *will* or psychological power, control the agency which gives forth sounds, motions, &c. I refer not to *impostors*, playing off *counterfeits*. I am treating of phenomena caused by mental power alone coäcting with the mysterious agency under consideration.

"I have known cases such as the following:

"1. In which the bias, prejudice, predilection, or will of the medium, evidently governed and characterized the demonstrations. In these cases, the answers given to questions, the doctrines taught, and the peculiar leanings of communications spelled out, were so obviously fashioned by the medium's own mind, as to leave no doubt of the fact. In absolute confirmation of this, questions have been written out and presented to the medium, with a request that the answers should, if possible, be given *thus* and *so*. And they were given by *raps*, accordingly. I myself gave questions in this way to a certain medium, and found that answers could be obtained in the affirmative or negative, or in flat contradiction to previous answers, if the medium would but agree to will it. At the same time, I made myself certain that this medium could not procure the *rapping* agency at will. It *came*, *staid*, and *went*, as it would, and, in that respect, was uncontrollable. But when it chanced to be *present*, it could be overruled, biased, and perverted, more or less by the medium."

375. Let the reader notice carefully each particular point so nobly conceded.

First, "*He made himself certain that the medium could not procure the 'rapping' agency at will.*" Here

* See "Spirit Manifestations."

let it be particularly observed, that in our treatment of this characteristic of the odylic agent, as it acts in and emanates from the human organism, it was shown that this force is not, as a general rule, controllable by the *will;* not at all *directly*, as it is the agent of the unconscious organs, and plays its part automatically, as the organs of the brain are affected. That it is not acted upon, therefore, *directly* by the *will*, but *indirectly*. For illustration; the telegraphic communication is not carried on *directly* by managers at the two stations. The electric action must be the vehicle; but it does not act simply because the will *wills* it, but because the *matter composing* the two points in relation is made to change. On this change taking place, the electric agent emanates as a consequence.

376. Now, it must be seen, that, if the *material conditions* are *fulfilled*, it would make no difference whether a telegraphic operator *willed* the electric agent to stop its emanation or *not;* it *would continue* in *spite of his will*, or the will of ten thousand others. But the instant the *material conditions* of this electric emanation were *suspended*, that instant the *force would cease to operate.*

377. Now, that the conditions for the emanation of the physical force that produces the "raps" are physical, is demonstrated by the facts which Mr. Ballou and numerous others have observed, where the change in the nervous system, consequent upon the state of health of the medium, destroyed, or at least, greatly reduced the power that produced the phenomena. A case of this kind is given in "Supernal Theology."* The members of the family to which the two mediums belonged, were taken sick; among whom was one of the gifted ones. Says the account:

"The medium, Julia, fully recovered her health, *but never acquired the susceptibility she had lost.* She became again an occasional medium; but no dependence could be placed upon her being such, as on many occasions the spirits could produce upon her *no influence whatever.*"

* Supernal Theology, p. 58.

378. We cannot forbear placing beside this fact, one, given by Professor Gregory, in his celebrated work on mesmerism, to the same purpose; which shows, also, in another light, the identity of the two conditions. The case was that of Mr. D., a highly susceptible person under "mesmeric" influence. At the time the professor was making some interesting experiments upon him, he was taken sick. "It was chiefly," says the professor, "an affection of the chest, which confined him to bed for some weeks; and after his recovery his *extraordinary susceptibility was gone.*" *

379. The agent, then, in the present phenomena, like that in mesmerism, "*comes*," "*stays*," and "*goes*," not by a power of the *will*, or *mind*, *but according to material conditions*. If, as in the development of electricity, there is a favorable condition of the matter of the system (a molecular condition, evidently), as in the case of Angelique Cottin (§ 87), the Woodbridge (N. J.) girl (§ 67), the New Hackinsack case (§ 69), Mrs. Golding's servant (§ 75), Frederica Hauffe (see Part First, chs. 3 and 4), the agent will be eliminated, and act upon external things, every person's *will*, and that of the one affected, to the contrary notwithstanding. It is not strange, therefore, that Mr. Ballou found the "rapping" agency could not be "procured by the medium at *will*;" because the *will*, *directly*, has simply *nothing to do with it*.

380. If, however, by an effort of the will, a *change of matter is produced*, which change favors the condition for evolving this agent in a more intense form, then the will *may* have an *indirect* influence over it.

381. *Second*, Mr. Ballou *did* find that the *bias*, *prejudice*, *predilection* and *will* of some mediums "*governed* and *characterized* the demonstrations." Or, as he expresses himself a little further on, "when the agent chanced to be *present*, it could be overruled, biased and perverted, more or less, by the medium." "In absolute confirmation of this," he says, "questions have been written out, and

* See Professor Gregory's Work on Animal Magnetism, p. 286; and may be found, also, on p. 324.

presented to the medium, with a request that the answers should, if possible, be given *thus* and *so; and they were given by raps, accordingly.*" From this, it follows,

382. That the material agent that produces the raps is controllable (as to its manner of acting from the organism upon external things) by the peculiar changes that take place in the organs of the brain. To have this fairly understood, we may state the fact, known to every scientific person, namely, that whenever a change of matter takes place, the primary physical agent that especially belongs to that *form* of matter is evolved. For illustration, if you take a strip of iron, say Russia-sheet, about three-fourths of an inch wide, by four or five inches long, and hold it in the magnetic dip of the earth, so that the lower end shall rest within an inch of the north pole of a magnetic needle, and, in this condition, give it a sudden twist (one hand being at each end of the iron), the *needle* will act as if struck with a stick, when, indeed, no visible thing has touched it.*

383. So the nervous system, to which odyle, as a physical agent, belongs (as well as to all other substances), if affected or changed, in a particular manner, and under peculiar conditions, gives emanation to that agent, in a specific manner; and each variation in the nerve-centres, within prescribed limits, will accordingly vary the outward exhibition.

384. That every thought, every emotion, every passion, is accompanied with a change of the matter of the brain, is one of the most undisputed facts in physiology. If a thought or an emotion causes a particular change of matter of a particular part of the brain, the elimination of the physical agent of the brain must be in each particular case in a specific manner.

385. To illustrate: In our experiments with the piece of iron aforesaid, over a delicate magnetic needle, we have, by varied twistings of the former, under varying circum-

* We are indebted to Dr. C. T. Jackson for this beautiful experiment. It was communicated to him, he informs us, by an English scientific gentleman, formerly of the British navy.

stances, produced nearly a hundred varying results upon the latter. The experiments are exceedingly curious, and beautifully illustrative of the varying effects of varying molecular changes in even a simple piece of iron, and they show the susceptibility of a *simple body* of matter to a greater number of changes than we had ever deemed possible.

386. It is the prerogative of every man's mind, or spirit, to control the motions, and, consequently, the changes, of his brain, within prescribed limits. But when the condition of the latter is such (as in mesmeric trance, catalepsy, sleep, cerebral inflammation, passiveness of mind and will, and a thousand other conditions that might be named), the man's own personality is suspended in its prerogative action. The predominant influence upon it then becomes *material — sensuous.* Here the reflex action of another's brain will readily take place. Another's wish, or request, will act like a law. Hence, the request mentioned by Mr. Ballou, that the questions "be answered *thus* and *so*," were given back to him in "the *raps* accordingly." He found, he says, that the *will* of the medium varied the results in several cases. This, however, could not take place *directly*, as we have already shown.

387. But suppose (for the sake of argument) we assume the agent engaged in the physical phenomena to be a spiritual agent, independent of the medium; then, allowing the *will* of the medium to control it, we have a human will controlling an independent spirit's will,— a *will* in the *flesh controlling* a will in the *spirit.* But as no consistent thinker will advocate so absurd a notion, we will not combat it, in this form of proposition at least. We have found a few ignorant persons who assume it very dogmatically; yet it is *virtually* advocated by those who assume that the agent that directly produces the sounds and moves things is "disembodied spirit."

388. Either, therefore, the above absurdity must be assumed, or it must be admitted, first, that there is a power within and belonging to the medium that can represent the *identity* of *another person.* Second that this

power belongs to the impressible, automatic, irrational nature of the brain, and may act without the rational mind, will, or consciousness. Third, that it may, under favorable circumstances, influence and direct (as it is itself influenced and governed) the physical agent that we have shown to emanate from the organism that moves objects and produces sounds.

389. For the *agent* that produces the *sounds* is, according to Mr. Ballou's own showing, influenced and directed in its action, in some cases, by the *bias*, *prejudice* and *predilection* of the *medium*. Now, either the medium's bias, &c., influences and governs a spiritual or a physical agent. If a spiritual agent, it either belongs to the medium or to another. It cannot belong to himself, inasmuch as a spiritual agent is distinctively a *conscious, personal* agent, with a conscious, personal sense of its own distinctive personality, the same to-day, to-morrow, and forever; and this does not declare itself in the medium as the agent of the "rappings;" — that is, the personality of the medium does not identify itself with the power that produces the raps; because the latter stands out of the personality of the medium. If, therefore, the agent that produces the "raps" is a spiritual agent, it is a spiritual agent not belonging to the medium. But we have proved that it is a power that flows from the organism of the medium. If, therefore, it is a spiritual agent, it is some other conscious, personal identity. The medium, then, is possessed of a demon, or spirit, that moves tables and produces sounds, intelligently or *un*intelligently, *wisely* or *absurdly*, according to its character, or according to the bias, prejudice, predilection and will, of the medium. It follows, therefore, if this be admitted, that the absurdity is assumed, that a spirit once freed from the flesh is subjected to the government and control of the bias, prejudice, predilection and will, of an agent in the flesh.

390. But it may be asked if, after all, there is not some reason for this "*notion*," since there is a power that assumes personality in the medium, which personality is not the *medium's* personality? It must be confessed that

this seems less like an absurd notion than at first appeared, and demands attention. The question, then, throws itself into this form: either,

First, There is another identity within the medium, which takes possession of the latter under certain circumstances, and does not belong to the medium; or,

Second, There is another part of the medium, that, under peculiar conditions, may be made to act *like a second personality*, but has none invariably of its own.

391. In either case, the personality, whether real or fictitious, must act independent of the *medium's real personality;* namely, independent of his consciousness, reason and will. We shall, therefore, demand, first, if there is any class of phenomena which demonstrates that a fictitious personality may, under peculiar circumstances, be assumed and represented on the part of the brain, independent of the invariable, conscious personality, reason and will of the individual.

FICTITIOUS IDENTITY INDUCED IN THE BRAIN.

392. It must be admitted that every function of the mind has a material organ in the brain upon which to act as a centre, and from which to radiate a specific influence on the nervous system. In order to this, each organ must have a specific adaptiveness to the particular function it is to fulfil, so that the action of that organ is a *representation* of an action of the function of the mind to which the former has been adapted. Thus it is found, according to the discoveries of Gall, that an organ exists in the brain which the religious tendency of the mind may put in action to represent itself through the bodily frame. The religious *mind* has a religious *organ*.

393. Now, the excitement of the *organ*, whether under the influence of the *mind*, or under the irritation of a lesion, or a specific drug, or the touch of a mesmerizer's fingers, will cause the *development of its function*. The result is that of an *automatic action* of the other parts of

the nervous system and certain muscles. Then the individual parts in motion represent one in profound worship or religious contemplation. No cautious thinker would say of this, that it is the worship of God "in *spirit* and in *truth*."

394. Religious insanity is the abnormal irritation of this organ. The matter of the organ, in this case, is made to act, not by the *mind* or *spirit* of the man, but by specific derangement of the *organism*.

So, there is in some instances a diseased action induced upon the organ adapted to the mind's sense of *personality*, and in one form of this derangement will represent itself God, in another (according to specific influences throughout) will represent the personality of Christ, in another that of a monkey, and so on, to a toad, a shilling bit, a stone, yea, a — *nothing*, according to the accompanying conditions. The same thing takes place in sleep, in trance, somnambulism, and clairvoyance. In every instance, however, it takes place aside from or independent of the *mind's self-sense* of personal identity.

395. Professor Gregory, in speaking of such a case, says: "He often loses in magnetic sleep his sense of identity, so that he cannot tell his name, or gives himself another, frequently that of the operator, while yet he will speak sensibly and accurately on all other points."* The professor also mentions another case, that of a clairvoyant, who, in this state, described a locality in Caffraria. While describing himself as flying through the air, he "all at once began to appear uneasy and alarmed, and told me," says the professor, that "he had fallen into the water, and would be drowned if I did not help him. I commanded him to get out of the water; and, after much actual exertion and alarm, he said he had got to the brink. He then said he had fallen into a river in Caffraria, at the place where a friend of his was born. But what seemed very remarkable was, that he spoke of the river, the fields, farmhouses, people, animals, and woods, as if perfectly familiar

* Letters on Animal Magnetism, p. 82.

to him, *and told me he had spent many years as a boy in that country; whereas, he has never been out of Scotland.* Moreover, *he insisted he was not asleep*, but wide awake, and, although his eyes were closed, said they were open, and complained that I was making a fool of him when I said he was asleep. He was somewhat puzzled to explain how I, whom he knew to be in Edinburgh, could be conversing with him in Caffraria, as he declared he was; and he was still more puzzled when I asked him how he had gone to that country; for he had admitted he had never been on board a ship. But still he maintained that he *was in Caffraria*, and *had long lived there*, and that he knew every man and every animal at the farm he described. It was evident that he had heard of Caffraria from his friend." *

Now, no one will contend that this state of the young man belonged to the personal, conscious *self*, the *identical me* of the man. The action of *that* had been suspended by the suspension of the normal *consciousness*, the *reason* and the *will*. The remaining action, therefore, was that of the brain-centres under the influence of impressions.

396. The countless lectures on psychology throughout this country for the last ten years have given innumerable examples of the susceptibility, on the part of the brain, to take on any sense of personal identity that may be imposed upon it; and who does not know that these results are directly at variance with the sense of personal identity belonging to the real self, the genuine me, the *responsible* I myself of every man?

And is it not this latter that distinguishes man from the mere animal? Is it not a conscious, personal identity — a consciously determining and directing power of *will* and *reason* — whose sense of self-hood is the same to-day, to-morrow, and forever? And is it not a prerogative of this to control the brain? But when the conditions of this *rational* control are *suspended* (or another excitant invades the material dominions and stirs up fictitious personalities

* Letters on Animal Magnetism, p. 323.

and ghostly visions), is all this to be attributed only to the spirits of another world?

When the rightful dominion of the brain is wrested from the reason and the will (which, as Schiller says, is but reason's eternal law), what fantastic visions, what mimicry, what assumption of vagaries! yea, even the personality of the infinite God may be assumed, or that of a worm!

397. And here let us meet at once the most fatal fallacy of those who reason for the spiritual origin of the modern phenomena, as it can best be met at this point. It is said by the advocates of the spiritual theory, that, as these manifestations declare *themselves* to be spiritual, or to have their origin from another world, we are bound to accept of their own declaration. There would be more show of reason in this, if there were no such facts existing as we have just presented with regard to the fictitious personalities which are often known to be assumed in the brain, independent of the mind's own personality.

398. Now, does it require a foreign spirit to take possession of the brain of a man, in order to the development of another personality in that individual; the appearance of a second personality differing from that which belongs to the man? No assumption could be more manifestly false; and most strangely blinded must be that mind that does not see its falsity. The same source lies in the medium for fictitious personalities and false identities and unreal beings, as in the insane, the dreamer, the somnambule, the clairvoyant. One and the same law governs the brain of all. You might as well, then, require the reason to accept of the vagaries of the insane, as to require it to accept of the contradictions of the "rappings."

399. The phenomena of fictitious personalities, or ideal identities in the nervously deranged, have produced singular results upon the beliefs of men in all ages. Some of the cases presented by the old European writers are so excellent in their illustration of the law of specific influences tending to develop this species of phenomena, that we feel bound to notice some of them. Before we proceed to these

interesting details, however, we will once more refer to the work of Mr. Ballou, with regard to another important concession.

400. Having shown that the bias, prejudice and predilections of some mediums do govern and control the "raps," &c., he, as a *second* step, remarks that "in other cases there has been an *overruling psychological influence exerted by some powerful mind or minds present in the room with the medium.* In such cases," he continues, "this powerful influence, *with* or *without* the *consciousness* of the *medium*, has *elicited answers just such as had been wished or willed by the managing mind.* And these answers have alternately contradicted each other in the plainest manner during the same half-hour's demonstration. In one instance, a strong-willed man resolved to reverse certain disagreeable predictions, frequently repeated through two *tipping* media who often sat in conjunction. The result was, he could overrule one of them, sitting *alone*, and get the responses to suit himself. But both of them *together* overmatched his psychological powers. I might," he continues, "give names, places, dates, and details in this connection."

"There can be no reasonable doubt," he continues, "of the facts just stated. It may be set down as *certain*, that there are cases wherein some of the important demonstrations are *caused*, or *greatly affected, by* UN-*departed spirits.* How far influences of this sort extend and characterize spirit manifestations, remains to be ascertained. *We can positively identify them in many cases.* In some they are known to the parties concerned, and acknowledged to have been consciously and intentionally exerted. In others they may be justly suspected, where no *consciousness of them is felt by the medium, or by any dominant mind.*"

401. The same facts here conceded we have observed from the commencement of our investigation of these phenomena, and it has been the palpable manner in which many of them have presented themselves to thinking and unprejudiced observers, that has led so many to the conclusion

that the whole is the result of some "new kind of mesmerism," or pathetism. But while this influence of surrounding persons upon the character of some of the responses has been too palpable and evident to be denied, other phenomena of an analogous character have been witnessed, where no connection could be traced to any mortal present.

The latter, then, are left in the analysis as apparent, residual phenomena, which we shall treat in their place. The residual phenomena embrace that class which seem entirely disconnected with the mortal psychological phenomena referred to by Mr. Ballou in his second class, and which we are now treating.

402. There is no part of the phenomena of the manifestations which seem to indicate so much superhuman or supermundane agency, as those we find to be residual. The subtlety of their causes, and their deeply mysterious character, seem to bid defiance to the penetrating search of the most sagacious. That we have succeeded in laying hold of their philosophy cannot be judged hastily. It has required long and patient research, rigorous analysis, and a careful and discriminating comparison and classification, to arrive at our conclusions. It would, therefore, be impossible to give the whole process we have gone through. We can barely give short-hand facts, and present our reasoning in the most compressed logical form. If any fault is found with this, let it be remembered that it is with our necessity, not with our choice.

Mr. Ballou's facts and observations we have quoted are important, and as concessions they are invaluable to the truth-seeker. Honor to him for his discrimination and honesty in this matter. Let us, in the next chapter, observe their import and the deductions that must inevitably be drawn from them when placed in juxtaposition with others we have collected.

It would be well for the reader to review the points we have gone over thus far, as each one is as the link of a chain, having its relative importance to the whole.

CHAPTER III.

Three important points in Mr. Ballou's concessions — Necessary conditions material throughout — Deductions — Susceptibility of the brain of the medium — Four classes of proofs — Susceptibility, to what — Passiveness, to what? — All agreed as to necessary conditions — Suspension of will and the action of reason — Consequence — Observation — Additional concession — Manifestations — Command of the power in the earlier stage — Action of the brain-centres without consciousness — Odylic force without consciousness — Limit of spiritual power — Influence of "willing" and "wishing," in producing certain sounds — Spiritual phenomena lie within the consciousness — The brain's action automatic — Facts given — Subject to external influences — Cerebral and spinal automata — Testimony of physiologists — Carpenter's — Laycock's — Wilkinson's — Deductions.

403. THREE important points are brought prominently to view in the facts given us by Mr. Ballou.

First, An overruling psychological influence, in some cases from persons present with the medium, which modifies and controls the "demonstrations."

Second, That this takes place with or without the consciousness of the medium.

Third, That, in a case of two mediums, who were together, or in close rapport, the demonstrations could not be controlled by a third person; but when they were separated, the demonstrations from one *could* be controlled by *another person.*

404. Let us look at each of these, in turn, and analyze closely. Notice, first, that in order for the demonstrations, namely, the movement of a table, the raps and the involuntary movement of the medium's muscles, to be governed by another person, so as to indicate intelligence, certain conditions are necessary to be fulfilled.

(*a*) The *operator's cerebrum* must be *active* under the influence of the mind's purpose. (*b*) This active state of the operator's brain must be exactly propagated to the *medium's* brain. (*c*) The medium's brain or cerebrum must be *susceptible*, or in a condition to receive the propagated influence. (*d*) There must be some sort of medium or conductor, through which this influence from the brain of the one will be propagated to the brain of the other. (*e*) This influence received by the medium's cerebrum, must perfectly represent itself there (as the face of a man is perfectly represented on the daguerreotype plate, or as a thing is imaged on the retina). (*f*) This must be an action of the medium's cerebrum, of a specific character. (*g*) This specific action of the medium's cerebrum must give a controlling influence to the agent that we have demonstrated to have emanation from the human organism, under peculiar conditions. (*h*) Or the medium's organism must be in the condition to act an involuntary pantomime, and thus represent the action in the brain. Thus, the "raps" or involuntary movements of the medium will represent the "wish" or "will" of the operator.

405. Deductions.

First, It follows, therefore, that all the *necessary* conditions, and the whole process from the movement of the operator's brain, in a specific manner, to the movement of the table, or the raps, or the involuntary movement of the medium's muscles (representing the cerebral action of the operator), are purely physical, and, therefore, not spiritual.

Second, It therefore follows, that among all the *necessary* conditions, that of a *conscious knowledge of the process is totally excluded.* Hence, according to the observations of Mr. Ballou's second point, the process may take place with or *without* the consciousness of the medium.

Third, The consciousness of the medium is, therefore, a mere *incidental circumstance;* whereas, the *un*conscious action of the brain is the general rule, the almost constant attendant.

Fourth, It therefore follows, as an inevitable result, that

the specific action of one person's brain, may be unconsciously propagated to another's brain, and there be exactly represented, in a *second cerebral action*. This cerebral action may propagate itself to the automatic centres in the spinal axis, and thus exactly represent itself in the involuntary play of the muscles, or (if the person is a "rapper") play upon the agent that emanates from the organism that produces the raps or moves tables, and there represent itself in automatic play as on the muscles. This is no fancy sketch. We challenge its refutation as a logical deduction.*

406. Let us notice, now, the fact of the susceptibility on the part of the brain of the medium, — susceptibility to the influence emanating from other persons. If we take this as a *logical* fact, drawn from the absolute conditions necessary to the *supposed* spiritual source of the phenomena, its truth cannot be denied by those who advocate that theory; — for, (1.) It would be a *solecism* to talk of a *medium* for an agent, or influence, when the medium is not susceptible to its propagating tendency. It is *not* a *medium* unless it is *susceptible*, — unless it is susceptible to that for which it acts as a medium. It must, in some way, *yield* to the influence. (2.) Again, the fact of the susceptibility of the "medium" is everywhere implied in the literature of the spiritualist. No careful reader can be ignorant of this. (3.) Still further, it is plainly and unequivocally declared, as a *necessary* condition, and "of the highest importance." The Cincinnati † and Philadelphia works, in favor of the spiritual theory, are explicit on this point. And one who is, perhaps, among the most thoroughly "posted," and is himself a believer and advocate of the spiritual origin of the phenomena, has thus expressed himself: ‡

"*Mediums are more susceptible than others*, and hence they must be more or less *influenced* by the *mortals*

* In future chapters these deductions will be made more clear to the understanding of the general reader by illustrative facts.

† See Mr. Cogshall's work on the Cincinnati phenomena, p. 26.

‡ See "Spirit World," for December 13, 1851.

with whom they associate. *This condition is of the highest importance.* 'Evil communications corrupt good manners.'"

(4.) And, more than all, the grand condition required of a person, in order to be what is termed a "reliable medium," renders it absolutely impossible for the person, who comes under it, to be otherwise than *susceptible.*

Susceptible to what? It is answered, — "to the influence of spirits." This is not demonstrable. It is, merely, hypothetical, and has very *questionable* evidence to sustain it at best. It will be remembered, that we have presented testimony from the spiritual side, showing that the person, in order to become a "medium" for these phenomena, must be *passive* to the agency that influences him, — that the *reason* and the *will* must exert *no* controlling influence over his cerebral organization. And we have also shown, that the same condition is observed, in producing mesmeric or pathematic phenomena.

407. In the latter, it is known, that just in proportion to the passive, or *non*-controlling condition of the *reason* and the *will*, is the unconscious and involuntary character of the phenomena. From this it follows, that, so far as the *brain* can be made to *act independent* of the *mind* of the subject, so far that mind will be *unconscious* of the brain's action. Those "media," then, who become the most independent, — that is, whose cerebral organs are excited most perfectly, *without* the controlling power of their *own minds*, — will be the least conscious of the real relation which they sustain to the phenomena.

408. This deduction is supported by the facts in the case. We have known persons, on first becoming subjects of the "intelligent" phenomena of the "raps," to exercise a conscious control, as to the character or manner of phenomenal developments; but, on becoming more deeply inducted, the brain became subject, in specific ways, to external influences, *entirely independent* of the "*desire*" or "*wish*" or "*will*" of the medium. Then, all seemed so foreign from the real personality of the individual, as to induce him to believe himself subject to the influence of

heavenly visitants. The same thing has been observed by Mr. Ballou.* "It is a remarkable fact," says he, "that some mediums, who, during the first few days or weeks of their mediumship, knew themselves to have considerable power over the manifestations, have gradually become clear and *passive*, and found themselves, at last, utterly unable to affect the responses and communications made through them. I have in my mind a worthy friend, of unquestionable veracity, who stated to me that this was the case with him. For several weeks after he found himself a medium, he could get very much such answers to questions as he pleased. During that stage of his mediumship he felt quite confident the whole thing was but a new species of 'mesmerism.' But after a while he began to fail of controlling the agency, and at length found it operating entirely independent of his most determined '*wishings* and *willings*.'"

409. Hence it is concluded, by even intelligent persons, and some of the members of the learned professions, that the agent that takes up the operation from this point is a spiritual power, emanating from departed spirits. Mr. Ballou concludes that this, or somewhere here, is the limit of the influence of *un*departed spirits or spirits in the flesh, and consequently the point at which we begin to have the phenomena of the agency of purely spiritual beings. This hypothesis presupposes that there is no power inherent *in* man, adequate to the production of the phenomena lying out of his consciousness; but this is contradicted by *facts*.

410. The power is allowed (as we have already seen) to lie *within* his consciousness,—*within* the influence of the "wishing" and the "willing" energy. The "wishing" and the "willing" are within the consciousness. But it is *not* the "*wishing*" and the "*willing*" that in *any* case produce the phenomena *directly*. The "wishing" and the "willing" cannot take place in the brain without, at the same instant, effecting a change of the mat-

* See "Spirit Manifestations," page 61.

ter of the brain; and it is by a *change* of *matter* that the odylic agent (as in the case with electricity) is affected,—*eliminated.* Now, whether this *change* of matter take place in consequence of an action of the "will" or a "wish," or a conscious *emotion*, nothing but the will or wish, or conscious emotion, will be *known to the mind;* whereas, the *change* of *matter* will be *unconscious* or not cognized by the mind, and the consequent emanation of the physical agent will therefore be unconsciously affected, unless it interfere with the sensorium. But avoiding this, there will be no *conscious knowledge* of the physical emanation.

411. This fact is clearly exhibited in cases where the medium's characteristic bad orthography is characterized in the "raps." Here, there is, however, *no* wish, *no* desire, *no* will for such a *result.* *There* lies the habit of action in the brain,—the tendency of the organ of language to act in a particular manner, *when excited.* Certain words are always unconsciously spelled wrongly, whether the "medium" writes, or spells the words vocally in the normal or usual state, or whether she is acting as a "*medium.*" In the latter capacity she *does not think* of the words that are to be "rapped" out, nor of the letters that are to be thrown together to compose the words, and yet *her* orthography comes out true to the *habit* of her orthographic organ. Otherwise, why should the "raps" come on precisely those letters she would use in a word if writing to a friend?

The "raps" purported in one instance to come from John Q. Adams. In charging the circle and all present with the duty of faith, it was rapped out with considerable emphasis, "You must '*beleve,*' you must not '*dout.*'" Other words were also spelled incorrectly, according to her usual habit. This unconscious action of the organ according to its every-day habit, was, therefore, a simple fulfilment of its common tendeney, and was "unwilled," "undesired," as to this particular method. For she did not *will* to spell *incorrectly*, and certainly did not desire it, even if she had the control of the agent that produced

the "raps." But over this she had no control. Everything was believed to be the work of spirits, and the bad orthography was passed over by the circle without observation, or was attributed to the very imperfect method of making use of the letters of the alphabet.

412. Now, in order to see at once how the brain may be made to play its part automatically without the reason, desire, will or knowledge of the mind, let us consider a few facts.

First, The every-day, matter-of-fact character of this cerebral automatic action. We have already seen its wonderful development in the case of the young woman, related by Coleridge. With her the unconscious impressions made upon her brain in childhood, were unconsciously developed in after years by an inflammatory irritation.

The same automatic law is exhibited when a person finds himself unconsciously whistling or humming snatches of a tune that he had heard before, somewhere, but cannot recall to mind. It is also seen in the boy, who, while watching his mother cut a piece of tough material with her scissors, unconsciously imitates the movements; while the instrument is opening and shutting, laboriously, see his jaws open and shut in the same manner. His *jaws* are also a pair of scissors and his *tongue* a piece of *cloth*. Here is the automatic action of imitation.

It is seen in the gentleman, who, while whetting his razor, unconsciously imitates his wife paring quinces by his side. This takes place simply from turning his *attention* to *her*. He cuts his hand, spoils his razor-strap, and dulls his razor.

The relation of a few such cases in the presence of a company, will recall to the mind of every one present numerous other cases. A bell-man in a neighboring town informed me that frequently, when he rang for fire, the neighboring lads would hover around to watch his labors, and he has always been amused to see their corresponding motions, without the least consciousness of what they were doing.

A gentleman informs us that he has often found himself

when walking, unconsciously imitating different persons in their gait, especially his father and certain particular friends. A highly intelligent printer, also, informed us, not long since, that he had often found himself solving a problem, or planning some scheme entirely foreign from his labor, while his eyes had unconsciously reverted to the copy on the case, and his hand had picked up the type from the right boxes and placed them in the "stick." Another printer remarked that he had performed the same thing, and after his stick had become full, emptied it, and, on coming to himself, had not the least remembrance of having composed several paragraphs. The same phenomenon is observed in the medium. Says Supernal Theology, page 12, "The manifestation is as often made when the *mind* of the medium is occupied by other and engrossing subjects, as when directed to the responses;" and it has been argued from this that the phenomena must, therefore, result from the influence of spirits. The evidence, however, falls on the other side.

Now, before the printer is able to compose or set up his type expeditiously, he must be initiated. The printer, like a writing medium, must be inducted. Before this, the hand cannot move into the right boxes, and pick up the letters in the right way, and place them in the stick correctly, while the mind is attending to the copy, and especially while it is engaged in something foreign. After this induction has thoroughly taken place, the mind itself can be employed otherwise.

413. Thus it may be illustrated: The overseer of an establishment is to the persons employed what the mind is to the functions of the brain. The overseer is the responsible agent, and instructs or impresses upon the hands what is to be done, and, when he finds he has accomplished this, he can attend to planning in other matters. So each hand in the establishment is like an organ of the brain. Hence, if they have a weak mind to superintend and instruct them, they, like the hands in a mechanic shop, under similar circumstances, do things by halves, or run wild with follies, as happened with the gentleman whose mind paid more

attention to the wife and her quince-paring than to the razor-stropping. The function of imitation took up the play upon the razor.

Some can never be inducted into a printer's trade, because they can never learn to follow the copy, and think of something else aside from the letters in the boxes; and others, for the reason that they can compose only what they happen to have their mind upon. *For the same reasons, some persons can never become "mediums."*

414. Not only the printer's trade, but all the mechanical arts, rest upon the same law of our nature. When we named this abstractly to an intelligent gentleman, the other day, without giving any examples of its operation, he queried, and demanded a palpable example to show, as we had stated, that it is a law of common every-day life. He sat *rocking* in a chair. Knowing that he was not conscious of what he was doing, and that this was a most palpable example, we remarked that he *had* such an example, and was giving it himself, and asked him what he was doing. He looked surprised, and wondered what we alluded to, stopped rocking an instant, looked down, and thought deeply. Failing to hit upon the palpable example, he looked up, and commenced rocking again. Again we alluded to the example; but he could not perceive that he was doing something beside his *thinking*, and we were obliged to tell him at last. It was too good an example to be lost upon his mind.* Other cases might be given here; but these are sufficient. We shall refer to others, hereafter, of a more singular character.

415. Thus the actions of human beings divide themselves into two classes; first, those that belong to the conscious, rational, responsible nature, exhibiting reason and will, and an unchanging sense of personal identity; second, into those that are developed without the rational nature,—without its consciousness, its reason, its will,—and are automatic, consequently entirely irresponsible.

* There are those whose theories blind their reason to the important lesson which even such palpable facts teach, and see no philosophy except in a befogging mysticism.

The *first* class declare the superiority of man, and his alliance with the Divinity; the second his alliance with the world of instinctive animal life. For the acts of the latter there is no responsibility without the sanction of the former. The idiot is not responsible for his acts, nor the man who has lost the exercise of his reason. So, also, the somnambulist is not responsible, neither is the "medium," for his acts and communications.

416. Now, it is not to be questioned that, if the phenomena of the "medium" are attributable to the powers of his own organism, they must be to the second class of powers. Indeed, we have already demonstrated that the phenomenon of false orthography has its source in the irrational or automatic functions. This demonstrates the automatic action of the organ of language; and if there is an automatic play of one cerebral organ which exhibits itself in the phenomena of the movement of objects and in the production of sounds in a specific manner, who shall set the limits to the like automatic play of every other cerebral organ?

417. That the cerebral organs are susceptible of automatic action without involving the consciousness of a person, we have already given facts to prove, and have shown that it is not an occasional circumstance of life, but a law of human nature, a phenomenon of every-day life.

418. It is necessary, in order to understand the philosophy of this subject still further, that we look at the conditions necessary for the development of these phenomena, especially the influences which produce them. Let us, however, look at a second class of facts, — those mentioned by physiologists, which show the automatic play of the cerebral organs, as well, also, as the automatic action of the spinal system.

419. We can refer to no higher authority, on this subject, than to Carpenter, in his celebrated work on the "Principles of Human Physiology." "Automatic action may be excited in man," says he, "when the *cerebrum* is in a state of functional inactivity, as in sleep or coma [mesmeric conditions], or when the power is concentrated upon

itself, as in *profound thought*, such as cannot be called forth when the cerebrum is in active operation and in complete connection with the automatic centres in the spine." Again he says, "In man, ideas with which the feelings of pleasure or pain are associated, constitute emotions, and these, if strongly excited, may act downward upon the muscles, through the medium of the automatic apparatus, quite *independently of the will*, and *even in opposition to it; thus constituting a sort of* REFLEX ACTION OF THE CEREBRAL GANGLIA." *

Carpenter also mentions the two ways by which the actions of the brain influence the bodily system. "This action," he says, "is of two kinds; the one, direct, irrational, and involuntary." This is the automatic action we have already illustrated with several cases. "The other indirect, rational, and voluntary." And this last is the action wherein every man is conscious. The other is "the result of the emotions following closely upon the sensation which excited it, and, consequently," he remarks, "belongs to the consensual (or automatic) group. *It is excited without any consciousness of the purpose to be answered by it;* and the *power of the will* is only excited (when excited at all) to direct or to restrain it."

This has happened, in some few instances, among the cases we have to relate in this work. "The spinal cord," however, "constitutes a distinct centre, or, rather, a collection of centres, of nervous influence," and it has become a settled point that these centres act independent of the will.†

420. Laycock observed that in the reflex, or automatic action, in man, arising from *abnormal* conditions, and even in some normal conditions of the nervous system, the convolutions of the cerebrum, or principal organs of the brain, may be more or less engaged in the production of the phenomena. He gives cases where this does take place. Hence he concludes that "although the brain is

* See work above cited, chapter on Nervous System, particularly §§ 348, 328, 336, 337, 363–373, 374–387, 422–460, 457–470.

† See, also, Dunglenson's Human Physiology, vol. i., pp. 98, 99.

the organ of consciousness," it is also "subject to the law of reflex [or automatic] action. Thus he shows that "in this respect the brain does not differ from other ganglia of the nervous system."*

Essentially the same observations were made by Sir Charles Bell. The student on this subject will find a field of riches in that masterly work, "The Anatomy and Physiology of Expression." We have no room for any of his facts here.

421. Dr. Wilkinson† presents the same view. We cannot forbear quoting the following from his chapter on the brain: "We have found," says he, "that it [the brain] consists, first, of an automatic apparatus, the spinal brain, by which contacts are apprehended, and motions executed, without the intervention of our consciousness; secondly, of an animal brain, which is to all intents and purposes animal, or imagines, desires, lusts, contrives, plans and acts, from animal motives, though very imperfectly, from defect of instinct, which is the limiting perfection of the beasts; and, thirdly, of a rational and voluntary function, playing in its revolving cortex, and evidencing the presence of an invisible mind, whose *action* reveals the human brain. Thus we have found that the brain *per se* is not human, but perpetually humanized; and that in its openness to that which is next above it, and its docility to the spirit, lies its grand endowment. In thus proceeding from below upward, we have been separating parts whose perfection lies in their harmonious union. We must now make amends by declaring that the influence of reason, permeating the animal brain, gives it powers superëminent over instinct; and as man domesticates the animals, or chooses those which suit his purposes and abolishes the rest, so does reason govern the modes of the brain, feeds upon its tranquil emotions, and compresses those which are fierce, governs its imaginations, and, in a word, civilizes the savage countries of the original head." ‡

* Dunglenson's Human Physiology, vol. i., pp. 99, 100. Also British and Foreign Med. Rev., January, 1845.

† J. J. G. Wilkinson, member of the Royal College of Surgeons, England. See his Human Body and its Connections, &c.

‡ Ibid., p. 40.

Dr. Wilkinson, in seeking for the use of the brain to the mind, asks, "What is the use of the spinal cord to the senses and the brain?" The answer to this "will give us," he says, "a similitude of the answer to the previous question. Its use is to carry the general cerebral principles into an automatic or mechanical sphere, and there to set them up in unconscious operation. Thus, the spinal cord makes motions which look as though they proceeded from emotions, when yet there is nothing felt."* So the office of the cerebrum is to represent the *action* of the mind, or human spirit; and in this it is as mechanical in its action as the spinal ganglia. Thus the organs of the brain make motions which appear to be those of thought, when yet they do not think; and these motions may not only be excited by the *mind*, but by any specific stimulus, as those of drugs, alcoholic drinks, the odylic agent, or mesmerism. The brain is, therefore, to the mind, or human spirit, what the spinal marrow is to the brain. Neither of them, in themselves, have spiritual power, but are the mechanical instruments — the material machinery — adapted to the execution of definite offices. It is passive to impressions, and reflects them back to the source from whence they are derived, and acts as the medium through which the material world communicates its facts and phenomena to the intelligent mind. And as these affect the brain, so the mind takes cognizance of them, and deduces the higher principles of nature.

DEDUCTIONS.

422. *First*, It is evident, then, that the external world is constantly affecting the brain,— constantly producing impressions; and yet but comparatively few of these impressions pass to the mind, and are known through the consciousness. As Wilkinson says: "Many of our impressions are unconscious, nay, perhaps all through the longer part of their course, though travelling along the cerebral lines." We have already given numerous facts which

* Wilkinson's Human Body and its Connections, p. 38.

plainly evidence this; and we shall have occasion, by and by, to present another class of interesting facts to the same purpose.

Second, It is still further evident, from the facts we have advanced, that these unconscious impressions may, and, indeed, do, daily play back, as reflex actions of the brain, without involving the slightest action of the mind; except, it may be, in cognizing the ultimate results, as when the "medium," like any other spectator, witnesses the movement of the object, hears the sounds, or observes the movement of his own hand in its involuntary motion.

Third, It is precipitate, therefore, in view of such facts as these, to attribute to the influence of disembodied spirits that which so evidently lies within the sphere of the human organization, and human relations, and mundane agencies.

We are next to view the *abnormal* developments of the human cerebral powers. The phenomena under this head carry with them an interest in the explanation of the present mysteries that cannot fail to awaken universal attention.

CHAPTER IV.

ON DEDUCTIONS.

Interest and importance of this subject — Points brought forward — The action of the new agent — Its direction and influence from the psychological points in the brain — Connection of the deductions so far drawn from phenomena — Bird's-eye view.

It is well, here, to bring forward the points that we have thus far demonstrated by facts, in order to see what we have accomplished, and the prospects that still lie before us of additional demonstrations. For the facts we have so far given belong, in their classification, to numerous others. Indeed, they so obviously point to them, that the studious reader cannot have failed, before this, to have perceived the extended relation. There is no class of phenomena, perhaps, that carries with it so intense an interest as that we are here investigating.

The reader will, therefore, note carefully the import and relation of each of the following deductions, which we have drawn from all the principal facts of part first, and, up to the present, of part second. They offer a tolerable glimpse of the philosophy of the present mysterious phenomena. Will some one earnestly and honestly attempt their refutation?

First, That, under peculiar conditions of the human organism, a physical agent is evolved from it, which reacts upon external objects on the mere contact of the person thus conditioned, and even in some cases without contact, producing their movement, &c.

Second, That this agent has been observed, by some of

the first philosophers, to be different from the well-known characteristics of electricity and magnetism; and, therefore, that it cannot be either of them as they are generally known.

Third, That in its *own essential characteristics* (those wherein there is a manifest difference from the characteristics of other well-known agents), it declares itself *identical with the Odyle of Reichenbach.*

Fourth, That it is, therefore, identical with the agent that is put in action in the processes of "Animal Magnetism," or where one organization acts (sympathetically) upon another, or where any *external thing* reäcts or sympathetically affects the brain and nervous organization, and, therefore, that the same physical agent emanates from all bodies of matter.

Fifth, That it is hence the bond of sympathetic relation between all external nature and the organism (especially the *brain*) of man.

Sixth, That, therefore, this agent is put in operation, not only from the lower part of man's organism (by certain abnormal actions consequent upon peculiar conditions, as was witnessed by Arago in the case of Angelique Cottin, and in other cases we have mentioned); but also from the higher portions of the organization (as from that of the *brain*), by establishing the same essential conditions.

Seventh, That, when these essential conditions happen to be established merely in the lower part of the organism, then the movement of external things, and the sounds produced, will not indicate or represent an intelligent influence; but, when the proper conditions are also established in connection with the brain, *then the reaction of the agent upon external things will represent just those characteristics of the brain's action which are at the time thrown into unconscious development by cerebral disturbance.*

Eighth, That the brain may, under a peculiar condition, play *automatically, without a spiritual influence*, and in the above manner represent the characteristics of the parts of the cerebrum in action, as, for example, when

the medium's characteristic orthography is represented in the "raps."

Ninth, That, under these peculiar conditions, the "*bias, habit* and *predilections*" of the *brain* of the "*medium*" may *represent themselves in the external phenomena.* That, therefore, by the same law, the *impressions made upon the brain may represent themselves in the same way.*

Tenth, That "mediums" are "*more susceptible to impressions than others*," and, therefore, more *ready to be unconsciously influenced and impressed* in the cerebral organs by *surrounding persons.*

Eleventh, That, accordingly, many "mediums" have been known to be so *influenced by surrounding persons*, as to present (consciously and unconsciously to themselves) *in the phenomena of the "raps," "tips," &c., perfect representations of the notions entertained by the former.*

Twelfth, That the influence of the *will* of persons present, under peculiar conditions of the "medium" (generally in the earlier stage of the development of the medium's powers), has been known to manifest its characteristics in the "raps."

Thirteenth, That this is not by a *direct*, but by an *indirect* influence of the will, namely, by a *change* in the *condition* of the *brain* of a specific character, which the will effects.

Fourteenth, That, consequently, whether the specific change be effected, under the required conditions, by the will, or by an active bias of the mind or of the brain, or an awakened habit, or a "wish," or desire, or a notion, a "prejudice," or a predilection, or an unconscious *impression*, will make no difference except in the specific character of the influence, and the part or parts of the brain thrown into unconscious action.

Fifteenth, That, therefore, it is *the specific action of the brain, under peculiar conditions, that constitutes the immediate cause* of the *quasi* intelligence in the "raps," the "tippings," the "hand-movings," and the pantomimic representations of the medium.

Sixteenth, That, inasmuch as the brain may, under peculiar conditions, act independently of the wish and the will of the medium, and *even in opposition to the will*, it follows, that "*communications*" may be obtained in *direct opposition* to the *will* of the "medium," without the (supposed) influence of departed spirits.

Seventeenth, That, inasmuch as somnambulism and clairvoyance are but the action of the brain, independent of the will, the reason, the self-conscious personality, and depend, indeed, mostly upon a total suspension of personal spiritual action, and a *passive submission* to *predominant external influence;* and inasmuch as this is precisely analogous to the grand condition required in the person who becomes a medium, it follows, that essentially the same conditions of brain are established in all,— namely, a highly susceptible condition, on the part of the cerebrum, to every form of specific influence from without.

Eighteenth, That, inasmuch as the influence which immediately effects this peculiar condition (as in cases of experimental operation) is the same as that which establishes the relation between the subject's brain and the operator's; and inasmuch as this influence is proved to be purely physical,— namely, the propagation of physical changes,— it follows, inevitably, that there remains *not the slightest foundation* for *supposing* the *direct agency* of *spirits*, whether *in* the body or *out of* the body.

Nineteenth, That, inasmuch as the *individual*, *sovereign*, *conscious*, *personal me*, is the *highest* nature of *man*,— consequently the human spirit,— whose sense of selfhood is *inviolate*, it follows that that condition, in which the individual, sovereign, conscious, personal me is *suspended*, and the sense of selfhood is *violated*, and the *person* converted into an *automaton*, is *not* a *spiritual* condition, but, on the contrary, is a *suspension* of *spiritual* action, and a *cerebral submission* to *predominant material influences* and *sensuous forces*,— a *dis*annulling of the *law* of *self-sovereignty*.

Twentieth, That all revelation, therefore, that pretends to come from the spiritual world, only on condition of its

passage through an *automaton* medium, is *impossible;* and its pretension a *libel* upon the *name* of *spirit*, and a reproach upon the character of the *Infinite Wisdom.*

Twenty-first, That, inasmuch as the general cerebral condition of the "medium" of the present day, and that of the clairvoyant, and that of the insane, is analogous, if not, indeed, identical, the specific phenomena of each are very liable to be manifested in them all; and that the transition from the *particular* condition of one to that of another * is often exceedingly swift, and the more to be dreaded and avoided as it is unconscious.

But, in order to understand the subject of clairvoyance more clearly, let us study into its philosophy with greater attention than has yet been paid to it in this country. This we may not do, however, without a very careful analysis of its phenomena, and an observance of the laws of cerebral sympathetic action and relation. We have not sufficient room, however, to take a thorough view of this subject; for, as we have shown that it is not a *spiritual* action of the mind, but a material action of the brain (without, at times, even the most remote relation of personal mind), it will be demanded of us to show by what laws or principles of material action this takes place. To answer all reasonable questions on these points requires a separate work, which is forthcoming.

* Who has not observed the frequent clairvoyance of insane persons, and the often insanity of clairvoyants? Do not suppose that we mean to say that *all* clairvoyants are insane, any more than that all the insane are clairvoyants.

CHAPTER V.

ON THE ACTION OF THE BRAIN WITHOUT THE ACTION OF THE MIND.

Cases given — Somnambulism — Cerebral automatic action — Derangement — Deductions — Influence of drugs, &c. — Deductions.

423. We have already given numerous facts, which demonstrate the capabilities of the organs of the brain to act independently of the mind. We have shown, in the enumeration of phenomena, that this takes place on the suspension of those conditions of the brain upon which the controlling action of the mind depends; that, consequently, any local part of the brain, or, we may say, any *organ* of the mind, may be thrown into action at any time by a specific irritant, on condition that, at the time, the *mind* is not controlling its action; that, consequently, this action of the brain, or any local part of it, independently of the mind, will *not*, necessarily, be a *conscious* action; that, moreover, this independent action of any part of the brain will represent the characteristics usually exhibited when under the control of the mind; that the only characteristic feature that distinguishes the action of the brain under the controlling action of the mind, from the action of the brain *without* the controlling influence of the mind, is *consciousness of personal action*, — a *perfect sense of selfhood in it*. Thus, "I think,— I am *conscious* that I think; I write,— I *know* that I write;"— that is, the mind has the guidance and control, and is always conscious of her own acts.

424. But as the mind does not act without influencing

the brain, and certainly does not execute her purposes without throwing into action appropriate organs in the brain and nervous system, it follows, that the brain and nervous system are entirely *automatic* in their action. The action of the brain and nervous system, therefore, is *representative.*

425. Now, the action of the brain, &c., could not be representative of the mind's action unless it possessed within itself such a capacity. We know, from observation, that it *is* possessed of such a function. It cannot, therefore, be denied that the *brain* possesses within itself, as a material organization, the capacity or function of *representing mind.* But inasmuch as the true sense of selfhood and unalterable personality belongs only to the controlling action of the latter, it follows, that the action of the brain, without the controlling action of the mind, is destitute of the true sense of selfhood and unalterable personality.

426. This is precisely the fact, as we have seen, in all action of the brain excited under the suspended action or non-controlling condition of the personal mind, as witnessed in insanity, feverish delirium, mesmerism, pathetism, somnambulism, and all nervous epidemics where cerebral convolutions become disturbed.

427. Few are aware of the capacities of the brain; but it must be allowed by every one, on a moment's reflection, that those capacities must be almost infinitely varied, in order to serve the purposes of the mind. It must be capable of representing every minute shade of thought which the mind itself is capable of executing. It must be intensely susceptible to the slightest stimulant, in order to represent outwardly the action of the mind, and also inwardly *to* the mind the characteristics of the outward world.

428. And here let us notice carefully this double office of the brain. It must be seen that as it stands intermediately between the mind and the outer world, it is capable of representing in two directions. Frst, as we have already seen, it must be able to represent the action of the mind *to the outer world.* Second, it must be able to represent the action of the outer world *to the mind.*

429. The brain, therefore, is susceptible not only to the influence of the mind that occupies it, but to the world of influences that lie outside of it. It is evident, then, that without this *double* susceptibility of the brain, neither the mind could represent its actions to the outer world, nor the outer world represent its actions to the mind.

430. Now mark the inevitable deduction, the importance of which must instantly be seen. As the brain is capable of action without the action of the mind, and as its action represents idea, it follows that idea is represented to the outer world in the action of the brain, even when not excited by the action of the mind.

431. Again, as the brain is capable of representing the action of the outer world to the mind; and, to this end, is susceptible to the influences of the external world; it follows, that when these outward influences are propagated to the brain, without exciting the action of the mind, they are no less facts to the brain, though they are not consciously perceptible to the mind. And this action of the brain is none the less the representative of ideas.

432. Moreover, as the brain is capable of, and, indeed, has a tendency to, reflex action, when not under the control of the mind, and as reflex action of the brain is excited by external influences; it follows, from all we have shown, that external influences acting upon the brain, in the *passive state of the mind*, may be reflected back as *ideas*, or representations of ideas, *without the least cognizance* or *consciousness* of *the person's* mind.

433. From all which, it also follows that the psychological phenomena of mesmerism, pathetism, spontaneous somnambulism, clairvoyance, insanity, spiritual manifestations, &c. &c., *are not the phenomena* of *mind*, but of the *brain without* the *mind.*

434. We are aware that these deductions strike directly at the foundation of the "spiritual philosophy," not excepting the grand superstructure of the noble Swedenborg. We are bound, however, to utter them, let the results be what they may.

435. In order to develop before the reader's mind more

clearly the above deductions, we shall now present some of the numerous facts observed and recorded by philosophers and physiologists, where the characteristic functions of the brain have been developed during a suspension of the mind's action, or the action of the individual personal self. In the details of these facts will be seen, still further, what the brain can perform without the controlling action of the mind.

436. Dr. Elliotson, of England, whose observations on the abnormal phenomena of the brain have been extended over a very large field, for a considerable number of years, affords the student, in several of his works, ample stores of such facts. He relates * the case of a lady subject to spectral illusions, who would "not only talk in her sleep with great fluency, and repeat great portions of poetry, *especially when unwell*, but even quote verses for half an hour at a time, never failing to quote lines beginning with the final letter of the preceding." In this case we have the play of the following organs: Ideality, time, comparison and language, without the controlling influence of the self-conscious personality,— the *mind*. And in order for these to be developed in phenomenal display, their influence had to be propagated to the ganglia at the top of the spinal column; from these to the muscles of the tongue, jaws, throat, chest, and diaphragm.

437. Another case, related is that of an American lady, who had periods of preaching after the controlling action of her mind had been suspended in sleep. She not only preached, but performed regularly every part of the Presbyterian service, from the psalm to the blessing. She was at this time in ill health, and her parents being wealthy, and believing she might be benefited "from change of scene, as well as from medical skill, made a tour with her, of some length, and visited New York," and other cities. "We know individuals," says Dr. E., "who have heard her preach during the night, in steamboats. We have been told, by ear-witnesses, that her sermons, though they had the appearance of connected discourses, consisted chiefly of texts of Scripture, strung together."

* See his work on Human Physiology.

438. A similar case, given by Mr. Sunderland in one of his works, is that of a lady in Harrison Co., Ohio. This individual had a paroxysm of involuntary preaching every other Sunday, at her own residence. At these periods she would also pray, and perform other ceremonies. She would read a text of scripture without the Bible, and explain it in rather a sensible and eloquent manner. It would sometimes be extended to two and two and a half hours in length. "While the paroxysm is on," says the account, "she is wholly insensible to all surrounding objects, but readily refers to subjects discussed by her in previous discourses."

439. Another case is given of a young student, who frequently, and almost immediately, on falling asleep at night, arose and made remarkable declamations,—sometimes recited long speeches from Xenophon, with perfect correctness; although, when awake, he could not recall to memory more than a few lines. He was known one night to arise in this way, after falling to sleep, and write the theme he had to deliver the next day. "In the morning," says the account, "having overslept himself, he was vexed at not having time to prepare himself for his tutor; but great was his astonishment at finding on his table his stipulated composition, written with his own hand, folded and ready to be given in. The professor was surprised at finding it so well done, and still more so when the young student became embarrassed and unable to answer certain questions regarding it." His room-companion unfolded the mystery. The account also states that when he played at any game, during this state, he was always sure to win. At first the slightest touch would awaken him; this, however, gave place, after a time, to the opposite. At one time, in this condition, he announced that three persons, whom he named, were coming. Within an hour they arrived.

440. A very singular freak in one somnambulist, who, by the way, was a gentleman of rank, was to rise at night, regularly, after falling to sleep, disrobe himself of his linen, and, conveying it to the stable, bury it in the clean-

ings of the stalls. He would then return to his bed. At morn, on waking, and finding himself shirtless, he supposed himself to be either robbed, or the object of some sportive genius. After several repetitions of this, he set a servant to watch and catch the depredator. The servant saw him perform the automatic play upon himself; and, although the former stood near him on his passage out, and followed with a light, the gentleman took no notice of him till awakened, and thus brought to himself. A similar case to this was one where a gentleman, who, every night, for some time, lost a number of his fowls, and, having a good watch-dog, who, on these nights, gave no alarm, he concluded the thief was some member of his own house. He therefore set a faithful sentry, who caught the master himself as the rogue. He was seen to go among the fowls, take a number, twist their necks, and bury them. This was done during sleep. Another case is that of an individual who supposed himself to have been robbed of a heavy trunk, containing very valuable articles and a large sum of money. The trunk was large and heavy. It was afterwards found, however, stowed away in an obscure closet in the upper part of the house. This was repeated several times, when a watch was set, and the owner himself was found to be the tormentor.

Dr. Elliotson relates the case of a "French gentleman, who rose in his sleep, crossed the Seine, fought a duel, and killed his antagonist, without recollecting any of the circumstances when awake."

441. In these cases, we have the action of the brain, without the controlling influence of the mind; for, the conditions necessary to the action of the latter were suspended in that condition called *sleep*. It is necessary to keep in view the following grand fact, which the whole of this class of phenomena presents; namely, *that that condition of the brain, in which the conscious, personal, identical me is not free to control the action of the brain, is that condition wherein the brain may act without the mind;* and, being the representative organ of the mind, it may play its parts upon the stage, as if

it were indeed governed by the powers of the mind, when, in fact, it is acting entirely under the influence of a *physical irritant.*

And here, before advancing to notice some other cases, it may be well to dispose of a false notion which many are inclined to entertain with regard to this particular point.

442. It is supposed that whatever phenomena *represent* the powers of the mind, must have originated in the mind. If, by the latter expression, — "the mind," — is understood that of Deity, we have not the least objection to offer. For we hold this truth as self-evident, that the Deity has not only endowed the finite mind with the powers of thought and will and affection, but has also endowed that form of matter which composes the brain — the organs of the mind — with exactly those properties which enable it, under whatever irritant, to represent in its action precisely those characteristics which the mind itself possesses. Otherwise the mind could have, in this world, no adequate vehicle through which to communicate herself to the world, and none through which the world could communicate itself to the mind.

443. The mind is the consciously thinking, consciously willing, consciously loving, consciously responsible man. The brain and the body are its work-shop and its machinery. Every organ of the brain is a particular machine, which, when set in operation, throws out a definite class of representations, but is capable, by a relative action with others, of varying the results. In this it is perfectly analogous to the mind itself; but whether the machine is set in operation by the mind, or a glass of wine, or a cup of tea, or the irritation of a disease of the lungs or stomach, &c. &c., the only difference will be, that, when the *mind* produces the action of the cerebral machinery, and so of other parts, it is *conscious* of it; but if the other causes have set the machinery in motion, the mind is not conscious of the act and is not responsible. Thus, for instance, the machinery may so operate as to take the life of another. If this is done without the design or government of the mind, as in a state of somnambulism, dreaming, insanity, religious

ecstasy, who is responsible? who is the criminal? So a machine, that is made to operate by the power of man, may also be operated by wind-power, horse-power, steam-power, or water-power.

Thus we have seen that sleep is that condition, namely, the *non-controlling* state of the conscious self, — the personal, responsible mind — the me, *in* which the brain becomes subject to other irritants, and *under* which it performs its representative, *automatic* functions, *as if* the mind itself had the guidance; when, in fact, the conditions of the brain are such as to render it absolutely impossible for the mind to be the master or the originator of the cerebral motions, and consequently of the ideal representation and outward performances of the body. And yet we witness the fact of cerebral perceptions and expressions to a most wonderful degree of perfection.

It is important to add here one other case, — it is that of a "medium," in whose presence there have been some truly astounding phenomena. This person is a servant-maid, and is subject, after falling asleep at night, to arise and perform various occupations. On one occasion she arose in this way, the night before regular washing-day, and performed nearly the whole work before awaking. In this case the mind had made the impression upon the brain, which was afterwards executed entirely by the latter after the mind's action had become suspended in that condition called sleep. There was, therefore, an intelligent action in this case, without the immediate controlling influence of the mind or spirit. For, had the mind been controlling or dictating the action at the time, the person would certainly have been conscious of it; for the mind, which is the personal self, or *me*, is always conscious of its own acts. The same argument applies in all the other cases we have given.

Now it is the same unconscious action of the brain of this "medium" that manifests itself in the "raps" and in the table-movings, where there is, in these phenomena, a representation of intelligence. As these representations are, however, of no very high order and out of place here,

OPINIONS OF THE PRESS.

Happily, Mr. Rogers, the author of the work now before us, has the ability and industry to place this subject fairly before the public. He is decidedly the best American writer upon this subject that we have read; and if he continue as well as he has begun, his work will produce much good. We advise every one to procure it, and read it carefully.—*Boston Atlas.*

Mr. Rogers goes against the spiritual theory, and sustains his argument with much ingenuity, inducing many collateral facts in support. He has evidently bestowed a good deal of study and thought upon his subject. We commend the work to the curious as one of scientific interest and no inconsiderable ability.—*Transcript.*

We have read this number with considerable care, and think it promises to be by far the most satisfactory work on the subject that we have ever met. So far, we think, a case has been made out. Dr. Rogers, we think, has proved, 1st, the existence of such an agent; and 2dly, that there is no reason to suppose it to be other than a physical agent. We await with much interest the numbers which are yet to appear. If they are written with the care, intelligence, and candor for which this is distinguished, they will do something to clear up the mysteries under which these subjects have been clouded.—*Christian Register.*

The author has laid the foundation of an attractive work, and the numerous examples of rhabdomancy, clairvoyance, &c., &c., are connected with deductions from the phenomena.—*Boston Herald.*

Mr. Rogers brings forward facts in his first number, proving that manifestations of a similar character have been observed by distinguished European savans, who have traced their causes to a new physical agency, as little known and understood as was the phenomenon of magnetism in years past. The facts which the author adduces at the outset, all tend to show that the origin of the "spiritual rappings" is purely physical. The arguments of the author should be candidly examined and weighed by the believers in spiritual rappings.—*Boston Journal.*

This work, judging from the first number, will do more towards solving the mystery of what is popularly styled "spirit rappings," than any preceding book. It proceeds upon the plan of collecting a mass of authentic facts, ancient and modern, relating to the subject, and of comparing and classifying their phenomena. We think he has succeeded in showing that persons of a peculiarly susceptible organism, give forth, under certain conditions, a *physical* force; that this force acts, without visible instrumentality, upon external objects, attracting and repelling them, and that it produces various sounds, both near at hand, and at a distance. We are much interested in this work, and cordially commend it to the consideration of our readers. Its wide circulation would do much towards curing the popular delusion concerning the agency of spirits in producing sounds, moving tables, &c.—*Zion's Herald.*

The treatise of Mr. Rogers will aid its readers greatly in understanding the present state of spiritual philosophy. Judging from the number before us, we think him a calm investigator, who can separate what is true and permanent from what is merely deceptive and the result of partial views; and he conveys his conclusions to his reader with great clearness. He has great devotion to his subject, but he is not open to the accusation of requiring the reader to bring faith with him, instead of waiting to be convinced by his facts and reasonings. — *Commonwealth.*

Here is a nut for the curious and the scientific to crack at their leisure. The author undertakes to prove the existence of a human power, heretofore wrapt in profound mystery, and the developement of which power is the cause of the mysterious "raps" and "manifestations" which have for a few years past set every body into a profound wonderment. We have read enough of this first Number to satisfy us that the positions of the author are worthy of an examination.—*South Boston Gazette.*

The spirit which pervades it is calm, candid, rational, and philosophical. The admirable manner in which Dr. Rogers commences his work, leads us to desire to see its completion, and leaves no doubt that it will be curious, instructive, and of real value. All who are interested in the subject, will be repaid by a perusal of it.—*Liberator.*

A great amount of research, prompted by a real, unbiassed love of truth, and directed by an intelligent, well furnished mind, seems to be the characteristic feature of the volume already issued. — *Literary Museum.*

We have read it with interest, and it contains a strong array of wonderful facts in relation to these mysteries which have ever enveloped man. We give the author credit for ability, candor, and research.—*Star Spangled Banner.*

It is a strictly scientific classification of the phenomena of different countries and eras, with deductions entirely rational and philosophical. We recommend the work to the close examination of the philosophical, no less than the general reader; to *all* who, from curiosity, the love of truth, or the promptings of a benevolent wish to enlighten and bless their race, have had their attention arrested by the singular phenomena which for several years have been developed around us and in our midst.—*Trumpet & Magazine.*

It takes hold of the mysteries of our nature in the right spirit, and exhibits what we have long desired to see, — some prospect of a *rational* explanation of those wonderful phenomena that have so long perplexed the mind. The author certainly brings to his work an intellect wonderfully furnished with analogous and collateral facts. He seems to encircle analogies like an old philosopher — calmly, dispassionately, and with a comprehensive and discriminating grasp.—*Patriot.*

It exhibits a profound knowledge of its subject, and promises the richest entertainment to sensible minds. We commend it most heartily to every one, first, for its sensible method of treating this subject; second, for its interesting facts; third, for the effect it will have in furnishing every person with overwhelming evidence that the phenomena called spiritual, are at best but the manifestation of human and mundane agencies.—*Boston Mail.*