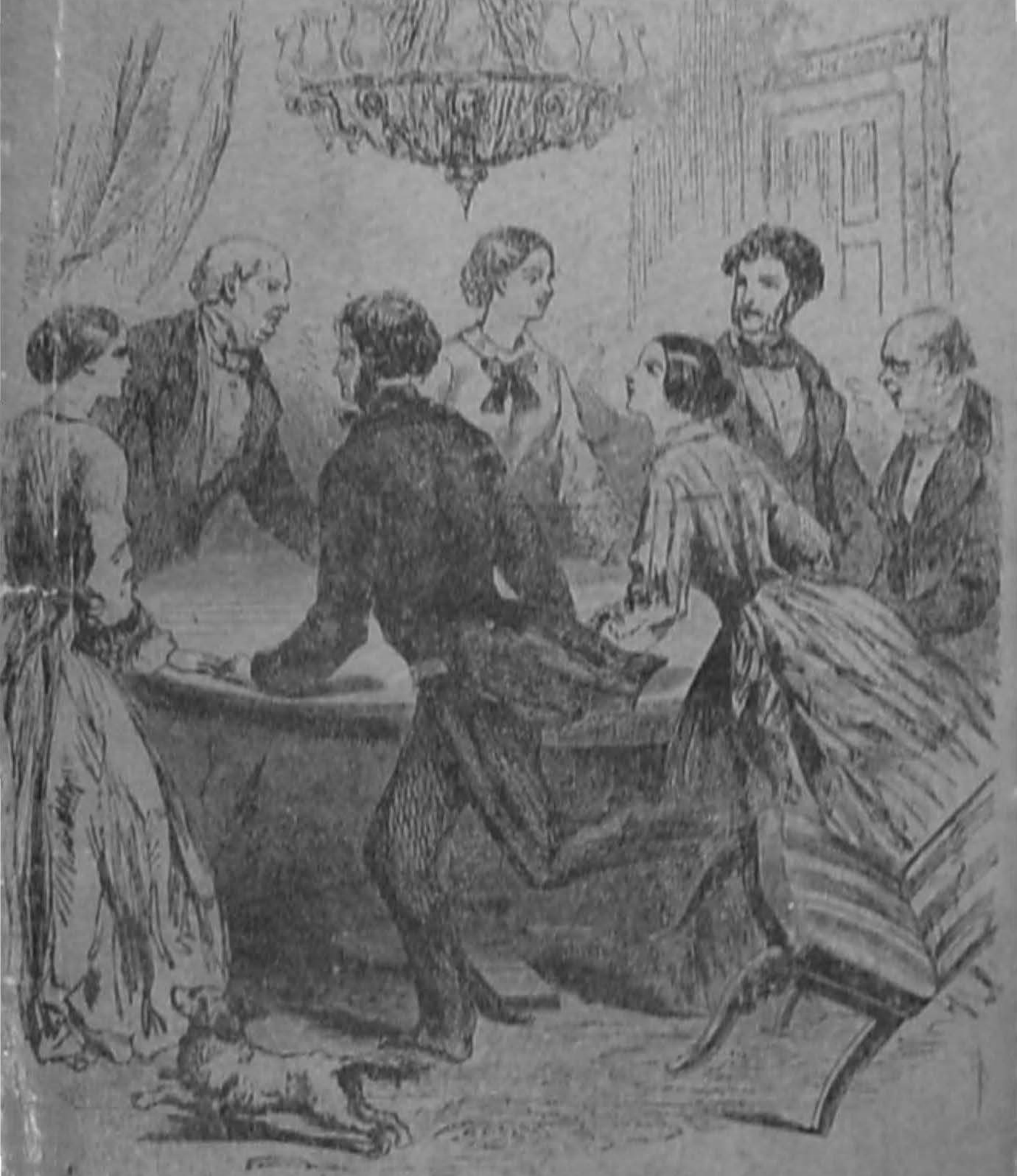
TABLE TURNING AND TABLE TALKING.



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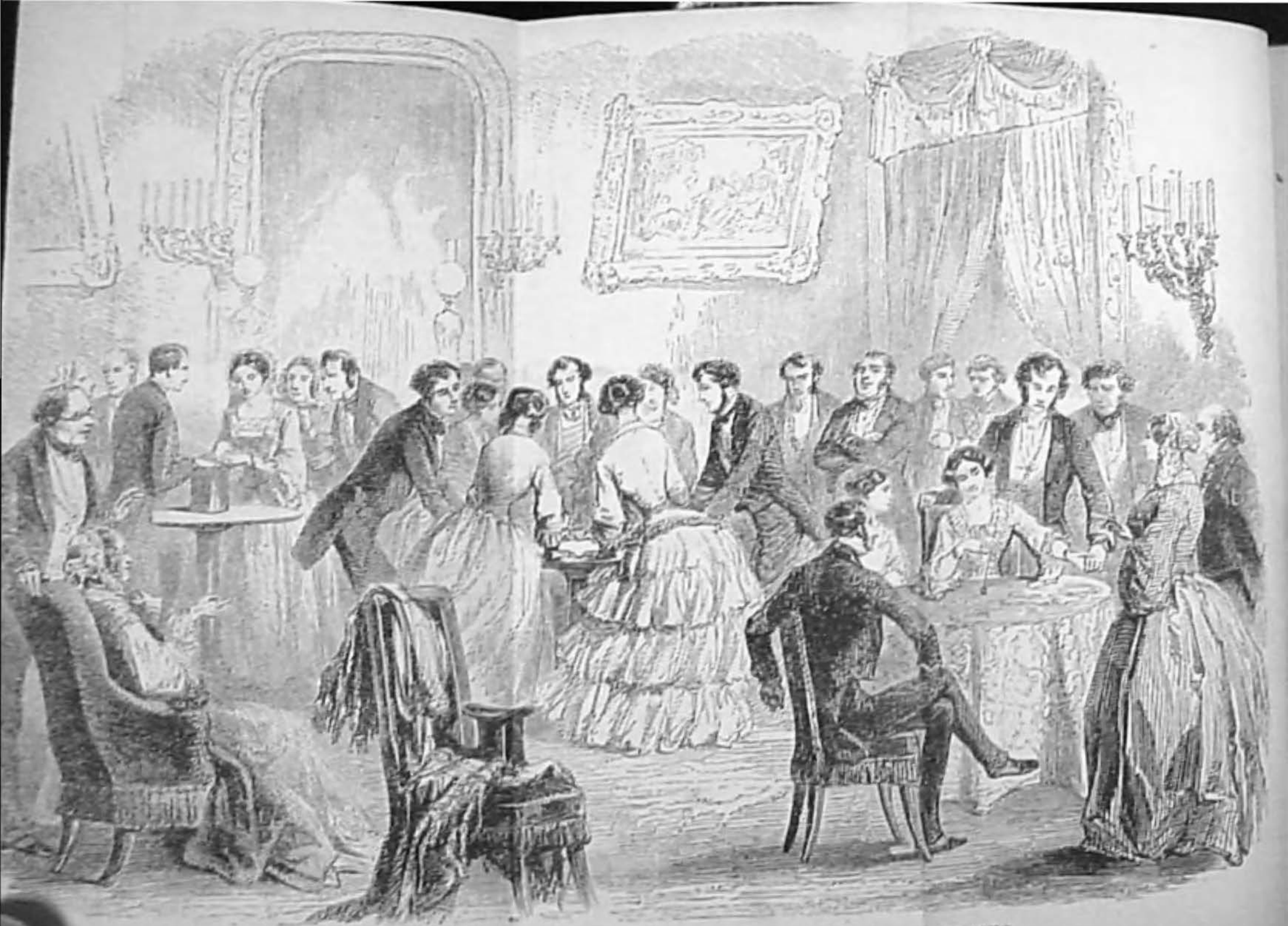

THE HAT. THE TABLE. THE RING.

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TABLE MOVING

AND

TABLE TALKING.

CHAPTER I.

INTRODUCTORY—THE CONNECTION BETWEEN TABLE MOVING AND SPIRIT RAPPING—LORD BACON THE FIRST DISCOVERER—TABLE MOVING BY SPIRITS IN AMERICA.

EVERY one has heard of Table Moving and Spirit Rapping, but few are aware of their origin, and of the intimate connection which exists between the two. Owing to the circumstance of this connection, we should almost fear that the evident truth of the one incurred the danger of being overwhelmed by the glaring imposture of the other, did we not know, in the words of the motto we have chosen for this work, that "man cannot make the true false, nor the false true." Although the venerable Humboldt, in reply to an inquiry for his opinion, advised the table movers "to try their chaff upon a younger bird," and the distinguished French *savant* Arago, still pro-

fesses incredulity with regard to the published reports of the phenomenon, there are, nevertheless, a large number of scientific men—of inferior reputation, it is true, but of equal honesty of purpose—who have intimated their belief in certain facts, which have transpired under their own eye-sight, and which, if credited, are sufficient of themselves to leave no doubt in any reasonable mind that calmly investigates the subject. Galileo's world-renowned reply to the inquisitors who sentenced him—"*E pur si' muove!*" "Nevertheless, it moves," may be aptly quoted again and again by the advocates of the new phenomenon, in reply to its detractors.

At the moment we write, we dare say that in almost every other house there are to be found some students of this mystic novelty surrounding a table. At first there is immoderate laughter, universal incredulity, and here and there languid curiosity; this is followed by the most hushed stillness, by profound silence. In about twenty minutes the fraternity is electrified: hubbub and animation follow, which defy all description, for the promised results invariably occur; and it is not only the idle and the curious that are struck with what they see, but minds of the highest grade of intellect acknowledge the truth of the movement of the table, though they may be somewhat incredulous as to the accounts of a still more striking character that are in circulation, but which appear as yet to have been made known only to the few—such, for instance, as the narratives of sounds proceeding from the table in reply to questions asked, as to the hour of the day, the age of an individual, and sundry other matters.

But the movement is not confined to tables alone, as recent researches seem to indicate that innumerable other inanimate objects may be made to exhibit similar powers, of which music stools, porcelain vases, and hats, appear to be the chief favourites.

To what all this will eventually lead we know not. The dance of the chest of drawers with a mahogany washing-stand, the waltz of the wardrobe with the bedstead, or any of the frolics of the lively imagination of Washington Irving, which a few years ago amused the reading public, or the march of Birnam Wood to Dunsinane, and even the *Walpurgisnacht*, when, according to all German mystics, the witches ride through the air upon their animated broomsticks, now begin to lose their poetical beauties, and will be considered no longer the flights of majestic inspirations. Strange are the ideas that float in upon the mind, as this new series of phenomena present themselves. Our firm belief and hope is that wider fields are opening to us, which will teach us to soar above the darkness which has hitherto pervaded mankind, and to revere and admire the power which has created all. No doubt, tricks and quackery will not fail to play their part in the dance; but as to the reality of the phenomenon, to deny it seems to us impossible.

And yet, although we style the phenomena "new," it was as clear as day nearly three centuries ago to the great mind of the philosophic Bacon, in whose *Sylva Sylvarum*, under the article "motion," occurs the following remarkable passage:—

"Wherever a solid is pressed, there is an inward tumult of the parts thereof, tending to deliver themselves from the compression, and this is the cause of all violent motion. It is very strange that this motion has never been observed and inquired into, as being the most common, and chief origin of all mechanical operations.

"This motion operates first in a round, by way of proof and trial, which way to deliver itself, and then in progression where it finds the deliverance easiest."

To our minds it does not appear at all strange,

as remarked by Bacon, that this mysterious motion was not inquired into. Three hundred years ago it would have been somewhat dangerous to execute these rotations; they would have smelt terribly of the faggot and the branding iron. And even at present, in this epoch of civilization, the exercise would in many parts of civilized Europe, make one strongly suspected of holding commerce with the devil.

Of course all sorts of jokes are in circulation, having reference to the dancing tables; amongst others, is one to the effect, that the sailors on board one of the vessels in the river, finding some difficulty in turning its head, commenced the magnetic operation, and by the exertion of their will succeeded in their object. Another is, that a party having influenced a table it suddenly flew through an open window, and in its fall struck a dog, to which it instantaneously communicated its own acquired force, and that the dog commenced spinning round with accumulated velocity, and that its rotatory motion could not be stopped until buckets of cold water had been freely thrown upon it. *Punch*, too, after describing the *farce* that is now, as he says, having a run in private circles, remarks, "That a table will go round occasionally in the eyes of those who are sitting at it, we can readily believe, but we suspect that the circulation of the table is rather intimately connected with the circulation of the bottle. We have not much faith in the experiment of putting the thumb to the mahogany, but we believe that if the fingers, with a full glass between them, are raised very often to the lips, the phenomenon may at last be realized. We have seen cases in which a rotatory movement has been imparted to objects of a more fixed nature than furniture; and indeed it is not an uncommon thing for a lamp-post, a pump, or even a public building, to commence a series of rapid whirls under the influence of what—

without reference to the rappers—may be called the 'spirits.' We suspect that if the cause of the revolution of the tables were to be closely investigated, it would be found to result from that species of electricity of which—although glass is said to be a non-conductor—the glass and the bottle are the principal agents."

It would be too long a story to tell, to trace the origin and connection of the spirit rapping and table moving phenomena in all their details;* it will be sufficient for us to run rapidly through the leading facts, and to describe how it was that on a certain day in the windy month of March, 1849, a Mr. Michael Weekman, who lived at Hydesville, in the United States, was startled one evening by some mysterious knocks at his door—how, when the door was opened, not a soul was to be seen—how the raps were repeated, and the mysterious rapper again sought for, with a similar result—how Weekman, in due course, left the haunted house, and a Mr. Fox became the tenant, and how the raps increased in frequency and number until they grew quite alarming, until at length some ingenious individual conceived the bright idea of putting questions to them, and how he was gratified with a reply—how the old story was told over again about the ghost of a murdered man, whose body was reposing in great discomfort in the coal cellar, and how all the people round about set to work digging up the said coal cellar until they came to water, when they very judiciously gave it up—how the spirit still went on rapping, and how a more certain, though very tedious method, was discovered of obtaining replies from it, to questions which any gaping clown could

* The reader is referred to a companion work, uniform in size and price, entitled "Spirit Rapping in England and America.

go to the house and ask—how "mediums" came into fashion, and drove a roaring trade, and meetings of "spiritual" circles were held at New York regularly twice a-week—how the imposture flourished, and mediums grew with its growth and increased with its strength, until at length the United States of America could number upwards of 30,000 of these infatuated or culpable professors of spiritual manifestations.

The first instance on record of table tilting by "spiritual" influence is that detailed by the Rev. C. Hammond, of the United States, who was originally a sceptic, but is now a medium for spiritual communications. He says :—

"On my next visit, I was selected from half a dozen gentlemen, and directed by these sounds (that is, the rappings) to retire to another apartment, in company with the three sisters and their aged mother. It was about eight o'clock in the evening. A lighted candle was placed on a large table, and we seated ourselves around it. I occupied one side of the table, the mother and youngest daughter the right, and two of the sisters the left, leaving the opposite side of the table vacant. On taking our positions the sounds were heard, and continued to multiply and become more violent, until every part of the room trembled with their demonstrations. They were unlike any I had heard before. Suddenly, as we were all resting on the table, I felt the side next to me move upward; I pressed upon it heavily, but soon it passed out of the reach of us all—full six feet from me, and at least four from the nearest person to it. I saw distinctly its position; not a thread could have connected it with any of the company without my notice, for I had come to detect imposition, if it could be found. In this position it was situated when the question was asked, 'Will the spirit move the table back where it was before?' And

back it came, as though it were carried on the head of some one who had not suited his position to a perfect equipoise, the balance being sometimes in favour of one side and then the other. But it regained its first position."

The next instance of table moving by the spirits that we meet with was made public by a Mr. Partridge, who, if not a medium himself, is at any rate a publisher o "spiritual" periodicals in the United States. The account runs thus :—

"The card-table before mentioned began to move with violent force from one side of our circle (which was large) to the other, rocking and rising up and coming down ; and finally the leaf was shut up, the cover turned round to its place, the table was gently turned upside down, and laid at our feet. In this situation, myself and others took hold of it and ascertained its position ; and, after a short interval, it was turned up, the leaf opened, and the table placed as before. A chair, which stood outside of our circle, and several feet from any one, was suddenly moved up to the circle and back, rocked, and finally, with great rapidity, conveyed from one end of the room to the other, winding its way among the people who sat there without touching them, and yet at times passing with fearful rapidity within an inch or two of our persons."

In addition to the foregoing instances, we have thrown together at random several other examples of table moving by spiritual influence, all of course from America, and derived from Mr. Spicer's volume, "Sights and Sounds."

The following comes from a Dr. Coale, in a letter to Mr. Spicer :—

"Another remarkable manifestation I saw was at a private house—the medium not exhibiting for money. There the table tipped and rocked, the medium, two women, and a girl, just touching it with

the tips of their fingers. Sometimes only one touched it, sometimes all three. My brother-in-law tried to restrain the motion of the table, but was dragged half round the room, though exerting himself to a degree which caused his arm to ache severely, even on the following day.

"The most striking circumstance occurred as we were about to separate. We were standing in promiscuous groups about the room, only the medium being near the table, and she was engaged in conversation, so that her attention was not drawn to the table at all. A gentleman asked for a message for his wife, who was present. The table tipped so as to spell out 'Be faithful, and do your duty.'"

This also is a communication from the same Dr. Coale:—

"Another thing worthy of note was the loudness of the raps given by a spirit who calls himself 'Colonel Mark Fiske.' These were as loud, if not louder, than I would like to give with my knuckles on a table. They jarred the whole table, making the leaf fly up! They were also distinctly (so much so as to leave no doubt of the fact) made on different parts of the table, sometimes before me, sometimes another of the company, as requested. Once, a mere gentle tapping was heard, and the medium spelled out the message privately; then, colouring deeply, remarked to her mother, that it was 'William.' . . . .

"The movement of the table was, however, very remarkable. Three of my friends present, all able-bodied men, and of good weight, tried to hold the table down, while I also did my utmost to keep it firm. It was, however, raised from the ground, and swayed to and fro, the medium remaining perfectly passive, and laughing at our ineffectual efforts to resist the movement."

This comes from an authority, name unknown:—

"No one was present at this interview except

the gentlemen named, Mr. Cooper, Mrs. Cooper, and her young child. The cloth was removed from the table. The company then seated themselves around the table, so far removed therefrom as to preclude the possibility of its being moved by any one of the company unobserved by the rest. When commanded to move, the table would move, in the direction required, a distance of six, and in some instances of twelve, inches. One of the gentlemen then desired *(mentally)* that it should be thrown over, and it was promptly done. All these things were done with no human power operating upon the table. The gentlemen then took a book, and, placing it under the table, requested the spirits to write therein. The leaves in the book soon began to rustle; soon after the pencil was thrown upon the floor, and then the book was violently pulled from the hands of the party holding it. One of the gentlemen, in whose hands the book was torn and written in, declares, upon his veracity, that he knows it was done by some agency invisible to human sight. When the party was at a distance from the table, in answer to a request that some manifestation might be made which should be entirely satisfactory, the table was thrown over with so great violence as to break the rim thereof in several places."

This is also an anonymous communication :—

"It was next proposed that proof should be afforded of the power possessed by the spirits to move substances, and they were requested to exercise it upon the table. Every one drew a little apart, in such a manner that none of the sitters' legs should approach it; and, so far as could be observed, this condition was most honourably fulfilled. In a moment or two the table, like 'Birnam Wood,' began to move; and, if my astonishment and discomfiture did not equal that of the deluded thane, it was because petticoats are redundant, and it was impossible

not to feel how completely it was at the discretion of any zealous little foot to assist the spirits in their performance of this manœuvre."

The next instance is from the report of the New York circle, a society which comprises most of the great professors and patrons of spiritual communications in the United States:—

"Dr. Hallock related a case of physical manifestations which took place on the Friday evening previous, at the house of Mr. Partridge, after the conference had adjourned. Mr. D. D. Hume was the medium, and the circle consisted of Mr. Partridge, wife and daughter, Wm. Taylor and wife, S. B. Brittan, and himself. On the table around which we were seated, were loose papers, a lead pencil, two candles, and a glass of water. The table was used by the spirits in responding to our questions, and the first peculiarity we observed was, that, however violently the table was moved, everything on it retained its position. When we had duly observed this, the table, which was mahogany, and perfectly smooth, was elevated to an angle of about 30°, and held there, with everything remaining on it as before. It was truly interesting to see a lead pencil retaining a position of perfect rest, on a polished surface inclined on such an angle. It remained as if glued to the table, and so of everything else on it. The table was repeatedly made to resume its ordinary position, and then its inclination as before, as if to fasten upon us the conviction that what we saw was no deception of the senses, but a veritable manifestation of spirit-presence and of spirit-power. They were then requested to elevate the table to the same angle as before, and to detach the pencil, retaining everything else in their stationary positions. This was complied with. The table was elevated, the pencil rolled off, and everything else remained. They were then asked to repeat the experiment,

retaining the pencil and everything else upon the table stationary, except the glass tumbler, and to let that slide off. This was also assented to, with the like result. All the articles retained their positions but the tumbler, which slid off, and was caught in the hands of one of the party, as it fell from the lower edge of the table. Then the table, after being restored to the natural position, was moved strongly to and from the medium, and to and from different individuals in the circle, as they would request. After this had been repeated several times, and while a corner of the table was inclined into his lap, Mr. Taylor asked if the spirits would lift it clear of the floor while in that position. Assent was signified, and the table, after much apparent effort, though probably only apparent, was lifted clear off the floor as requested. Dr. H. said he was led to the conclusion that the effort was only apparent, because, while we were watching it closely, with a light upon the floor, so as to see the slightest motion, the table in the meantime resting on one castor on the floor and one corner of the leaf in Mr. Taylor's lap, was raised perhaps about one inch, after having been literally tumbled about the circle, sometimes upon one castor and sometimes upon two, the leaf resting first in one person's lap and then in another. But when the foot of the table was finally raised as described, he, to make sure that they were not mistaken in the fact, got down upon the floor to observe more closely. While looking, the foot of the table, instead of being raised a doubtful inch or so, was thrown up clear of the floor, six or eight inches, as if all former attempts had been mere playful efforts. We then asked if they could move the table with a man on it. They replied, "Yes, with two men on it." Mr. Partridge and myself then seated ourselves, back to back, upon the table. Our combined weight is a little over 350 lbs.; but, notwithstanding, the table was moved as

easily as when nothing but the candlesticks, etc., were upon it. We were rocked backwards and forwards, to and from the medium—the table was tipped from the medium, and held stationary in that position, with us upon it; and, finally, we remarked playfully, 'When you get tired of rocking us, throw us off.' It was done—the table was tipped strongly and rapidly *from* the medium, and we were thrown on the floor."

At another spiritual *séance* we have seen a report of, the spirits of a couple of unhappy tars, lost at sea, were called up, and although they did not announce themselves in the approved T. P. Cookean style by shivering their timbers and topsails, yet they commenced by canting over a ponderous table, heaving and rolling it to and fro to represent a ship in a violent tempest. As the storm increased, a loud creaking sound was heard, for all the world like the straining of the cables of a vessel sore distressed. This was followed by a "prolonged wailing:" then came a "shrieking blast of wind," with further "creakings of the timbers and masts," followed by the "regular, sullen shocks of the waves as they struck the bows of the doomed"—table! which all this while lay rocking on the floor like an elephant in agony. At length the "mahogany" was fairly capsized, and the interesting *tableau* brought to a conclusion.

A change in the entertainment now took place. After a few minutes of repose, the table actually raised itself up from the floor. "A table, weighing —I (eye-witness) should judge—100 lbs., was lifted up from the floor, the legs touching nothing!" Eye-witness jumped upon it, whereupon it commenced rocking, without, however, tipping him over, "although it canted to angle of at least 45°." An "almost perpendicular inclination" proved at last more than a match for him, and over he went

During all this time the table was touched by no one except eye-witness, who was perched upon it.

We will conclude this chapter with one or two professed exposures of the American table-movings, given by those who, disbelieving the phenomenon was caused by spirits, were unable to attribute it to any other cause, and jumped to a conclusion, that it must therefore be an imposture. The following account is by Professor Matthison :—

While at West Winstead, Connecticut, in January, 1853, Rev. Mr. Woodruff and myself were informed by a gentleman, that tables had several times been magnetized in a room over his store, and that if we would call at three o'clock P.M., that day, he would show us the phenomenon. Accordingly we called. There were a number of rappers present, among the rest, Mr. Brittan's friend, Mr. Turner. We first sat down around the table all together, the Rev. Mr. W., the rappers, and myself. After waiting some fifteen to thirty minutes without any result, I proposed that we "sceptics" would retire and give up the table to the "believers." We did so. I took my position where I could watch every movement. Pretty soon the table began to tip; but I saw how the requisite force was applied, and accused the parties on the spot of moving the table by physical force. This they did not deny. "That, I suppose, is the way it is," said one of the believers, "when we all *will* for the table to move, we *involuntarily* apply a a little muscular force."

On a subsequent occasion, Mr. Matthison attended another table-moving trial, and this is his report :—

We placed ourselves about the table as directed. The first thing I wished to settle was, whether I could move the table while some sixteen hands were upon it, and no one see that I moved it. Very soon

the table began to revolve. I yielded with others at first; but soon began to resist the supposed "spirit." Feeling the resistance, he at once changed the direction of the table, and it began to move the other way. I then took it into my own hands altogether, *willing* it to go this way and that; and asking others to will it in the same way; and it also obeyed our wills, *because* I always moved it as I willed it to go; and no one could detect me. I then informed the "circle" that thus far I had been the chief moving "spirit," and that I had now shown that if there was one deceiver in a circle, he could hoax all the rest, and they not detect him.

I then asked one after another to leave the table, and kept perfectly "passive" myself, till I detected the very man who made the table, and invited me to see it "revolve," moving it with his own strength, by his hands laid on the top of my own. I told him and the spectators at once that I had discovered the "spirit," and was ready to make oath to the fact; whereupon, Mr. ——— simply replied, that if it was so, he was not conscious of it; and so the matter was left for that night.

CHAPTER II.

HOW IT CAME TO PASS THAT ALL THE TABLES IN BREMEN WERE SET TURNING, AND HOW ALL THE TABLES THROUGHOUT GERMANY FOLLOWED THEIR EXAMPLE.

THE good city of Bremen seems to have been the favoured locality where the first introduction of the table-moving phenomenon to the Continent really took place. How this was brought about, is so pleasantly told by Dr. Karl Andrée in a letter written by him from Bremen to the *Augsburg Gazette*,—a foreign political journal of European reputation,—that we cannot do better than quote his exact words: particularly, too, as the appearance of this letter in such a quarter, ensured its extract into every German newspaper of note, and produced that perfect *furore* for table-turning experiments with which all classes of the sober German nation, from the king of Prussia, who operated upon the satin-wood tables in his *salon*, to the artizan who made the successful attempt on the common deal table in his garret, were forthwith seized.

Bremen, 30th of March, 1853.

For the last eight or nine days, our good city has been in a state of excitement which it would be difficult to describe. It is absolutely engrossed with a prodigy which nobody thought of until the arrival of the steamer *Washington*, from New York. People are far less anxious about the price of tobacco, or the success of Ericson's ma-

chine, than about the "*table moving*," as it is called. Not a house in the town but is taken up with this fantastic locomotion.

This is no cock-and-bull story, no American joke, no Yankee extravagance. A mysterious problem is laid before the scientific world for their solution. They will have to explain how it is that the fluid emanating from the hand of man, has sufficient influence on the wood of a table to set it in motion, without producing any effect on surrounding objects. The experiment is one which every one can put to the test; a power is brought into operation which no man had ever turned his mind to. The thing is extremely simple. I have been your correspondent for ten years, and you know whether my word is to be trusted. Chance enabled me to test the authenticity of the phenomenon, and I will give you the plain and concise narrative, unclogged with vapid phraseology. Let the reader judge for himself.

A merchant settled at New York, but a native of Bremen, received a few months back, from one of his sisters, a letter filled with sarcastic jokes relative to the *spiritual gymnastics*, and other marvels, which were current in the United States. The brother very naturally thought it was wrong to trifle with serious assertions, and to dispute without proofs the authenticity of the *table moving*. On receiving his reply, the sister lost no time in preparing for experiments; which were made and repeated in a large number of family circles, and proved successful at the first test. The friends of these families collected from all quarters, witnessed the new prodigy, and repeated the experiments with equal success, on their return home.

In the course of a few days, hundreds of persons of all classes had set tables moving; the scholar and the ignoramus, the merchant and the artisan, women and children, all were equally convinced.

On Easter Sunday, a very demure man related to me what he had seen and experienced. The new phenomenon was imported from America, and whatever importance I may attach to bales of cotton, I must confess that I have but little faith in the spirituality of our good friends and brothers on the other side of the Atlantic. Besides, to doubt was very excusable on such an occurrence. But from all quarters comes the intelligence that the experiments have been crowned with success. From the beginning of Easter, they had been made by the score. Still that signified nothing; for human imagination often produces very singular phenomena.

But it so chanced that on the second Easter-day, at an evening party, consisting of about thirty persons, I met several friends of the family of the merchant at New York already mentioned. Our conversation soon turned on this *table moving*. A young lady with a clear transparent eye looked steadfastly at me, and said to me in a very even voice:—"I could easily and instantly convince you of the truth of this fact. My brother at New York gave me some explanations; and I have already completed my first preparations."

A few moments after, a table which stood near the sofa, was pushed into the middle of the room, the floor of which was covered with a Scotch carpet; I requested the lady and seven other persons to take their seats round it, at a distance of two feet off. The table was a round mahogany one, and might weigh sixty pounds. It had four legs to it.

Among the eight operators at the table, there were three gentlemen and five ladies, their ages varying from sixteen to forty. In the number there was a student of the natural sciences, who had just finished his physics, and who was a sceptic, like six of his seven companions.

The lady alone observed :—"I shall soon convince those who laugh."

After every one had sat down, the chain was formed. To prevent the contact of people's clothes, a foot's space is left between the chairs. Besides several lamps, the room was illuminated with thirty wax tapers. It was as light as day. The operators must not touch each other's feet, nor the legs of the table.

The operators are placed in contact with one another and with the table, only by means of the chain. This chain is formed in such a manner that each party lays his two hands on the table (without leaning) and with his little finger touches the little finger of his neighbour. so that the little finger of his right hand rests on the little finger of his neighbour's left hand. The spectators place themselves round the circle of operators, making merry at their expense. After a lapse of twenty minutes, one of the ladies declares it would be impossible for her to continue any longer at the table; she feels unwell: she rises up abruptly, and dissolves the chain.

It is, however, reconstructed in a moment, and the vacancy filled up. The trial was long and wearisome. I saw by the clock that the sitting had already lasted half an hour. They began to talk of leaving their seats; the student alone wished to remain, saying that he felt a magnetic sensation in the right arm, a sensation which soon manifested itself still more strongly in the left arm. The rest soon spoke of the same feeling, and it turned out that all those who composed the chain were inundated with the same fluid. Three of the assistants did not belong to Bremen, and had never seen the other operators before. Whilst one old gentleman was observing to me that he could not understand how people could entertain themselves with such absurdities, the ladies at the table

shricked out, and the seven operators exclaimed with one voice:

"It stirs, it begins to move!" And such was the fact. First the surface of the table began to move on this side, on that side, from top to bottom, and then the table began to move of itself.

We spectators lost no time in removing the chairs of those who must still continue to compose the chain, and the table, still in contact with the hands, advanced, proceeding northwards, and turning on itself so rapidly as to render it almost impossible for the circle of operators to follow.

At the recommendation of one of the spectators, some of the persons composing the chain put their arms and clothes in contact, and the dancing table stood still immediately.

The chain was then reconstructed, and in three minutes at most the table resumed its motion, running on so fast as to suggest to me the idea of a steeple chase. At length the circle of operators, grown tired, forsook the table, and we put it back in its place, near the sofa, where it stood fixed and steadfast as usual.

I take upon myself the responsibility of all I have alleged. People might say there is some illusion beneath it. But there is no reason to suppose so. I believe that the whole phenomenon will be very simply explained. The seven noviciates, after the lapse of half an hour, gave the same account of what they had experienced. Each of them had been under the influence of a fluid, all the more powerfully felt that he was seated by the side of a more sensitive and nervous operator. On the greater or less intensity of the fluid, depends the greater or less speed in the fulfilment of the phenomenon. Some instances there have been when twelve or fourteen minutes have been enough to effect it. In another case, which happened yesterday, it required an hour and a half.

Certain sceptics have hired strong and square-built emigrants, who had no notion of *table moving*, to compose the chain. They have given them a few francs, a dinner, or a glass of brandy, for their trouble. The experiment has never failed.

Success appears more certain when the chain is composed of persons of both sexes. Young children and very old people seem to lack sufficient fluid to make up the full supply. Yet cases have been known of children of fourteen succeeding among themselves in producing the result.

Scientific men after this have only to search for the nature of this power emitted from the hands of man, and which communicates locomotion to inert wood. The hands composing the chain feel themselves all drawn forward at the same time by the top of the table. When the table begins to move, the chain cannot be dissolved.

The motion consists at first in a kind of rolling, like that of a ship. After that begins the march and rotation on the axis of the table. All generally agree that the progress is northwards. The rotation is usually from left to right, but sometimes the reverse will happen.

It is evident that the experiment is easily tried, and that every one may convince himself with his eyes and hands. I know not whether experiments prove successful with tables made of iron or of other wood than mahogany. At Bremen, mahogany tables only were made use of.

In trying experiments, it will be advisable to place together persons of different constitutions and sexes. The motion will thereby be rendered more ready and speedy. As for the rest, science will easily discover the laws of this phenomenon. A scientific man of this city is at present engaged in trying experiments with a compass in his hand. I was unwilling to leave to another to communicate to you what I had seen. In all this there is a mix-

ture of the serious and the comical, new elements to be discussed by the faculty, and new jests for humourous publications.

DR. ANDREE.

The Doctor was right enough in this latter surmise, for before long Germany was quite deluged with caricatures, ridiculing the new phenomenon; and as to the more sober kind of publications, his letter was received by them and the public generally, with a perfect shout of scorn and incredulity. In truth, the extraordinary assertions contained in it, though proceeding from so serious a man, more than justified doubt. Among the refutations with which the author was in a short time deluged, he was only spared the accusation of imposture by the benevolent supposition of illusion, of involuntary error, pardonable in a credulous character. The public being soon tired, however, of laughter and vague discussions, attempts were made to produce the same effect. Having already decided, the public then thought about investigating, and when all that had been stated was proved to be true, there came over all a feeling of general stupified astonishment; experiments were multiplied without number, and on all sides the reality of the fact was announced, as admitting of no further doubt,—being established, confirmed, and demonstrated by men commanding the most perfect confidence. From this moment, there was an universal rotatory revolution in progress; all the tables in Germany commenced turning, and all the people's heads went round with them. The "*tischruecken*," and the "*klopfgeister*," or dancing tables and spiritual gymnastics, became a regular creed with every newspaper beyond the Rhine. The *Augsburg Gazette* gave the dance of tables precedence of the Eastern question; the *Lloyd* of Vienna almost forgot Lombardy; the *Gazette de Cologne*, the gospel of the

Germanic confederation, constructed a special rubric for this grand marvel of the day. Illustrious men signed certificates which scalded the throats of other illustrious men; and people possessed of no celebrity to give authority to their allegations, contented themselves with being the authors of the miracles of which those more distinguished were the mere historians.

It will readily be believed that the gay city of Vienna was not behind-hand in this state of universal commotion. Like Bremen, it soon had all its tables in active exercise, and singular enough were the effects which were produced, ladies fainted, strong men were seized with trembling, and chattering of the teeth, and the nervous system of many of the operators received violent shocks. The *Times* correspondent, writing from Vienna just as the excitement was commencing, says that Dr. Andrée's letter excited a mingled feeling of curiosity and incredulity there. "Curiosity," however, he goes on to say, "prevailed, and for the last three days the Viennese have thought and spoken of nothing but the new American discovery. Of the innumerable experiments made, many were not successful. An eye-witness states that on Sunday afternoon five members of our Judicial Political Reading Union—men of different ages—seated themselves round a small table, with double feet, and formed the magnetic chain, according to the instructions given by Dr. Andrée, of Bremen, in the above-mentioned letter. In an hour and a quarter the rotary motion commenced. The experiment was made in the presence of fifty persons. The *Wiener Zeitung*, yesterday evening made mention of two other cases, in both of which the tables were broken.

"Yesterday evening the experiment was tried in my presence on the 'parquetted' floor (Dr. Andrée recommends a carpet) of the room. Round

the table three ladies and five gentlemen placed themselves, and formed a magnetic chain, which is effected by each person laying his hands lightly on the margin of the table and placing the little finger of his right hand on that of his neighbour's left. After the experiment had lasted about an hour, the table began to exhibit an almost imperceptible undulating movement. Some minutes after it was convulsively jerked to the right and left, and finally it turned to the right on its own axis with such velocity that the persons forming the chain, who had in the mean time risen, were obliged to run in order to keep pace with the new-fashioned locomotive. The movement was so violent that the bystanders were soon obliged to relieve the original actors. When one person left the chain and another entered, there was a slight interruption of the electric stream, but in two or three minutes the table was dancing about the room as before.

"In the course of the experiment, which altogether lasted two hours and a quarter, it became evident that some persons possess far greater magnetic powers than others. If, when a new chain had been formed, the table seemed disinclined to continue its exertions, one gentleman, a man of great strength and size, could always immediately arouse its dormant energies. This circumstance induced some persons to fancy that, by pressing the palms of his hands forcibly on the table, he gave it an artificial impetus; but to convince them that such was not the case, he hooked his little fingers into those of his neighbours, and barely touched the table with the tips of his thumbs. If the dress of any link in the chain was touched, the electric fluid escaped, and the table stood still; and the same effect was produced if it was touched by a bystander. The sensations experienced by the experimentalists before the magnetic fluid was equally distributed through all the links of the chain were very dif-

ferent, but the most common were heat, tingling and pulsation in the hands and arms, and pains in the head. In two cases ladies fainted; but this is hardly calculated to excite surprise, as there is something 'weird' in the whole affair. An agent of police, who suddenly found himself in the presence of a society of table-movers in expectation, would probably take them for a gang of conspirators just swearing fidelity to each other. Successful table movers—that is, those in action—are like so many wild witches and warlocks.

"After quitting the above-mentioned house I went to the Mercantile Club, where an unsuccessful trial was made. On leaving the chain, one of the gentlemen affirmed that his watch 'had gone backwards during the experiment.' The assertion caused considerable hilarity at the time; but my own watch—which is known to Dent, of Charing Cross, as a capital one—was twenty-seven minutes behind time this morning."

Among the many scientific men whom Dr. Andrée's letter had set to work experimenting in reference to the new phenomenon, was Dr. J. Böhm, director of the Prague Observatory. The result of his investigations was described in the following terms in the journal of that city:—

The experiment began at twenty minutes past ten; at twenty-five minutes past ten Dr. Schleicher and Dr. Halla announced that they felt that the fibres of the table were stirring. The latter thought, however, it could only be a peculiar sensation in the fingers.

At twenty-seven minutes past ten a lady, who made part of the chain, said she felt a sensation exactly similar to that produced by the electric machine. At the same time Professor Schleicher felt titillations at his fingers' ends.

At thirty minutes past ten Dr. Halla felt a strong heat overspread his whole body, and Dr.

Schleicher declares that the titillations of the fingers become much more distinct, especially on the three middle fingers, which come more completely in contact with the table.

At thirty-two minutes past ten, Professor Baron Leonhardi experienced a shivering in the back.

At thirty-four minutes past ten, Professor Schleicher complained of giddiness. At the same instant every operator, excepting myself, cried out that the table had cracked a little, and was beginning to move.

At thirty-five minutes past ten, we all of us saw the table experience a shake, as if it had been suddenly struck. At the sight of this phenomenon, I must admit, I trembled with surprise and bewilderment.

At thirty-six minutes past ten I even heard, although somewhat dull of hearing, the clear and distinct sound of the locomotion of the table, similar in every respect to that of a piece of furniture when pushed or removed.

At thirty-seven minutes past ten, the table performed a rotation, which was but slight, yet very perceptible for all that. This motion was more durable than the former. A few seconds later, the table began to move again, and maintained its course uninterruptedly for five minutes. The want of room obliged us to break off the experiment.

Whilst the table was still in motion, I suddenly parted the chain, and the moveable instantly stood still. The chain was re-constructed, and after a few seconds, the motion recommenced. It is of course understood that as soon as the table moving had begun, the chairs had been removed.

Professor Schleicher's giddiness disappeared the moment the table began to move. The operators felt a strong perspiration in the palms of their hands stretched over the table, which had been moistened with it.

The table, it seems, was of cherry-wood. The rotary motion conformed with that of the earth on its axis. In five minutes' time, the table had travelled over a curve of rather more than 180 degrees, a little more than a semi-circle, and had advanced from two to three paces in a westerly direction.

This motion may, in truth, be a consequence of the rotation, which, on an uneven floor, cannot be effected without deviating, by a table with four legs.

Nor must it be forgotten that the above experiment was produced in fifteen minutes, which may have been occasioned by the good dispositions of the operators. For when the experiment had terminated, four other persons, all of them men, sat down to repeat it, and after waiting for an hour and a quarter to no purpose, were obliged to desist from their design.

CHAPTER III.

THE TALKING TABLE AT BONN.

THE most marvellous report that has been received from Germany, comes from one of the Professors of the University of Bonn, and is of a character to excite our "special wonder." We are afraid few English readers will feel disposed to accept it with confidence, although the learned Professor's statements appear to be guaranteed by four out of the six intelligent eye-witnesses present. The following is Dr. Schauenburg's narrative:—

It was the 13th of April, 1853, at half-past four in the afternoon, I went with my wife to the house of M. Neusser, when it was resolved, for the entertainment of the ladies and children, to try experiments of *table moving* and *spiritual gymnastics*. I consented with a certain reluctance to become an actor in this diversion; but I saw and was convinced. Every kind of experiment was tried up to half-past nine; they were all wonderfully successful, and their nature was such as to overcome the most obstinate incredulity.

The company consisted of two gentlemen from thirty to forty years old, of seven ladies from twenty to forty, and of children of both sexes between eight and twelve. The meeting of all these people was quite fortuitous. The temperature of the room was at 16° Réaumur, and at one o'clock the barometer stood at 187° above the level of the Northern Ocean. The wind was north-westerly, and the sky pure and serene.

1st. The experiments of locomotion were tried on a cherry-tree table, light and finely smooth, with

a round flat top, a foot and a half in diameter, made of a single piece, and supported by three legs. It was placed on the deal floor, and the chain was formed under the directions of M. Andreé.

Each operator put his hands on the table, the two thumbs resting on each other, and the little fingers so placed as to let the little finger of the right hand rest on the little finger of the left hand of the party adjoining. Slight deviations from this rule, and the exchange of persons constructing the chain, had no effect on the result.

The first symptoms of the moving were felt in *half a minute* at most, which must doubtless be attributed to the presence of the ladies; and also to the fact, that the table had already been submitted to an experiment a few moments before, and had still retained the degree of heat and electricity required to produce the effect. Before the shocks began, I felt shudderings and shootings from the elbow to the finger-ends, precisely as one feels under the action of the electric apparatus. Then began the *table moving*, as if drawn along by kicks. We likewise heard a low noise on the table—the boards seemed to be snapping under some mysterious influence.

2nd. One of the ladies, who had become familiar with the experiment by reiterated practice, took upon her the command, which was afterwards given up to us. Whilst we were round the little table, full of anxious expectation, she exclaimed: "Table, turn upon thyself, and go to the right."

The table, then, rising upon one leg, turned about with such rapidity as to render it difficult for us to follow it.

"Faster, faster!" cried the lady.

Then the table began to wheel about in so dizzy a manner that we were often forced to break the chain, without, however, affecting in the least the results obtained.

At the cry of "Halt," the table stood still.—"Turn to the left with the same rapidity!" said the same voice; and the moving was renewed with the same speed, and with a submissive obedience worthy of a well-trained dog or a wonderful automaton.

At the word "halt," there was another stop.

Afterwards came an order to turn on its three legs. And so it was. The rotation was, of course, slower, and more difficult; but, after all, there was the same obedience, and no gap in the course.

3rd. Then they ordered the table to march, and it advanced according to order—at one time towards the stove—at another, towards the window, the escritoire, or the next room, and through the hall, as far as the kitchen. It moved along, changing its leg, and constantly turning about, like a vessel tossed on a rolling sea. They ordered it to go through the same manœuvre on its three legs at once, which was more arduous, but which was acknowledged to have been done. The ladies complained that it was painful to see the torture inflicted on that poor cherry-tree table.

4th. The longer the experiments were continued, the more easy the task of obedience seemed to become. They told the table to bow to the person who should be mentioned by name; and, according to order, this was done. Sometimes, before bowing, the table made another motion: most frequently the leg farthest removed from the person named rose up, and the inclination was made on the two others. When the table was making these bows, the bystanders would cry out, in their mirth, "Lower, lower still!" at which it would bend so low down that it must have fallen, had it not been held up.

It is right to notice in this place, that, during all these different orders, the hands of the operators did not exert the least pressure. On the contrary, we were requested not to disturb the experiment by any effort of our own; and I, for my part, paid con-

tinual attention that nothing on the part of the spectators should contribute to the motions of the bewitched moveable.

5th. Still more occult and incredible are the experiments we are now going to relate, in which the table, by a motion from top to bottom, performed with the most accurate measure, replies to the questions proposed to it. No collusion was possible, and every witness of this extraordinary scene is ready to attest and confirm it.

Question 1. Table, tell us how many persons are there about thee?

Reply. The table answers by three, four, or seven strokes, according to the actual numbe and each time correctly.

Q. 2. What is the time?

R. The table beats five strokes, and at the same moment the nearest church-clock strikes five.

Q. 3. How many children has Madame B——?

R. The real number.

Q. 4. How many quarters after eight?

R. Three strokes. It was a quarter to nine by my watch, as all present were able to bear witness.

Q. 5. How old is Gaspard? (This was the son of Professor Simrock, who was present.)

R. Correct.

Q. 6. How many rings has Madame Schauenburg on her hands?

R. Correct again.

Q. 7. What is the half of fourteen?

R. The first time the table gave eleven strokes; the second time the answer was correct.

Several questions were put as to the future, but these were given up, because it often happens that such amusements produce irksome impressions; but they inquired about things known only to one of the party, or to none present.

Q. 8. How many children has Professor N.'s daughter-in-law?

R. Two. This was the fact.

Q. 9. How many children has Professor N. himself?

R. Six, instead of four. This was inaccurate.

Q. 10. How old is Mademoiselle X——?

R. Thirty-seven. This was the truth, though nobody would ever have suspected it.

Q. 11. How many knobs are there in thy legs?

When I proposed this question, we were so near the table that it was impossible to look at the legs to count the knobs, and I knew the real number least of all.

R. The table told thirteen, and, when we raised it to ascertain the fact, the reply was found to be quite correct.

Other questions of the same nature were equally well replied to. Some one asked, "How many dollars didst thou cost?" The answer was, "Two;"—and when the question was put, "How many art thou still worth?" the table answered, "*Only one.*"

The company had too much good sense to inquire about serious matters relative to the future. It was remembered that only a few days before, a lady from Cologne having asked the table how many years she had still to live, the table had replied with one stroke. The terrified lady had fainted, had been carried home, and was not yet recovered from her alarm.

They only proposed such questions as were merry and amusing, and, as I was mindful of every one's health, I begged them to relinquish the experiments, which, if too much prolonged, might be hurtful; consequently the questions were suspended.

Subsequently, we repeated the experiment with a mahogany table, with an oval top, four feet long. The table answered correctly, that it had cost fourteen dollars.

An old mahogany chest of drawers, weighing upwards of sixty pounds, mounted on four iron

castors, began to turn upon itself with so much celerity, as to require all our exertion to keep pace with it.

I asked myself what strength it required, when these moveables had raised themselves under the effects of the charm, to put them down. I have frequently made this experiment, and the resistance I had to overcome at each time, was equal to that which might have been offered by a child between six and seven years old.

Several times when we wished to renew the experiments, after a pause, the motions tired our patience before they declared themselves.

The presence of two young girls of twelve and sixteen years old in the chain, was however always sufficient to communicate to the table our whole strength and determination.

— The extraordinary tension of the physical and moral faculties, the trust we had in the experiments, always made us undergo more or less inconvenience. And yet one lady who was suffering from severe headache, was cured by the *table moving*.

After my wife and I had left, several other experiments were made at M. Neusser's, and I relate them only from report. They ordered the table to lean forward when answering a question affirmatively, and to shake itself when replying in the negative. This experiment succeeded; and to more serious questions, answers were returned which need not here be cited.

I was convinced that the more the hands advanced, the more rapid became the table movings. When, at eleven o'clock at night, in the midst of its rotation, they wanted suddenly to stop it, the table creaked as if it were about to snap asunder; and when they asked if it were in pain, it answered in the affirmative.

For a long time to come, the public will say that all this is but a clever deception. So did I

think myself. But I have changed my opinion. Professors Schopen and Simrock, who were present at most of these experiments, were obliged to give way to conviction.

The facts are not to be denied. What I am now writing to-day, is what I saw yesterday, and I am warranted in repeating it.

The *table moving* is A FACT,

I am certain, too, that the room in which experiments are tried, should be of a lukewarm temperature, and the hands ought to be moist. Whenever the experiments succeeded, I observed that my hands were rather swollen.

Yesterday we repeated the experiment. There were present, MM. Professor Hoffmann de Fallersleben, Dr. Schade, and Marcus, senior, a bookseller, all residing at Bonn, and most of the ladies and children of the day before. The company met in the same apartment,—the experiments were tried on the same moveables, the temperature stood at seventeen degrees Réaumur. The results obtained were the same.

The children pointed out the plum-wood table as a plaything. We consented to repeat the experiments to amuse them.

It is not necessary to repeat in this place all the consequent results; they were re-produced almost in the same order as yesterday. We made the table march on as far as the hall, and I went over the way to the shop of M. Marcus, the bookseller, and asked him if he would like to see M. Neusser's table pursue its gyrations into the street. He answered with a smile, which was immediately after turned into a gape of wonder by the fact. When the table and chest of drawers had proved that they had preserved all their faculties, questions were put to them for solution, and all of them received replies.

Professor Hoffmann first inquired with an air of

absolute mistrust, "What's o'clock?" The table returned six distinct strokes, and at the sixth turned about as if to observe that the number was completed. The same thing had taken place yesterday, though I forgot to mention it before.

Madame Neusser then ordered the table to salute neighbour Marcus, which was done. She ordered it likewise to bow to Mademoiselle Antoinette Neusser, who was twelve years old, as she had already several times directed. This too succeeded. Madame Neusser said, on observing MM. Marcus and Hoffmann in the chain with several ladies, "We have a poet at the table. Bow to him!"

The table did not disobey. It afterwards singled out M. Hoffmann as the eldest, and Mademoiselle Antoinette as the youngest of the party.

On the 12th of April, at one of the earliest experiments, Mademoiselle Sophie Sobern, had asked the table how many days more rain we should have? The table answered, *three days*. On the 13th of April, it replied to the same question, *two days*. On the 14th of April, the answer was *one day*. And truly the rain left off on the 15th of April.

After it had replied by a *single stroke*, the table wheeled about several times with the look of a conqueror.

A lady had stakes in the lottery. She asked the table, "How much will my stake produce?" The table returned twenty strokes. "And how much of that will be mine?" The table gave five strokes. The lady, indeed, had only ventured upon a fourth share.

Somebody handed me a cambric pocket handkerchief with the initials A. S., and the figure 6 underneath them. I looked at the figure, and inquired which letter of the alphabet was marked upon the handkerchief?

The table replied 6.

I began to scold the table, whilst M. Hoffmann laughed out aloud; but every one remarked that on repeating the question, the table answered by a single stroke, followed by several whirligigs.

Doctor Schade tries the table in arithmetic. He asks, what is the half of fourteen; the table answers, seven.

Professor Hoffmann inquires, how many feet there are in an hexameter; the table replies with an effort, and stammering, six.

I next passed on to the subject of history, and inquired how many kings had reigned in Rome up to Tarquin the Proud; the table replied by seven strokes.

When describing itself, it said it had a top and three legs.

Mdlle. Schramm, who came in at this juncture, was treated very gallantly by the table, which told her she was but thirty, whilst in reality she is forty. MM. Hoffmann and Schade observed to me that they had never considered the lady to be above thirty. The table had performed no whirligig after the reply.

M. Marcus inquired, how many children he had? The table answered, six, which was true.

M. Schade, whose family was not known to any person present, asked how many sisters he had? The table returned a single stroke. This was the fact: he had had three sisters, two of whom are dead.

M. Marcus inquired, "How many sons have I? Answer, four. And how many daughters? One." These replies were correct. The table wheeled about as usual.

For sake of variety, questions were now put to the chest of drawers.

M. Schade inquired: "How many persons are there in this chamber?"

Ten, beat the drawers with cumbrous awkwardness. This was very wrong: there were eleven.

The question was repeated in a louder v... The old moveable seemed to blush, and bowed ... times with an air of deep humility.

I can affirm that Dr. Schadé, watching ... operator with the eyes of an Argus, strove hard ... discover whether the hands resting on the chest ... drawers took any part in these motions, or whe... the whole of these phenomena proceeded solely ... the fluid poured out of the fingers.

We afterwards tried experiments on the draw... and table at the same time, bringing them to... each other and ordering them to exchange be... and the result was equally satisfactory.

Somebody asked the table, by the side of wh... stood pretty little Antoinette, with MM. Hoffm... and Schadé: "Who is the most discreet per... present?" The table inclined towards little Ant... nette. This was right, for the movings did n... produce on any one so striking an effect as they d... upon this child. When we, men, had been on... ten minutes at the table, nothing was required b... a slight pressure with Antoinette's hand to produ... instantaneously the liveliest motions. It al... appears from other experiments, that it is favou... able to success to let children take part in th... chain.

"Who is the most passionate?" A bow to Her... man Neusser, aged fourteen. "Who is the mo... sincere?" Another bow to Antoinette. "How many... dollars did you cost?" Two. "How many dollars... are you still worth?" Only one.

They looked to ascertain whether the affirma... tives and negatives could not be indicated by the... oscillations of the table.

The experiment failed. The table vacillated, that... is to say, it stood upon three feet and produced ... sort of irregular and hurried vibration in answer t... a question requiring the affirmative reply. It leane... forward also to a question requiring a *yes* for it...

answer. Most of the company felt far more anxious to hear prophecies than to ascertain whether the table could be brought to return a positive sign for the affirmative or negative. With a fond hope of obtaining these predictions they inquired: "Will such an event soon come to pass?" The table did not stir. "If the event will certainly not take place, return two distinct motions." The table then replied by two very distinct motions. The question, I freely admit, was absurd.

Dr. Schade inquired: "In how many years shall I get married?" and obtained this agreeable answer: "In a year." That is to say, a single stroke followed up by a whirligig.

It is much to be regretted that the desire felt by the spectators to know future events, imparted to the experiments as well as to the questions so much confusion and disorder, as to disarrange and baffle my observations.

M. Hoffmann von Fallersleben once more, at my request, put questions on subjects the truth of which was known to at least one of the company. As for instance: "In what month was I born?" Four strokes were returned after several hurried and confused oscillations, and Hoffmann said: "That is right, I was born in the month of April." To the following question: "And on what day in April?" three strokes were given directly, without whirligig. Hoffmann, dissatisfied, scolded the table, which appeared to stand before him like a stupid schoolboy. He repeated his question more severely, and this time the table said "two;" which Hoffmann said was correct.

I wished to terminate the sitting by asking on what days of the month were my birthday, and my wife's. I first inquired about mine; number nine was returned, which I said was wrong, that being my wife's anniversary day instead of my own.

The table was cleaned, and then by means of a

chain, consisting only of my wife and little Antonette, the table began to run so fast, as to make it no easy matter to hold it. Questions were proposed and solved. The month of Dr. Schade's birth was incorrectly stated at first, then correctly, and with so much violence, that the varnish on the surface of the polished mahogany burst asunder.

In all that I have written hitherto, I have been a mere chronicler. I have said and copied from nature, according to what my eyes have contemplated; my only object having been to describe. Here and there a few hasty remarks have been ventured, which I leave to the reader's indulgence.

To such a production as this, the saying of Horace, *nonum prematur in annum*, is not applicable. I send it forth into the world, and await without misgivings the lot which the ignorant and learned will assign to it.

As it is but right, with such communications, that the unbelieving should be confronted with undeniable proofs, I will ask for certificates from those persons who have seen, heard, felt, and experimented with me, and ascertained the impossibility of any kind of deception.

These gentlemen are:

1. M. Jean Neusser, of Bonn.
2. Professor Simrock, of Bonn.
3. Professor Schopen, of Bonn.
4. M. Hoffmann von Fallersleben, of Bonn.
5. Dr. Schade, of Bonn.
6. M. Marcus, senior, bookseller, of Bonn.

I have applied to them for their opinion, and I intend to send it to the press.

The reader, perhaps, expects me to give here a declaration, as to what I believe of what has been

related to me; he may expect me to say where reality leaves off, and fantasy begins.

Positively speaking, I do not believe in the predictions, the table being unable to notify the idea of one of the operators in the chain. It cannot go beyond man's knowledge. My wife told me that she counted the thirteen knobs on the legs of the table, whilst the strokes were being beat, but she was not a member of the chain, and was two or three yards from the table.

It seems to me, that it would be premature to attempt already to offer explanations. But here is, in a few words, what I think unquestionable:—

1st. The table and chest of drawers only turned and moved at the order of one person, in such a manner as the rest might voluntarily concur. As regards the bows, and wheelings about, each of us at his pleasure might give the order.

2nd. In the case of certain questions, whether they related to the present, to the past, or to the future, the table replied by instantly striking. If the questions had reference to things unknown to all, they were believed or disbelieved at pleasure. If they related to things known to all, the answer returned was always accurate, after one or two repetitions. The number, when known to one person only, was not generally correctly stated, unless the person who knew it was in the chain.

The table cannot speak: true, but I can say for my part, with a free conscience, that the *table moving*, and the *table* language are incontrovertible facts.

I am about to conclude these pages, but I shall still pursue my inquiries and meditations. As for the particulars of the subject, I will answer to them. I shall willingly meet discussion, and will not quote people's names therein, whilst I discard prejudice.

DR. H. SCHAUENBURG.

"*Bonn, the 15th of April*, 1853, *Eleven a.m.*

DOCUMENTS IN CONFIRMATION OF THE FORE-GOING STATEMENT.

Professor Plücker, who was invited on the 1[illegible] of April, to take part in the meeting on the 14th, wrote to say, that his numerous occupations prevented him from attending.

Professor Schopen wrote to inform me that he requires more time to enable him to deliver a positive opinion on a subject of such a nature.

I annex here the letters I have received from MM. Simrock, Hoffmann von Fallersleben, Schade, and Neusser.

M. Marcus, senior, the bookseller, has declined, from prudential motives, to say a word for or against the thing.

"*Bonn, the 14th of April*, 1853.

"Most honoured Doctor,

"How can I persuade people that the experiments which I was a witness to are not delusive? Certainly, they do not rest on any ostensible fraud, we are both convinced of that; but may we not be ourselves the objects of some hallucination? Who can believe that a poor, unsophisticated table is able to read the future? Had not the prophecies and answers intervened, one might have accounted for the moving as the result of magnetic power. But the language puts an end to the phenomenon. A table which returns answers must have for its basis some illusion. Surely then may not table moving likewise be an illusion?

"One very important phenomenon will survive these experiments: that our limbs are very submissive agents to our will.

"With friendly greeting, yours,

"K. SIMROCK."

"Of all that Dr. Schauenburg has written on *table moving*, and table striking, witnessed at the house of M. Neusser, at Bonn, on Thursday after-

noon, the 14th of April, from six to half-past seven. I was an eye-witness, and an ear-witness, and I guarantee all his allegations.

"HOFFMANN VON FALLERSLEBEN."

"I certify that I was present at the house of M. Neusser to test experiments of *table moving* and *table speaking*, that I participated in them, and that everything went on as Dr. Schauenburg has described above.

"DR. OSCAR-SCHADE.

"*Bonn, the 15th April*, 1853."

"In the afternoon and evening of the 13th of this month, I invited to my house a company of ladies and gentlemen, among them MM. Schauenburg, Schopen, and Professor Semrock, in order to show them the real facts connected with the history of table moving. M. Schauenburg, who took a particular interest in this matter, has related very accurately what took place, and I can guarantee all he has written with my testimony and entire conviction.

"J. NEUSSER.

"*Bonn, the 15th April*, 1853."

CHAPTER VI.

THE DANCING MANEQUIN—HOW TO RIDE ACROSS A BROOMSTICK—FURTHER EXPERIMENTS.

If the reader has perused the foregoing narrative with a smile of incredulity, what will he think of the annexed statement, which was given to the world by a Belgian newspaper, in the shape of a letter from Heidelberg, which certainly has not the advantage of being certified to by half a dozen intelligent eye-witnesses. It should be mentioned that Professor Mittermayer, whose name is brought forward as explaining the phenomenon, has bestowed a good deal of attention on table-moving experiments; still it is not unlikely that his name is introduced for the mere purpose of giving some sort of appearance of authority to a clever hoax. The letter runs as follows:—

Several young artists being together at Heidelberg, in one of their *ateliers*, and having heard a number of the *Emancipation of Augsburg*, which narrates the history of the dancing tables, read to them, the idea struck them to try the experiment on the spot; but as they had no table near them one of them proposed to substitute for it a limbed manequin of wood (a lay figure, as artists call it), which they stretched on its feet and on its hands.

A quarter of an hour had not elapsed when it began to tremble. The magnetisers, encouraged by this, redoubled their efforts, and so charged the figure with fluid that it began to make bounds, contortions, gesticulations, like a living creature; then suddenly rising on its feet it commenced running round the room following the students, who escaped

as quick as they could out of it, shutting the door behind them, when the terrible playfellow fell down on its back: its life had ceased; the borrowed fluid had returned to the common reservoir.

The boldest of thes tudents proposed resuming the experiment, putting on shoes and mittens of gutta percha in order completely to protect himself; but no one dared the trial a second time, for they had all been more or less hurt, one of them having received a blow in the face, of which he still bears the mark.

Professor Mittermayer explains the mystery in the following manner:—

Animals differ only from inert bodies by the spirit of life which they have received from God; so that if several persons come to an understanding to transmit the superfluity of their vitality to an inert body, this will become animated for a moment, and will move within the limits its conformation admits of. Thus a table can but glide, turn, stumble, and upset itself on the ground; but a manequin can imitate the gestures of a man; the magnetic spark, traversing its joints obliquely, produces the same effect as if its members were drawn by tendons and muscles; only that the movements of the manequin are infinitely disordered and capricious.

Could mechanical science regulate them? It would not be safe to deny that it could; so that some day or other, we may have manequins playing instruments according to the inspiration of any musician who may have placed his hand on the conductor of the magnetic fluid, to transmit to it his thought with all its variations.

Few readers will require to have been cautioned against accepting the preceding narrative as true; the various statements, however, with which we shall conclude this chapter, are hardly more extra-

ordinary than those made public by Dr. Schauenburg, if we except, perhaps, the following communication from Erfurth. Being unauthenticated, they are all open to great suspicion:—

The time in which we live produces every day new marvels. A professor, being one of the operators on a moving table, bethought him to inquire whether the legend which the Germans call the Walpurgisnacht (*The Night of St. Walbourg, The Night of the first of May, or the Witches' Sabbath*) rested on any real base. Let no one be in a hurry to laugh at this, but as we are now lifting up, as it were, a corner of the veil which hides nature from us, let us not fear to sound all the mysterious depths and folds of the infinite. The question is about riding through the air on a broomstick. For this purpose one should take the stick of a common broom, cover one of the ends of it with a sheet of silver, and the other with one of gilt paper. Then to each end a little hook should be attached, to which a small metallic chain, half as long again as the broomstick, should be fastened, or for this chain may be substituted the metallic chord of a piano, harp, or other instrument of the kind, choosing always copper for the essay in preference to brass. Furnished with this apparatus, the experimentalist, who should be dressed in a woollen waistcoat fitting close to his chest, should put himself astride on the broomstick, and pass the chain over his left shoulder. Then having in his hand a fox's tail, he should whip the end of the stick stoutly with it, when after two hours exercise, sometimes after twenty minutes, he will experience a sensible rising, which, once begun, will increase rapidly and soon become very intense. The success of the strange experiment may be explained by the galvano-electro-magnetic force the experimentalist emits by imitating the movements by which the gallop of a horse is kept up."

Here is, apparently, a curious fact, which we find in the *New Prussian Gazette*, of the 29th of April. An inhabitant of Madgeburg, M. B., who had taken, and does yet take, much interest in the *movement of plates*, wishing to arrive at some simple explanation of the *dance of tables*, made the experiment which we have now to relate, and which every reader may, at his will, put to the proof. He placed a little flat plate on a drinking glass. This done, he and another person put their hands on the plate and formed a chain. In five minutes the plate began to move, first gently, and afterwards in a much more visible manner. This movement, perceptible to the eye, took place in exact accordance with each pulsation of the experimentalist. They then repeated the experiment without forming the chain, with the same success. Continuing their researches, M. B. alone placed his hands on the plate, and the result was just as remarkable. Finally, using but one hand, he succeeded again, and this time with only one finger. But this was not all! The plate stopped whenever he wished; he had but to turn his eyes from it, and to give it a light pressure with his finger, to interrupt the vibration of the ligneous fibres of the wood. The plate turned, not from south to north, but from left to right, the reason of which it would not be difficult to explain, for all that precedes would apply equally and naturally to the table, which would require, however, the exercise of a greater power.

The following, like the last, comes to us from Prussia:—

A Berlin labourer, who, to use his own expression, trusts only to his *five senses*, which he assures us are perfectly sound, made the experiment we are about to record on the 17th of April, at half-past three o'clock in the afternoon.

The labourer was seated with his three children, of the ages of from ten to fifteen and sixteen, round a

little mahogany table. After waiting three quarters of an hour, the eldest of these children, losing patience, rose up and went away, his place being taken by a younger brother. For half an hour longer the family party remained with their hands on the table, when it began to oscillate, at first feebly, but afterwards more strongly. It then inclined to one side and stood on one foot, upon which the father gave the word of command, "To the right!" and the table instantly obeyed. He then commanded, "To the left!" and its obedience was equally prompt. He then, with a loud voice, cried out, "What is my age?" The table stopped, lifted up its foot, and struck the ground thirty-eight times, and once more, more gently, signifying that the questioner had not yet completed his thirty-ninth year. On a second question, referring to the birth-day of the labourer, the table struck four times on the floor, intimating that the month of April (the fourth in the year) was that on which the anniversary occurred, and then added nineteen taps to mark the very day inquired for. The children then put questions to it, and received answers equally precise and true. The experimentalist adds to this account that persons forming no part of the chain can receive no response from any magnetised table, as, not being in communication with it, it cannot hear them. The father, not content with what he had already done, made a further trial: "Dance," said he, and the table made the most comical and grotesque jumps and bounds. His next command was, "Lie down!" and the table upset itself sprawlingly on the floor. The last order was, "Get up!" and it got up with the most perfect docility. The labourer remarks, the experiment he has related succeeds best in a heated room, and when the hands laid upon the table are also warm.

If the various statements we meet with in apparently trustworthy channels of information are to be depended upon, it would appear that the

movement communicated to tables has already been extended to other pieces of furniture. At Berlin an attempt was made to impart the rotatory motion to a chair and a lounger, and it succeeded perfectly. It is true that the operators had just before made a table dance, and that it was the same chain who set the chair in motion. Among the spectators on this occasion there was one unbeliever, to convince whom the following means were resorted to. The unbelieving person in question placed himself before a glass, with the firm determination to take no part in the phenomenon the rest of the party were bent upon producing. The chain was then formed around him, each member of it placing his little finger on the hip of the infidel, who in two minutes not only declared that he felt inclined to spin round, but actually in a second afterwards did go towards the north, till he had his back instead of his face to the glass. Another person thereupon tried the same experiment with the same success, and finally the phenomenon was repeated on several objects, viz., the cloth of a folding table, a music portfolio, and a casquet, all of them most marvellously turning round and round together, in obedience to the magnetic influence.

M. Weidkoffen, a professor of Cologne, is giving, we are told, public representations at Hamburg of what he calls the galvanic electro-magnetic dance of tables, with grand musical accompaniments. It is reported of these representations, that in one instance the table, after the expiration of forty minutes, left the saloon where the operators were assembled, by the principal entrance, drawing them after it.

An ex-deputy of the first chamber, M. de Forstner, has published in the *Spener Gazette*, the report of an operation on a moving and knocking table made in his presence and in which he himself took part. M. de Forstner affirms that the table operated on replied with precise truth to every question put to it.

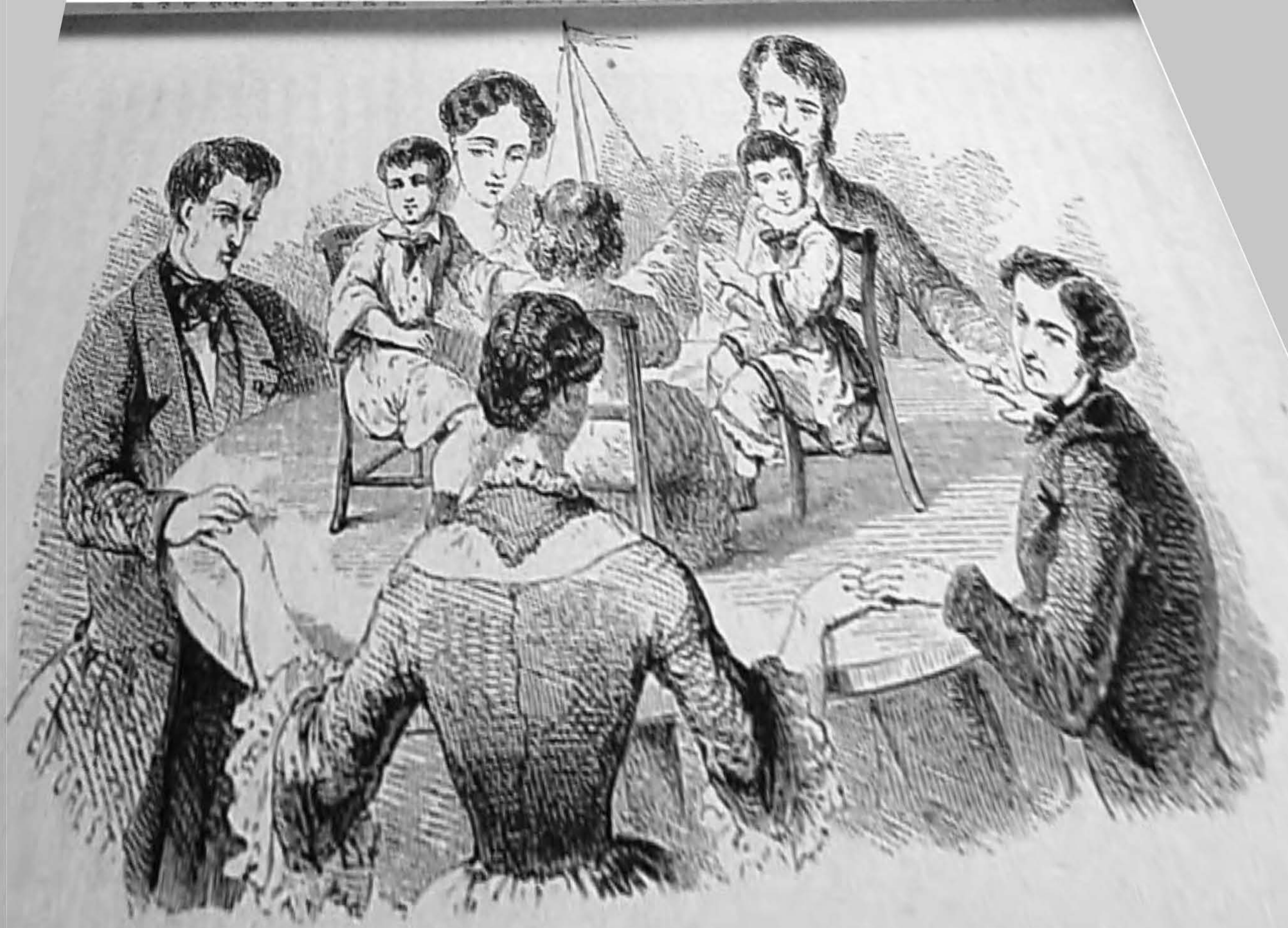
CHAPTER V.

THE REVOLUTION OF TABLES AT PARIS—HOW BROUGHT ABOUT—INTERESTING LETTER FROM DR. EISSEN—EXPERIMENTS BY NON-BELIEVERS AND BELIEVERS IN ANIMAL MAGNETISM.

WHILE these experiments were progressing in Germany, all Paris was wild with emotion and commotion. The new phenomenon was agitating alike the mind of the profoundly erudite philosopher and the gentle bosom of the nervous, excitable woman of the world. The body of the Magi, the coterie of the weird sisters, the spirits of dark knowledge, could hardly have produced a phenomenon more wonderful than that which was now engaging the voracious appetite of the lovers of the unaccountable. Enter into what house you would, there was to be seen a group of eight or ten persons surrounding a table, their hands united through the medium of the little finger, and the party not in mysterious silence, but there they were

> Exulting, trembling, raging, fainting,
> Possessed beyond the muse's painting.

For some time previous the wildest rumours had issued from the students of mysterious lore, that Nature was unfolding some of her prodigies, that, for reasons best known to herself, she had kept carefully concealed even from her most industrious amateurs and inquirers. From mystic Germany, through the medium of the *Gazette* of Augsburg, this wondrous tale of a dancing table, of speaking furniture, not within the portals of an enchanted castle, but in the quiet parlour of a merchant of Bremen, piqued the curiosity of the Parisian reading world.



NOVEL EXPERIMENT WITH A TURNING TABLE.

It was towards the end of April that in Paris the first essays were made, and rapidly the contagion spread—ministers, academicians, physicians, professors, artists, all indulged themselves in experimenting. The excitement is said to have been brought to its height by the intervention of the *chef* of the secret police. It seems that he was closeted with the Emperor one evening at the Tuileries, having given in his daily report with sundry commentaries of his own, and confessed that the public mind was much occupied with the accident which had befallen the Empress. He had humbly avowed his inability to close the mouths of gossips—every subject was exhausted, and the Empress alone had sufficed for some time to feed the conversation of the city. "What, with all your imagination, can you not discover some new subject, that we may be left in peace?" exclaimed the Emperor, sharply—"see that something be devised for to-morrow: this state of things is insupportable." The official left the imperial presence mortified and ashamed, and on his return home took up the *Journal des Débats*, wherein was the first account of the young lady of Bremen, who possessed the power of causing the tables to turn. The happy thought struck him at once—here was the new amazement found at last. Every journal received the next day a notice to insert an article upon the table moving—for or against the discovery, signified not—it must be mentioned in some way or other. The subject was ordered to be canvassed in every *salon*—the *mouchards* were commissioned to bring it on the *tapis* at every *café*, and to talk together in groups concerning it on every public promenade. In less than a week the whole city could talk and think of nothing else—the "*préparatifs de guerre*," the "*voyage du Pape*," the "*maladie de l'Imperatrice*," were all forgotten for the moment in contemplation of this table turning!

The *Constitutionnel* was the first newspaper to blow the trumpet, announcing this strange manifestation of vital forces. The following is an extract from that journal of the date of the 20th of April:—

For some time past the German papers have been greatly taken up with accounts of a magnetic phenomenon, first mentioned in the *Augsburg Gazette*, by Dr. Karl Andrée, editor of the *Bremen Zeitung*, an honourable writer, who has many friends belonging to the Belgian press, all willing to be responsible for his veracity. This phenomenon is so strange, that in spite of the name of M. Andrée, and the credit justly attached to the *Augsburg Gazette*, its announcement was generally regarded at first as a sort of scientific April fooleries. But at present experiments repeated throughout all Germany, from the Baltic to the Danube, have put its truth altogether beyond doubt.

The phenomenon is, the movement without a visible mover, of a table lightly constructed, of any wood whatever.

To obtain this result, several persons form a magnetic chain, by placing their hands flat upon the table, and joining them to those of their neighbours, by the extremity of their little fingers. After the lapse of some time, varying from half an hour to seven quarters of an hour, the persons who form the chain, who must avoid all contact, except that of the table with their hands, and of their hands with the extremity of the little fingers of their neighbours, feel a slight shock, when the table seems to dilate, emits cracking noises, as if it had been placed too near the fire, and at last makes a rotatory movement, a demi-tour to the right, and advances in a northern direction.

One person leaving the chain, and two or three other persons, who have not yet been members of it, being introduced into it, do not, if the substitution or retreat be rapidly made, arrest the move-

ment. It is, on the contrary, stopped immediately by any one not making part of the chain placing his hand on the table.

This phenomenon is explained by Dr. Lowe, of Vienna, the inventor of magnetic baths, by the negative and positive electricity contained in the left part and the right part of the human body.

"When," says he in the *Lloyd* of Vienna, "a circular chain formed by persons, the right side of some one touching the left side of the other, acts long on a table or on any other body, this body undergoes the same action, that iron does in the inducting current of the magnet; that is to say, that one of its halves is positively magnetised, and the other negatively.

"The body thus being transformed into a magnet, turns on its axis, till its southern part is towards the north, and this direction being obtained, it must advance in a right line, till its magnetic state undergoes modification."

Our scientific men will doubtless renew the experiments of which, if we mistake not, some mention was made ten years ago.

Two days afterwards, the same journal republished the following from the *Journal de Frankfort*:—

"Let not the Americans," it says, "speak any more of their *turning tables*, or the Germans of their *tischruecken*, for hats may also be magnetically moved; and for this purpose (a tempting consideration) it will not be necessary to remain three quarters of an hour or an hour motionless; for the effect may be produced in a few minutes. Yesterday evening, we—that is, a lady and two gentlemen—placed our hands lightly on the brim of a hat, putting the little finger of the right hand on that of the left hand of the person to the right, and in three minutes time the hat upon the table commenced a rotation from right to left, which went on

increasing every moment; and which was renewed almost instantaneously, after the chain, having been broken, was re-formed, when, in consequence of the change of position that then took place, the little finger of the left hand being placed on the right hand of that of the person on the left, the hat began to circulate from the left to the right.

Two persons afterwards, having formed the magnetic chain round the same hat, instead of moving circularly, it inclined first to one side, and then to the other, and remained at last motionless, in an inclined posture, till the hands were withdrawn. This experiment was repeated several times, with the same result.

The editors of the *Union Médicale*, whose opinion has always influenced the members of the medical profession, and who have hitherto been in strong opposition to animal magnetism or mesmerism, in all its shapes, gave in their adhesion to the propagandists, and published in their number for 30th of April, the following letter addressed to M. Amedée Latour, by Dr. Eissen, physician of Strasburg;—

Strasbourg, April 26, 1853.

Dear Sir,

Our last number (April 20) was going through the press, when the city of Strasburg was suddenly invaded by an epidemic imported from Germany, which came originally from one of her northern ports, in constant communication with the United States of America.

This epidemic, unlike most others, has chosen as yet its victims only among persons in easy circumstances; the poor it has hitherto completely passed by. It is true, however, that without being entirely exempt from danger, it has presented itself in so innocent a guise, that no one as yet has been much frightened at it.

I allude not to St. Vitus's dance, but to the

dance of tables, an exercise to which, in all parties, in all drawing rooms, at all family firesides, whole cities and towns are directing themselves with a kind of frenzy.

But let me speak seriously. It appears that the human organization emits an imponderable fluid; the existence of which, no one has hitherto even suspected.

It appears further, that by placing a human body in certain conditions, certain phenomena may be obtained, which consist principally in rotatory movements impressed by the emission of this fluid on inert bodies subjected to its action.

Now the fluid in question cannot be electricity, for the operations alluded to, comprise none of the conditions which are essential to the success of electric experiments: neither conductors nor isolating substances are at all employed.

It cannot be magnetism, for the compass having been brought into contact with an assembly of experimentalists, remained quite insensible to any influence.

Is it animal magnetism, or is it dramagnitism? Experiments will probably answer this question.

I will now describe the experiment as it has most frequently been made.

A certain number of persons, five, six, eight, or even more, take their places round a table; if resting on rollers, so much the better. Whether it be constructed of mahogany, walnut, cherry, or deal, it matters not, but there must be no marble in it. Being seated, the parties stretch their two hands out, fingers apart, before them, leaving a space between each chair to prevent them from touching each other. The palm reposing lightly on the table, the only contact that forms the chain is that of the face of one little finger applied to the dorsal part of the neighbouring little finger. If the little finger of a right hand rest upon the little

finger of the neighbouring left hand, this disposition must be carried on throughout the whole chain, so that the little finger of your left hand should be crossed by the little finger of the right hand of your neighbour to the left. This disposition may be inverted; but, if so, it must be uniform. So much being done, have patience and wait. Conversation, however, is not interdicted. Fifteen, twenty, thirty, forty, sixty, seventy-five minutes having elapsed, the table, say they, will have a shivering, which will be eventually followed by a rotary movement in the direction of the left little finger. The position of the fingers being changed, the table will stop for a second, and then recommence its motion in an opposite direction, and that as often as the inversion takes place. The chain being broken by hands, all movement stops; and the same result happens if you touch your neighbour on any other point of his body than the little finger: for example, on the elbow or the knee. Also, if any person not forming part of the chain touches you any where, the phenomenon stops. The same person may, nevertheless, form one of the chain in the prescribed manner without destroying the commenced effect.

A similar result may be obtained on a hat by three persons, in five or six minutes; and even by two persons on a porcelain plate.

When the table commences turning, the experimentalists, rising and following it, necessarily seem to be pushing it. Thus the whole faculty of medicine and all the medical body, with the faculty of sciences—all those, in fact, who have the habit of observation, and of not suffering themselves to be blinded by appearances, have opposed their *veto* to the reception of the phenomenon. The same thing has happened in Germany, when all the most illustrious men of science, with Alexander von Humboldt at their head, have declared the

whole thing to be a delusion; for that the effect of muscular action and of the combined will, or at least desire and expectation, of a certain number of persons, has been taken for the action of some mysterious fluid. And this was my opinion till lately. But facts began to shake my incredulity.

The experiment, though succeeding in the great majority of cases, sometimes fails. It succeeds better with women and children than with men, and better with adolescents than with men in years.

But apparatus have been constructed which give still more conclusive results. For instance, a table has been set on a pivot, supporting at the same time the seats of the experimentalists, on which seats children having been placed, the chain of course being previously formed, tables and children have, at the expiration of a short time, been drawn in the same rotation.

Rotary movements obtained without mechanical force are not without example. You know the rotations of the disc of copper caused by magnetism and electricity, and the rotations of the compass occasioned by those of an analogous disc, etc.

Men of the world laugh at our perplexity, and say we are always the last to doubt of that which we ought to have ascertained long before them. This reproach would be just if our time were not principally, almost exclusively, devoted to putting in practice, for the good of our fellows, that which we have hitherto been able to detect as positive results in the great book of nature. Men enjoying leisure have now raised a new corner of the veil which covers its secrets. To us, then, belongs the study of this discovery, to ascertain what benefit humanity may derive from it.

The first thing to be done, in this case, is to make certain of the reality of the phenomenon. For this purpose, no reliance should be placed on

the gross experiments made by the vulgar. Firm, and above all, apparatus easy to put in motion, should be constructed, and serious persons should be sought out to repeat the experiments. Enthusiasts should positively be rejected.

I add, in continuing my narration, that in many cases the table in rotation has broken the chain and rushed against the northern wall of the room where the experiment has been made, and that certain experimentalists maintain that they can change its direction without inverting the position of the little fingers, solely by expressing together a firm will that this change should take place.

I add further, and testify to the fact, which I have seen repeated three times, on three different persons, that any one placed in the centre of the chain where the table may have been, and on whom hands have been imposed in the prescribed manner, will, in a short time, turn involuntarily and mechanically.

I must not omit, finally, to say that the experiment is not entirely free from danger; tables, the parts of which are joined together, sometimes spring asunder and fall at the feet of the experimentalists; a young person in a school was violently thrown down by a table which had broken the chain; many ladies have been taken ill during the experiments; others have had nervous attacks. It was officially announced, a little while ago, from Bavaria, that a Jewish commercial traveller who had directed an experiment of the kind in the city of Roth, had fallen down suddenly dead whilst in the act of performing the operation.

Tables on rollers or without, round or square, varnished or not varnished, are equally fit for the experiment. though in some cases the effect is much more slowly produced than in others.

All this looks very like gasconading, and if you give publicity to my letter in your columns, I shall

pass probably for a certain time among a good number of my own profession for one of the *illuminati*, or something equally absurd. Nevertheless, having resisted, having examined, I beg to submit to evidence like the great majority of my brethren, who, if they be in error, deceive themselves as I do; and being deceived in such good company, is surely no very great sin. My sole object is to provoke the investigation of sensible serious men into a remarkable (if real) property of our organization, to inform them of all on the subject, that may come to pass, and to engage them to take the question in hand in a scientific manner which has not hitherto been done.

Dr. E. Eissen,

Editor in chief of the Medical Gazette of Strasburg.

To the above communication was appended the following Editorial note :—

"We beg our brethren not to turn incredulously away from the strange and marvellous phenomena of moving tables. Let them do as we have done, and their conviction, resting upon solid facts—facts which may surprise and astonish, but cannot be contested—will not be long in coming. We yesterday made twenty experiments, which left no doubt of Dr. Eissen's (of Strasburg) account. We shall speak again on the subject on Saturday next."

In fulfilment of the above promise, the following number of the *Union Médicale* contained the annexed article from the pen of M. Amedée Latour :—

Let us speak seriously on a serious subject.

But before I commence the recital of facts which I have seen, of experiments which I have interpreted, and in which I have participated, I will beg the reader's permission to inform him what my

antecedents with respect to belief in the marvellous, or eccentric, or supernatural phenomena, have been. I will also say a few words with respect to the principles which, it seems to me, ought to guide all reasonable men in this matter: that is to say, all those who are as far removed from a blind credulity as from a systematic scepticism.

I see that the few lines I published on Tuesday last, on the phenomenon of the rotation of tables, have surprised a great number of persons, have provoked the sarcasms of others, have occasioned doubt and anxiety to several, and have encouraged many of my brethren to imitate my example, that is to say, to see and try. I well understand all these different dispositions. I blame none of them, nor praise none of them; but I say to all: my whole previous life is answerable for the veracity of all I affirm.

I had determined to study animal magnetism, and I did go without prejudice, without inclination to one party more than another, with a resolution to see, and then to say all that I had seen. I have recognized, and admitted in principle and in fact, the existence of very remarkable phenomena produced by particular manœuvres and practices. I have produced these phenomena myself, not once, twice, ten times, but hundreds of times. And what phenomena were these? Such as made all illusion, all imposture, impossible. That, for instance, of making a young girl in the gayest and most laughing mood, shed hot and abundant tears at my will. That, still more extraordinary, of making, in a moment, the heart beat up to 70, 120, 130, or a number of pulsations which I found it impossible to count. But between these phenomena and those of vision by the occiput, by the epigastre, across opaque bodies, and the prevision of the future, divination, and the knowledge of diseases, and the way to treat them, I have seen, when I have not

met with fraud more or less evident, nothing but a profound abyss. And the frauds I allude to I have often exposed, so that I have the advantage of being in very bad odour, both with magnetisers and their patients.

It seems to me by no means superfluous to mention these facts, which I might multiply; for in medicine, in physiology, and in philosophy it is a wise and useful precaution to say to him who makes himself the patron of any new or extraordinary fact: Tell me what you believe, and I will tell you what credit I can give to your affirmations. Constrained by my conscience, then, and by the respect I owe to the truth I am about to insist upon, I have a right, I suppose, to say, that I am neither an *illuminati* nor a *pyrrhonian*; and at the very moment whilst I am writing these lines, I feel my pulse, I interrogate, I observe myself, and ask myself especially whether I have not been the dupe of an illusion, the victim of an imposture, or the accomplice in a criminal mystification, for I know nothing more stupid, more culpable, or more odious, than to employ one's influence, however small it may be, to propagate error or falsehood.

These precautions being taken with my readers, whom I honour, and who know all my respectful deference towards them, I proceed to give a plain and simple account of the experiments which have been made in my presence, or which I have made myself.

In the humble house which, during the summer season, I inhabit in the country, there is a little colony, as it were, of young people. These young people, whom I have known from childhood, have grown up under my observation. I know their character, their morality, their dispositions, and have in them the confidence which they deserve. On Sunday, the 1st of May, they were all together at Châtillon. I had received on the evening before

the letter of our honourable brother M. Eissen of Strasburg, and I beg pardon of my other brethren of the great press, but I must confess that while all the accounts published by other journals had left me indifferent, this letter made a deep impression on me. The opportunity was tempting. I had before me four young people, on whom I could place the most perfect reliance, varying in age from sixteen to twenty, all in good health, and all, I repeat, incapable of wishing to deceive me, for I have the happiness of being loved by these young, candid, and expansive natures, who know full well the affection I bear them. There was also a circumstance which never spoils anything—a charming young girl who seemed admirably suited to complete the conditions recommended in the letter of M. Eissen.

The following are the experiments :—

1st. A porcelain vase was placed on a table of varnished walnut-wood. Alphonse and Mdle X——, placed their hands upon it in the prescribed manner, and before a minute had elapsed the vase began to turn.

This experiment was repeated three or four times with the same result.

2nd. I placed my own hands with Alphonse on the same vase; seventeen minutes elapsed, and the vase remained motionless.

3rd. Alphonse and Alfred made the same experiment on the same vase, and the rotation commenced more rapidly still than on the first trial, —that is, *in much less* than a minute.

4th. Alphonse and Norbert (two brothers) made the experiment, and the rotation did not begin till after the expiration of six minutes.

5th. Alphonse, Alfred, Norbert, Adrien, and Mdle X——, took their seats round a small mahogany table on rollers; their hands were spread out according to the required rules, and in seven minutes

and a few seconds the table became agitated, and began to turn on its axis.

6th. I took my place in the chain, and the rotation was manifest in four minutes.

This experiment was made twice running, and though the experimentalists had changed their places, the rapidity with which the phenomenon was renewed was not in the slightest degree retarded thereby.

7th. Alfred and Alphonse resumed their experiments on the vase. I requested them mentally to wish that the vase, being in a state of rotation, should turn in an opposite direction. In less than fifteen seconds the vase was circulating from north to south; it had hardly made a demi-rotation, when it stopped for a second, and then turned in an inverse direction, from south to north.

This experiment, repeated on that day from five to six times, gave invariably the same result.

8th. We repeated the experiment of the table, in which I took part myself. The rotation began in seven minutes. I requested a spectator to touch one of us. He placed accordingly a finger on my right shoulder, and the rotation ceased; when his finger was removed, it recommenced.

This experiment was varied in every way, by touching the clothes, the head, the foot, or the shoulder of one of the participants, and always with the same effect: that is, a cessation of all movement, and its recommencement after the contact with a non-participant had ceased.

It must be well understood that in spite of my confidence in the sincerity of my young friends, I was very attentive to their hands, their arms, their elbows, and their feet, and it is impossible for me to admit that I have been the dupe of any imposture.

It was under the impression of these eight experiments, repeated and varied, that I wrote on Mon-

day evening the few lines that appeared in the *Union* of Tuesday.

As for myself, I was now quite convinced of the reality of the phenomenon. But a friend of mine, Dr. Debont, editor in chief of the *Bulletin de Thérapeutique*, having requested me to allow him to witness these facts, I invited him to come to Châtillon yesterday, Thursday, when he paid me a visit, with our honourable brother, Dr. Gorrée, of Boulogne. We made experiments on that occasion in every way, which were to me at least more evident, more prominent, more convincing, than even those of Sunday last, for M. Debont took precautions which I had not deemed necessary, imposed conditions which had not occurred to me, and obtained counter-proofs which appeared to me decisive. It is not for me to say what impressions have remained on the minds of my honourable visitors. I wish here to speak absolutely only of myself. I must mention, however, that like myself M. Debont obtained no result from his experiment on the porcelain vase, whilst M. Gorrée produced the rotation with great rapidity several times.

M. Debont took part in the experiment on the table, which spun about with frightful velocity.

I should not omit to mention, that having substituted a heavy square mahogany table for the light one on rollers, no impression whatever was made upon it, by an experiment which lasted fifteen minutes; no doubt too short a period for so heavy a bulk to be put in motion.

AMEDEE LATOUR.

As a counterpart to this narrative of experiments undertaken by one of the most constant opponents of animal magnetism, we append a statement emanating from one of its most enthusiastic disciples, which appeared in the literary organ of the sect, The editor, Baron du Potet, calls

attention to it as the production of a grave man, and observes, that the first portion of the facts recorded happened in the presence of a dozen of his co-adjutors, assembled for the purpose of verifying the phenomenon, which was engaging so much of the public attention.

Monsieur Hebert,

The experiments made on the moving tables on Monday last, at the apartment of M. du Potet, were conclusive enough to convert the most sceptical, and appeared to you also of a nature to leave no shadow of doubt on the reality of the extraordinary phenomenon in question; extraordinary at present, because we cannot explain it, though I doubt not that the law it obeys and manifests will soon be discovered. To attain this end, however, a numerous public, inclined to turn everything into ridicule, should be avoided. Serious and methodic experiments should, on the contrary, take place in the presence of a select number of men of science, capable of scrutinizing and investigating the mystery, in order to bring it out of the sphere of marvel into that of knowledge. It is a deplorable tendency, indeed, of our national character to seize only upon the superficies of things, and to find in everything and everywhere matter for jokes, jibes, and pleasantry, as was seen in the sittings at M. du Potet's, where the gravest phenomena, instead of provoking and stimulating reflection, excited nothing but a senseless and trivial hilarity.

Of all the extraordinary things which M. de Rancé's little table showed us, certainly the most marvellous, was its mode of acting to overcome the resistance which the large heavy table on which it had been placed opposed to its orders. Do you not see even now the abrupt move which, obeying the injunction of M. du Potet, it made towards the split in the table, trying to fix its foot in this split, in

order thereby to push, move, and set the table in motion on the smooth surface, on which, sliding about, it continued in agitation? And it renewed the effort repeatedly on every fresh order, animated by the encouraging praises addressed to it; for, at this moment, one might almost say that it was conscious of what it was doing; one saw it acting with perseverance, displaying the determined will of a living being, following the impulse of an individualised intelligence; so that three times, to our great astonishment, it succeeded in displacing a table of comparatively enormous weight, and in carrying it off victoriously in a circular movement. "Courage!" "Lean hard!" "To it again!" exclaimed alternately M. du Potet and M. de Rancé, and like a draught-horse drawing an overloaded cart, and striking fire out of the pavement with its hoofs, the table made unexampled efforts, pushed, struck, and put forth such an amount of strength and weight, that we could see the traces of it on the well-scratched mahogany giant conquered by the pigmy.

After this experiment, and another of two tables striking together twenty-three strokes, the exact number of persons present, there was no more possibility of denial; every one was obliged to yield to evidence. For the attention of the spectators was especially fixed on the hands of the operators, which were placed on the table, (I speak of the large table, for considering its heaviness no illusion was possible, and this experiment it was especially that seemed to me conclusive); on the one side it was impossible to raise it and let it fall alternately so as to imitate knocks; and, on the other, it would have required an exorbitant pressure beyond the power of the hands upon it to produce the effect by overweight, and that during twenty-three strokes regularly struck with the precision of an instrument.

Further, on Wednesday evening, at a friend's, (M. Louis Lacombe's, a composer and pianist well-

known) four of us repeated the same experiments with complete success. One table having been set in motion after an imposition of hands of twenty-two minutes' duration, we commanded it, in a loud voice, to go through all possible evolutions; and it afterwards obeyed even my mental will. M. Lacombe thereupon requested me to make it reply to a thought, which he refused to express. I gave the required order, and fifty-two stamps were counted by the ladies, whilst I was encouraging with loud praises our three-footed somnambulist. M. Lacombe then counted the keys of his piano, for it was of their number that his thought was when he questioned the table. There were only fifty keys, so that the magnetised wood was out in its reckoning this time. That, however, is of little importance. The great thing to prove is its action and its spontaneity. Is or is not the apparent intelligence it manifests a transmission of the thought and reflection of our own intelligence? This query will no doubt meet with a solution eventually.

Whether it was owing to fatigue or to too much magnetic excitement, Madame de Lacombe just at this time complained of feeling unwell. She felt sick, and in a state of great emotion. After having reclined for a moment on the sofa, she raised herself up, saying, "I feel myself in an extraordinary state, in a state fit to magnetise any one. See if I cannot alone make the table dance." So saying, she drew that object towards her, applied her hands lightly upon it, and said at the very moment, "I feel it move," when it set off in a really curious manner, disengaging itself with difficulty from the carpet in which it had got entangled, and when once free, performing the most extraordinary evolutions, trembling, sliding, jumping about nervously, first in the direction of the north, then diagonally with a long rapid movement towards the south, describing meanders, triangles, and all sorts of capricious figures,

whilst poor Madame de Lacombe, carried away with its velocity, and not thinking of stopping it by an act of her will, was at last obliged, out of sheer fatigue, to give up the pursuit.

At the sight of the astonishing movements and singular figures which the human and the material being traced—I thought—do not laugh at my presumption, my dear Hebert—I thought, I say, that that which I saw might not be so extravagant as we are tempted to believe it, but might be classed, perhaps, under the typical order,—that is to say, that the linear evolutions might respond to a primordial law, modified in this case in its development by the union of two individualities put in action under certain conditions, like the order, for example, in which symptoms succeed each other in most diseases; and I thought that if a sufficient series of drawings, traced of these evolutions, and compared together, were prepared, they might show the type traced to be a constant one, and thereby throw some light on the nature of the phenomenon now occupying all minds. This is but a hypothesis, but it is best not to omit it. I return to the events of the evening.

M. Lacombe in his turn wished to try his power, but he could not animate the wood; seeing which, Madame Lacombe, after a few moments' rest, joined her husband, when immediately the table set off. It occurred to me, then, that it would be well to try whether acts of volition, attractive and repulsive, would, by the passes usual in these sort of experiments on magnetised subjects, take effect *without contact*. I traced, consequently, rapidly and at a distance above the table, *without touching it*, a diagonal figure, in the form of a magnetic pass (a superfluous precaution perhaps to put me in communication with the table), then presented to it, still at a distance, the tips of my fingers, which I drew towards myself. The table thereupon fol-

lowed me, sometimes gliding, sometimes by jerks, according as the floor was smooth or uneven, in the direction of my hand. I then showed it the palm of my hand, with the intention of stopping it, and it stopped instantly. By a little abrupt movement, I now put my hand forward, and it retreated; I repeated the same gesture, and the retreating movement continued, always in the degree in which my will and gesture were energetic. Finally, advancing myself, always at a distance be it understood, the table retreated so completely, that when I raised my hand, it rose up like a horse rearing, and by a final abrupt motion of my hand in the air, was upset on the opposite side.

In all this, my dear sir, believe me, there was no illusion possible. The experiment lasted a long time, and was observed by us three with too fixed an attention, and by M. Lacombe as well as by myself with too perfect a calmness—for our object was to establish once for all the reality of the phenomenon—for any involuntary illusion or error to have deluded us. Besides, how could my co-operators have acted by an involuntary pressure in accordance with my thought, for I did not express anything, having from the beginning but conceived it mentally? This experiment has to me all the value of an established fact. Time will show whether I deceive myself or not.

I should add here, that yesterday evening, at a numerous party at M. Lacombe's, under conditions much less favourable, wishing to repeat these essays with other persons, more or less believers, patient and serious, we completely failed. That is to say, the table turned, but in the midst of such a hubbub of executants disputing for and against, that there were no means of proving the reality of the phenomenon, which was indeed far from clear. For though the table between the palms (*entre les faces palmanes*) of Madame Lacombe's hands, set itself in motion, it

was thought that the theory of muscular attraction propounded by the Abbé Moigno should be applied to this phenomenon. It is from the point of view which this theory indicates, under the most minute control of the observation, that the question indeed should be studied, in order to discover the moving cause, the law of the phenomenon,—that is, to arrive in an incontestible manner at the one or the other of these two contradictory hypotheses: either that of the participation of inanimate bodies in the existence of human organization by contact and the vital current, or that of mechanic action explained by the simple theory of the Abbé Moigno,—*very simple*, no doubt, but still not the less hypothetical, on the tendency to movement impressed on the muscles, without our consciousness perhaps, but real, by the influence of thought, imagination, and a little will.

The simplicity, however, of this theory may be but specious. For there have been very simple theories ere now obliged to yield to others still simpler, and even to those the simplicity of which, though very real, has been not very easy to conceive. For, in truth, it is much simpler to make the sun turn round the earth than to make the earth turn round the sun; and he who first maintained that the earth was round, must have passed for a madman, for the assertion, though simple, was neither so clear nor so credible as the opposite opinion.

Nevertheless, magnetisers should act with the greatest caution, taking care to avoid hasty conclusions, likely to compromise both the cause they defend and the new phenomenon now under examination. This is, I believe, good advice. Let us hope, therefore, that grave and reflecting men will be able to hold in check those adventurous spirits, whose heads are apt to turn, on this seductive and dangerous subject, faster than the magnetised tables. If really the phenomenon of magnetic attraction and

repulsion, such as I have the conviction to have observed—I do not say certainty, for scientific certainty is only to be reached by an entire and methodical series of analogous facts—if this experiment, I say, should be solidly confirmed, we shall have a starting point, and that will be a great step in advance. I acknowledge that such confirmation would give me great satisfaction.

AUG. GŒTHY.

Paris, May 14, 1853.

CHAPTER VI.

THE TABLE MOVING MANIA PROGRESSES IN PARIS —A MEDLEY OF EXPERIMENTS—FRESH WONDERS FROM THE PROVINCES—A HAUNTED HOUSE.

THE French *savans* having so readily endorsed all that the German philosophers had advanced, the lively Parisians betook themselves with ardour to test the phenomenon in all its ramifications. Men of science and men of fashion alike forwarded the results of their experiments to the daily journals, which every day put forth some novel statements for the gratification of their table moving readers. Among the more sober of these accounts, that by Dr. Alexandre Mayer, editor of the *Presse Médicale*, deserves the precedence. It is in the form of a letter to Dr. Felix Roubaud.

My dear Sir,

After the experiments which we made together, last Saturday, on the phenomenon which it has been agreed to call table moving, I set to work to vary the results, and study them within the required conditions, in order to base my conviction on really scientific grounds. I am not one of those who, from the first, refuse to examine a fact, for no other reason, than because it comes before them with the characters of singularity, and shocks their prevailing ideas. My mind willingly greets and encourages what is new, for novelties are the elements of pro-

gress and human perfectibility; but, if I am prone to be allured by this invincible tendency to explore unknown regions, the proofs which I require to settle my judgment and guard myself against those errors to which we are so accessible, are of a nature to remove all anxiety, so great and so multiplied are the measures by which I am accustomed to protect my opinion before I say,—*I believe*. I know perfectly well that it is easier and more convenient to deny a thing at once. That saves us the trouble of inquiring: and besides, scepticism is in fashion at the present day. Learned men, and especially scientific bodies, have adopted this rule of conduct, which not only wounds every feeling of equity, but delays the circulation of more than one important truth. When systematic denial proceeds from single individuals, the injury is certainly less extensive, because, the light making its way in spite of them, they are not long before they repent and embrace the true faith. But why expose one's self by so much pride to the humiliation of allowing to-morrow what yesterday we spurned, on the fallacious pretext that it is quite repugnant to reason? For my own part, if the marvellous comes before me, with the warrant of an honourable name, and the assertion of a competent observer, I look upon it as a duty to put it to the test, without any prejudice whatever, with the earnest desire to be edified, and with a fixed intention to devote myself, body and soul, to what shall appear to me to be true and serviceable to mankind.

In this disposition of mind I was, when the letter written by Dr. Eissen, of Strasburg, gave to the medical world the discovery of table moving, just introduced into Germany. A brother doctor, of Paris, of the highest intelligence, and whose integrity is far above suspicion, had given strength to the assertions of the editor of the *Gazette Médicale*, of Strasburg, by relating to me the extraordinary

facts which he had witnessed and experienced. From that time, the mental hesitation, the philosophic distrust, which I found it still impossible to discard, became oppressive and intolerable. Just at that juncture I saw you, full of amazement, and labouring under the excitement produced by the experiments which you had recently tried: and you were the first to initiate me into the marvel. When I left you, I could not help meditating on the new horizons which the demonstration of this new power opens to mankind. However, as I continued to reflect, my astonishment gradually subsided, without in the least diminishing my enthusiasm. Indeed, thought I, we have long been acquainted with the singular phenomena of that agent which has been designated as "animal magnetism;" and with the influence which, by means of this power, man exercises over his fellow-creatures, animals, and plants. To-day, a new circumstance, possibly fortuitous, has shown that this action extends beyond the limited sphere which we had despotically assigned to it: and we acquire the proof that all bodies, even the inorganic, are just as much subjected to this influence. That is all. In a word, it amounts to this, that *Man is the king of creation*, and that everything is subject to his rule. It implies many other things besides, to which I shall presently return; for I long to terminate this digression from my subject.

You remember, my dear sir, that I intended to relate to you some facts very worthy of observation, which I have produced at my own house, or at parties given by my friends.

1st. A young woman and myself had laid our hands on a little boy six years old, and in less than five minutes, the child, who had not been warned, turned of himself, without being able to stop.

2nd. With three of my friends, whose ages ran from thirty to forty-five, I formed a chain on a piece

of wood, shaped like a quoit, about ten or twelve inches in diameter, placed upon a metal basin turned upside down. After about seven or eight minutes, the rotary motion had increased to such a rate of speed, as rendered it impossible to follow it.

3rd. A gold watch, suspended to its chain, likewise of gold, held perpendicularly in the hand, the elbow resting on a strong flat surface, described, at my command, every kind of oscillation, in a direct line, or a circular line, sometimes slackening, sometimes accelerating its pace. The same effects were obtained more speedily when I gave my hand to another person who added his commands to mine. To render this most curious experiment at once more exact and more conclusive, I am at present preparing a very simple apparatus, on which it will only require to place one's hand to regulate the motions of a pendulum in any direction whatever, and without being able, even by chance, to shake it by contracting the muscles.

4th. A gold ring, fastened to a thread and held up in the hand like the watch just referred to, is let down into a glass without touching the bottom of it, and taking care to hold it as nearly as possible in the middle. At my command, whether silent or audible, I compelled it to touch at any point the side of the glass I pointed out, and as often as I chose.

5th. An iron key, fastened at the end to a book, to increase its weight, held by two operators with a finger of each applied to the handle, describes, in the twinkling of an eye, a wheeling movement in whatever direction is enjoined to it by the united will of the operators.

6th. Hats, plates, and other articles, are moved in all directions, by the sole effort of the will. But I close this enumeration, to avoid falling into repetitions, and the relation of facts already known to everybody.

Is it really a new power which has just been disclosed to us? I rather think, for my part, that it is a peculiar manifestation of vital electricity, already and long since cultivated under the name of animal magnetism. Whatever fate awaits this discovery, it assuredly deserves to fix the attention of the learned; for none can foresee the appliances to which it is suitable. A whole world is here to be explored, and it may possibly be the key to a new science which will unveil to us the hitherto impenetrable mysteries of pyschology.

Let us, therefore, greet with affability this era of regeneration which proclaims itself, whose mission it will be to cleanse the world of the atheistical doctrines which turn it from it path! And, moreover, without being disheartened by any obstacles, let us follow this clue which chance has revealed to our eyes. Who knows whether it may not lead to something in the end by which a whole generation shall be dignified!—Yours devotedly,

DR. ALEX. MAYER.

An American gentleman resident in Paris, furnished the following particulars of some experiments, of which he was an eye-witness, to the columns of *Galignani's Messenger*:—

On the evening of Saturday, April 30, I witnessed, at the house of an American gentleman at Paris, a series of experiments, of which I will give a brief account. It may be proper to say, that some fifty persons were present, among whom were several Parisian *savans* of great eminence, and who participated in the performances. There were also other persons of high distinction. The party was strictly private, and I therefore do not give the names. No professed adept in the art was in the room. In the first place, a light mahogany tea-table, with six legs, was placed on the waxed floor of the saloon, and the palms of the hands of four

persons (two ladies and two gentlemen) were placed upon it. The formation of a chain or circle, connected by the touching of the little fingers, being a mere pedantry of those who know little of the subject, was not observed. In three minutes the table cracked, undulated, and then moved. On being directed by the will of one of the party, it moved along the floor slowly or rapidly, to the right or the left, forward or backward; when thus directed, it also rose on two legs, and resisted strong pressure before it would come down. While standing on two legs, it also turned round to the right and the left, as directed by the will. A child of seven years, weighing thirty-five pounds, was put upon the table, and it then moved as before, though somewhat less rapidly. Similar experiments were made with other tables—one smaller and one larger. The former moved freely under the hands of two of the French scientific gentlemen, going round, backward and forward, and rising upon two legs or one, in exact obedience to their volition. They fully admitted the astonishing reality. A large table, weighing seven pounds, was tried, and the experiments were perfectly successful. It moved rapidly and freely, and rose upon two legs by the volition of one of the party—an effect equal to raising a weight of fifteen pounds. The experiments were repeated over again and again. There was no doubt, I believe, in the mind of any person present, as to the facts here stated. I need but add that these are only confirmations of what is familiarly known in the United States, and what any sensible person may determine for himself. Let the experiment be made in any circle of a dozen persons, men and women. Among these, some will probably be found to have the requisite magnetic power. Four such persons being found, the rest is obvious and certain. Two persons, of strong magnetic power, will succeed perfectly. I have also seen one person go through

with all the performance. It is to be understood that a person who has not the power to charge the tables can direct them, if he has steady intellect and a strong persistent power of volition. He must put his hands on the table, with the others, so far as my observation goes. It will be understood that I here state facts, and attempt no philosophical explanations. I use the term "animal" magnetism to designate the unseen and mysterious instrument of these phenomena only in obedience to popular usage, and not pretending to suggest its true nature and essence. I only add that behind and beyond this wonderful discovery lies the question of Spirit Rappings. When I say that 30,000 people believe in that as fully as in the electric tables, I suggest—though I do not assert—that perhaps a still more marvellous leaf is yet to be opened in the book of human endowments.

Among the persons present at the above-mentioned experiments, were two members of the Institute, Mr. Appleton, brother-in-law of the celebrated American poet, Longfellow, and Doctor Dumez.

Mr. Silas furnishes us with a brief account of an experiment performed in his presence at the house of M. Charles Ledru, before a select assembly, among whom were Lady Clifford Constable, Miss Chichester, the Marquis of Urville, Doctors Dumez and Grob de Jarembina, Mr. Graham, and a learned Egyptian Doctor, well known to all who habitually frequent the imperial library at Paris. The experiment was made on a little square deal table, which began to turn in half an hour. The rotation, at first slow, soon increased, and in two minutes was so rapid, that it was impossible to resist the force, which drew the operators after it. Another essay made with two ladies had a less perfect success, because the ladies' gowns frequently touched the clothes of the operators.

With the following, our Paris experiences will

be brought for the present to a close; and we will then turn to the records of some experiments made in several of the chief cities of the provinces :—

Yesterday, the 1st of May, had its dance of tables. I had invited a number of my friends, of both sexes, to my apartment. We were twelve of us, and we undertook to put a square deal table in motion. At twenty minutes to ten o'clock we began the operation. At ten minutes past ten, the table moved and began its rotation from right to left and from left to right, which went on without ceasing for thirty minutes. Being tired, we stopped. We afterwards experimented on a hat; five minutes sufficed for this; the rotation of the hat was so rapid that, four men as we were, we could not keep up with it, but stopped out of sheer fatigue. We intend to renew our experiments this evening in another place on a larger table, and before scienfic witnesses.

I have the honour to be,

CHALAIN.

No. 3, Place Boreldieu, en face L'Opera Comique.

The *Presse*, in publishing the following abstract from the *Courier de Lyons*, remarks, that of all the accounts made public, none are more marvellous in character than this.

The journal in question, it goes on to say, contains a statement of a series of experiments made at the house of M. J. B., at the Brotteaux. We should have hesitated, we confess, to give publicity to these statement, if their author, M. A. Jouve, the principal editor of the *Courrier de Lyons*, had not assured us that he was himself present at the experiments, of which he gives simply a narrative as an eye-witness.

M. Jouve concludes by saying, that in a sitting which took place at the abode of M. F., also at the Brotteaux, at which he was not present, facts trans-

pired exactly similar to those the truth of which he is convinced of by the evidence of his senses.

The table made use of for the experiment, was a light one, of walnut wood, about two feet in diameter, rather low, standing on four feet without rollers. Seven or eight persons, the eldest being fifty and the youngest eight years of age, took their places round it without any determined order, when, having observed the prescribed rules, a rotatory movement, after the lapse of twenty minutes, was perceptible; it was at first hesitating and slow, but went on with an increasing energy. A series of experiments was then commenced, for the purpose of testing the sensibility of the table, or, at least, the action of the will on an inert body.

The following are the phenomenon that were successively manifested, which we shall class categorically with all the aridity of a *proces verbal*, observing only, once for all, that in the course of these essays, the hands forming the chain remained upon the table, which the operators followed in all its various evolutions.

Rotatory Movement.—One of the persons forming the chain said to the table:—"Turn from the right to the left," and it turned accordingly; "Stop," and it became motionless; "Turn from the left to the right," and, after a moment's hesitation, it took the direction indicated.

Side Movements.—The table was told to move towards the window, towards the piano, towards the door, and it took successively all these different directions. It was then told to go round the room, and round the room it went.

In this movement there are several particulars to be pointed out, which exclude the supposition of charlatanism or mechanic propulsion: for the table did not advance in a straight line, but by certain sinuosities, like a current swayed to the right or to the left, according to the obstacles or facilities it

met with. It often also stopped, especially when the impulse was feeble; and on examining the cause of the stoppage, it was found that it came from the unevenness of the floor, against which the legs of the table had struck, afterwards, oscillating for a moment, it inclined to the right or to the left, and having so freed itself from the obstruction, continued in the previous direction.

Oscillating Movement.—The command given to the table was, "Rise up on the side of such and such a person," and immediately afterwards it invariably rose on the side indicated. It was then told to strike several blows on the floor, and it struck the exact number mentioned.

It must be observed that in this experiment, which was renewed more than fifty times during the course of the evening, the side mentioned for the movement was frequently changed, even when the operators remained in the same place, so that supposing that one of them had determined or facilitated the operation by a pressure of the hand, he could only have done it in one case and not in the others.

In the generality of experiments of this kind, the table pirouted on its two feet on the same side, lifting up the two others in the air. Often, too, in order to prevent the feet on the floor from slipping, we were obliged to stop them by a wooden lath or the sole of a shoe.

The following command was given repeatedly with complete success:—"Rise on one foot, on the side opposite to that where a means of stoppage has been placed." The table, thereupon, rose on two feet, then, by a new effort, gently lifted the third foot, and remained some seconds in that position before putting itself on all fours upon the floor.

The Dance to the Piano.—One of the persons present at the meeting sat down at the piano, and

executed a polka waltz: the table was told to dance, and began oscillating, without lifting its feet from the floor, but perfectly in time. This movement was slow or fast in accordance with the music. At the command of one of the operators it then stood still, and recommenced motion on receiving a contrary order. We attempted in vain to produce simultaneously oscillation and rotation.

Answers to Questions.—In this part of our experiments, the results owing to causes we shall presently explain, were less satisfactory. Those which follow were convincing. The table was told to tell the age of two young people who were among the operators (the one 18, and the other 15 years old); whereupon it answered by lifting its feet on the side indicated, and giving a number of knocks on the ground equal to the combined ages. It was then told to count in the same manner the hour indicated on the dial-plate of the clock, and it struck eleven. It was then told to add the number of minutes, and it struck twenty-three more, which made up the exact time.

The experiments I am about to relate, succeeded four times out of five:—"Tell the name of such or such a person by stamping on the floor, when that name shall be pronounced among many others." Some experimentalists then ran over a great number of names, that occurred to them; the table remaining all the while motionless. As soon, however, as the real name was pronounced, the required signal was immediately given.

In the various attempts that were made to make the table tell the number of keys or pieces of money in the pockets of such and such a person present there was some uncertainty in the result. The table often mentioned a figure higher than the right one.

Of the following fact, however, we can guarantee the correctness. One of the operators asked the

table to tell him how many coins he had in the left pocket of his waistcoat. The table struck four blows on the floor, and it turned out that the inquirer had five pieces of money in the pocket: but that if the table had deceived the company, he had deceived the table, for he thought he had only four pieces.

Does not this experiment prove that the magnetised wood is but the reflection of the thought and of the will of the operators themselves; and that the errors of its answers are but the errors and contradictions of its interrogators, and not of the moist body, which acts merely as a mirror, reflecting, with all its deformities and all its mobility, the object placed before it?

Thus, as we have hinted, there were in this sitting many deceptions and irregularities, which, to an attentive observer, were in most cases explicable by the incoherence and equivocal volitions of those who asked the questions. It is indeed evident, that in an assembly of persons drawn together by curiosity, bent only on amusing themselves, it is hardly possible to establish that discipline and unity of purpose necessary to obtain perfectly satisfactory results. Add to this the frequent interruptions of the chain, the changes that took place by some operators retiring, and others forming part of it in their stead, and the inevitable contact besides with persons not belonging to it at all, and you will see that all this moral power necessarily contributed to diminish the power of the fluid, and to render its effects (nearly infallible where there is a perfect unity of thought and will) uncertain.

Nevertheless it is to be observed, that the mysterious force developed is far from being unlimited. The most frequent and natural obstacle it meets with is weight; which explains the fact, that persons who have operated on pieces of heavy furniture, weighing from twenty to thirty kilogrammes, have

generally, after a long experiment, retired fatigued without meeting with success.

The sitting of yesterday was concluded by an essay which again proved the power of this obstruction. A child of eight years of age was placed on a magnetised table, thereby quintupling at least its own weight, and the combined volition of the operators, exerted in all its power on the docility of the magnetised table, could not overcome the additional resistance. The age, the character, and the will of the experimentalists appear also to have some influence in the re-production of these phenomena. Very young people having more vivacity and energy of will than others, seem by far the aptest to produce the desired effect. It has been remarked that the retirement of certain persons from the chain has contributed to augment the energy of the magnetic fluid, and that all the phenomena have been re-produced with more spontaneity and promptitude thereupon, than when they participated actively in the experiment.

Monsieur V. Ratier communicated to the French journals the following particulars of a series of experiments, of which he was an eye-witness:—

Some of the professors of the Lyceum of Bourges, an editor of the *Journal du Cher*, several ladies, and many young people, met on the 1st of May, to convince themselves whether believers or unbelievers in turning tables were right.

The following are the facts, which were witnessed by the whole party:—

Five gentlemen formed a chain round a mahogany table, three feet in diameter, and supported by four legs moving on castors. The weather was warm; their hands were moist; they had just dined. These circumstances were no doubt favourable to the phenomenon, which began to be manifested in a quarter of an hour. Each operator having the

little finger of his left hand on the little finger of his neighbour's right, the table turned from the right to the left, and five minutes afterwards its movement became so swift, that it was difficult to follow it. In order to change its direction, the chain determined on inverting the position of their little fingers. In doing this, their contact with each other ceased, and the movement was completely interrupted.

This experiment was decisive, but not complete. Three of the first operators, and two new ones, now constituted a fresh chain. Whether it was that the latter were less primed with fluid, or that the former were fatigued, *sixty-five* minutes elapsed before the slightest movement was perceptible. At the end of that time, the table began to turn, first gently, but afterwards with the same rapidity as before.

When it had followed the same direction for five minutes, the experimentalists arrested it by leaning strongly upon it, passed their little fingers, which were underneath, above, without ceasing to touch one another, and as soon as the heavy pressure of their hands was discontinued, the table turned with its former swiftness in the opposite direction.

Experiments of various kinds then took place.

1st. Four hands were neutralised as to the direction: that is to say, two persons placed their two little fingers above, and two others their little fingers underneath; the table then turned according to the direction given it by a fifth person, from right to left, he having the little finger of his left hand uppermost.

2nd. Three persons withdrew one hand, the thumb of the hand which remained on the table performing the part of the little finger of the other. The phenomenon continued the same.

3rd. The chain was broken, and the table con-

tinued to move. Its direction even was changed without joining the chain.

4th. The party ceased entirely to touch the table, or each other. Two or three minutes after, the chain was re-formed by the same persons in the same order; the table remained all this time docile, making the same movements with the same rapidity.

5th. The persons round the table changed their places, and the phenomenon went on without interruption or alteration.

6th. Persons, taken without choice from among the company, introduced themselves into the chain, taking the places of some of the first operaters, without producing the slightest change or effect.

7th. The five persons who had magnetised the table having retired altogether, the table continued to move under the contact of all who successively came to form the chain.

8th. Finally, when hands were crossed over the table, scarcely touching it, so as to approach each other on the same side, the table, instead of turning, went straight to that side, then returned straight back when the hands approached the opposite extremity. When it encountered any chink in the floor which stopped its rollers, it fell forward as if under the action of some invisible weight.

These facts were scrupulously examined for three whole hours by more than twenty persons.

The *Siecle* of the 1st of May, published the following letter from Bordeaux :—

A very extraordinary experiment, my dear friend has much astonished us all here. I know not if you have heard of the effect of animal magnetism on a table. A letter which I have just received from Germany, induced me yesterday evening to make the experiment to which I allude.

I took a round oak table, with one leg and three feet. Five of us placed our hands and feet upon it, so

that the little finger of each hand rested on that of the hand of the person next in order; our thumbs were kept apart, a little space remaining between them.

After the lapse of about four minutes, the table emitted sounds as if it were cracking; one of us then commanded it to the right, and it turned to the right with increased rapidity. It was now necessary to follow its movement, our hands continuing to repose lightly upon it. We commanded it to the left, and it turned immediately to the left. We told it to go to the door, and it obeyed. We informed it that Meloe was four-and-twenty years old, and ordered it to strike that number on the floor, when, inclining on one side, it made four-and-twenty knocks with one of its feet.

This was indeed enough to turn our heads. You may make the experiment. Those forming the chain should, if possible, be between the ages of eighteen and thirty-six. If the operators are either older or younger, the table will be longer in moving.

A room without a carpet is to be preferred.

If any one of the persons engaged in the experiment has had his hand long enough on the table, he may place it on the back of a chair, and it will move at his command, in whatever direction he pleases.

L'Opinion du Midi contains the following recital of an experiment made at Nismes:—

Yesterday afternoon our learned friend, Mr. Edward Boyer, professor of physics and of chemistry, at Calade, had the kindness to come to our office to satisfy his curiosity. A hazel-wood table on three rollers served for the experiment. Six men surrounded it, forming the chain, with their hands placed flat on its sides, every individual touching his neighbour with his right little finger, which was kept in contact with the left finger of the person next to him.

At the end of a few minutes, a slight shivering

of the table announced the birth of the expected phenomenon. There then succeeded three or four oscillations at very short intervals. A little afterwards, those forming the chain felt tinglings in their fingers, slight nervous contractions, and hurried pulsations in their arterial veins. Seven minutes had hardly elapsed when the table was in motion. The rotation, at first slow, became quicker and quicker, and at last carried off the operators with so giddying a swiftness, that they were obliged to let go their hold of it, when it stopped immediately.

The chain being formed again, the circular movement was renewed in less than two minutes.

From this moment, the magnetic fluid abounding, manifested a series of most extraordinary phenomena. So much so, that by M. Boyer alone placing his hand on the table, the most energetic impulse was communicated to it; for a man of twenty years of age, extremely corpulent and robust, sat himself upon it without stopping or at all retarding its rotation.

It has been maintained that the magnetic current proceeds invariably from the south to the north pole. This is a mistake; for the chain being once broken, it follows inverse directions, from the left to the right, and from the right to the left, alternately.

An experiment made on a hat, was also perfectly conclusive. In less than three minutes, it began to turn rapidly round. The same effect was produced by the same means on an osier basket.

The Paris correspondent of the *Globe* newspaper communicated to that journal the following particulars of an experiment in which he took a part:—

"Three persons of my acquaintance, each of whom is incapable of trickery, sat down to a small

round table, with three legs but without castors. At the expiration of about five minutes the table made an evident effort to turn, but could not, for there was a thick carpet, and the points of the legs plunged in the worsted. Finding this resistance to the movement of rotation, the table rose upon two of its legs until it lost its balance, and then pitched over. A hat was then placed on the table, and three experimentalists—one a gentleman of sixty, another a female of fifty-four, and the third a young man of thirty-four—formed the chain, placing their fingers very lightly indeed on the brim of the hat. In one minute the hat moved round, and the persons who had their hands on it were compelled to rise and follow the movement. The hat then moved towards the edge of the table, and was falling off, when the hands were taken off, and it was replaced on the table. The chain was formed again by the same persons, and their hands were again placed very lightly in the same position as before: but, to their surprise, the hat did not move. Four minutes passed, during which the hat gave no sign of motion. At the end of that time one of the observers said, 'The table is rising.' This was the fact. The table rose again—the hat remaining quite motionless—on two legs, and in about two minutes the third leg was eight or ten inches from the floor, when the table with the hat upon it lost its balance and tipped over. This experiment was conclusive; but why had the hat remained motionless? The hat was of felt, not silk, like most of the hats in use here. When it was first saturated it moved rapidly; but when the charge of the fluid had become excessive, the felt acted as a conductor of the fluid to the table, and table and hat became one body. This experiment is, I think, an answer to M. Arago's theory about muscular action. If the muscles moved the hat in the first experiment, why had they not the

same effect in the second? and nobody can pretend that the muscles of the fingers on the hat could have acted on the table. The fingers scarcely touched the brim, but if there had been muscular action, the effect would have been to keep the table down, not to raise it up."

We will conclude this chapter with a brief account of what many consider to be an analogous phenomenon to that which is engaging the attention of the scientific world at the present moment:—

In 1842, at Chatilon, on the Marne, a widow lady being much frightened by hearing the various pieces of furniture in her room tumble and hustle against each other, for fifteen consecutive nights, always at midnight precisely, without any apparent cause, paid a visit to the clairvoyant, Victor Dumez, whose marvellous lucidity had begun to make a great noise in the learned world, in order to ask an explanation of this strange phenomenon, and to consult him as to the means of putting a stop to it. Victor, having been put to sleep by an honourable deputy, M. Loison de Guinaumont, declared that the alleged sorcery was nothing but the result of certain magnetic currents, which had become concentrated in the place, and that the phenomenon would disappear under the influence of a change of temperature. M. Loison de Guinaumont, knowing by experience the extraordinary lucidity of Victor, took a note of his reply, and had the satisfaction to see the prediction of the somnambulist realised to the letter. The record of this fact still exists among the papers of M. de Guinaumont, and will doubtless be now made public in all its details.

CHAPTER VII.

THE DUTCH AND FLEMISH TABLES FOLLOW THE UNIVERSAL LAW, AND PERFORM ROTATORY MOVEMENTS. —TABLE MOVING BY THE SIBERIAN LAMAS.

While all this hubbub was going on in France, it is not to be supposed that its imitative neighbour, Belgium, looked on with indifference. Beset on the one side with the extraordinary accounts of the table phenomenon that were arriving every day from Germany, and on the other with equally marvellous statements that came by way of France,—the Belgians were soon plunged into the same whirl of excitement, and all the tables in Flanders were forthwith set turning. According to the *Independance Belge*, it was a German, located in Belgium, that made the first table-moving experiment. The account this paper gives is as follows :—

We, who write, have read without believing—essayed laughing—and seen with terror. We will now say how.

It was at a meeting of the Artistic and Literary Circle, a few evenings ago, that the event happened. A German had read the *Cologne Gazette*, and its marvellous stories. For a week past he had spoken of nothing but *tischruecker*, but the more he spoke the more incredulity he found. It was in vain he declared that the experiment had been tried with complete success in the house of an artist well known at Brussels ; every one thought he was the victim of some mystification, and in a week more he would have been an object of pity to all his acquaintance.

But the faith which removes mountains and tables, at last seduced an individual or two, and eventually those the most disposed to believe were those who habitually believe nothing.

A small oaken table was brought, and five persons sat round it. These were our German and four artists, well known ; for whom I can wish no better wish than that they may have as much electric fluid as they have talent.

Around them were grouped a mocking audience: grave magistrates, officers, lawyers, musicians, men of letters, young and old,—all sceptics.

As they sat down to the table, the dial hand marked half-past nine o'clock.

Up to ten o'clock no effect was observed, and the experimentalists, four of whom at least had no more faith than their audience, were exposed without mercy to railery on all sides.

They were about to rise; thirty-five minutes had elapsed, and their fingers remained impassive and benumbed on the table. Even the German began to be discouraged.

When suddenly, during an interval of silence, forty eyes stared astonishment, and twenty voices cried out—"It moves!"

The animated expression of all faces, the tumult, the exclamations hustling each other, the affirmations, the denials, made altogether a strange scene. In the ardour of discussion, the spectators no longer looked on, and the operators, who had felt the movement of the table, anxious not to deceive the public, cast suspicious looks at each other, and were in reality themselves dupes.

In the midst of this disorder a happy idea occurred to one of the artists present. He went to the billiard room for a bit of chalk, and marked the circumference within which the feet of the table rested with a white circle.

Two minutes passed. The table rose up on one side, then fell back heavily.

There was no more laughter. In five minutes more it was two inches beyond the chalk circle, and was wheeling gently round on its four feet.

It is impossible to say where this experiment would have stopped, for one of the persons forming the chain, feeling himself fatigued, rose, and the chain was not renewed.

It is difficult to conceive the emotion which succeeded this trial. Enough had been seen to create a wish for conviction, but not enough to convince very sceptical persons altogether.

Of twenty-five unbelievers, however, a dozen left with faith.

The German triumphed, and the *Cologne Gazette* with him.

An hour passed away; some persons left, others came; we were about twenty who remained, nearly all of us young people; it was a quarter to midnight.

Two or three of us had already made the experiment the same day, in a society where there were ladies, whose participation in the operations guarantees, it is said, its prompter success.

One of our party, a very serious person, and very little disposed to accept illusions for truths, proposed recommencing the experiment only for a quarter of an hour. "If no effect be produced before midnight," said he, "we will depart and leave the table to dance a monologue."

The proposition was acceded to, and they sat down, four of them, whilst the others, fatigued with their two hours *tischruecken*, talked politics together, hardly thinking of what was going on at their side.

Ten minutes at most had elapsed, when the serious young man cried out, "There is a commencement of the movement."

Upon this we approached, and saw the table rise, then fall again, then rise again, inclining each time towards one of our friends, who is thought to have much magnetic fluid.

The chairs were then withdrawn; and the four experimentalists rose, touching only at present the table with the little finger of each hand.

We looked on astonished. He of the four whom we called the strongest, was pale and wearied, so much moral vigour had he expended; and the young sage was white with stupefaction.

But what was our surprise, I may almost say our terror, when we saw the table begin to turn round, moving, I believe, towards the north, and executing its revolutions with so vigorous a velocity, that it was difficult to follow it.

At last the four operators raised their hands, and the table remained motionless.

I had read that a table once sufficiently charged with fluid, a new chain would take almost immediate effect. Four others of us, therefore, laid our hands in juxta-position upon it, and the movement became at once as rapid and as giddying as it had been before.

Its velocity was prodigious. I do not believe that the quickest waltz could keep up with it.

Three times the hands on the table were changed, and three times it made the same evolutions.

And take notice, it turned not upon a pivot, but upon four feet, and upon an unequal floor. Never have I seen so surprising a spectacle.

There is certainly something very striking in the effects of magnetism.

To see a man the slave of another man; to see two wills so confounded together, that one of them must renounce its independence; to see a soul become a machine for the service of another soul, whose faculties are doubled by taking from the subservient

soul all its vigour; all this has certainly something that baffles explanation; the power, also, of the eye of man to daunt the fiercest of animals, and to make the majestic lion crouch at his feet, like all other acts in which human life is in peril, produces a nervous terror; but this inert, insensible, brute matter, this moral nothing, which, on the imposition of your hands, begins to live,—I know not how to express the emotions which this occasions; and in writing down these words, I think, in spite of myself, of the sacrilegious Prometheus, who stole the fire of the ancient gods to animate a statue of clay.

Ignorant as I am on scientific matters, I have no right to form an opinion on this phenomenon, neither is it my purpose in this paper to express one.

I relate only what I and twenty others persons have seen and felt. We cannot hinder the scientific from laughing, the more especially as M. de Humboldt has given them the signal; but we can all reply with the profound astronomer Galileo, "*Nevertheless, it moves*;" and we can say this with the more perseverance, as we have not the Inquisition before our eyes to prevent us doing so.

I recollect that I spoke in the beginning of revolution, revolution in prejudices, revolution in popular ideas, revolution, perhaps, in the sciences, revolution, perhaps, in philosophy.

Yes; revolution, I repeat again, in all these.

For are not those truths which destroy the fantistic, by making it the fatal consequence of laws inscribed in the code of nature, the death of vulgar prejudices?

And do not all these discoveries, which open to thinkers new horizons from day to day, constitute a regenerated science? And must not these miracles, which attach, by a visible link, matter to thought, eventuate in an entirely new philosophy?

"There are more things in heaven and earth

Horatio," says Hamlet, "than are dreamt of in your philosophy."

For in truth no day passes that some Moses, guided by Providence, does not strike from the rock the limpid stream of some unknown truth.

Unhappily the water does not always wait till Israel is thirsty. Great discoveries surge up generally at a time when no one is looking for them, and the world laughs, not because it is sceptical, but because it would like everything to answer some determined purpose, perceptible from the very beginning.

You laugh at the dancing table, and you may be right; you might have laughed at Newton too, when an apple falling on him, bruised his face; but recollect, whilst you are laughing, that from the fall of that apple resulted the discovery of the law of gravitation which rules the universe.

L. H.

As may be expected, the table moving mania was not long in invading Holland, where, at the present time, it keeps up a rivalry with religious controversy; and different parties are not ashamed of fraternising round a table on which there is not the slightest symptom of good cheer.

It is quite evident that the mania has also extended to Russia—to divide there the interest which is felt on the Turkish question—for in a St. Petersburg periodical, called the *Bee of the North*, a correspondent has called attention to an analogous phenomenon, which seems to have been practised for many years past in the wilds of Siberia. This account is sufficiently interesting to quote *verbatim*:—"Immediately I read the account in your papers of the 'moving tables,' it brought to my mind a circumstance which has a striking analogy to this newly-discovered phenomenon. Being an eye-witness to

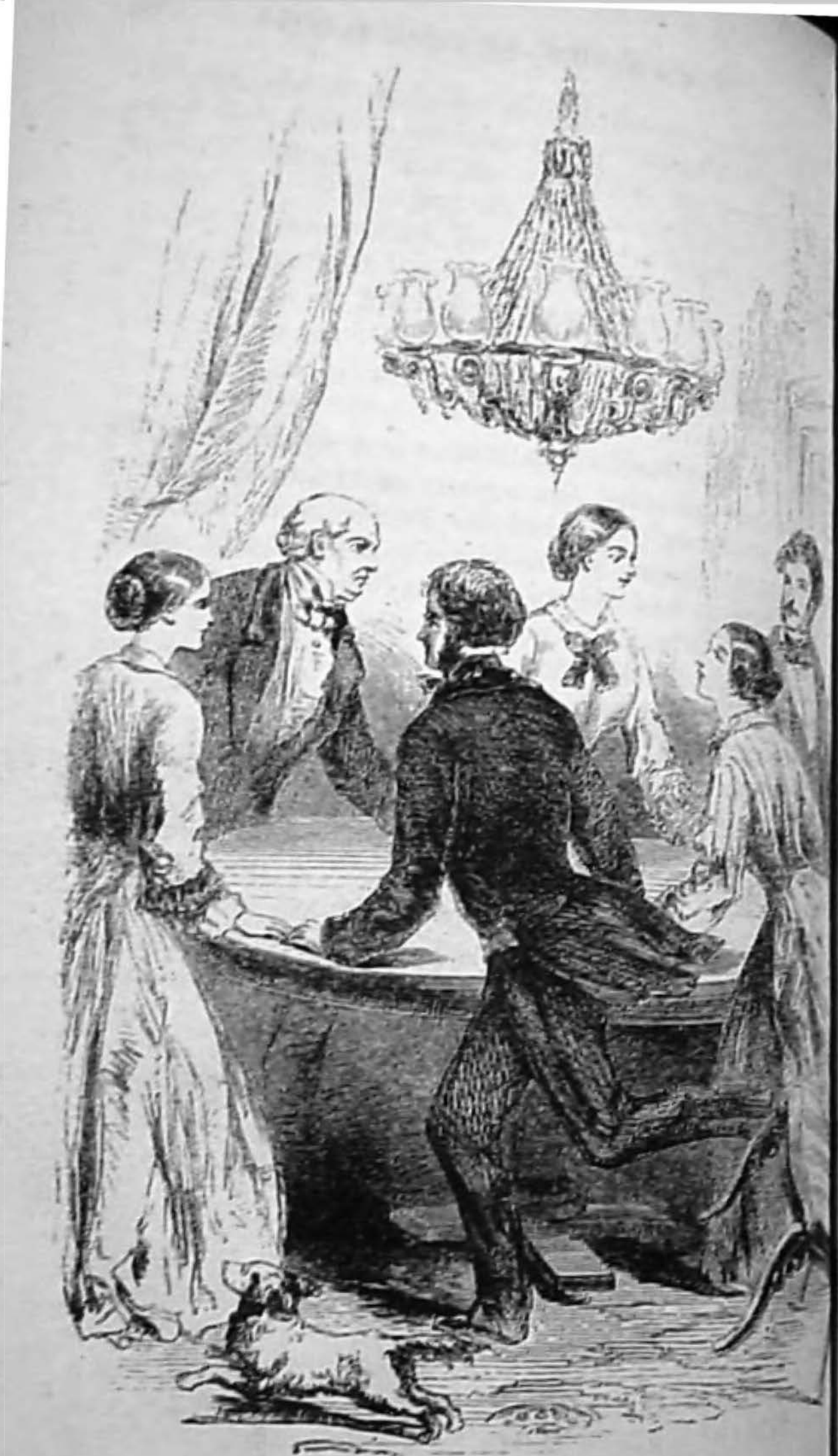
the fact, I consider it my duty to communicate it to you. Like the high-priests of ancient Egypt, who practised a multitude of clever tricks, in order to maintain their influence over the superstitious, the Siberian Lamas, priests of the religion of Budha, are in possession of some of the more extraordinary secrets of nature, which they never communicate to any one. These secrets give them the reputation, among their fellow-countrymen, of being inspired, and of acting under the influence of divine revelation. Amongst the means employed by them, there is one more curious than the others. A little moving table is their magical wand, which serves them as an indicator to discover stolen articles, when they are questioned as to their place of concealment.

This is how the enchantment is brought about: When a person brings his complaint before the Lama, and begs of him to discover the article which has been stolen from him, it rarely happens that the Lama consents immediately to grant his demand, but he puts him off for several days under the pretence of preparing for his act of divination. When the day and hour indicated arrive, the Lama seats himself on the ground before a little square table, on which he places his hand, and then begins in a low voice to read from a Thibetian work. Half an hour afterwards, the priest rises, takes his hand from the table and raises his arm, preserving, at the same time, in regard to his body, the position the arm occupied when placing it on the table, which also rises and follows the direction of his hand. The Lama then stands upright, raises his hand above his head, and the table is brought on a level with his eyes. The enchanter now makes a movement in advance, the table executes the same movement; he runs, the table goes before him with such rapidity that the Lama can scarcely follow it. After having pursued different directions, it *oscillates* a little in

the air, and then falls. Of all the directions the table took, there is one more marked than the others; it is on that side that the stolen articles are to be sought for. If one lent an ear to the recitals of the people of the country, they would be found at the exact place where the little table fell.

The day on which I witnessed this experiment, after having travelled in the air over a space of eighty feet, the table fell in a place where the stolen articles were not discovered. I should own, however, with all humility, that the same day a Russian peasant, living in the direction pointed out, committed suicide. This suicide raised suspicions; they repaired to his house, and there they found all the stolen property.

Three different times this experiment took place in my presence, and the Lama declared that the articles could not be found. But on the fourth occasion I was witness to the fact I have just related. It took place in the outskirts of the town of Elane, in the province of Zabaikal. Not daring to trust blindly to my own eyes, I explained this apparent phenomenon to myself as being some trick employed by the impostor, the Lama. I accused him of raising the table by means of an invisible thread, before the eyes of the spectators. But after a more minute examination, I found no trace whatever of fraud. Besides, the moving table was of pine, and weighed a pound and a half. At the present day I am persuaded that this phenomenon was produced on the same principle as that by which tables, hats, keys, etc., are now moved."



THE TURNING TABLE.

CHAPTER VIII.

TABLE MOVING IN ENGLAND.

THE sober English nation, as one would naturally suppose, received the reports of the table moving experiments performed in France and Germany, with its usual smile of incredulity; and when, indeed, it had to give in its adherence to the new phenomenon, it did so with that proverbial calmness which no rotatory movement under the sun would, we expect, be sufficient to disturb. Of the experiments performed very few have been made public, consequently the present chapter will be bare of examples, and even such as are given, partake by no means of that marvellous character with which the statements received from France and Germany are more or less imbued.

Among the first experiments which were made public, were those performed under the direction of Mr. Bates, of the Nautical Academy; and his report of them to the *Morning Advertiser* was as follows:—

Experiment 1.—A small round mahogany table, about 30 inches diameter, was employed; five gentlemen sat around it with their hands (fingers) so placed that a ring of fingers surrounded the table, the little fingers of each neighbour being joined, also the thumbs of each operator. During the period of about half an hour, sensations of throbbing in the fingers and thumbs, pains in and about the regions of the elbows were experienced, and a perceptible vibration of the table observed. The table was placed on the floor *uninsulated*.

Exp. 2.—The same table, under the same circumstances, was employed, but instead of five, seven gentlemen operated: on this occasion an electrometer, composed of two flaxen threads suspended from a brass wire, was employed to indicate if the table had received an electric charge; the threads were held together by a small strip of lead, and the brass wire was brought into contact with the table by a piece of iron wire. While the table remained *uninsulated*, no effects were perceptible during half an hour beyond the throbbings and pains mentioned above.

Exp. 3.—The table was now *insulated*, by being placed firmly on an ordinary electrical stool about a foot square, a party of gentlemen sitting round as before; the same phenomena of throbbing at the fingers' ends, pains in the elbows, etc., were observed. At length two gentlemen, sitting opposite each other, experienced similar phenomena, especially a particular sensation on the balls of the thumbs—in one instance the ball of the thumb was in contact with the table, in the other in contact with the operator's other thumb: about this time a remarkable vibration of the table was observed, its peculiar character was perhaps noticed more distinctly by the threads of the electrometer exhibiting a trepidatory motion which had not occurred before. A railway train passed during these vibrations, but as several had passed during the experiment, the distinctive character of this vibration was apparent. The next phenomenon observed, about twenty minutes after the commencement of the experiment, was remarkable—the operators, without being sensible of any motion, observed the position of their hands to be different, *i.e.*, their hands had moved towards the right, so that while they remained in a sitting position a kind of hoisting was produced. The motion of the table now became apparent; to retain the position of the hands on the table it was

necessary for the operators to rise—a rotatory motion was induced, which, from commencing very slowly and gradually accelerating, occasioned the operators to follow the rotating table, first at a slow and afterwards at a brisk walk. While thus proceeding, a gentleman attempted to reverse the motion, by pulling the table in the contrary direction, and by exerting muscular force upon it; in this he succeeded, the other operators declaring that some one was pulling the table. The direction of motion, when influenced by the electricity or magnetism of the party, was contrary to that in which the hands of a watch move; in one or two instances there was a slight tendency to move in the opposite direction, but it was soon overcome.

Exp. 4.—A large sheet of gutta percha was laid on the floor, on this were placed two smooth boards, and a table *uninsulated* (so far as the boards were concerned) placed on them. A party of six operated in this instance, some of the gentlemen not having operated in the former parties. The fingers in contact were simply laid on the table, and a strict eye kept on certain marks on the boards, to ascertain the exact time of the commencement of motion. Nothing beyond the sensation above mentioned was noticed during twenty minutes.

Exp. 5.—The table was now insulated as before, so that it was insulated, as regarded the operators, by the glass stool, and *they and it* insulated, as regarded the earth, by the gutta percha. In three minutes the rotation was induced; it was in the same direction as before, viz., contrary to that in which the hands of a watch move, and was maintained during six minutes, in which the table made upwards of six revolutions.

Exp. 6.—Everything remaining as before, a party of ladies and gentlemen placed their hands on the table; in two minutes the rotation commenced, the period of revolution being about one minute.

Exp. 7.—A party of gentlemen now placed the palms of their hands on the table, their fingers being unconnected; in this case rotation in the same direction was induced in a short time.

Exp. 8.—Two gentlemen, standing opposite each other, placed the palms of their hands on the table with similar results.

Exp. 9.—The rotation was induced, when one gentleman placed the palms of his hands firmly on the centre of the table, pressing in the direction of the axis of the supporting pillar.

Exp. 10.—The gutta percha and boards were removed from the floor, and the table, *insulated* by the glass stool being placed thereon, the party sat round as before; in two or three minutes the rotation commenced, at first slowly, but accelerated so rapidly that the operators were obliged fairly to run, till at length, being exhausted, their hands were removed from the table, and the motion stopped.

Exp. 11.—An iron chain was extended round and upon the table, two or three persons placed their fingers lightly upon it, and in a few minutes the motion was induced.

Mr. Bates then proceeds to remark that "the most prominent features or salient points connected with these experiments are, without doubt, the absence of the motion of the table when *uninsulated*, and the production of motion upon an insulation being effected. Experiments 3 and 10 exhibited motion, when the table was under precisely similar circumstances; the time required to induce the motion was, however, very different in the two cases. It is to be borne in mind here that the table had been submitted to the influence of the operators, in experiment 10, for upwards of an hour. Experiment 5 is very important, as exhibiting the influence of *insulating* both table and operators; in three minutes, and in other experiments, in less, the motion was induced. Nor is experiment 4

less important, although no positive results were obtained; perhaps it is even more important than the other experiments, as indicating a continuous current of the animal magnetism (if such be the appropriate name) from the fingers through the table to the boards, and again to the bodies of the operators; when this continuity is broken by the insulation of the stool, the force descending through the table in a spire communicates to it motion in its effort to restore the equilibrium.

"Thus, the explanation of these remarkable phenomena appears to be very simple, and greatly akin to certain experiments in electro and ordinary magnetism.

"It may not be uninteresting to mention, that most of the persons taking part in the above experiments were more or less incredulous as to the published statements, but all expressed themselves perfectly convinced of the reality of the motion being induced by other influence than ordinary muscular energy."

The following persons, having been present at the above-mentioned experiments, have certified Mr. Bates's report of them to be correct:—W. Radcliff Birt, Henry Rosser, Isaac Bates, Fred. Wiggins, Wm. Reynolds, John Brixey, J. Jones, all of 104, Minories.

A writer in *Chambers' Journal*, in a report of various visits paid by him to Spirit Rapping Mediums. gives us the following particulars of a *séance* in which replies to questions propounded were given by means of sundry table tappings. He describes the medium, Mrs. Roberts, as a lady of a certain age, tall in figure, and of solemn aspect. "Her husband, a native of the north of Ireland, is likewise a tall and serious-looking person. They profess to belong to the Episcopal Church, and have all the appearance of being under deep religious convictions. I visited this couple, in company with two

ladies—one of them a person of rank; the other, a clever literary woman, who is fully convinced of the verity of the spiritual manifestations. We found a school Bible and Prayer-book, with a slate and pencil, lying on the table, round which we proceeded to form a circle. Here, differently from the usual practice, the husband bears an essential part in the operations. I mention, that the table was an ordinary round one of rosewood, having a pillar resting on a triangular foot; and Mr. and Mrs. Roberts sat together at a point in the circumference, between two of the resting-points. Laying their palms flat down on the table, the little finger of the gentleman's right hand overlapping that of the lady's left, they engaged in silent prayer for a few minutes. After some invocations and inquiries, a spirit came and manifested itself, not by rapping on the table, as in so many other cases, but by canting it slightly down on the side where the medium and her husband sat. One tilt, we were informed, indicated a decided negative; a tilt followed by one slighter movement, implied doubt, or inability to answer the question; and a tilt followed by two slighter movements, was an affirmative. There being no alphabet used here, one can get only yes or no to questions put, unless the spirit shall move some one to write upon the slate. Mr. Roberts inquired of the spirit: 'If it wished that a part of Scripture should be read;' to which an affirmative answer was given. 'In the Old Testament or New?'—The New. 'In Matthew—Mark—Luke,' etc.?—In Revelations. 'In which chapter—the first—second,' etc.?—The tenth. 'Shall it be read by the lady on the right?'—No. 'By her on the left?'—No. 'By the gentleman?'—Yes. I then read this chapter slowly, to allow of the spirit making signs at particular passages. At the passage: 'Seal up those things which the seven thunders uttered, and write them not,' there was a

tilting of the table; as, likewise, at three or four other passages in the chapter. This was not felt as very satisfactory in any way; so one of the ladies proceeded, of her own accord, to ask questions on religious matters. She inquired if the Bible contained nothing but what was true; if the creed of the Church of England was a near approximation to the truth; if the Romish Church was true; in what sense we were to understand that Christ was the Son of God; if those who had an imperfect belief would suffer on that account hereafter; and so forth. It may be enough to say, that the answers indicated a reliance on what is called orthodox doctrine, yet with a liberal allowance to dissenters, and very mild views as to future punishments. One might have conceived a universalist to be speaking. The answer given to the inquiry regarding the Romish Church was an unusually deep cant of the table, causing it to fall back with a most emphatic negative."

The same writer informs us that during a visit he paid to another medium, an affirmative answer to a question he had asked, was given "by three loud thumps of the table on the floor. I inquired if the evil spirit had also some influence; when three gentler thumps were given. I then expressed a wish to see the table moved along the room, in the manner in which a lady of my acquaintance had lately seen it moved in America. The doctor having put the request, the table presently moved along in the direction of Julius, who had to rise in order to allow it way. As he moved back, with only the tips of his fingers laid upon it, it followed till it had gone about four feet from its former position, and of course was completely clear of the rest of the company. All this was well calculated to surprise for the moment; but although the dynamics of the case were at first a mystery to me, I became convinced afterwards, that, whether drawn along by the

youth's fingers or not, it was possible to cause such a table to move under a very much slighter contact of the fingers than any one could have been prepared for; wherefore, I came to attach no consequence to this section of the alleged phenomena. Most undoubtedly I saw the table sliding along, clear of every contact but that of the young man's finger-ends. He then came round to the other side, and, merely touching it, caused it to follow him back to its original place. Finally, the doctor requested us all to resume our seats, and place our hands upon the table; after which, in a formal and reverential tone, he returned his thanks to the spirits for the communications they had vouchsafed to the company that evening."

The only experiment that has taken place in this country, which appears to have been instigated by men of scientific reputation, is that reported in the *Medical Times*. It should be mentioned that the operators came to the conclusion that the effects were entirely produced by involuntary muscular action, and by no other means:—

June 3rd, 1853.—*Experiment* 1.—Four medical gentlemen sat round a small table, having a stem with three legs, but without castors. Each person placed his fingers lightly on the table, the little fingers of one person touching the little fingers of the person next him, and the *thumbs separated by a considerable interval*. In this experiment, it was determined that no expectant idea should be entertained, that the attention should not be fixed upon the table, and that ordinary conversation should be freely carried on. After sitting for twenty minutes, no effect whatever was produced. The experiment was commenced at 25 minutes past 7, and was continued until 45 minutes past 7.

Exp. 2.—The same gentlemen placed themselves round the table, in exactly the same positions as in the last experiment. In this experiment, how-

ever, it was determined, that perfect silence should be maintained, that the thoughts should be concentrated upon *some* result, whatever it might be, but that no expectant idea should be entertained as to the direction which the table should take. The experiment was commenced at 12 minutes to 8; at 6 minutes to 8 the table began to move from right to left. After it had moved for some little time, the experiment was abandoned, as it was not thought necessary to follow its circumvolutions. Dr. C—— felt that his left arm was in a state of muscular tension before the table commenced moving. Dr. J—— felt pressure on his right little finger from Dr. C——'s left little finger, the pressure appearing to increase up to the time when the table began to move. Mr. N—— felt a tingling in the skin, as also a somewhat painful sense of muscular tension before the table began to move. After it began to move, his fingers and hands unintentionally, but instinctively, accommodated themselves to the movements of the table, the involuntary muscular actions being directed in the axis of movement of the table. Dr. S—— was not conscious of any movement whatever of his own muscles, or of those of the gentlemen to his right and left, and his mind was wholly indifferent as to the direction which the table would take.

Exp. 3.—It was now determined that perfect silence should be maintained, that the thoughts should be concentrated upon the movement of the table, and that an expectant idea should be entertained of the table moving from left to right. The experiment was performed by the same gentlemen as before, and in the same positions. It was commenced at seven minutes past eight, and at fifteen minutes past eight the table began to turn from left to right, but in two minutes it suddenly reversed its direction, and turned from right to left. This latter phenomenon was owing to Mr. N.—— (without

mentioning the circumstance to the rest) exerting a distinct voluntary force in the opposite direction to that in which the table was moving.

Exp. 4.—The same gentlemen sat down in the same positions as before; but on this occasion it was determined that Dr. C—— and Mr. N—— should anticipate a movement of the table from right to left, but that Dr. J—— and Dr. S—— should entertain the contrary idea. The experiment was commenced at twenty-five minutes past eight, and it was continued till twenty minutes to nine, but no effect whatever was produced.

June 4, 1853.—*Exp.* 5.—This experiment was made upon a large, round, drawing-room table, moving upon castors. Eight ladies stood round it, with their fingers resting upon the table, and their little fingers in contact with the little fingers of those standing to their right and left. It was determined to will that the table should move from right to left. In one minute and a half it moved from left to right.

Exp. 6.—A lady placed both her hands flat on the table, which in this case was a small and light one; and it moved in two minutes from left to right.

Exp. 7.—Four gentlemen and four ladies placed themselves round the large drawing-room table mentioned in the 5th experiment. They assumed successively the standing, the kneeling, and the sitting postures; but, after waiting for twenty-five minutes, no result whatever was produced. The four gentlemen then withdrew, and four ladies then took their places, thus placing eight ladies round the table. It moved in two minutes.

Perhaps the most interesting series of experiments that has yet been performed in this country, is that which took place under the superintendence of a committee in the Manchester Athenæum, on the 9th of June. The theory of unconscious muscular action was most in favour in

this instance. The annexed report of the proceedings appeared in the *Manchester Guardian* :—

On Thursday evening a *conversazione*, having for its object the arriving at some safe conclusion concerning table moving and its causes, was held in the library hall of the Athenæum. The Rev. H. H. Jones, F.R.A.S., was called to the chair, and, in opening the proceedings, said that it appeared to him that the phenomenon of table turning must necessarily be the result either of collusion, illusion, or of the action of some mysterious and hitherto almost unknown and unrecognised force. That it was not the result of collusion, was, he thought, proved by the number of intelligent and respectable persons who were ready to vouch for the reality of the facts. That it might be the result of illusion or self-delusion on the part of the experimenters, was just possible, but, perhaps, not very probable. It was just possible that there might be such an adhesion between the fingers of the experimenters and the table, such a power of friction, as, gradually accumulating, should be sufficient to overcome the *inertia* of the matter contained in the table, and cause it to move. Some might think that there could not be this amount of friction or adhesiveness, without the experimenters being conscious of it. He was not so sure of that. When persons had held their fingers in a certain position for a considerable length of time, their fingers become comparatively benumbed, and it was just possible that they might unconsciously exercise such an amount of force as might move the table. Then came the third and last question—supposing the phenomena not to be the result of either of these causes, could it be that it was produced by the action of some mysterious and unknown force, hitherto unrecognised? If so, we must suppose that this force issued from the hands and fingers of the experimenters, and that it

flowed to the right or left in obedience to their will.

Mr. W. G. Ginty moved the appointment of a committee to have the direction of the experiments, and report upon them. The motion was seconded, and unanimously agreed to. The chairman then invited ladies and gentlemen who were willing to experiment upon tables to take their places, and in a few minutes all the tables in the room but one were surrounded by experimenters, including persons of various ages and both sexes.

The experiments commenced at eight o'clock. The first table which moved was a round one, about three feet in diameter, standing upon three legs without castors, and having a leathern top. At this table four ladies took their places, and in five minutes it began to turn rapidly, the ladies running round with it. After several stoppages, for which the experimenters could not account, the table moved round so rapidly that several of the ladies appeared to be getting giddy, and two of them appeared to be so much alarmed that they discontinued the experiment. These ladies had simply placed their hands upon the table, without touching those of each other. After this experiment, the chairman suggested that it should be repeated, the ladies having tissue paper placed between their hands and the table, to prevent the effects of friction. This was tried for fourteen minutes with three ladies only (the other two being too much alarmed to take part), and failed. The other two ladies were then induced to join the circle, and in three minutes the table moved. Upon examination it was found that the tissue paper had been wetted by perspiration, and had adhered to the table. It had, therefore, failed to counteract the probable effects of friction, and proved nothing.

The second table which moved was a large and heavy round one, of polished wood, about four feet

six inches in diameter, and weighing about 100 lb., having a pillar and three claws, to each of which there was a castor. Round it sat eight gentlemen, who formed the circle in the usual manner, touching each other's little fingers, but not bringing the thumbs of their own hands in contact. At twenty-five minutes past eight o'clock (when the experiment had been conducted for twenty-five minutes) this table began to move slowly from right to left, and, with some stoppages, it performed about two revolutions in that direction. It then stopped, and after waiting some minutes the experimenters, who had previously willed that it should move from right to left, willed that it should move in a contrary direction. In a minute or two motion recommenced, and the table moved so rapidly in the direction intended that the gentlemen, who had previously risen from their seats, were obliged to run round with it; and its revolution did not cease until one person, feeling giddy, withdrew his hands and broke the circle. It was observed that this table turned upon one of the three claws as an axis; this claw, however, did not remain perfectly stationary, and the circumference of the table described a series of eccentric circles.

After the performance of these experiments, Dr. Braid said there had been some most unexceptionable experiments. They had seen two tables turn, and his conviction was that the motion arose from what Dr. Carpenter called the ideo-motor power. The mind being concentrated for a length of time upon an idea, it at last began to act upon the muscular system. This was not a voluntary act, and might even be in opposition to volition. He was satisfied, so far as he had seen, that this was the true solution of the matter; that the ladies and gentlemen were not conscious that they exercised any effort, and that the effect arose from this unconscious muscular action. In order to test whether

or not the motion was caused by electricity, he suggested that a wire should be laid upon the table, and that instead of touching the table the experimenters should hold this wire. If the motion arose from electricity, it would take place under these circumstances; if it was the result of muscular action, the effect of that action would be on the wire and not on the table.

The experiment was accordingly tried. A piece of thin wire was laid round the ladies' table; it was twisted into a loop between each of the operators, and was then held by the ladies who had previously operated so successfully. The hands of the ladies did not touch the table. They maintained their positions for half an hour without success, and then abandoned the attempt. They then placed their fingers upon the table, and in about five minutes it turned rapidly.

The third table which moved was a similar one to that which was moved by the ladies. Five persons sat at it, and at thirty-seven minutes after eight it turned rapidly from right to left. These persons had formed the circle in the ordinary manner, with only the little fingers touching. When the table began to move, some of the bystanders thought that some of the experimenters were exercising pressure, and therefore suggested that they should cross their hands, as it was thought that in this position they would be unable to exercise any force upon the table. This was done, and the table moved rapidly from right to left and left to right.

The chairman suggested that, in order to prevent the effects of friction, a table should be smeared with olive oil, upon which the experimenters should place their fingers. In accordance with this suggestion, a belt of oil about five inches wide from the edge was made upon one of the round tables. Six gentlemen then sat down, and in about twenty minutes the table moved. The large round table,

which had been the second to move, was then smeared with oil upon the wooden rim, and the same eight gentlemen who had previously experimented again sat down to it. In this instance they formed the circle as before, but only the tips of their fingers touched the table. They began their experiment at a quarter past nine, and at one minute before ten o'clock the table made part of a revolution from right to left. It afterwards moved in different directions, according to the will of the gentlemen experimenting upon it, up to a quarter-past ten o'clock, when they desisted. In the course of this experiment these gentlemen were much disturbed by the pressure of the audience upon them, and by other proceedings. Whenever their attention was thus distracted the table stopped. The chairman said that no importance could be attached to the result of this experiment, as he saw the thumb of one of the operators upon the edge of the table. All the gentlemen engaged in the experiment denied that they had placed their thumbs in this position; and a bystander assured us that, though the thumb of one gentleman was very near the edge of the table, yet it did not actually touch it. This gentleman was in a better position for observing than the chairman, who was on the platform, and he was paying great attention to the experiment. Several requests were made to the chairman to point out the gentleman whose thumb was upon the edge of the table; but the chairman only replied that he had no doubt the gentlemen believed that they were acting fairly, and that he had not thought of charging them with doing otherwise.

The last table to turn was a square one of mahogany, about six feet long by four wide, standing upon four legs. At eight o'clock, eight gentlemen and two ladies sat down to this table and continued the experiment without success until thirty-five

minutes past nine, when they discontinued it. Seven gentlemen and five ladies, including three of those who had previously been so successful, then sat down, and in about a quarter of an hour they moved the table a short distance. The circle was then broken by one of the party, and the table stopped. At nine o'clock the gentlemen who had previously moved the large round table formed the circle as before, but without allowing their fingers to touch the table. They tried this experiment for ten minutes, but without success.

We have hitherto spoken only of successful experiments, but there were three tables which were in vain attempted to be turned. One of these was a mahogany Pembroke table, and the party who experimented upon it consisted of five gentlemen. Another table (resembling that with which the ladies were so successful), which was at first unoccupied, was afterwards taken possession of by a party of seven gentlemen. In forming the circle they not only touched the little fingers of each other, but brought their own thumbs into contact. The result of this was that their hands were placed in a circle very near the centre of the table top, and not, as in the other cases, round its circumference. These gentlemen continued their experiment for some time, but the table did not move. The third unsuccessful experiment was with a small round table, at which five gentlemen remained seated for an hour and thirty-five minutes without producing any effect. In the top of this table there was a crack, and some of the experimenters seemed to think that this had prevented the success of the attempt. The chairman, upon being appealed to, said that he did not imagine that it would have any effect.

The chairman, before leaving the chair, said that he had come into that room without any prejudice; but that, from what he had seen and heard, he believed that the phenomena resulted entirely from

muscular action, by the power of friction. He could not for a moment believe in the emanation of any occult principle in nature, which could produce such decided effect upon a mass of brute matter as had that night been manifested. Dr. Braid, in moving a vote of thanks to the chairman, said that if we considered the reciprocal action of the mind upon matter, we had a key to the whole mystery. It was a certain law that the mind, being concentrated for any length of time upon any part of the body, changed the physical action of that part. If there was an idea that the table should move in a given direction, that idea would, without a conscious effort of volition, without the person believing that he was exercising any effort at all, produce the effect.

The two following letters were addressed to the editor of the *Leader* newspaper:—

Sir,—In the last number of the *Illustrated News*, in the French correspondence, the writer states that a book suspended by a house door-key, the rims of which rested on the right forefingers of two persons, would turn at the will of the holders if both willed the same way, with another result if they opposed each other. The experiment was so easy of proof, that I at once attempted it. The result came. It was tested every way. Each holder willed contrariwise; the book remained stationary. During this time one, without informing the other, changed her will to make both agree, on which the book immediately turned. This may be accounted for by the harmony in the wills so produced, allowing the galvanic current to flow in the proper course. I had long credited the possibility that a force or unseen electric fluid pervades our planet and atmosphere, if not the whole universe, which may possibly be an agent to influence us in the same degree that the pole controls the magnet. This force, as most are aware, Reichenbach asserted he had discovered, and named it the

Od Force; therefore, the results I had obtained did not surprise me, but what followed is so startling, and so resembles the results said to be obtained by the spirit rappers, that I merely relate what occurred, leaving others to try the experiment. Some ladies present observed that with servants and others there was a common superstition that a key so placed *in the Bible* at a certain verse relating to Boaz and Ruth, would, being so suspended, cause the Bible to rotate at the mention of certain names, or rather initials indicating those by whom or whom the experimentaliser *liked* (an influence, undoubtedly). Now here, if there be such a thing as Od Force, were the means of using it in a novel way. A key, which is a perfect conductor, inserted in a book, a non-conductor, the current to pass uninterruptedly between the two persons, that current to be disturbed only, and to manifest the disturbance by the key turning itself and the book when some unknown force was brought to operate at certain times, as the caller named each successive letter in the alphabet, and arrived at the one indicating a forename or surname. Here—mixed up with the vulgar belief that the book must be a Bible, was a superstition of the ignorant concealing of the result—was attained a simple but important scientific truth, an impalpable agent causing, when under a certain influence, the comparatively ponderable book to turn and reveal. It was laughingly suggested that with one book (*Cæsar's Commentaries*, by-the-bye, although a non-conducting block of wood would have done as well) and key, the experiment should be tried. *As an utter joke*, another and myself sat down and tried it, and to my unutterable astonishment, at the mention of certain initials (corresponding with my own judgment, although I *willed* no initial) the book turned, and continued to turn invariably at the same ones (with each caller) on repeated experiments. They were not confined

to two initials, nor need they be—we are influenced strongly by many, although the first should have the preference in these indications. With two by whose influence the book turned at all times when they willed it, it remained quite stationary during this experiment. In reading of the table movings, the question has often occurred to me, "Of what direct use can they be? Spirit rappists pretend to answer questions, however absurd their statements may seem: tables answer no questions." It occurred to me, and I did not mention it to the others, that if spirit rapping or its alphabetical indications could be tested, now would there be an easy way by the agency at hand—the book to turn or answer at certain letters mentioned as the alphabet was passed over, and to spell the name of which I *thought of only*. I therefore very slowly called over the letters, thinking in my experiments of names (all dead), no one knowing, of course, who I was thinking of, or what indeed was my object, and to my amazement, the book by turning spelt the names in every instance—in one, a deceased friend of mine, whose name had fifteen letters. As I did not proceed with the usual spirit rapping questions, and as the book *might* turn from my will being influenced (although I endeavoured to abstract it), the result is not conclusive, but is very suggestive of further trial. With the exception of the odometer ring, this was my first experiment in "natural magic." Table moving requiring such prelude and patience (with the chance of getting one's toes rapped) to obtain what might be a ridiculous result. In this case, those who ridicule will do so at facts. I enclose my address as a guarantee of the good fath of this communication of book and key revelations.

M. P. R.

Sir,—I yesterday wrote you on "key revelations;" *then* I was only amused at spirit rapping,

now I am an amazed believer, and have arrived at the same result without any *medium* but a key and book.

I asked—How long is it since Mr.——— (a friend of mine) died? and counted the figures. Answer correct, the book turning at the proper figure as I named it, beginning at the figure 1. Question 2. Are these revelations for good? The book turned. 3. Will questions intended for evil purposes be answered? Stationary. 4. Recollecting a letter in the *Leader*, on the spirit rapping, I asked, Will these relevations ever be made audibly? The book turned. 5. In how many years? I counted. Answer: two. 6. Will questions be answered relative to our worldly prosperity? The book turned. (These turnings are prompt and unmistakeable.) 7. Will questions as to success in horse-racing be answered? Stationary. 8. How long is it since————died? The book turned at the right figure.

Various other questions were asked by persons who were amused sceptics yesterday, but who now are convinced. As a firm believer *now* that this means of communication exists, I am happy to have had those answers to the questions, as to good and evil purposes. If there be a clearer intelligence than we possess that we can communicate with, and of whom we can ask the question—"Is my present pursuit beneficial to my spiritual welfare?" and the question can be resolved, how thankful may we be that it is thus opened to us!

M. P. R.

We gather from a pamphlet on the subject of table moving, that, on the 20th of May, a series of experiments was performed at Oxford, in which Mr. Hallam, the historian, and the Dean of Christ Church, took part. A very few minutes elapsed before the table rotated to the satisfaction of all present.

The same authority informs us that "Sir Charles

Style has such extraordinary power over a table when once imbued with his magnetic influence, that at the command of his will it will bend backward and forwards, advance right or left, rear up, or count any given number on the floor, by tapping with one of its legs. The lady of Professor De Morgan has also the same power."

And it mentions in conclusion, "that in addition to other numerous instances that could be given, experiments have been successfully performed by the Bishop of Oxford, the Earl of Carlisle, the ladies of Lord Grosvenor's family, Mr. C. H. Wild, the Engineer of the Great Exhibition, the Hon. and Rev. Mr. Law (brother of Lord Ellenborough), the Rev. George Sanby, the Rev. Chauncey Hare Townsend, M.A., and several well known gentlemen at the Bank of England, Stock Exchange, and Lloyds, together with many highly distinguished in science and literature."

CHAPTER IX.

THE VARIOUS CIRCUMSTANCES WHICH AFFECT THE OPERATORS.

Of the large number of scientific men who have investigated the table moving phenomenon, Dr. Felix Roubaud, a Parisian physician of considerable eminence, appears to have bestowed the greatest attention on the subject. He has not merely performed a considerable variety of experiments, but from a careful examination of their results, he has been enabled to collect together a certain amount of data which must necessarily be of some value to future experimentalists. He treats, in particular, very comprehensively of the various circumstances by which the power of the operators is affected in a greater or less degree; and that the reader may see how minutely he discusses the subject, we propose to let his entire remarks thereon form the materials of the present chapter. He proceeds as follows:—

During a month, or nearly so, entirely engrossed with my labours of investigation, I have fathomed this new and illimitable ocean which has suddenly appeared to modern science. To-day, even doubt has become impossible; be the cause what it may, we are compelled to admit positive and tangible facts, which are constantly produced with a kind of mathematical precision, and even to say to those who would offer to deny them, "You must either see them or be blind!"

After having, by numerous and various experiments, placed beyond doubt the real existence of this

new phenomenon, I have sought to determine the circumstances attending its occurrence and the conditions of every kind which are favourable to its manifestation. I believe I have obtained results hitherto undiscovered; yet I have made no haste to publish them. I desired rather to present myself before the public impressed with a deep conviction, and armed with the authority which various and multiplied observations bestow.

The considerations which relate to operators are undeniably the most essential and the most curious to be noticed. I will divide them into two series: the first, which may be styled physiological, relate to the physical or corporeal qualities of persons—such as constitution, age, sex, health or sickness, and *acquired accessibility;* the second, which I shall call moral, comprehend the tempers, antipathies, the passions of love and hatred, education, etc.

I.—PHYSICAL CIRCUMSTANCES.

The Constitution.—By the word constitution, we mean a state or condition of health in which one particular system of the economy predominates and influences all the rest of the frame.

This predominance of one system does not necessitate the extinction of the remainder; but the functions of the latter languish, and are always under the subjection of the one which excels them in power. It is very evident that the agency, the fluid, the power which I am here examining, by whatever name it may be called, has its origin and seat in the nervous system; consequently, reasoning by theory alone, those persons in whom the nervous system predominates, ought to furnish a more copious and powerful fluid than persons who are endowed with any other kind of constitution. This has in reality been confirmed by observation.

But we must not confound, as the world generally does, those who are endowed with a nervous constitution, with those who are afflicted with nervous complaints. That young girl, whose green sickness is attended with hysterical fits, with continual yawnings, and consuming langour, cannot impute these ailments to her constitution. Nor can that young mother, but yesterday so fresh and blooming, so happy and cheerful, whose life, after a powerful hæmorrhage, has become to-day a perpetual course of fits and faintings, be looked upon as the victim of a nervous constitution. Were it so in this instance, the same would happen in every other, and then we should be forced to admit that aneurism or anæmia, for instance, are signs of a sanguine constitution; which would be a mere absurdity.

If I insist on fully laying down the line of demarcation, which divides the nervous constitution from nervous diseases, it is because it will presently be seen that, if the first favours the discharge and power of the fluid under examination, the latter are far from enjoying this privilege, and belong, if not to the conditions which delay or diminish the phenomenon, at least to the circumstances which have no effect upon it.

A nervous constitution, coinciding with a perfect state of health, is, therefore, more favourable than any other to table moving; next to it, and acting with an almost equal power, comes the melancholy or languid constitution, characterised, as we know, by deep and retentive, rather than disorderly passions; the bilious constitution closely follows after the melancholy; the sanguine comes next; and last of all stands the lymphatic constitution, the least qualified of all to communicate motion to inert bodies.

I consider it impossible to draw up a graduated scale, which would even border on accuracy, among

all these constitutions. The regulation of this scale might possibly be contrived, if the action of the constitution could be exercised without being affected by the innumerable causes which influence the table gyrations; but, as in the present state of things, we cannot exactly compute the extent of these causes, I consider it would be futile to attempt to measure the different actions of the various constitutions, and that it would be to the last degree rash to determine that the sanguine, for instance, possesses an influence of 3, whilst the nervous operator has an influence of 5, etc. The classification which I have drawn up, is the only rational result which ought to be admitted to serious consideration.

Age.—The influence which the age of the operators produces on table moving, will readily be understood, if we consider that the fluid which we communicate to external objects is the production of certain physical organs within us, and that the power of this production must necessarily depend upon the development and the functions of these same organs. The two extremes of life, childhood and old age, do not possess the same power in their functions which characterises a man in the prime of life; in one case the organs are not yet fully developed, in the other they are partly exhausted of their strength. Consequently the child and the old man will exercise over the table moving an influence at once less sensible and less manifest than the man who has reached the summit of the scale of human life. According to my experiments, the most favourable age for the manifestation of the phenomenon, varies from twenty-five to forty years of age. But, I repeat, this conclusion cannot, any more than any other, be taken as absolute in the present state of things, for the favourable or unfavourable influence of age may be counterbalanced and even destroyed by another cause, either physical or moral.

Sex.—The first operators, no doubt taking into consideration the more delicate and nervous organization of woman, have probably concluded, without more direct proofs, that the feminine sex has more power than the masculine to produce table moving.

I think this opinion requires to be modified.

Beyond all doubt, the fluid whose history I am writing, has its origin and seat, as I have said before, in the nervous system: but, and herein assuredly consists the wonder of the phenomenon, it is entirely under the dependence of the will. When I shall make known the numerous experiments which I have tried on articles of every description, and in different situations, it will be seen, for instance, that a hat when set in motion, turns to the right, turns to the left, moves forward, moves backward, stops or goes faster, according to my will; moreover it will be seen, that if two persons, participating in the motion of the hat, express an opposite or contrary will, the hat, a moment undetermined, will at last submit to the strongest will and most resolute character.

Strength of character and tenaciousness of will have, on the table moving, an influence undeniably more determined than that of the nervous constitution; consequently woman, who is equally remarkable for the susceptibility of her organization and the fluctuations of her temper, and especially of her will, must yield the palm to man, whose susceptibility is not so keen, it is true, but whose firmness of mind is one of his finest privileges.

Experience, besides, has fully demonstrated to me what theory at first had enabled me to perceive.

I made my first experiment in the Rue de Londres, amidst circumstances which I strove to render most completely identical. I placed round two mahogany tables, equal in weight and diameter, on one side six young women promiscuously taken from a rather numerous company, and six young men, also taken

at random, on the other. Owing to a peculiar state, which I call *acquired accessibility*, of which I shall shortly speak, I formed no part of either chain myself, for I was anxious justly and honestly to settle the question of the *fluidical* supremacy of the sexes. In twelve minutes the table surrounded by the men began to swing, and it turned about for some time, before the table of the ladies began to stir; it performed its first oscillations about six or seven minutes after the table of the men had first stirred. This experiment, several times repeated in different parts of Paris, and always attended by the same results, authorises me to think that, contrary to the received opinion, the masculine sex discharges the fluid both in greater abundance and more powerfully than the feminine sex.

However, the union of woman's exquisite sensibility and of man's resolute will, constitutes, as the operators have noticed, one of the most favourable circumstances for the rapid manifestation of the phenomenon ; so that when three tables, furnished with chains, are placed side by side, one surrounded by women only, a second by men only, and a third furnished with a mixture of men and women, all three consisting of the same number of individuals, it will always be the latter which will exhibit the first oscillations.

It is difficult to reconcile this fact with the premises I have laid down ; but, as we are still buried in the dark, let us rest satisfied with enjoying the stealthy rays of light which we behold, without attempting to discover the source whence these rays emanate and come down to us.

Health or Sickness.—This paragraph would perhaps be one of the most curious of the chapter, if I were exclusively addressing medical readers. Among women there are physiological or morbid conditions which exercise on the table moving the most

manifest influence, and I state fearlessly that an experienced observer, attentive to all surrounding circumstances, will easily be able to test and prove them. The reasons of this influence are less difficult to prove than is supposed, and this observation, which I have twice ascertained to be true, may perhaps open to physiology a new field for investigation.

I cannot expatiate further on this subject; I have said enough to be understood by medical men, and to dispense with speaking of those nervous conditions which attend chlorosis, hemorrhage, etc. Modest innocence, into whose hands my book may fall, demands respect, and dictates that propriety which I am bound to observe.

Predisposed Influence.—Every individual who has discharged the fluid continues, during a greater or less length of time, admirably disposed to discharge it again; I call this condition *predisposed influence*, because the source of it is neither in the constitution, nor in the age, nor in the sex, nor in any circumstance of the moral being. This predisposition is acquired by practice, and it increases in proportion as the nervous system has been more frequently subjected to the repetition of the phenomenon. I remember that on one occasion, having operated that morning at the office of the *Gazette des Hopitaux*, in the middle of the day at the office of the *Presse Medicale*, and in the evening, at six o'clock, at the office of the *Illustration*, without reckoning a few waltzes casually imparted to a few hats and tables, I found myself that night so powerfully predisposed, that by myself I could move articles which another time would have required the co-operation of several persons. This enlarged capacity only diminishes after rest: neither eating, which composes the nervous system; nor amusement, which dissipates anxiety and dulness nor tobacco which is so powerful a narcotic, have an influence over it.

Besides, it is not man alone who exhibits this peculiar power: the articles which have once been acted upon by this fluid, begin to move in a much shorter time than any other body. This property is even retained for a considerable time; I have discovered it in watches, keys, and hats, after an interval of eight and forty hours.

The predisposed influence is certainly the most favourable condition for producing the phenomenon speedily and powerfully; it surpasses every circumstance, physical and moral, and it is owing to this agency that I have succeeded in moving the most refractory bodies, such as metals, procelain, glass, etc.

II.—MORAL CIRCUMSTANCES.

Character.—After what I have just now said on the powers of the will over the strength and direction of the fluid, it will be easily understood that a firm and resolute character indicates a most favourable condition for the manifestation of the phenomenon. This proposition has now become with me a real axiom. I have hastened the motion of a table by the sole power of my will; and the symptom which, on these occasions, serves me as a guide, is the pricking which one feels on the fore-arms and hands a moment or two before the first oscillations. Thus, after a time of greater or less fruitless expectation, and not feeling in the upper limbs the symptomwhich is the forerunner of the phenomenon, I ordered the fluid to move faster and the table to turn, and immediately, almost on the instant, I felt the well-known pricking, and the oscillation of the table commenced.

I would advise those persons who are as yet strangers to this command, to take their first lessons in experiments on the watch, as I shall describe in another chapter; the experiment is easy, is

speedily realized, and in it they will find a slave obedient to their slightest whim.

Feelings and Emotions.—The faculties of emotion or feeling may and ought to be classed as belonging to two principal types: the attractive and repulsive faculties, which, as they pass through the various degrees of excitement, express the numberless lights and shades of the soul's sensibility. Sympathy, that inexplicable influence which attracts us, we know not why, towards another, becomes alternately friendship, love, passion, delirium, sometimes even madness; in the same manner antipathy, under the effects of similar excitement, turns to repugnance, disdain, contempt, hatred, fury, and insanity.

But these lights and shades, if we set out from the two extremities of the mind, attractive madness and repulsive madness, gradually weaken and decline, and leave us at last in a neutral state, called *indifference*. Indifference is not a feeling—on the contrary, it is the absence of all feeling: with some, it is a peaceful state of mind; with others, it exhibits the absence of all emotion.

These rapid considerations on the faculties of the soul have seemed to me to be necessary to establish and fully determine the influence exercised by the new fluid on these various faculties, whether attractive, repulsive, or negative, that is to say, indifference.

This influence varies according as we examine the faculties acting by themselves, and apart from every other, or as we study them in their social relations, in their contact with other faculties, whether sympathetic or averse.

Separately studied, apart from all foreign influence, we may say, generally speaking, that the feelings or affective faculties constitute a happy disposition for the discharge of the fluid; that after them come the dislikes or repulsive faculties; and that in-

difference stands on the last or lowest round of the ladder. Thus a woman, whose maternal love shall be quickened into torture by the danger of death suspended over the cradle of her child, or a girl whose heart shall beat in expectation of seeing her lover, will communicate motion to inert bodies in a much shorter time and with far greater energy, all other things being equal, than a person full of hatred or devoid of all feeling.

I have chosen, as examples, maternal love and the passion of one sex for another, because my experiments have been tried on a young mother, and a betrothed, who had no reason to disguise the feelings of their hearts. Thus a young girl, whose betrothed was anxiously expected, moved my hat, by herself, in less than three minutes; whilst one of her schoolfellows, on a visit at her house, was unable to produce the phenomenon until she had placed herself in communication with me.

But it is above all in its social relations, that the mind plays an important part in the discharge and strength of the fluid. The first observation that I made on this subject was suggested to me by the following circumstances:—

In one of those homes so often met with in Paris, the source of whose misfortunes is so graphically portrayed by M. Ponsard in his play, *l'Honneur et l'Argent*, the most inveterate dislike had manifested itself, and the husband and wife, held together by the presence of a child, whose future fate they were anxious to provide for, felt not only indifference, but aversion, for each other.

Being placed in communication with each of them separately, I produced, without effort, the result of the experiment; but when I was absent from the chain, the motion did not manifest itself until after long waiting, and even then with very little power, under the joint operation of the alienated pair. When-

ever I interfered and took part in the experiment, the article moved a little faster, it is true, but the motion was awkward and undetermined, as if some physical obstacle had opposed its development.

During the same sitting, and whilst the triple experiment, after several repetitions, continued to yield the same results, a person came in whom the lady cordially loved with all the energy of the deepest gratitude: this was her brother, who had sustained her spirit during the time of her domestic trouble, and who still encouraged her with hopes of better times.

The new comer, having been invited to participate in the experiment, formed a fresh link in the chain, which had previously consisted of the unhappy couple and myself. The scene soon changed; the oscillations, instead of continuing confused and relaxed, became free and distinct, and the motions of the little table were as passively obedient as the most submissive slave.

The young girl of whom I spoke just now, on being placed in communication with her betrothed, always advanced the appearance of the phenomenon by some minutes, so that my hat, the article operated upon, being submitted to the action of this couple, required, after the two first attempts, only one or two seconds to describe its first curve, whilst it took five or six minutes to produce the same motion when one of the two betrothed stood up and made room for some one else.

The same delay in the oscillations of the hat, under the same circumstances, was likewise observable when the chain was composed of two persons indifferent to each other, and in the absence of the two betrothed.

Judging from the few experiments which I have here related, am I entitled to think myself authorised to draw definite conclusions, and to establish abso-

lute rules? I do not think I am: in such a matter, experiments cannot be too numerous or too varied. Whilst encouraging physiologists to direct their investigations to this subject, I cannot too strongly caution them to beware of appearances; the heart of woman is a labyrinth which very few men can penetrate, and wherein truth is often concealed under a mask admirably disguised. The feelings which have an interest in hiding themselves are acquainted with recesses in the soul which the keenest eye cannot discover, and they supply their place with phantoms of other affections, deceitful sprites which play with our credulity.

However, in the present state of things, we may admit as possible the benign influence of the affections or attractive faculties when united in table-moving, and likewise the opposite influence, in the production of the phenomenon, when the antipathies or repulsive faculties are conjoined. In other words, the fluid will be discharged more rapidly and with greater force by a chain consisting of two persons who sympathise with each other, than by a chain composed of individuals who are unacquainted, or among whom are found persons who harbour towards each other feelings of contempt or aversion.

But I say again, whilst finishing this chapter, that in these propositions there is nothing absolute; I note them here as surmises, as mere experimental data, which new experiments, both manifold and various, must either confirm or discard.

CHAPTER X.

PRACTICAL INSTRUCTIONS FROM GERMANY.

We have collected together the numerous codes of instructions to which the table moving phenomenon has given rise, and have classified them under the heads of the different countries to whom the merit belongs of having originated them. First in order, we commence with the directions emanating from the German professors, but we think it necessary to caution the reader that these being the earliest published, are to be the least depended upon, as they were issued before a sufficient number of similar experiments had been made to confirm all the rules laid down.

MEANS TO BE EMPLOYED, AND CONDITIONS NECESSARY TO THE SUCCESS OF EXPERIMENTS.

1st. From observations already made, it would appear that an uneven number of persons, which should seldom be above five, may better produce the movement than an even number. The number, however, may be augmented according to the size of the table.

2nd. In choosing persons of the two sexes, men between the ages of eighteen and twenty, and ladies between sixteen and forty, should be selected. Children appear only in exceptional cases to have operated efficaciously.

3rd. It is advantageous so to place the experimentalists, that persons connected together by relationship or friendship be beside each other. Thus,

husband and wife, and friends of the two sexes, should be next to one another in the magnetic chain.

4th. The table should be wooden, no matter of what wood or what form, for experiments on mahogany, deal, oak, or fir tables, round or oval, have all equally succeeded. It is indifferent whether it be a folding one or not.

Its weight is also a matter of no consequence, though of course a very heavy table would require a greater number of persons, a greater expenditure of fluid, and a longer time, than a lighter one.

5th. The tables which have hitherto produced the best effect are those called drawing-room tables, of moderate size and an oval form, resting on a socket, with three or four feet with rollers, which greatly accelerate the result.

Tables having only one leg are also so much the better, inasmuch as it is easier to avoid touching them.

6th. It is not necessary that the table should stand on a carpet, though experience has shown that a carpet is advantageous.

7th. The temperature of the room should be moderate and dry. Sudden currents of air suspend the action of the fluid.

8th. All these conditions having been observed, the experimentalists should sit or range themselves round the table in the order pointed out in No. 3, taking care that their chairs are sufficiently distant from each other, and that no one touch his neighbour or the table with feet, arms, or clothes. The magnetic chain is then formed in the following manner: the hands of those composing it should rest on the table in a convenient attitude, the fingers apart, so that the little finger of the right hand of one of the party may rest upon the little finger of the left hand of his neighbour. The hands should not touch each other.

9th. In this position, the operators have nothing to do but to wait; the spectators ought not to approach them too nearly, for any contact whatever interrupts the transmission of the fluid. The hand of a looker-on interposing between the chain, even without touching it, would suffice to interrupt the magnetic current.

The more the operators fix and concentrate their will and their mind on the experiment, the more prompt and favourable it is likely to be.

10th. The first effect produced is a sensation of heat, which seems to course like a current through the hands, the arms, and the chest. This symptom is followed by a tingling in the arms and fingers, like that which we experience on the glass stool of an electric machine. When sparks are drawn out, the tingling gradually augments, is often interrupted, but returns again if the experiment be one of long duration.

After a time, the hand placed on the table experiences a particular sensation, as if the surface of the table were about to rise, with a wavy motion; soon after it does begin, at first feebly, but more and more visibly, to oscillate, and turn from the left to the right; one may at this moment distinctly feel the electric fluid running from the fingers and penetrating the table. The chain, at this crisis, being well closed, by diminishing every interruption of the current, the rotation of the table will be seen gradually to augment; it will heave itself up; and finally, with constantly increasing rapidity, will move from the south or from the north, according as one or the other direction has been determined on by common consent.

11th. When the table begins to move, the chairs in which the operators have sat must be withdrawn. Then the table must be followed standing up, care being taken to maintain the chain of hands, placing them, however, very lightly on the table. If the

chain be by any accident broken, either by fingers slipping out of contact, or by the clothes of the party touching each other on the table, the magic movement ceases immediately. To re-establish it, it is only necessary to re-form the chain.

12th. The time necessary for the development of the electric fluid varies, according to the greater or less degree of nervous susceptibility and activity of the operators. Twenty minutes have been found usually, and sixty minutes rarely, requisite to produce the astonishing phenomenon. The effects wrought on the experimentalists themselves are also very variable. Some of them experience great lassitude and sleepiness; we ourselves saw a lady fall asleep during an experiment. Others experience a general uneasiness, and so great an over-excitement of the nerves, that they have been often obliged to break the chain. Others feel nothing at all. In general, all the effects cease as soon as the experiment is over; nevertheless, with some feebly constituted, they remain many hours longer.

Professor Ennemoser, in writing to the *Augsburg Gazette*, gives the following directions:—With reference to the construction of the chain, it is important, not only as regards the *table moving*, but likewise the various other effects. Mesmer, on this point, has given us the notions of the matter, a fact but little known; none but empirics take interest in the exploits of that enchanter. Thus, he caused a chain to be constructed by sick and healthy persons, and succeeded by mutual magnetic influence to produce critical motions, which sooner or later does happen. The construction of such a chain by healthy people (it would be improper to compose it of sick persons) produces different and often very curious results. The agreeable symptoms very often disappear; and according to the difference of constitution, the experiment grows serious and creates uneasiness. When composing the chain on the table,

the contact of the hands may be good to obtain a more speedy result, but is not absolutely necessary; at all events it is urgent to isolate the feet.

As for people's dress, much attention need not be paid to it, for its materials are often *isolators*, as silk, for instance. The more staid and silent the attitude of operators, the more rapidly will the impression be felt; it is always more ready to act upon nervous persons than on the table, which has neither nerves nor muscles, and yet moves and stops the moment the chain is broken. How is this effect produced? Persons seated round the table communicate to it the vital powers of their blood, the particles of which are the chief conductors of electricity; the electricity collects and re-acts on the operators, so that the table, like the Mesmeric tub, diffuses a common fluid, and all experience sooner or later appropriate sensations.

When the table is saturated, it will attempt to discharge the fluid, and first it will do so by a kind of shaking, by a slow move from right to left, until it begins to march and turn about, which affords the best proof of electrical phenomena. Thus the effectual cause of this wonderful phenomenon, is nothing more than magnetic electricity and a thermo-magnetic chain, a thermo-magnetic multiplier; as, likewise, the rotary motions northwards or southwards are the effects of the well-known laws of the rotary currents, as laid down by Oerstedt and Faraday.

In a long article of the *Weserzeitung* of Bremen, we also read:—

It appears that the shape of the table is of no consequence in these experiments, provided it be made of wood. The horizontal shape appears to be the rule, and the first step in a line more or less direct seems to be the precursor of the rotation. We did not find that the motion was chiefly operated northwards, or still less in a line with the

magnetic axis of the earth, and we believe that this opinion is but an hypothesis conceived by those for whom the magnetic fluid of the chain impelling the wooden table is not enough, and who want therefore to refer this phenomenon to terrestrial attraction. As regards the vital elements of the experiments, people of every age, with the exception perhaps of old men and children, have tried the effects, with and without results.

CHAPTER XI.

PRACTICAL INSTRUCTIONS FROM FRANCE—MODE OF OPERATION WITH DIFFERENT OBJECTS.

In the pamphlet before referred to by Dr. Felix Roubaud, is contained a series of instructions for performing a variety of experiments with different objects, which we here propose to quote. The simplest experiments are described first in order.

I.—THE PENDULUM.

The readiest, the easiest, and simplest experiment to perform, is that produced by a watch; it requires but one operator, a metal chain, or a piece of twine or a thread, no matter which, and a watch of any kind of metal, or even a plain gold ring.

The chain, the twine, or the thread, with the watch hanging from the end of it, is held up by the operator's fingers, so as, in that perpendicular position, to resemble the pendulum of a clock. The watch, left to itself and in perfect stillness, begins to stir after one, two, or three minutes at most, and performs the motions required by your will: rotary motions from right to left, or from left to right; oscillating motions in the sense of circumference or in that of level surface; then it stands still, slackens or quickens its course; in a word, it always acts according to the orders you give it.

The experiment may be tried with two persons: one of them holds the watch, as above directed, and the other puts himself in communication with him

by the mere contact of the hands. The person who has hold of the watch may not be aware of the orders transmitted; the watch will scrupulously obey the will of the other party. I use the word *will* because it is not requisite that the command should be given aloud. In this manner, the first person seems to perform the office of holder only, and has no knowledge of the direction the watch is to take. It is by this distinction of the parts, it is by this separation of the holder of the watch and the director whose will silently propels it, that we become convinced that we are not the sport either of other men's deceit or of our own illusions.

Besides, the experiment may be tried with a larger number of persons; I have realized it with five, fifteen, and thirty-two persons united by hand: the place of the watch-holder and of the director by will may be varied *ad infinitum*. In the experiment including fifteen operators, each in turn, without changing his place, became holder and director. The orders given to the watch, being known only to the director himself, are soon guessed by the whole chain: first, by a very observable relaxation in the motion performed by the watch, then by a stoppage, varying from the fifteenth of a second to one or two seconds, and finally by the new direction taken by the watch with a rapidity perpetually on the increase, according to the orders of the directing will.

The operators may be seated, may stand, may lie down, or be placed in any position; the only condition of success is that they must hold by the hand, and it is not necessary that the two ends of this chain should communicate with each other so as to form a perfect circle.

An amusing toy may be constructed for children by attaching a puppet, in lieu of the watch, to the end of the thread; this will commence oscillating after a short interval, and ultimately it will perform

every variety of movement that the will directs. If several children join hands together, and one of them holds the thread and another directs the various movements, either mentally or by word of mouth, the puppet will follow its commands in every instance.

The same experiment succeeds with every article thus suspended: I have tried it with a ring, a book, a glass topette filled with blue ink, a heap of trinkets, etc. Only, it is required that the weight of the article suspended be sufficient to pull down the chain or the thread, so that the fluid, collected in the article, shall not have to overcome the resistance offered by the weight of the chain, or the twisting of the thread.

Before I begin the experiment, I am accustomed to hold the article for some seconds in my hand, as if to communicate my own caloric to it; and I have found that this simple measure hastened the appearance of the phenomena surprisingly.

This experiment, I say again, is the simplest and easiest of all; and I declare that, after repeating it an infinite number of times, under different circumstances and by persons placed in the most dissimilar physical and moral situations, it has *never* failed.

II.—THE HAT.

Next to the experiment of the pendulum, I think that new operators should practise on a hat, because this article, thanks to its lightness, offers very little resistance, whilst it presents a surface wide enough for four or six hands to rest upon at once.

The support on which the hat rests should be of wood,—no matter, though, of what kind; either a dining-table or a work-table will answer perfectly well. It should be, however, without table-cover, on account of the inequalities produced by the crossing of the worsted or silk threads, which offers physical obstructions to the phenomenon.

On the top of the table, the smoother and more polished the better, let the hat be placed in any position you please; however, in order that the operators may follow without trouble the different motions that are imparted, it is best to place the hat in an upright posture, resting on its crown.

Two persons are usually sufficient to produce the phenomenon.

Placed opposite to each other, they encompass the edges of the hat with their two hands, communicating with each other by their little fingers only. This communication is obtained by alternating the position of the little fingers, that is to say, by placing them in such a manner that one rests upon and covers the other. There should be no pressure on the hat; mere contact is all that is wanting. Moreover, the wills of the operators must not jar; they must either propitiate the same motion or be silent. This condition has always seemed to me to accelerate the discharge of the fluid; but as it is not absolutely necessary, the operators may laugh and chat, but without at all changing the position of their hands.

Things being thus disposed, nothing else is required but patience. After a longer or shorter period, varying from a few minutes to three quarters of an hour, and even an hour, a strange sensation of heat and pricking is felt in the elbow-joints, in the wrists and fingers, and along the clustering nerves of the fore-arms and hands.

This sensation is always a favourable omen, and after a time of long suspense, serves to revive the hopes of the operators.

Some have asserted that this sensation was more acute on one side than on the other. This is true; but it is not true to say that it is always more keenly felt in the right than in the left arm, for I have observed the preponderance of heat and pricking as

frequently in the left as in the right arm; though, in the same person, it usually declares itself on the same side: thus, in my own case, during the innumerable experiments I have tried, I have constantly experienced the sensation on the left, and very frequently with me the right side has not been affected at all.

Almost immediately after the pricking has been felt once or twice, a few oscillations are produced; imperceptible at first, they soon become sufficiently distinguishable to rouse the attention of the operators. This increased application of the mind would instantly create the phenomenon, if the hands of the operators, by an involuntary contraction, did not press more strongly on the hat, thereby offering a resistance to its motion, which it cannot subdue. This spasmodic convulsion of the finger does not affect persons who are previously warned, and beginners must fix their thoughts upon it, and always bear in mind that the slightest contact is all that is necessary.

The hands, the arms, and the body of operators must be utterly free and relaxed, to enable them to be carried along by the motion of the hat, like a piece of cork by the current of a river. Soon the arm which was hanging beside the trunk of the body—soon the body itself, is compelled to obey the attraction which allures it, unless it opposes the impelling power by some resistance.

When no directing will gives law to the hat, the motion produced is always rotary; the rotation proceeds from right to left,—that is to say, from north to south, with different degrees of speed, according to the physical or peculiar circumstances acting on the fluid. However, when the motion is too slow, its speed may always be increased by the sole power of the will.

The will can likewise alter the direction of the

rotary motion, and make the hat move from left to right,—that is to say, from south to north; it can also change its nature, and urge the hat on, without wheeling round, either forwards, backwards, to the right side or to the left.

When the hat has reached the edge of the table, and a part of it passes beyond the brink, it stops and disobeys the will which continues to urge its progress; if the will insists, it exhibits a kind of shuffling movement, as though, endowed with reason, it wrestled with the object which sought to precipitate it to the ground.

If, after this struggle, it is ordered to retrace its steps, the retrograde motion is effected with unusual celerity, like that of a man hurrying away from danger.

The rotation and the movement on every side, are the only motions which I have been able to make the hat perform. In spite of the strongest will, I have not hitherto succeeded in making it rise up or bend forward. Owing to this impossibility, and to the disobedience of the hat overhanging the table, I think the communication between the article to be moved and the earth, is an indispensable condition for the manifestation of the phenomenon: which would lead one to suppose that terrestrial magnetism plays a great part in these strange and wonderful facts, especially if we observe that the motion of articles, when not directed by any will, is always rotary, and corresponds with the revolution of the earth.

III.—THE TABLE.

The experiment tried upon a table is identical, but only on a larger scale, with that which is tried upon a hat, and which I have just described.

If the conditions favourable to success, which are detailed in the preceding chapter, are borne in mind,

the operators will select a wooden table, without a marble top, furnished with well-oiled castors, or turning readily on its supporters, and the weight of which, corresponding with its superficies, agrees with the number of persons about to take part in the experiment.

The floor beneath the table must be perfectly smooth, and if uncarpeted, all the better; the inequalities of the carpet and the crossing of the web offer obstructions which, to some extent, prevent the table from either turning or walking.

In order to shorten and divert the tedium of suspense, the operators should be of an equal number of different sexes. Their situation round the table should be alternated, so that two of the same sex shall not be placed together side by side.

Thus placed, whether sitting or standing, the operators must extend their arms and the palms of both their hands on the table, putting their hands in contact with those of their neighbour by means of their little fingers; but in such a manner that each party has the finger of one hand *above*, and that of the other *below*.

As with the experiment of the hat, and as with all those in which several persons are engaged, adverse minds should not take part in the action. It will be well, in first experiments, to impart no direction to the table, and to give no orders to it, until the wheeling motion shall be manifested.

The time required for the commencement of the rotation is essentially variable. I have seen it produced in a few minutes, whilst at other times it has taken three quarters of an hour, and even an hour.

I have said above that the placing of the hands on the table ought to be done with the palm towards it—this condition is not absolutely necessary. Undoubtedly it constitutes the best position to succeed quickly, and is certainly the plan I recommend to

beginners; but I have obtained results with my hands turned back, and with the sharp edges of the muscles of the thumb and little finger.

The point of communication between the adjoining operators may likewise vary; the auricular may be superseded by all the other fingers, and even by the entire hand, taking care, however, that each party has one side *above*, and the other *below;* this condition seems to me as necessary to the transmission of the fluid, as in the voltaic battery the alternate presence of zinc and copper plates is indispensable.

The operators must have no communication with each other, save by the parts which likewise are in contact with the table. The phenomenon is never produced if other contacts take place between them, or with persons not included in the chain.

It is not so with the table, in spite of what has been said. During its rotary motion, I have many times touched its edge with my chest, or its legs with my feet, without stopping it, or diminishing its obedience to my will.

Like all objects subjected to this marvellous fluid, the table changes its direction and the nature of its movement at the pleasure of the person commanding it. However, you will not always succeed in making it go forward or backward, to the left or to the right, on account of the resistance opposed by stiff castors or inequalities of the carpet or floor.

Excepting these physical impediments, which may easily be avoided, I know nothing whatever which can hinder or delay the manifestation of the phenomenon.

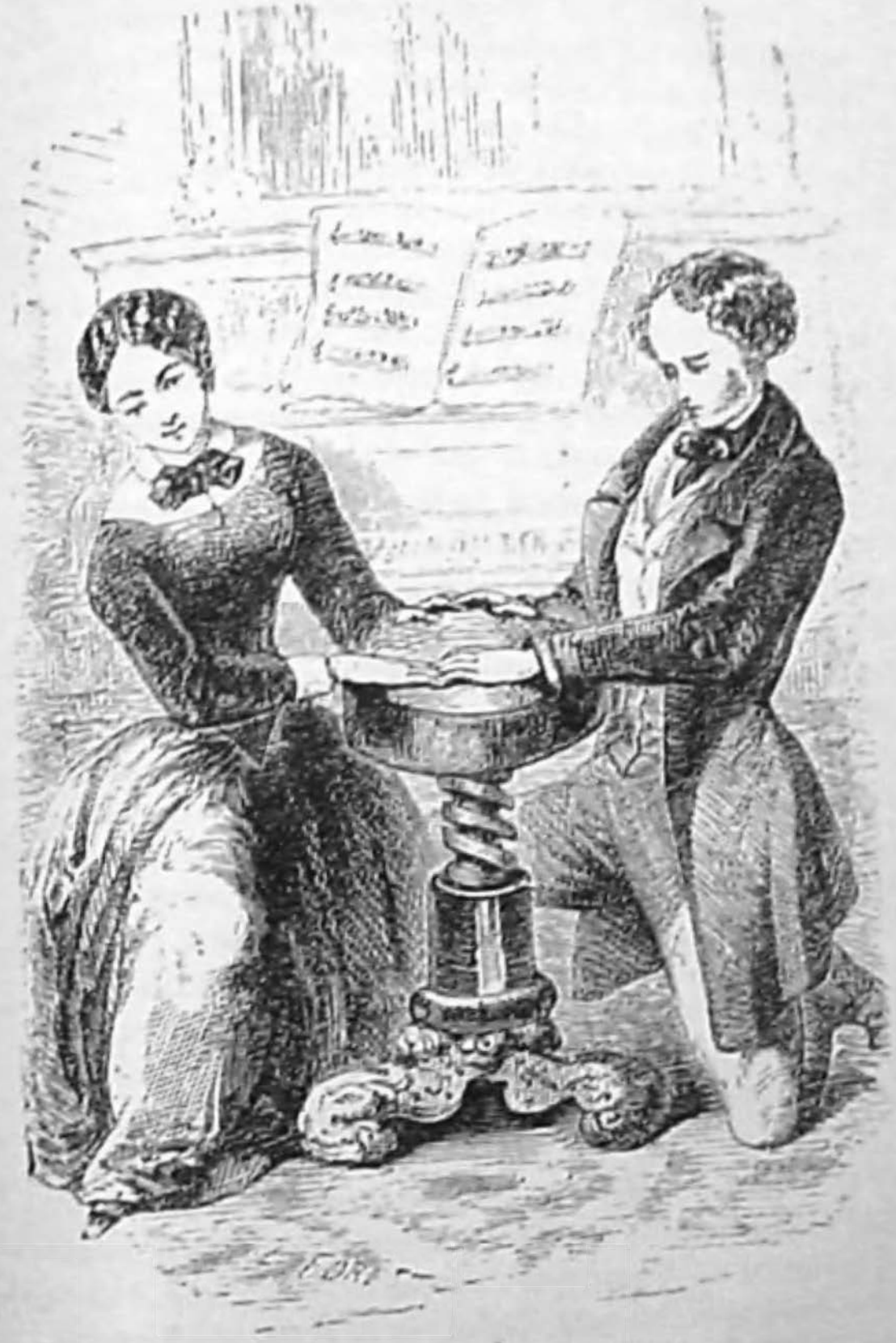
IV.—THE MUSIC STOOL.

Among the most amusing of the experiments which I have tried, was one practised on a music stool. This stool, as every one knows, is furnished with a screw, by means of which the seat can be

raised or let down according as it is turned from right to left or from left to right.

Two, or at most three persons, are enough for the experiment. They have to affix their hands, as upon a common table; and when the motion is produced, the seat will either go up or down, by the mere order for it to change its mode of rotation. Care must be taken to give the order before the seat has reached the end of the screw; if this be omitted at the lower end, the whole apparatus, including both seat and pivot, will be set in motion; and if the neglect occurs at the upper end, the seat, by disengaging itself from the screw, may spring off and hurt one of the operators.

To obviate these mistakes, and to prevent delay in the up and down movements, all that is required is, before commencing operations, to count the spiral lines of the screw and the circular moves which the stool can describe in a given time and with the requisite speed. Your orders should be regulated by all these data; and, when nothing interrupts the experiment, you can stand astonished before this magical movement, which may be prolonged until your strength, but not the fluid, is exhausted, for that only ceases to flow with life.



THE MUSIC STOOL.

CHAPTER XII.

DANGERS INCURRED BY OPERATORS.

It is very certain that these table turning experiments cannot be indulged in by persons of every kind of temperament with impunity. The German doctors have advised nervous people not to meddle at all with them, and it is certain that ladies have often fainted away long before the tables they have been operating on have been set in motion. It is possible that these accidents may arise from over-excitement, which the expectation of success or fear of failure may occasion —an excitement very similar to that which the gambler experiences at a gaming-table. It is reported of a very robust man, that having in vain tried for an hour to put a table in motion, he was seized with so violent a trembling that he could scarcely carry a bit of bread he held in his hand to his mouth. His oscillations were so strong that he bit his fingers every time the bread approached his lips. He declared himself, that on this occasion it was absolutely impossible to prevent the chattering of his teeth.

A Leipsic physician, in a work on the subject, also warns his readers against the dangers that may result from experiments imprudently made. In his opinion certain maladies may be communicated through the medium of the fluid that emanates from the operators. Among the maladies thus transmissible, he cites gouty affections. On the other hand, it has been remarked that these experiments have

often produced oppressions, palpitations of the heart, vertiges, swoonings, catalepsies, congestions, vomitings, and other accidents.

From the following account of an experiment, which took place at Vienna, it will be seen that two of the operators were seized with cataleptic fits of a serious character.

At five o'clock in the afternoon, two gentlemen and three ladies sat round an oval mahogany table. This table was supported by a leg having three feet, two of which alone had rollers, the other roller having come off. The five persons placed their hands on the table and formed a chain. At the expiration of half an hour, two of the ladies complained of a strong current in their arms and shoulders, and also of a heat in their heads; and shortly after the accumulation of the fluid was so great, that the right arm of one of the ladies began to tremble violently, so that she feared she should not be able to continue the experiment; nevertheless, she conquered her pain, and forty minutes elapsed. At last a movement was felt in the table, which began to turn round, advancing towards the north with a rapidity so great that the operators, who had sprung suddenly out of their seats, could scarcely follow it. At the same instant, to the great terror of all, one of the ladies fell to the ground seized with a cataleptic fit, accompanied by tears. A second lady soon followed her, and both of them remained stretched on the ground for ten or fifteen minutes. A doctor was speedily sent for, but by the time he had arrived the fits were over, and the ladies had recovered their senses. One of them, however, complained of a great heaviness, and her feet continued to tremble. This last symptom of the shock she had received disappeared in twenty minutes, and, resuming their former gaiety, both ladies begged to continue the experiment—a request which was, of course, refused them. At this moment, three

ladies and a gentleman, who had just come, took their seats at the table with the three persons who had remained, and, placing their hands upon it, the experiment was renewed, when, after the lapse of twenty-four minutes, the table recommenced its course in the same direction; but this time there were neither fits nor faintings.

More serious accidents than the above have, however, occurred. We learn from the German papers that at Halle, where the dance of tables had become a real mania, a young girl nine years of age excited general attention. The motive power emanating from this child was such, that families used to invite her to their houses to admire the marvels she produced. By simply placing her hand upon a table in motion, she could make it follow her in any direction, wherever she pleased to go. At length, however, the excitement produced by these experiments affected her so much that, for a time, she was a perfect maniac.

Only one well authenticated case of a fatal result having followed a participation in these experiments, has been made public. It was announced in the *Munich Gazette*, on the authority of the mayor of Roth, in these terms:—A master tanner, named Benaris, being on his way through Roth, has just been struck with a fit of apoplexy, under the following circumstances. This man, suffering from gout, had taken part in two fruitless experiments, and when about to witness another in which he had not interfered, that had just succeeded, he fell suddenly down, and expired in a quarter of an hour.

Dr. Roubaud appears to consider that dangerous results are not to be apprehended from these experiments, though he mentions that "frequently after the rotary motion, the operators have felt dizziness and twistings of the head, such as a new waltzer experiences. Almost always, too, a certain fatigue, a kind of inconvenience, is felt, which is different from

anything we know of; and this is manifest in the elbow-joints and in the fore-arms, especially on the side where the heat and the prickings were most sensible. Sometimes—but this is a rarer accident, and is only produced after many repeated tests at short intervals—I have observed headaches closely resembling *megrim*. To obviate this, the best remedy I know of is to administer two or three drops of *ether*."

At an experiment which took place at Paris, in the hotel of the Countess of Lewenstein, it seems that two of the parties engaged in it were seized with violent palpitations of the heart, and one with a nervous trembling, which lasted for several hours. No serious result, however, transpired from these attacks.

CHAPTER XIII.

THE PHENOMENON EXPLAINED AS ARISING FROM INVOLUNTARY MUSCULAR ACTION.

A CLEVER pamphlet has recently made its appearance in Paris, the writers of which, MM. Assezat and Debuire, attempt to account for the new phenomenon by the theory of involuntary muscular action, which was originated several years since by M. Chevreul. We propose to place the views of the writers of this *brochure* before our readers in a complete form, that they may judge for themselves as to how far the explanation they volunteer is deserving of serious attention. The arguments they bring forward are in the following strain:—

Owing to the tendency of human nature towards the marvellous, mankind is too frequently disposed to find in nature unknown forces obedient to conjurations, wrought either by mysterious words or magic signs, or merely by natural means. The facts resulting from these conjurations were, during the early ages, known under the name of miracles, were afterwards called witchcraft, and in the age of scepticism are regarded simply as phenomena. It is a phenomenon, then, that we have to study with patience and caution, and, in order to convince ourselves of its truth, to subject it to all the tests of science.

In this present age, however, we have discovered an agent which, though very frequently called into action, is still almost unknown, and thereby opens a wide entrance to the marvellous. All that deviates from what seems to us the established course of nature, is thus classed under the name of magnetic

results, in which category facts are often ranked which have no title whatever to the honour, and would be greatly astonished if they could see the father we would arbitrarily impose upon them.

Magnetism and electricity are both great discoveries, but they are also two words often very void of sense, and are too liable to be misapplied—not to excite much suspicion of their abuse, whenever they are vaguely employed.

Before entering into an analysis of the phenomenon, let us briefly examine all the facts which have hitherto sprung out of it.

In 1833, M. Chevreul being called upon to give an account of an experiment, in which a pendulum of a heavy body and a flexible wire oscillated differently, according to the substances above which it was suspended, though the arm remained immoveable, after giving way for a few minutes to astonishment at the results obtained, proved that these varying movements had a psychological cause, which may be detected at present in the dance of tables.

This pendulum comes again upon the scene after the lapse of twenty years of oblivion; and oscillates as well to-day as it did in 1833, because, if men have forgotten the letter of M. Chevreul, they must needs, by the aid of faith, operate with the same confidence and the same blindness now as then.

A key attached to a book and supported by the lower part of the ring on the forefingers of two operators, convinced that they are perfectly motionless, will turn nevertheless in the direction that may be pointed out to it.

A leaden ball suspended by a thread, and placed in the orifice of a glass, should, according to some persons, leave the marks of the number of blows mentioned to it; nay more, it should mark the hour and the very number of minutes which the dial of a watch may happen to indicate.

Form an angle with the little finger of your left hand, and the other fingers apart, suspend a watch by a cord above this angle, and it will oscillate; close the angle, and it will be motionless.

A ring suspended by a thread to your forehead will make all the evolutions you may command it, although your head remain always steady, and you are not sensible of the slightest movement.

Here, we think, are a sufficient number of facts which we may classify, it seems to us, without being accused of unfairness, with that of the dance of tables, of hats, of plates, of salad bowls, etc. etc. But before attacking the hydra, we must destroy all its parents.

In the letter of M. Chevreul, on the subject of the clock, originally published in the *Revue des Deux Mondes*, are the following passages:—

"I interpret the phenomena I have described in the following manner:—

"When I held the pendulum in my hand, a muscular movement of my arm, although not felt by me, broke its repose, and the oscillations, once begun, were soon augmented by the influence that the sight exercised to put me in a particular state of disposition or tendency to the movement. Now it must be observed that the muscular movement, even when increased by this disposition, is weak enough to stop, I say not under the empire of the will, but when there is simply a thought of trying whether such a thing will stop it.

"There is, then, an intimate connexion between the execution of certain movements, and the act of the thought relative to it, although this thought be not yet the will which commands the muscular organs. It is this consideration, in my opinion, that makes the phenomena I have described interesting to psychology, and even to the history of the sciences; for it proves how easy it is to take illusions for realities, whenever we are engaged in the

examination of phenomena in which our organs take some part, and that in circumstances which have not been sufficiently analysed.

"Indeed, had I contented myself with merely putting the pendulum in a state of oscillation above certain bodies, and to experiments as to where these oscillations were stopped when glass or resin was interposed between the pendulum and the bodies which seemed to determine the movement, then certainly I should have had no reason not to believe in the divining rod and other fictions of the same kind. It may be very well understood, then, how honest, and in other respects enlightened men, are sometimes induced to recur to ideas altogether chimerical to explain phenomena which belong exclusively to the physical world, which is within the sphere of human knowledge."

This interpretation was given by M. Chevreul, not only after having made the experiment in the manner indicated, but after having operated with his eyes bandaged, when the persons who assisted him made the substitutions of the bodies above which the pendulum was to oscillate, *whilst he could take no part in what they were doing*—that is to say, *when his will, being no longer forced, could no longer impress an imperceptible though certain muscular movement on his hand.*

In order to generalise his observations, the following remarks are added:—

"A tendency to movement in a particular direction, resulting from the attention given to a certain object, seems to me the first cause of many phenomena which are ranked generally under the head of imitations. Thus, when our sight or hearing fixes our attention on a person in the act of yawning, the ordinary consequence is that we yawn ourselves. A like observation may be made with respect to laughter; and this example presents a circumstance which, more than any other analogy,

appears to me strongly to corroborate the explanation I have given of the phenomena.

"For laughter, feeble at first, may, if prolonged, —pardon me the expression—accelerate itself (as we have seen the oscillations of a pendulum held in the hand enlarge its vibration under the influence of the sight), and, by dint of acceleration, may even become convulsion.

"I doubt not that the spectacle of certain actions are apt strongly to affect our frail machine; that the recital, animated by the voice or gesture, of these actions, or even the knowledge of them acquired simply by reading, will work upon many individuals to perform the like acts by virtue of a tendency to movement, which determines them mechanically to acts of which they would never have thought but for a circumstance independent of their will, and to which it would never have been led but by that which in animals is called instinct. . . . . "

"In concluding here an exposition of facts which appear to me to be in strict connexion with my observations, I must add a remark which, though implicitly included in what I have above said, may escape some readers; and that is, that the tendency to movement to which I refer, the first cause of a great number of our actions, exists only when we are in a certain state, which is precisely that which magnetism calls *faith*.

"My experience has brought me many proofs of the existence of this state. Indeed, as long as I believed the movement of the pendulum I held in my hand *possible*, it took place; but after having discovered the cause of it, I could no longer produce it. It is because we are not always in the same state that we receive not always the same impression from the same thing.

"Thus the yawning of another does not always make us yawn; laughter is not always communicated from the laugher to his neighbour, etc. The

great orator wishing to make his audience participate in the passion that animates him, does not attempt his object at once; he begins by disposing them to his purpose, and it is not till he has reached this point that he brings forth his great argument, his effective appeal. The great poet and the great author constantly employ the same artifice: preparing their readers first to receive a final impression.

"Nothing is more curious in the study of the causes which determine the actions of men, than the knowledge of the means resorted to by the trader to first gain, and then fix, the attention of the buyer on the qualities of the articles he wishes him to purchase; than the means employed by a juggler, to have such a card drawn from a pack rather than another, or to fix the attention of the spectator on a certain thing, to divert it from another, without which diversion he could not produce the surprise which is the final object of his art. It results from these considerations that professions, the most diverse, have recourse to means altogether analogous, although extremely varied, to arrive at the same end: that of first seizing the attention of men, in order, afterwards, to produce on them a certain effect."

We will only add one word to this clear refutation of the phenomenon of the pendulum: it is, that operating ourselves with a key suspended now over a piece of gold, and now over a piece of silver, the movement, which ought to have been circular in the first case, and oscillating in the second, was indifferently the one or the other, when we inverted the order in which we placed the pieces, which proved that the passing from one movement to the other was to be attributed not only to a muscular movement, but that this alternate circulation and oscillation is the motion which every pendulum suspended to anything flexible will always take when it commences moving under any impulse whatever.

All that we have cited from the letter of M. Chevreul is applicable to the explanation of the other facts we have mentioned: the key, the leaden ball striking the hours—striking them only, however, when the operator knows them beforehand, but never otherwise; the ring, the water, and, as we are about to show, the rotation of hats and tables.

Let us see what are the preparatives prescribed by the first table turners who imported this idea into our country.

Take a *round* table *set on rollers*.

Place around this table several persons of *different ages and sexes*.

Form a *regular* chain by the superposition of little fingers, so that if the little finger of your right hand be placed upon the little finger of the left hand of your neighbour, your neighbour's may be in the same position relatively to that of the operator who immediately follows him.

Take care, *not to communicate with the table otherwise than by the hands*.

If you wish to change the direction of the table, invert the order of the little fingers.

These are the rules prescribed as conditions of success in the experiment.

Never mind, pay no attention to these rules. *Communicate* with the table, form an *irregular* chain, take a *square* table, pay no attention to *age or sex*, change as you like the *position* of the fingers, care not whether they touch each other or not, and the experiment will succeed nevertheless. All that is necessary is, that the table should be light, and that the position of the operators should be so fixed as to be extremely fatiguing.

Here is all the mystery.

Be on your guard against cold-blooded people, capable of bearing fatigue; with them the movement may be long in coming, or may not come at all.

Take children, women, and nervous people, easily fatigued, and the experiment will proceed promptly, and the more promptly the more nervous they are, and the more disposed consequently to muscular movements, of which they have hardly a consciousness.

Our objections, however, do not stop here. There are too many befooled—that is to say, convinced—not to make it incumbent upon us to try every means to undeceive them. We will, therefore, add a few words to these summary observations.

Instead of operating on resisting objects capable of following a given impulse, take bodies on which the slightest mechanic pressure cannot be made without leaving traces; instead, for example, of operating on the brim of a hat, operate on a raised head-dress, or on the pins stuck between this head-gear and its borders; the movement will be produced, but if you examine the dress and the pins, there will be no doubt in your mind about a traction, of which you were unconscious during the operation, but of which the evident marks will convince you of your error.

In brief, if you wish to convince yourself of the existence of an electric current in the hat, there is a very simple mode of so doing.

It is well known to all, that a body electrified, either by friction or by other means, acquires the property of drawing light bodies towards it, such as thread balls, feathers, and fragments of paper. Try these, if your hat, your table, or your salad-bowl, be just as unable or not to prove their electrization, after the imposition of hands, as before.

There is, then, we conclude, no kind of electric current produced, but there is such a degree of fatigue experienced as agitates the nerves, makes the muscles of the extremities of the fingers vibrate, makes the blood beat in the arteries, and may pro-

duce the first movement of the hat, which occasions immediately such joy in the experimentalists, that, persuaded as they are of their magnetic influence, they follow instantly the impulse given without caring for the position of their hands, and even give such an impetus to this impulse as to be unable to follow it.

Instead, then, of following the most imperceptible movements of the object on which you operate, pay a little attention to your hands, and observe what a trembling the position you have placed yourselves in brings upon you.

If there be not, then, as we believe we have sufficiently demonstrated, the slightest trace of any magnetic action, but very evident traces of mechanic pressure, where are you to seek the explanation of your delusion?

M. Chevreul, in his remarks upon the psychological state, has described *the tendency to movement resulting from prolonged attention given to any certain object.*

Stand upon the banks of a stream, fix your eyes perseveringly on the current, and you will soon feel yourself seized with vertigo; prolong this attention, and it will not be long before you follow the current by throwing yourself into the river. The people, in some countries, ascribe to water the *power of attraction.* The Germans and populations of the North give to every river *Undines*, water-nymphs, who embace, they tell us, the knights they seduce, and the children they deceive, in their arms, and submerge them under the waves. But would you maintain that water has a magnetic power?

Ascend a high tower, and let your eye plunge down into the vague depth of air, and you will feel an irresistible desire to precipitate yourself below. But has the earth attraction—has it the least magnetic influence?

No; there is only one thing proved by the experiments we allude to: the weakness of the organs of man—an impotency of will to check the nervous movements of the body—a trouble, a somnolency, in which the consciousness of action stops, and which may explain many cases of suicide. This is all. Add not to it, we pray you, the slightest idea of magnetism. We would rather believe in *Undines* and fairies than in that word, void of sense, which you put at the end of every page, and at the end of every phrase.

Recollect, also, a maxim which will enable you to explain all these supernatural facts. It is, that doubt only leads to truth; faith leads oftenest to superstition, for it can hardly fail to degenerate into credulity.

Montaigne said, "I know not;" Descartes, "I doubt." Do as these two men, who certainly had some merit, did. Before you believe, examine, analyse; see if the assertions advanced, then, be not many liabilities to involuntary fraud; distrust good faith and sincerity; deaden yourself to the experiments you are called upon to make; leave but a very little corner in your mind for absolute belief to move in; and you may then, after all these defences are overthrown, be established in the certainty of your conclusions.

CHAPTER XIV.

THE PRINCIPLE OF INVOLUNTARY MUSCULAR ACTION ADOPTED BY THE "LEADER" AND THE "MEDICAL TIMES."

In discussing the cause of table moving, the *Leader* newspaper, in a recent article, so strongly inclined towards the theory enunciated in the preceding chapter, that we propose to reproduce the arguments made use of as a fitting addenda to those advanced by the French writers on the same subject, on the principle that as out of a multitude of counsellers proceedeth wisdom, so out of a multitude of inquirers may proceed the truth :—

The *fact* that if three or more persons stand round a small table, with their hands resting on it, each little finger touching that of the hand belonging to a neighbour, after a lapse of about ten or fifteen minutes the table will commence a slow circular movement, which becomes rapidly accelerated, and forces the persons to follow it—this fact, we say, is indisputable.

But what does this fact imply? What is the explanation of the seeming marvel? Have we here the revelation of a new agency, or is the fact referable to well-known agencies? The question is not without its importance; not only from the interest now following the subject, and the eminence of the names which countenance the absurd theories thrown off in explanation, but also from the light which it may shed on many very delicate questions of organic action and of popular credulity. It is high time that those who pretend to lead opinion through the

press, should rigorously examine the matter, when a journal like the *Literary Gazette*, which has high scientific pretensions, can print, without disavowal, an article by one of its contributors, wherein the following passage occurs. Alluding to the men who have borne public testimony to the fact, the writer remarks :—

"These gentlemen are not gullible fools, easily imposed on ; and it is not to be supposed for one moment that they would deliberately tell falsehoods for the sake of imposing on the public. *We have, then, the established fact that the electricity from the human body can, so to speak, animate inanimate substances, and give life, and it may almost be said intelligence, to inert wood.* This is evidently one of those 'things not dreamt of in our philosophy,' of which the poet spoke. The speculations to which it has given rise are very curious. Some people will have it, that it is nothing less than a marked advance towards the *discovery of the great and mysterious secret of what composes human life*, or at least that it is the opening of a wider and nobler field of human knowledge than any now possessed ; whilst others opine that it is a sort of unconscious magic, and hence they assume that the art of the Baptista Portas and the Michael Scotts was not only no imposture, as our ancestors and ourselves have sagely decided, but the greatest of all arts—the most wonderful of all sciences. So convinced is one of the principal daily papers that something extraordinarily great is destined to flow from this magnetism, or magic, or whatever it may be, that it has resolved to set apart a certain portion of its space daily to records of what may be done in it."

Very instructive, and not a little amusing, is it to note in the foregoing passage the almost universal tendency to confound facts with inferences. The *fact* observed is, that tables move ; the *inference* that

it is moved by "electricity," is supposed to be "established" by the fact, and away the theorist flies into the "immense inane" of speculation.

Cautious thinkers will cry, "Not so fast! All that is at present established is the simple fact of a table (or a *hat*, for both objects are in favour) moving when a chain is formed by persons round it. When we come to interrogate the *meaning* of this fact, we shall require something more than the rash assertion of 'electricity'—a word always dragged in to cloak ignorance, and always more used by those entirely ignorant of electricity than by those acquainted with some of its properties."

The table moves. It may be moved by spirits; it may be moved by electricity; it may be moved by the unconscious muscular action of persons forming the chain round it. Here are three explanations, not to suggest more, which the investigator may severally examine.

1. *Spirits.*—Those who believe in the spirit rappings will have no difficulty in assigning a cause to the table movings; but for more cautious thinkers there will be these difficulties: First, the *existence of* the spirits requires proof; secondly, their *presence* requires some more definite proof than lies in an assumption. Indeed, it should be stated here, to exonerate the sensible people who occupy themselves with the new phenomenon, that table moving has no necessary connexion with spirit rapping, and is investigated by hundreds who are fully aware of the ignoble imposture practised under the title of spiritual manifestations. As we are of the latter, we may dismiss this first explanation without further discussion.

2. *Electricity.*—This is more plausible, and entraps all but those accustomed to scientific analysis. But we are bound to call attention to the following points: First, there is absolutely no proof whatever of the *existence* of the current of electricity passing

from human beings to the table; it is a pure assumption, made to overarch the chasm of ignorance. Secondly, although what is called nerve-force has many striking analogies with electricity, yet every well informed physiologist knows that the *identity* of the two forces, far from being proven, is, in the present state of science, to be rejected. Thus you have to prove the existence of the very *agent* you assume, and then, having proved it, you have to prove that its *mode of operation* is that which you assume! For, granting that nerve-force *is* electricity, we have still to learn that this electricity passes in a stream from our fingers to the table; we have still to learn that electricity, when it passes into a table or a hat, makes that table or that hat gyrate. These are difficulties which will prevent the scientific mind from accepting electrical agency. At present the question stands thus: The table moves; by no *known* laws of electricity or physiology can this movement be explained as electrical; and to suppose that the movement itself is the proof, is to indulge in the most vicious circular reasoning, by which an assumption is made to demonstrate the validity of the assumption.

3. *Unconscious Muscular Action.*—Instead of unproven "spirits," and questionable "electricity," it would seem more natural to try the simpler explanation of unconscious muscular action, did we not know that in such cases the simple explanation is always the last to be thought of. Appetite for the marvellous will not be appeased by commonplaces! Let us, however, inquire a little more closely into this said muscular action, and see if we cannot by the aid of known laws explain all the phenomena.

In standing or sitting round a table for many minutes with the hands lightly resting on it, and the *mind eagerly expectant*, the fatigue of the muscles causes you to rest with your weight on one leg if

standing,—on one side if sitting,—and this gives a *stress* to the table (unless you are very vigilant), which may cause it slightly to move; no sooner does the movement begin than all the expectant circle, now gratified at the result, unconsciously aid in the movement (in a way hereafter to be explained), and thus, although no one is conscious of effort, but fancies the table moves without his co-operation, yet, in fact, all or most of the persons forming the chain do really co-operate in moving it.

We must beg that no captious verbal criticism be applied to this explanation of the process; we are aiming at an intelligible explanation, and hope in succeeding remarks to clear up every point involved. The reader must bear in mind that *expectation* of the result is necessary, otherwise the table will not move. Those who adopt the magnetic hypothesis, explain the necessity of this condition (as the Mesmerists explain failures) by saying that "scepticism destroys the influence." Truly it does so; because the muscular action which produces the movement in obedience to what is called an "expectant attention," will *not* be brought into play unless expectation be there.

Scepticism, however, is a word of loose signification. There are two classes of sceptics. There is the class of men who are, it is true, perfectly *in*credulous with respect to the *fact*, but as perfectly credulous with respect to the *inference*; they approach the table with laughter, or with an emphatic declaration of, "It's all humbug;" yet no sooner does the table move, and they believe in the honesty of those moving it, than their incredulity is suddenly changed to a credulity as rash! They doubted the fact; no sooner is the fact proved, than they no longer doubt the inference. But the scientific sceptic, knowing *where* lies the source of most fallacies, is willing enough to believe the fact; he is only sceptical of

the immature hypothesis suggested to explain the fact. It is thus that spirit rappings convert the incredulous. When something is told them which "it is impossible that the medium or any one present could have known," they—forced to accept the *fact*—believe they are forced to accept the *inference* which the impostor wishes them to accept; but a cautious thinker would accept the fact, and examine closely the inference. He would say—"It is true I have been told such and such things; but does it therefore follow that they were told me by departed spirits? May there not be some juggle in it?"

We dwell on this distinction between scepticism of facts and scepticism of inferences, because it is important, and because men commonly fancy they are bringing strong evidence in support of their opinion when they preface it by saying, "I assure you I approached this subject as complete a sceptic as you can be; I thought it monstrous humbug; I laughed at the idea; but I was forced to own the truth at last." If you interrogate these sceptics, you will find that they all imagine the fact proves the hypothesis—as if no *other* hypothesis would explain the fact!

The explanation of "table moving" we have suggested, is strengthened by an article written twenty years ago by M. Chevreul, the celebrated chemist, an analysis of which had already been given by Longet in his *Traité de Physiologie.* We will reproduce its leading points.

In 1833, Paris was amused by the oscillations of a pendulum, as recently London was by the oscillations of gold rings under the pretended magnetoscope of Mr. Rutter. "Electricity," of course, was the explanation of the following fact:—If an iron ring were suspended by a thread over mercury, and held there by the right hand, it began to oscillate; on introducing some other substance between the mercury and the suspended ring, *the oscillations ceased, to recommence*

with the withdrawal of the foreign substance. But Chevreul showed that this was the result of insensible muscular action, by various experiments, of which it is enough to say, that on supporting his arm by a wooden rest, the oscillations decreased in proportion as the wooden rest approached the wrist, and disappeared when placed under the fingers which held the thread. The curious part of his experiment, however, was this. He fancied that *while his eyes followed* the oscillations of the pendulum he detected in himself a disposition or *tendency to movement*, which, perfect involuntary, was always the more satisfied the larger the oscillations were; but on *bandaging his eyes the oscillations rapidly ceased, and then the interposition of foreign substances between the mercury and the pendulum exercised no sort of influence on the oscillation!* His interpretation of the phenomena is simple and satisfactory. In holding the pendulum, an insensible muscular movement of the arm set the pendulum slightly oscillating, and when once the oscillations commenced they were augmented by the influence exercised by vision, which caused him to assume that "tendency to movement" before mentioned; this tendency, however, is so delicate and so unconscious, that the mere thought of arresting it does arrest it. The two necessary conditions for a successful result he found to be—1st, A belief that the pendulum will move of itself without muscular aid; 2nd, To *see* the oscillations, which become greater by the influence of vision in directing the muscles.

With the light thus afforded, let us examine the phenomenon of hat moving and table moving; and in relating our own experiences, we shall attempt to give the *rationale.* In perfect conformity with what has been said of the necessity of "expectant attention," or "faith," for a successful result, we have to declare that although the table has moved in our

presence, it has never moved when we formed a link of the chain, although we were really waiting with strong desire to analyse the sensations which accompany the phenomenon. The objection that we are "anti-magnetic," and that our scepticism produces a "cross current," is too frivolous for refutation. The main reason of the failure has been the knowledge of our scepticism on the part of the others, and their want of full conviction that it will succeed with us; another reason is this—we have placed them on their guard against the sources of fallacy, and told them how they moved the table unconsciously.

A negative result cannot, we are aware, determine this question. But we have positive results to offer. One evening, two believers, an indifferent person, and the "terrible sceptic" who writes this, stood round a table with hands lightly resting on a hat. After about twelve minutes the sceptic's hands were trembling slightly from tension of the muscles, and his legs becoming fatigued, he rested the main weight of his body on the right leg. Presently the hat began to move. We all asked each other, "Are you moving it?" and received a conscientious negative; nevertheless, the hat continued moving, with occasional pauses. The idea occurred to the sceptic that as the hat was moving in the direction in which he leant, perhaps the slight *stress* so produced might cause the moving; to test this he changed from right to left leg. The hat stopped; presently it resumed its motion, but this time *from left to right—i. e.*, the reverse way! He was still perfectly unconscious of any *effort* to move the hat, although he felt convinced it was occasioned by the slight stress of his body: he suddenly stood erect on both legs, and the motion ceased. It never moved again during that evening.

At the house of a gentleman who has made frequent experiments, and who for a fortnight was a firm believer in the electrical theory, but whose con-

fidence became shaken by the suggestion of certain doubts, the "sceptic" stood with five other persons round a table which moved with extreme facility on a pivot. This time we waited five-and-forty minutes without the slightest result; yet the five persons had been eminently successful on all previous occasions in less than fifteen minutes. Whence failure? Because we were all on our guard. We determined to remain entirely *passive*; to stand erect on both legs; to watch our sensations; to be vigilant in neither aiding nor preventing the movement. Yet these very persons only the day before had made the table move with considerable velocity in the direction any one *willed* it: the will of the one person and the expectant attention of the others producing a result impossible in the sceptical-passive state of mind.

We now ask, whether the phenomenon of table moving is not more probable, when classed with known phenomena of *unconscious* muscular action following expectant attention, than when classed with "mysteries" and "magic?" Of electrical action in this sense we have no proof, no evidence, no analogies. That all believers will renounce their belief, and accept this explanation, we do not expect; but if our exposition has been intelligible, it will make every watchful investigator capable of testing its truth.

The editors of the *Medical Times* also ascribe the table moving results to the theory of involuntary muscular action. The explanation they volunteer of the matter is as follows:—

There is, perhaps, no subject which has created so great an interest in modern days as the motion communicated to tables and other objects by human contact. *Parvæ res leves captant animos*,—and thousands who care nothing for the advance of science, are still delighted with performing an experiment which may be easily repeated, but which does not

promise, as far as appearances go, to lead to any useful application. The great facility with which fraud and self-deception may be introduced into phenomena such as those to which we now allude, must naturally render every scientific man highly sceptical as to the reality of the results which he witnessed; and, however respectable or trustworthy may be the parties who join in the experiment, the cautious observer must diligently seek to investigate every possible source of fallacy in the performance and in the performers, and must even take care of himself, lest he become the fool of his own senses. We should hardly have alluded to this subject, had we not remarked that it has received the attention of some of our leading journals, and that a great amount of error and of absurdity has been mixed up with the grain of truth which is perhaps involved in the existence of the movements in question. It has also become so much the fashion to demand of the medical man a theory of all the results which may be brought about by the discoveries of science, the refinements of art, or the operations of nature, that he is also expected to give the *rationale* of every absurdity which may float upon the surface of society, and which may, for the moment, captivate the attention of the multitude. Now, with regard to table moving, the operation has been witnessed and recorded by many persons, of whose veracity there can be no reasonable doubt; and the only question is, whether these parties have not been unconsciously deceiving themselves. It may be added, that, while some of the alleged facts may be true, so far as they go, there is such an admixture of fallacy and palpable deception in the accounts which have reached us, that we are really prompted by curiosity to endeavour to sift the wheat from the chaff, and to undertake the ungrateful, and perhaps profitless, task of disabusing the public credulity, and of proving that the myste-

rious locomotion, which has even been attributed to supernatural agency, may be explicable upon common principles. At the same time, we think it is only right to admit, that, supposing the experiments to be fairly performed, they require for their explanation a reference to some physiological laws which, although they have long been before the medical public, have not yet been sufficiently appreciated, and which the universal mania for turning the tables may, perhaps, serve to bring into general notice.

The rotation of the table involves a fallacy, for the rapidity of its movement is in no degree owing to any inherent power of motion in itself, but is solely due to the force unconsciously exerted upon it by the experimenters, and the velocity of the motion is entirely and directly proportionate to the amount of force expended upon it, in addition to the momentum it has already acquired in passing from a state of rest to one of motion. The table no more compels the persons to follow its movements than the garden-roller drags the gardener who pushes it before him; in both cases the *vis à tergo* is the moving force, and the table and the garden-roller do no more than obey the impulse communicated to them.

It must, however, be admitted, that the *first* movement of the table is not so easily explained, for the results of our own experiments, and those of other persons fully deserving of confidence, have placed the fact beyond a doubt, that this movement of the table is performed without any *conscious* effort on the part of the experimenters. It remains, therefore, to be shown by what mechanism this effect is produced, and we shall have no difficulty in solving the problem by reference to physiological principles which are well known to the profession. The fact is, that the movement in question is due to *involuntary* muscular action at the ends of the fingers, exerted upon the table. The *direction* of the move-

ment is regulated, not by the *will*, but by the dominant *idea* in the mind, and the term *ideo-motor* may very properly express the action in question. It is necessary, however, to explain more fully the class of effects to which the term *ideo-motor* may be applied.

It is stated that a table is moved more easily by females than by males, which may be accounted for in this way, because in the former the muscles are more mobile, *the will less strong*, the emotions more acute, the ideas more vivid. It is also said, that young persons succeed better than persons advanced in years,—a fact which may be readily explained upon the same principles.

We would especially call attention to the fact, that it is *weakness*, and not *strength* of will, which readiness to assume these involuntary actions testifies. The more powerful the higher faculties of the mind, the less quickly do the muscles act on the impulsion of the ideas only. In men, where the intellect is naturally stronger, and in adults, where it is strengthened by use, the manifestations of ideo-motor acts are repressed. And we would call attention to this fact for a practical purpose, viz., with the object of cautioning the public, through our readers, against trying these sorts of experiments too often. It is very certain, that each trial renders the "table mover" more ready at exhibiting the required phenomena, more under the dominion of ideas, and less under the dominion of rational will. Each trial, then, must weaken the intellectual powers, must make the experimenter less a man, and more an instinct-governed animal. The peculiar state of mind induced is not, perhaps, either hysteria or insanity; but it is akin to both.

The experiment, now so often repeated, of suspending a ring by a thread coiled round the finger, placing the ring within a tumbler, and hearing it strike the glass as many times as correspond to the hour, is a phenomenon analogous to table moving,

and very interesting in a physiological point of view. The person who performs the experiment exercises no *voluntary* action upon the movements of the ring; but he knows the hour, and, from this *idea* acting unconsciously upon the organisation, a series of involuntary muscular vibrations is produced, which result in striking the glass the required number of times.

It is well known, that the movements of the human body may be divided into *voluntary* and *involuntary*. The actions of walking, of playing musical instruments, etc., are instances of the first; those of circulation and digestion is examples of the second. But there is also a class of actions comprising the ordinary phenomena of motion, which are certainly not under the control of the *will*, but which, nevertheless, are directed by the emotions or the *ideas*. Thus, the somnambulist walks in obedience to some mental impulse, while the will is dormant; and the person who dreams, often executes movements in which the will has no part, but which are excited by *ideas* or emotions. Again, although the will has no control over the action of the heart and arteries, yet the *ideas* and *emotions* exercise a distinct influence upon those organs; and when attention is directed to their pulsations in nervous persons, the movements have been accelerated or retarded, or have become intermittent. Now, in all these cases, the ideas or the emotions act upon and direct the movements without the intervention of the will. In the case of table turning, the ideas are concentrated upon the expected movement, and the muscular apparatus of the fingers obeys, unconsciously to the experimenter, the dominant impression in the mind.

When a table is readily moveable upon its feet, or upon castors, a small amount of force, voluntarily applied by the fingers, will cause it to revolve. This

mobility is still more obvious when the force is distributed uniformly by a number of persons all round the table.

The amount of muscular force necessarily concerned in accomplishing the revolution is readily procured, independently of the will. Let four or five persons place their distributed fingers upon some surface, and retain their position for a few minutes, unrelieved by change; let there be an expectation of some possible result, and there will soon be perceived a tingling in the skin, along the course of the muscles, and a degree of tension, which without volition altogether, eventuates in *reflex*, or, as it would be styled in common language, *involuntary* action. In table moving, there need not be any voluntary movement, for muscular tension, provoked by irritation, sensation, emotion, or fixed attention, will produce sufficient action to accomplish the expected result.

CHAPTER XV.

A BATCH OF EXPLANATIONS OF THE PHENOMENON.

THE miscellaneous explanations volunteered in reference to the new phenomena are certainly numerous enough, but they are for the most part so ambiguous that non-scientific readers will, we fear, find some difficulty in comprehending them. We have, however, thrown together a few extracts from the opinions expressed by various writers on the subject, which may, perhaps, in some degree help the reader to his own conclusions. First we will quote the views of Dr. Roubaud, who says:—

The discovery of this phenomenon may be compared to photography and etherisation: like these, it makes us acquainted with an unexpected principle—a new power—the might and utility of which the future will in due course disclose.

But at present, whilst experiments, separately tried, have rather had for their object the demonstration of the phenomenon than its study as a science, it is hardly reasonable to inquire for the cause and to classify the law by which it is ruled, either among the laws of inorganic matter, or among those of organized creatures. It is, however, my opinion, that the physical agents which most closely resemble table moving by their marvellous effects, such as electricity, caloric, and terrestial magnetism, cannot be admitted as the proximate or remote cause of the movements performed, under certain circumstances, by the bodies acted upon.

Among the vital actions, there are some—as, for instance, those of the nervous system—only par-

tially understood, imperfectly studied, mystified by numberless theories, and loaded with all the strange facts which medicine cannot explain. Between these operations and the phenomenon of table moving, there seems to be some affinity; indeed, from what I have observed relative to the sexes, to constitutions, and nervous affections, I feel no doubt whatever upon this point.

But does this phenomenon comprehend nothing besides a mere nervous action? Does not the will, the messenger of man's mind, play a still more important part, does it not surpass it in the same proportion as the mind which directs surpasses the arm which obeys?

Is table moving, therefore, a moral phenomenon, a plain and simple manifestation of the will? No, certainly not; at least not within the known conditions of the phenomena of moral life. Who will attempt to explain the means by which thought can be conveyed to inorganised bodies? A man like Van Amburgh, who has succeeded in even making himself understood and obeyed by animals whose savage instincts have not been tamed by domestic nurture, is invariably an object of admiration, yet, on reflection, it is evident that the spirits of such animals can be broken and their instincts controlled by confinement, punishment, and the sufferings of hunger. Under such rigorous coercion, the fiercest natures will undoubtedly give way and become enervated. But is it the same with inorganic bodies? What mysterious organs have they to perceive the orders of my will? By what secret way does my thought reach yonder table, and force it to obey my wishes like the muscles of my own body? "Advance!" says my mind, and the table advances. "Turn," cries my will, and the table turns. Is a mere log of wood more highly endowed than man himself, is it possessed of an everlasting intelli-

gence? Can it be that the thread-nerves, discovered by M. Gaudichaud in the vegetable world, are but the physical covering of immortal souls?

But in that case, minerals too must have organs, thread-nerves, an intelligence, a soul. "Turn!" says my will to a porcelain vase, and the porcelain vase turns. "Oscillate," says my thought to a watch, and the watch oscillates. Can there exist, as some philosophers have pretended, a universal intelligence which distributes its divine rays to all natural bodies according to their organisation? Oh Aristotle! oh Linnæus! oh Buffon! what becomes of your classification of animated nature, as the waves of science and progress continue to roll on? "Minerals grow," said Linnæus; "vegetables grow and live; animals grow, live, and feel." Come, naturalists, come and look at this stone which turns in obedience to my will, abjure your aphorism, and know that minerals do something more than grow, and that plants do more than merely grow and live.

But what do they do beside? What is done by plants and minerals when they advance and turn upon themselves?

I cannot define it; but what I know and protest is, that they perform neither an electric, a caloric, a magnetic, a physiological, nor a psychical action. They obey some cause the nature of which is unknown to us, and whose laws science hitherto has not even determined.

Dr. Roubaud has some additional observations bearing on the subject, which, although they are more a collection of facts referring to the nature of the objects moved, than suggestions for accounting for the phenomenon itself, will probably be of some service in enabling inquirers to arrive at a satisfactory result. His remarks are as follows:—

Neither electricity, nor heat, nor terrestial mag-

netism, can be received as types of comparison for this new fluid. The latter penetrates but partially, and after a long expectation, those bodies which are good or bad conductors of electricity or caloric; therefore, metals, which are prime conductors of these two fluids, are as refractory to the unknown agency as glass and resin—those bad conductors of electricity and caloric. Consequently, with respect to the nature of the bodies to be moved, we cannot at present lay down any general rule; it is by new attempts, and feeling one's way, that we succeed in discovering the greater or less disposition of bodies to be acted upon.

The shape of these bodies appears to have no influence on the manifestation of the phenomenon.

Their depth, likewise, when they are empty, has no influence: a mahegany block, resting on a moveable pivot, and with a depth of a foot and a half, has turned about as easily as a table from one and a-half inches to two inches.

The surface or width, setting aside the weight, does not require an increase of fluid; an oak board of one yard in width is moved as readily as a table the fifth of a yard in diameter, if the weight is the same as that of the board.

The weght of the article to be moved plays, on the contrary, a great part in the manifestation of the phenomenon. The heavier the body is, the more copious must be the quantity of fluid poured in; I do not speak of the number of persons composing the chain, for we shall see presently how greatly the discharge and the power of this agency varies according to the individuals and the circumstances in which they are placed. However, in ordinary cases, we may estimate that it would require about eight or ten persons to move a wooden table with a top one yard wide and an inch thick.

The only physical circumstance which prevents

the production of the phenomenon is a resistance which obstructs the motions of the body. It often happens that the hands, placed on a hat or a table, are pressed too heavily, and compress the object too firmly against its natural support; often, likewise, the legs of the table, having no rollers, have to bear too much friction, or they meet with a groove in the floor which they cannot overcome. We must, therefore, be careful to try experiments on articles resting upon smooth surfaces or on tables moving on a pivot, and must recollect that the power of the phenomenon is always in an inverse ratio to the friction and obstructions.

With reference to meteorology, I have remarked only one condition capable of accelerating the motion of bodies: it is the exposure of the articles to the north of the apartment wherein the operation is going on; I have always found this exposure preferable to that towards the south; and it may be said that, all other things being equal, where ten minutes are required in an apartment facing the north, fifteen will be necessary in an apartment facing the south.

The wind, the rain, and fine weather, solar or artificial light, seem to me to have no effect on the discharge or the strength of the fluid. Temperature likewise has not yielded any particular effects, although I have operated in cold and hot weather, and during the alternations so remarkable in the first week of May, 1853.

Another French *savant*, M. Henri Delaage, broaches this opinion:—"Man," he observes, "is composed of three parts—body soul, and spirit. This spirit, which man can communicate to matter and animate it as it were with his own being, as formerly the Titan Prometheus animated clay by breathing into it the etherial essence, is the source of force, of movement, and of life itself. It is a very subtle

magnetic fluid, which has no particular site, but circulates through all the nerves, giving them tension or relaxation at the instance of the will. This is the spirit of life, its nature is that of the electric spark, from whence it has got the name of *living* fire in the works of the Persian Magi, and of the *internal star* in those of the alchemists and astrologers of the middle ages.

Chemistry, thanks to the perfection of its analytical instruments, is daily discovering new elements, and will not stop till it has recognised in the existence of this fluid, the animating principle of all that exists here below—that spirit of life, which, by virtue of the universality of its nature, aspires to be everywhere, struggling with fury against all opposing objects, and by means of this incessant struggle, producing movement of greater or less force.

"The human will," observed Balzac to the writer, "is the motive force of an imponderable fluid, and the members are but its conducting agents." This admirable *dictum* being once understood, it is easy to conceive how a man may infilter his life, his essence, his force, into the members of another by magnetic passes—thus, so to speak, live in him, and at will transmit his thoughts, the impression of his impressions, to his patient, making him the docile instrument of all the caprices of his fancy. But not only may man animate with his life another living being, he may also do the same to an inanimate object, by causing it to absorb his vital essence; for movement being one of the properties of spirit or mind, persons arranged round a table have only to communicate to that table the source of all movement, by transmitting to it that flame of life, which—that we may command and triumph over rebel nature—God has infused throughout all our members, in order to set inanimate wood into spontaneous motion. This is the golden sceptre of our terrestrial royalty.

We have been often struck at the little impert-

ance which many of the staunchest believers attach to the loss of that precious fluid or vital essence, by which, at present, in so many drawing-rooms, amusement is sought by saturating with it tables, hats, and keys, to make them spin about, for this ingenious vapour of blood, to adopt the language of the masters of the hermetic art, is nothing else than the quintessence of life, of flesh, and of blood, under a fluid form, which is communicated with such ignorant generosity to inanimate objects; for we say it boldly and without hesitation, that man, that human life, *is contained, really and in truth, in the smallest particle of this fluid essence*, the preciousness of which vital spirit was admirably expressed by Goethe, when he felt his soul reviving at the death of his body, and exclaimed through mortally pallid lips: *Still more light, still more light.*

These phenomena, like all of a magnetic description, are fugitive, variability being their peculiar character. We do not believe, therefore, that they can be turned to any practical use. The only advantage to be derived from them is the proof they furnish to man of one of the properties of the spirit that animates him, thus directing his attention towards magnetism, that golden key of the antique sanctuaries, which produces on certain privileged beings somnambulism, the sole science that demonstrates the immortality of the soul.

M. Amedée Latour, whose experiments we have reported in a preceding chapter, observes:—I dare not hazard any opinion of my own on the phenomena, but I will say boldly that science, invested with authority, should at once take possession of the facts, investigate, renew, prove them, and if possible study their laws and ascertain their nature; for it is above all things important to prevent credulity and charlatanism from seizing on this new prey. Let science then tell us what we should believe, and how far we

should believe, lest through the indifference of philosophy this phenomenon should share the fate experienced by another two thousand years before the creation of our Academy of Sciences, when accidental observers remarked that a bit of rubbed amber would draw light bodies towards it. The phenomenon, hardly perceived by ancient science, has become the pivot on which modern science turns. Without doubt the fact of animating, so to speak, inert bodies, and making them obey our will, is repugnant to human reason. But to what exigencies has not human reason been obliged to bow? Can it comprehend, can it explain, by what mysterious power the magnet-needle turns towards the north pole? Does it know the nature of magnetic and electric forces, of caloric, and of light? Then, as to attraction and gravitation, how can we give an account of these but by hypothesis, for is it not by a *supposition* that we explain these facts? Do you know, then—you philosophers—you men of science—all the laws, all the phenomena, all the properties of matter? As for myself, I understand just as little the suspension of the celestial bodies in space, the force which maintains them in their places, and makes them eternally turn in the same immense circle, as I do the phenomenon of the rotation of a table under the influence of the imposition of hands.

Another French *savant* remarks that the opinion is gaining ground that the phenomenon may be accounted for by the supposed polarization, not of the different sexes, but of the human organization without distinction of sexes, and he then goes on to observe:—

This is the opinion of Dr. Lowe, of Vienna, who writes on this subject as follows: 'Every living being is so organised, that its right and its left are polarly opposed to each other; that is to say, one part of the human body contains positive electricity and the other part negative electricity. A man, for

example (putting sex out of the question), applying his hands to the two extremities of an electrometer, will produce an action similar to that of a galvanic battery put in contact with that instrument. In general the right side responds to the current of zinc, and the left side to that of copper. Thus, given a chain of human beings whose contrary poles—that is to say, where right and left—touch, this chain, exercising on any body whatever a prolonged action, will communicate to it an electric current; polarization will then take place in this body (being in the present case a round table supported on a column with three or four feet), and by virtue of its tendency to magnetic orientation, the south pole of the table impressing on the whole bulk of it a movement towards the north, the table will commence a continuous rotation, and turn round on its axis (alternately attracted and repelled) as long as the indispensable conditions are kept up.

This theory is possible, but it is not clear. May there not be, instead of a dynamic principle, a mechanical cause at work—that is, an involuntary pressure of the left to the right, the right hand, naturally the most developed and the strongest, acting, though in an imperceptible degree, more powerfully than the left—so that the phenomenon may be explained simply enough by a real simultaneous, though unfelt, impulse given in the same direction? This conjecture is like the other, you may say, but an hypothesis. True; yet it should be taken into account, for it is in this manner that many experienced witnesses are inclined to explain the matter; and this solution by the effect of an involuntary mechanism, derives, it must be admitted, a certain probability from the increasing fatigue of the arms, resulting from the prolonged constraint of their position, and from the tension of the hands spread out, with the fingers apart, upon the table.

Among those who claim to explain the phenomenon as proceeding from animal magnetism, is M. E. Monttet, who thus expresses himself :—

Human magnetism, the mysterious link that unites matter to spirit, the agent of universal life, whose certificate of birth academicians so ironically demand, and concerning which, after nearly a century of controversy, Hypocrates says, "Yes," and Galen says, "No" ; this magnetism, which has hardly more to complain of among its avowed adversaries than among its unintelligent adepts, has started suddenly from its mysterious silence, throwing matter at the head of this materialist age, to force it to reflect.

Yes, matter may move, it may move under an impulse absolutely immaterial. The imponderable has extended its domain. It is no longer the electric fluid produced by the re-action of two exciting liquids ; or terrestial magnetism exercising its still inexplicable attractions by the aid of certain minerals. It is all this, and more ; it is the body of man transformed into a powerful and universal magnet, emitting its fluid by the sole act of his will, transmitting it into inert bodies, and thereby communicating to them momentary movement and a sort of fantastic life.

Mr. Birt, who took part in the table moving experiments detailed with such precision by Mr. Bates, in a previous chapter, has offered the following suggestions in elucidation of the phenomena :—

So far as my own experience is concerned, I have little, if any, hesitation in referring the phenomena to a force differing from that which may be regarded as the exertion of the ordinary muscular energy of the animal body—*i. e.* it does not appear to me to be a vital force ordinarily manifested, such as pulling, pushing, and so forth, and in this the writers of the several articles coming under my notice appear to agree, the evidence indicating that a mysterious force

in some way is exerted by the operators on the tables, etc.

While the force operating does not appear to belong to the category of ordinary vital forces, neither does it appear to belong to those forces we are in the habit of regarding as physical, such as electricity and magnetism. On this head it is very important we should obtain clear conceptions, because the tendency at present is evidently to refer the phenomena to one or other of these forces, or a modification of them both; and while any confusion of ideas exists in this direction, the evident result must be, the retardation of science rather than its progression.

The evidence, that to me appears conclusive, that the force operating is neither electrical nor magnetic, consists in the fact that electrometers and magnetic needles are not at all affected; the slightest current of electricity would make itself apparent. On the other hand, the similarity to electricty of the force operating appears to be indicated by the increased effects, when the operators and articles are insulated.

The phenomena to which the effects witnessed approach nearest are those of animal magnetism (an inappropriate term, for the reasons above stated). If they belong to this class of phenomena, they are, doubtless, of a very low order, but there are some circumstances connected with the manipulations in each case that appear to connect them. The Rev. Dr. Scoresby, in his work on Zoistic Magnetism, refers to experiments in which the polarities of the agent and subject were distinctly manifested. It may be borne in mind that in all the Doctor's experiments, electrical and magnetic instruments were *unaffected*, but the effects of the interposition of *insulating* substances were very apparent. In connection with the polarities developed in animal magnetism, it may be noticed that the positions of the operators round the table were favourable for the same

developments; the contact of the *right* and *left* little fingers of one operator with the *left* and *right* little fingers of his neighbours, is a mesmeric manipulation, which, when the parties are insulated, may call forth the dormant force operating in the ordinary phenomena of animal magnetism.

But the question it would be desirable to answer is this—Of what nature is the force operating in animal magnetism or in table turning? A reply to the first is foreign to my purpose. With regard to the second, I may mention an experiment, which to me appears to throw great light on the subject, but which ought to be carefully repeated before it is received as an exponent of the force sought. On Monday evening last, two gentlemen and myself manipulated on a globe frame. The upper portion was varnished, and on this we laid our hands not in contact. The globe frame and operators were insulated from the floor by a sheet of gutta percha. In this case each person was completely insulated, and no effect was produced, except that one gentleman exhibited evident indications of vertigo or giddiness; he experienced a profuse perspiration, accompanied with paleness, and was obliged to relinquish his position at the globe frame. From some experiments which I had made in the early part of the day, I had some reason to believe that the rotation was first induced in the bodies of the operators, and suggested that we should join our fingers in the usual way, but not in contact with the globe frame. We did so, but the same gentleman was again obliged to break contact. The remaining two joined their opposing little fingers, and the result was a revolution of one gentleman round the other in the same direction as mentioned in the experiments. The time occupied was thirty-seven minutes, contact being maintained during the whole of this time.

The conclusion I am at present induced to draw

from this experiment, in connection with table turning, is this, that a vital force, of a very low order, is either developed or made manifest when the operator is at rest, and his mind abstracted from the more stirring circumstances in which he is ordinarily engaged, for the success of the experiment appears to depend on the will being quiescent. If any one will attempt to hold his hand, entirely unsupported, in a particular position, and if instrumental means be adopted to ascertain if it be in a state of rest, it will be found that it is in a state of motion. Now if, when the will is quiescent, this involuntary motion be allowed to proceed, it will either be irregular, if unregulated, or regular, if under the control of a specific force. In the experiment under consideration, it was found necessary to alter our position, to follow as it were the motion of our hands, and this resulted in the regular revolution experienced.

The existence of a vital force giving rise to a rotatory motion of the body is not improbable, as we find it impressed on some forms of vegetable life. It is particularly apparent in the climbers—the common bean and the hop-plant may be adduced as instances. We have yet much to learn of the nature of vital forces. In the case before us we must place ourselves in particular positions, and subdue to a great extent the exertions of our wills, that the force may be manifested. May it not be that some of the lower orders of vital forces may be necessary for the maintenance of vegetable and animal life, and may, therefore, belong alike to all animated existences, from man downwards? And if this be the case, may not these lower orders of vital forces be so modified by antagonistic forces of a higher character, such as might result from specific organising principles, that in the higher animals the lower forces may be completely masked and concealed by the ordinary motions and actions of such animals, so that they cannot be

manifested unless means are adopted for neutralising the higher forces?

With the view of disproving the opinion that either electricity or magnetism have anything at all to do with the phenomenon, Mr. Birt performed the annexed experiment. He states:—

The evidence that appears to me conclusive that the force operating is neither electrical nor magnetic, consists in the fact that electrometers and magnetic needles are not at all affected; the slightest current of electricity would make itself apparent. To set this question at rest, I carefully warmed and dried a large Leyden jar, surmounted by a brass ball of about two and a half inches diameter, and also carefully warmed and dried the glass feet of an insulating stool; having attached an electrometer, consisting of two threads of hemp, each containing three fibres, to the ball, I grasped it firmly with both hands, standing at the same time on the stool. Now, if any electricity had passed from my body, it must have entered the jar, and the electrometer would have indicated it; but no such result took place—no current of electricity passed. Of this I am perfectly satisfied, so far as ordinary electricity is concerned. But a more interesting result followed: after I had grasped the ball about a quarter of an hour, I observed the same result as noticed in experiment 3—my hands had become twisted. In this there was no "expectancy;" my mind was concentrated on the electrical conditions of the question, and, unconscious of exerting any force, I found the ball turning.

I now varied the experiment, taking my hands off the ball when the motion was induced, *although the motion of the ball was stopped, yet the motion of my hands was not, and they proceeded in the same direction*, until it was necessary to remove from the stool; in stopping the motion a very painful sensation (somewhat in the nature of an antagonistic force,

produced, of course, by the agency of the will) was felt in the wrists; while my hands were moving I did not notice the sensation.

While this work is passing through the press, we have met with a couple of table moving incidents too late to be included under their proper heads. With these we conclude our account of a phenomenon which sooner or later must engage the attention of the most powerful intellects of the age.

Like many other journalists, the editor of the *Family Herald* appears to take an interest in the table moving phenomena. He furnishes us with the following information:—"Some tables are so stupid that no impression can be made upon them; others are very clever, and will nod to you when you speak to them, slide along the floor if you ask them, and make a piroute on one leg like an opera dancer! Such a table belongs to the wife of one of our most distinguished dramatists, and we had the pleasure of seeing its performance one evening. It is the most intelligent and the cleverest table that we are acquainted with. It is not a quadruped, but a tribed; and if it were not for the Tenth Commandment, we should certainly covet the possession of that table. Like most others, this table does not move in any one particular direction, right and left, or left and right, but both ways; and does not wheel round only, but slides forward also, and will even follow you from one room to another. We were a witness one evening of its performances for nearly two hours, when midnight having struck, we rose to depart. The circle, however, were loath to break up, and they asked the table if it would continue to move after all were gone. It immediately gave three or four very hearty nods, as if to say, 'Yes! yes! yes! oh yes!"

A writer in the *English Churchman*, a newspaper

of high moral and literary standing, gives his experience in the matter. After describing the necessary preparations for the experiment, and premising that he merely states the *facts*, without pretending to understand or explain the *philosophy* of the phenomenon, he goes on to say:—"The table which we saw most powerfully acted upon was of mahogany, solid, not veneered or inlaid, about three or four feet long, and two feet wide; without castors, and standing on a carpet, in a room with a fire. About six persons, standing, placed the palms of their hands flat upon the table, rather near the edge, every person's two thumbs touched each other, one's hand touched the little finger of his or her neighbour, forming a complete chain. In this position all remained for about twenty minutes, some occasionally kneeling down, for relief from a stooping position, but no one else coming in contact with them. At the end of that time, the table visibly and tangibly began slowly to move; before this, however, it was agreed, but *this* we feel more hesitation in recording as a positive condition of the experiment, that some of the party should join in forming a fixed determination as to the direction in which the table should move. However this may be, the table moved from one room to another, and, after a short pause, back again at a moderate pace; it also turned round several times, at a more rapid pace, and apparently at the will of two or three of the party, who appeared more powerful than the rest."

SUPPLEMENTARY CHAPTER.

PROFESSOR FARADAY'S EXPERIMENTS AND EXPLANATION.

PROFESSOR FARADAY appears to have been the first among our own distinguished men of science, to break silence with reference to the table moving mystery. His explanation of it will be received with that respect which is due to his eminent position, and we consider ourselves fortunate in having obtained his consent to the re-publication of the report of his investigations, which first made its appearance in the columns of the *Athenæum*. He remarks :—

"The object which I had in view in my inquiry was not to satisfy myself, for my conclusion had been formed already on the evidence of those who had turned tables,—but that I might be enabled to give a strong opinion, founded on facts, to the many who applied to me for it. Yet, the proof which I sought for, and the method followed in the inquiry, were precisely of the same nature as those which I should adopt in any other physical investigation. The parties with whom I have worked were very honourable, very clear in their intentions, successful table movers, very desirous of succeeding in establishing the existence of a peculiar power, thoroughly candid, and very effectual. It is with me a clear point that the table moves when the parties, though they strongly wish it, do not intend, and do not believe, that they move it by ordinary mechanical power. They say, the table draws their hands; that it moves first, and they have to follow it,—that sometimes it even moves from under their hands. With some the table will move to the right or left accord-

ing as they wish or will it,—with others the direction of the first motion is uncertain :—but all agree that the table moves the hands and not the hands the table. Though I believe the parties do not intend to move the table, but obtain the result by a *quasi* involuntary action,—still I had no doubt of the influence of expectation upon their minds, and through that upon the success or failure of their efforts.

"The first point, therefore, was to remove all objections due to expectation, having relation to the substances which I might desire to use:—so, plates of the most different bodies, electrically speaking,—namely, sand-paper, mill-board, glue, glass, moist clay, tinfoil, card-board, gutta percha, vulcanized rubber, wood, etc.,—were made into a bundle and placed on a table under the hands of a turner. The table turned. Other bundles of other plates were submitted to different persons at other times,—and the tables turned. Henceforth, therefore, these substances may be used in the construction of apparatus. Neither during their use nor at any other times could the slightest trace of electrical or magnetic effects be obtained. At the same trials it was readily ascertained that one person could produce the effect; and that the motion was not necessarily circular, but might be in a straight line. No form of experiment or mode of observation that I could devise gave me the slightest indication of any peculiar natural force. No attraction, or repulsions, or signs of tangential power, appeared,—nor anything which could be referred to other than the mere mechanical pressure exerted inadvertently by the turner. I, therefore, proceeded to analyze this pressure, or that part of it exerted in a horizontal direction :—doing so, in the first, instance, unawares to the party. A soft cement, consisting of wax and turpentine, or wax and pomatum, was prepared. Four or five pieces of smooth slippery cardboard were attached one over the other by little pel-

lets of the cement, and the lower of these to a piece of sand-paper resting on the table; the edges of these sheets overlapped slightly, and on the under surface a pencil line was drawn over the laps so as to indicate position. The upper card-board was larger than the rest, so as to cover the whole from sight. Then, the table turner placed the hands upon the upper card,—and we waited for the result. Now, the cement was strong enough to offer considerable resistance to mechanical motion, and also to retain the cards in any new position which they might acquire,—and yet weak enough to give way slowly to a continued force.

"When at last the tables, cards, and hands all moved to the left together, and so a true result was obtained, I took up the pack. On examination, it was easy to see by the displacement of the parts of the line, that the hand had moved further than the table, and that the latter had lagged behind;—that the hand, in fact, had pushed the upper card to the left, and that the under cards and the table had followed and been dragged by it. In other similar cases, when the table had not moved, still the upper card was found to have moved, showing that the hand had carried it in the expected direction. It was evident, therefore, that the table had not drawn the hand and person round, nor had it moved simultaneously with the hand. The hand had left all things under it behind, and the table evidently tended continually to keep the hand back.

"The next step was, to arrange an index, which should show whether the table moved first, or the hand moved before the table, or both moved or remained at rest together. At first this was done by placing an upright pin fixed on a leaden foot upon the table, and using that as the fulcrum of a light lever. The latter was made of a slip of foolscap paper, and the short arm, about a quarter of an

inch in length, was attached to a pin proceeding from the edge of a slipping card placed on the table, and prepared to receive the hands of the table-turner. The other arm, of eleven and a half inches long, served for the index of motion. A coin laid on the table marked the normal position of the card and index. At first the slipping card was attached to the table by the soft cement, and the index was either screened from the turner, or the latter looked away: then, before the table moved, the index showed that the hand was giving a resultant pressure in the expected direction. The effect was never carried far enough to move the table, for the motion of the index corrected the judgment of the experimenter, who became aware that, inadvertently, a side force had been exerted.

"The card was now set free from the table,—*i. e.*, the cement was removed. This, of course, could not interfere with any of the results expected by the table turner,—for both the bundle of plates spoken of and single cards had been freely moved on the tables before; but now that the index was there, witnessing to the eye, and through it to the mind, of the table turner, not the slightest tendency to motion either of the card or of the table occurred. Indeed, whether the card was left free or attached to the table all motion or tendency to motion was gone. In one particular case there was relative motion between the table and the hands: I believe that the hands moved in one direction; the table turner was persuaded that the table moved from under the hand in the other direction:—a gauge, standing upon the floor, and pointing to the table, was therefore set up on that and some future occasions,—and then, neither motion of the hand nor of the table occurred.

"A more perfect lever apparatus was then constructed in the following manner:—Two thin boards, nine and a half by seven inches, were provided; a board, nine by five inches, was glued to the middle

of the underside of one of these (to be called the table-board), so as to raise the edges free from the table; being placed on the table, near and parallel to its side, an upright pin was fixed close to the further edge of the board, at the middle, to serve as the fulcrum for the indicating lever. Then, four glass rods, seven inches long and a quarter of an inch in diameter, were placed as rollers on different parts of this table-board, and the upper board placed on them; the rods permitted any required amount of pressure on the boards, with a free motion of the upper on the lower to the right and left. At the part corresponding to the pin in the lower board, a piece was cut out of the upper board, and a pin attached there, which, being bent downwards, entered the hole in the end of the short arm of the index lever: this part of the lever was of card-board; the indicating prolongation was a straight hay-stalk fifteen inches long. In order to restrain the motion of the upper board on the lower, two vulcanized rubber rings were passed round both, at the parts not resting on the table: these, whilst they tied the boards together, acted also as springs—and whilst they allowed the first feeblest tendency to motion to be seen by the index, exerted before the upper board had moved a quarter of an inch, sufficient power in pulling the upper board back from either side, to resist a strong lateral action of the hand.

"All being thus arranged, except that the lever was away—the two boards were tied together with string, running parallel to the vulcanized rubber springs, so as to be immoveable in relation to each other. They were then placed on the table, and a table turner sat down to them:—the table very shortly moved in due order, showing that the apparatus offered no impediment to the action. A like apparatus, with metal rollers, produced the same result under the hands of another person. The in-

dex was now put into its place and the string loosened, so that the springs should come into play. It was soon seen, with the party that could will the motion in either direction, (from whom the index was purposely hidden,) that the hands were gradually creeping up in the direction before agreed upon, though the party certainly thought they were pressing downwards only. When shown that it was so, they were truly surprised; but when they lifted up their hands and immediately saw the index return to its normal position, they were convinced. When they looked at the index and could see for themselves whether they were pressing truly downwards, or obliquely so as to produce a resultant in the right or left-handed direction, then such an effect never took place. Several tried, for a long while together, and with the best will in the world; but no motion, right or left, of the table or hand, or anything else, occurred."

A passage from a letter, written by Professor Faraday to the *Times*, is worth reproducing here—as illustrating in other words the value of this method of self-conviction. "The result," says Professor Faraday, "was, that when the parties saw the index it remained very steady; when it was hidden from them, or they looked away from it, it wavered about, though they believed that they always pressed directly downwards; and, when the table did not move, there was still a resultant of hand force in the direction in which it was wished the table should move, which, however, was exercised quite unwittingly by the party operating. This resultant it is which, in the course of the waiting time, while the fingers and hands become stiff, numb, and insensible by continued pressure, grows up to an amount sufficient to move the table or the substances pressed upon. But the most valuable effect of this test-apparatus (which was afterwards made more perfect

and independent of the table) is the corrective power it possesses over the mind of the table-turner. As soon as the index is placed before the most earnest, and they perceive—as in my presence they have always done—that it tells truly whether they are pressing downwards only or obliquely, then all effects of table turning cease, even though the parties persevere, earnestly desiring motion, till they become weary and worn out. No prompting or checking of the hand is needed—*the power is gone*; and this only because the parties are made conscious of what they are really doing mechanically, and so are unable unwittingly to deceive themselves.

"I know that some may say that it is the card-board next the fingers which moves first, and that *it* both drags the table and also the table-turner with it. All I have to reply is, that the card-board may in practice be reduced to a thin sheet of paper weighing only a few grains, or to a piece of gold-beaters' skin, or even the end of the lever, and (in principle) to the very cuticle of the fingers itself. Then the results that follow are too absurd to be admitted: the table becomes an incumbrance, and a person holding out the fingers in the air, either naked or tipped with goldbeaters' skin or card-board, ought to be drawn about the room, etc.; but I refrain from considering imaginary, yet consequent, results which have nothing philosophical or real in them."

The report communicated to the *Athenæum* then proceeds as follows:—

"Another form of index was applied thus: A circular hole was cut in the middle of the upper board, and a piece of cartridge paper pasted under it on the lower surface of the board; a thin slice of cork was fixed on the upper surface of the lower board corresponding to the cartridge paper; the interval between them might be a quarter of an inch or

less. A needle was fixed into the end of one of the index hay-stalks, and when all was in place the needle point was passed through the cartridge paper and pressed slightly into the cork beneath, so as to stand upright: then any motion of the hand, or hand-board, was instantly rendered evident by the deflection of the perpendicular hay-stalk to the right or left.

"I think the apparatus I have described may be useful to many who really wish to know the truth of nature, and who would prefer that truth to a mistaken conclusion: desired, perhaps, only because it seems to be new or strange. Persons do not know how difficult it is to press directly downward, or in any given direction against a fixed obstacle: or even to *know only* whether they are doing so or not, unless they have some indicator, which, by visible motion or otherwise, shall instruct them: and this is more especially the case when the muscles of the fingers and hand have been cramped and rendered either tingling, or insensible, or cold by long-continued pressure. If a finger be pressed constantly into the corner of a window-frame for ten minutes or more, and then, continuing the pressure, the mind be directed to judge whether the force at a given moment is all horizontal, or all downward, or how much is in one direction and how much in the other, it will find great difficulty in deciding; and will at last become altogether uncertain: at least such is my case. I know that a similar result occurs with others; for I have had two boards arranged, separated, not by rollers but by plugs of vulcanized rubber, and with the vertical index: when a person with his hands on the upper board is requested to press only downwards, and the index is hidden from his sight, it moves to the right, to the left, to him and from him, and in all horizontal directions; so utterly unable is he strictly to fulfil his intention without a

visible and correcting indicator. Now, such is the use of the instrument with the horizontal index and rollers: the mind is instructed and the involuntary or *quasi* involuntary motion is checked in the commencement, and therefore never rises up to the degree needful to move the table, or even permanently the index itself. No one can suppose that looking at the index can in any way interfere with the transfer of electricity or any other power from the hand to the board under it or to the table. If the board tends to move, it may do so, the index does not confine it; and if the table tends to move, there is no reason why it should not. If both were influenced by any power to move together, they may do so,—as they did indeed when the apparatus was tied, and the mind and muscles left unwatched and unchecked.

"I must bring this long description to a close. I am a little ashamed of it, for I think, in the present age, and in this part of the world, it ought not to have been required. Nevertheless, I hope it may be useful. There are many whom I do not expect to convince; but I may be allowed to say that I cannot undertake to answer such objections as may be made. I state my own convictions as an experimental philosopher, and find it no more necessary to enter into controversy on this point than on any other in science—as the nature of matter, or inertia, or the magnetization of light—on which I may differ from others. The world will decide sooner or later in all such cases, and I have no doubt very soon and correctly in the present instance. Those who may wish to see the particular construction of the test-apparatus which I have employed, may have the opportunity at Mr. Newman's, 122, Regent Street. Further, I may say, I have sought earnestly for cases of lifting by attraction, and indications of attraction in any form, but have gained no traces of such effects. Finally, I beg to direct attention to the discourse delivered by Dr.

Carpenter, at the Royal Institution, on the 12th of March 1852, entitled, 'On the influence of Suggestion in modifying and directing Muscular Movement, independently of Volition':—which, especially in the latter part, should be considered in reference to table moving by all who are interested in the subject.

"M. FARADAY.

"Royal Institution, June 27, 1853."

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