his marks. He thereupon re-found the spots *three times*, his marks at one of them being only a yard apart. It is possible he may have been able to reckon the distance ; and I noticed also towards the end of the experiment that the bandage had slipped a little, and I could see the upper corner of his left eye, so that he may have been guided by the trees. Thus the result was probably inconclusive.

Elson's hands and arms are very muscular ; he uses stout hazel forks and grips them very hard, and they turn downwards with corresponding strength, usually breaking, sometimes at the fork, but generally on one side ; he then takes a fresh grip nearer the fork, and so on, till the stick may be used up to within an inch of the fork. When it turned over the stream his forearm muscles were strongly contracted. He says it usually makes his left thumb numb, and that he feels the effects in his biceps the day after. Mr Slade said Elson had found water for many of the neighbours, and had never had a failure. The farmer also told me Elson had predicted water at another point half a mile to the east at 30 ft., and that it was found at 27 ft., and rose to within 5 or 6 ft. of the surface."

PART III

THEORETICAL

CHAPTER XII

THE MECHANISM OF DOWSING

§ 1. The Dowsing-Rod

THE reader has now had ample opportunity for verifying our statement that there is an endless variety in the instruments used for dowsing. Under this head we might reasonably have considered what may be called mechanical water- and mineral-finders. There are numerous articles of this kind patented in Europe and in America. Thus T. Fiddick, a professional English dowser has invented what he calls a " dowsing cone," but which is nothing more than a *pendule explorateur*. M. Henri Mager, in France, has an elaborate instrument to which he has devoted much trouble. Then there are Schmidt's " Apparatus," W. J. Bodenhamer's " Vibrator," Fred. H. Brown's " Electro-Terreohmeter " and " Electro-Geodetic Mineral Finder," Mansfield's " Patent Automatic Water Finder," and many others.[1] In the U.S.A. particularly there is a large number of such mechanical oil and petroleum finders, and many advertisements such as this can be found in the press of that country : " Rods for locating gold and silver, lost treasures, etc. Guaranteed." W. Edwards, of Draycott, near Cheddar, in Somerset, has even invented a ring which, when worn, prevents the dowser from feeling any untoward sensations ! With these we do not propose to deal ; the inventors of these instruments usually treat them as being of quite supreme importance and refuse to impart details of their principles. Messrs Mansfield (formerly of Liverpool, and later of New Brighton) even returned an exceedingly impertinent letter to such a request. It is, in short, difficult to take such instruments, and the claims made on their behalf, quite seriously.

[1] See *e.g.*, Lilian Whiting, *Canada the Spellbinder* (1917), pp. 138–140

To go to the other extreme we find that some dowsers such as Leicester Gataker, A. W. Wills, the lad Fred Rodwell (shown in Fig. 51), and others, dispense with all instruments, and use only their bare hands, either stretched out horizontally to the earth or clasped together.[1] This, however, is unusual for several reasons: because dowsing without an instrument is not very attractive to the popular mind and the dowser, naturally enough, is averse to losing any measure of attention. Another reason is a better one: whatever be the causative influence that enables the dowser to find the hidden water and the like, it undoubtedly operates through the dowser's subconsciousness. Consequently some autoscope is necessary to enable the dowser to become aware of the indications of his subconsciousness. The rod serves this purpose, precisely as does, in similar cases, the planchette and the many other articles used for such purposes.

FIG. 53. WILLIAM STOKES'S ROD.

After M. R. Cox, *Papers and Transactions [of] The International Folk-lore Congress, 1891* (1892), p. 440.

The rod itself can be of many shapes, examples of all of which can be found in the illustrations in this chapter and throughout the book. We have straight rods which are simply laid across the hands and across the extended fingers. There is the slightly curved rod as used by Bleton and Pennet, which can be laid across the hands or held by them. There is the more unusual kind used by Mr R. Robertson, a successful amateur dowser; this gentleman simply held a three or four foot stick outstretched in one hand. Then there are various steel or other metallic articles used, such as watch-springs, and such eccentric articles as candle-snuffers, or a German sausage, and so on. But what is most often used, though not so often as to form a majority of cases, is some kind of forked rod. Such a rod may be simply a natural one formed of a twig branching into two, or it may be a more solid manufactured article resembling a spur, such as is shown in Fig. 53. But the distinguishing characteristic of these forked rods is that such a rod has three extremities, which correspond to the angles of an imaginary triangle, of which two are held one in either hand, the third one pointing away from the body. Into the question of the manner in which the rod is held we must now enter.

[1] See also W. Leaf, "Vis-Knut," *Proc. S.P.R.* (1908–1909), xxi. 142, 146; *Journ. S.P.R.* (1897–1898), viii. 264.

§ 2. How the Rod is Held

William Cookworthy, a dowser of two centuries ago, gives a description of the method he had found best for holding the rod, and says that "after numerous experiments he has good reason to believe the effects of the divining rod to be more than imagination," remarking that he believes all persons could use the rod, though "some have the virtue intermittently." He used either a forked hazel twig or two straight twigs tied together in the shape of an **X**, and continues: "The most convenient and handy method of holding the rod is with the palms of the hands turned upwards, and the two ends of the rod coming outwards; the palms should be held horizontally as nearly as possible, the part of the rod in the hand ought to be straight, and not bent backwards or forward. The upper part of the arm should be kept pretty close to the sides, and the elbows resting on them; the lower part of the arm making nearly a right angle with the upper, though rather a little more acute. The rod ought to be so held, that in its working the sides may move clear of the little fingers. The position of the rod when properly held is much like the figure annexed [Fig. 54] where the distance between the four downward lines is the part that is supposed to be held in the hands.

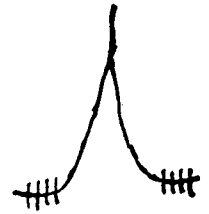

FIG. 54. WILLIAM COOKWORTHY'S ROD.

From his "Observations on . . . the Virgula Divina," *Gentleman's Magazine* (1751), xxi. 507.

The best manner of carrying the rod is with the end prolaided [*sic*] in an angle of about 80 degrees from the horizon, as by this method of carrying it the repulsion is more plainly perceived than if it was held perpendicularly. But after all the directions that can be given, the adroit use of it can only be attained by practice and attention. It is necessary that the grasp should be steady, for if, when the rod is going, there be the least succussion or counter-action in the hands, though ever so small, it will greatly impair and generally totally prevent its activity, which is not to be done by the mere strength of the grasp, for, provided this be steady, no strength can stop it."

It is interesting to note that the foregoing description of the way of holding the rod closely resembles that given by Agricola in *De Re Metallica*. Agricola's work is the earliest detailed account we have of the use of the *Virgula divina*, and refers, of course, only to its use in finding mineral lodes. In like

manner the learned Jesuit de Chales, in his great work *Mundus Mathematicus* (1674, ii. 190) gives a similar description of the way the rod is held. The following is a translation of the passage, which is of great interest, as it is one of the earliest references to the successful use of the rod in finding underground water: "They hold it [a forked branch of hazel] with both fists, in such a way that the outer part of the fists turns downwards, *i.e.*, the two little fingers face each other. Thus each branch being grasped firmly in each fist, they walk to and fro. . . . When they come perpendicularly over underground water, the branch, however strongly it is held, turns upside down; that is, the vertex points downwards, so that the forked sides are twisted; but it does not succeed with all persons. . . . Once on a certain occasion I purposely hid some money in the earth, which was found by a certain noble person by the hazel twig in my presence. The same person used to find springs so surely that he would trace the whole course of underground water."

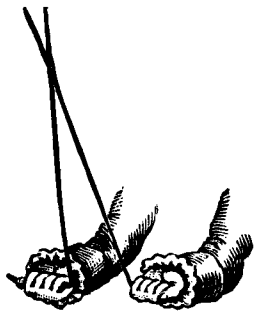

FIG. 55.
A ROD HELD AS DIRECTED BY COOKWORTHY.
W. Pryce, *Mineralogia Cornubiensis* (1778), p. 118.

A detailed account of the manner of holding the dowsing-rod is also given by Pryce in his *Mineralogia Cornubiensis* (1778, p. 118). Pryce says: "It is very difficult to describe the manner of holding and using the rod: it ought to be held in the hands, in the position shown [in Fig. 55], the smaller ends lying flat or parallel to the horizon, and the upper part in an elevation not perpendicular to it, but 70 degrees, as shown.

Alonso Barba directs the rod to be fixed across the head of a walking stick in the form of a **T**, and the end which is nearest the root will dip or incline to the Mineral Ore.[1] . . . The rod should be firmly and steadily grasped; for if, when it hath begun to be attracted, there be the least imaginable jerk, or opposition to its attraction, it will not move any more, till the hands are opened and a fresh grasp taken. The stronger the grasp the livelier the rod moves, provided the grasp be steady, and of an equal strength. . . .

A little practice by a person in earnest about it, will soon give him the necessary adroitness in the use of this instrument: but it must be particularly observed, that as our animal spirits

[1] [There is no mention of this in Alonso Barba, *Arte de los metales* (1640).]

are necessary to this process, so a man ought to hold the rod, with the same indifference and inattention to, or reasoning about it or its effects, as he holds a fishing rod or a walking stick; for if the mind be occupied by doubts, reasoning, or any other operation that engages the animal spirits, it will divert their powers from being exerted in this process, in which their instrumentality is absolutely necessary; from hence it is that the rod constantly answers in the hands of peasants, women and children, who hold it simply without puzzling their minds with doubts or reasonings. Whatever may be thought of this observation, it is a very just one, and of great consequence in the practice of the rod."

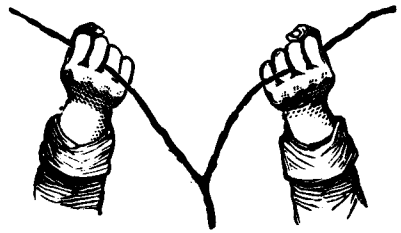

FIG. 56.
THE ROD AS HELD BY JOHN MULLINS

The remark in the last paragraph is interesting, and Pryce's observation is confirmed by the quite independent testimony of many others. If the dowsing faculty be some subconscious perception of which the rod is the outward and visible sign, we should expect to find "doubts or reasonings" fatal to the successful use of the rod.

We have already referred to the excellent picture (Fig. 10) by A. Crowquill of a dowser at work given in Phippen's pamphlet on the rod (1853). Here also the arms are held tightly to the sides of the body, but the prongs of the fork pass between the index and next finger of each hand. Miss Cox, in her notes on the rod, shows (Fig. 53) Stokes holding the rod pointing downwards with the prongs grasped by the fists. Mullins, however, whose success as a dowser was the most remarkable in modern times, always held the rod as shown in Fig. 56. This is much the same way as Tompkins is shown holding the rod in

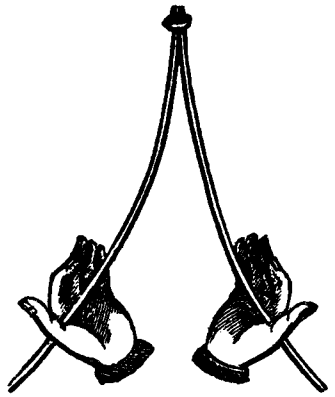

FIG. 57.
THE ROD AS HELD IN THE UNITED STATES
"The Divining Rod," *The American Journal of Science* (1826), ii. 202.

Fig. 36; this might indeed be expected since he learnt his art from Mullins. On the other hand, Stone is seen in Fig. 34 to be holding the rod in quite another manner. Again, in the *American Journal of Science*, in the course of a lengthy article on the rod, a picture is given showing how the rod must be

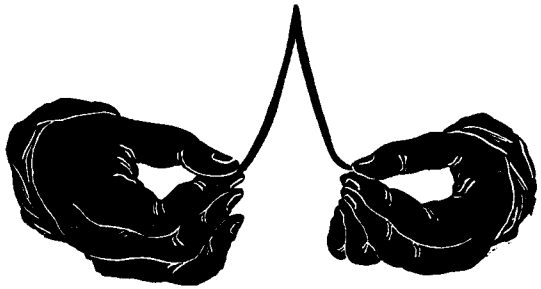

FIG. 58. AN ALUMINIUM POCKET-ROD AS USED BY MESSRS J. F. YOUNG AND R. ROBERTSON

held, and here the prongs of the fork pass between the thumb and forefinger of each hand (Fig. 57). Messrs Young and Robertson, both amateur dowsers, in their little book on the rod give illustrations showing their way of holding the rod: they have sent a little waistcoat-pocket forked rod made of aluminium, which they recommend to be held in the way shown in

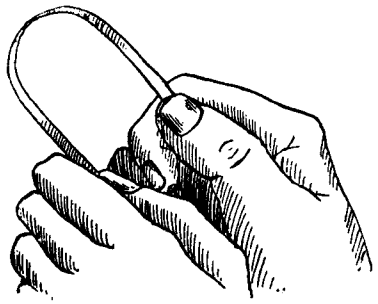

FIG. 59. ANOTHER KIND OF METAL ROD

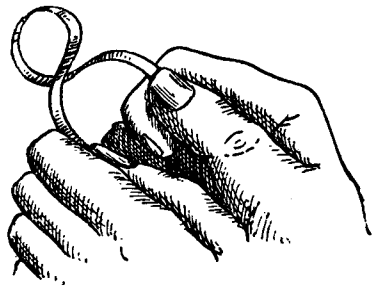

FIG. 60. THE SAME ROD AS IT IS ALLEGED TO TWIST WHEN OVER WATER.

G. H. Stokes, "A Water Wizard [S. T. Child]," *The Ibis Magazine* (September, 1910)

Fig. 58. They also use a straight rod or wand some three or four feet long, as already mentioned, which they hold inclined in the right hand, the thinner end being held in the hand and "the eye resting on the top of the thick end." This, they assert, dips down over an underground spring.

Many pages could be filled with descriptions of the manner in which various dowsers hold their various rods. But no descriptions could give so clear an idea of the diversity that exists in this respect as the accompanying illustrations. The manner of holding the rod varies with the dowser, and obviously, in itself, is of no importance. Both in the nature of the rod and in the manner in which it is held, the determining factor is the degree in which the rod is a sensitive indication of the muscular tremor which determines its motion. For this purpose it is of course important that it should be held in a position of tension or poised equilibrium. We shall revert to this subject in the next chapter.

§ 3. THE MOTION OF THE ROD

To an onlooker who sees a dowser at work for the first time one of the most startling things is the sudden and apparently spontaneous motion of the forked twig, a motion so vigorous that one of the limbs of the twig is frequently broken, though the dowser is apparently doing his utmost to restrain its motion. The common explanation of an incredulous public is that this is merely a trick on the dowser's part to mystify his dupes, but the evidence adduced in this volume shows that this view is quite untenable. (We refer to honest dowsers: impostors exist here as elsewhere.) The only alternative recognised by scientific men is that the motion of the rod is due to an involuntary muscular action. Few will be disposed to dispute this proposition. When the rod is held in most of the ways described above or shown in the illustrations, it is in a sensitive state, and an almost imperceptible movement of the hand or hands will cause it to move.

But it is true that this is not always the case; when the rod is held as it is by Tompkins, for instance, we have found from personal experiments that it is most difficult to produce any motion of the twig without a very visible movement of the hands. Moreover this is not all. Both with practised professional dowsers like Lawrence and Mullins and with amateurs like Lady Milbanke and the Rev. J. Blunt, the rod not only rotates, but one limb is frequently twisted off completely. Thus the Rev. Martin R. Knapp, writing of a dowser whom he does not name, says: "... the twig showed vigorous signs of animation. When his hand was being twisted in his efforts to keep the twig steady, I cried to him to hold fast, with the result that the twig twisted itself into two pieces." Mr Enys, F.G.S., who is an amateur dowser, states "the rod broke short

off in front of my hands, and did so a second time in the same place," *i.e.*, where underground water existed. Miss Grantham (daughter of Judge Grantham), describing what occurred with the Rev. J. Blunt, states " so strong was the impulse, that we found unless Mr B. relaxed his hold, the twig broke off near his fingers." Lady Milbanke had the same experience. Mr Budd, a geologist, describes what occurred with Mullins when he came over underground water at Waterford. He writes: " Mullins held the forked twig between his second and third fingers as if you were going to write, the point of the fork downwards. At No. 1 [the spot where a large supply of underground water was found] the point lifted itself up, until it turned over backwards and twisted itself until it broke . . . The clerks then held [another forked twig] with him, and held his hands, always the same effect." In another place, seeing the frantic motion of the twig when Mullins came over underground water, a gentleman tried to stop its motion by gripping the twig in two places with smiths' tongs, " one pair securing the tips and the other the fork, but the contortions still went on between the points held."

Numerous independent witnesses of unimpeachable integrity and some with high scientific attainments testify to this automatic and apparently irresistible motion of the twig in the hands often of a complete novice. We have already quoted Mr Enys, the President of the Royal Geological Society of Cornwall, who also states that the clerk of his Parish Council, on finding the rod suddenly twist in his hands, called out, " It is alive, sir, it is alive ! " Mr Enys adds: " This exactly describes the sensation when the rod moves." Mr Dixon, a large fruit-grower in California, states: " I held the stick as tight as I could to prevent its moving, but it twisted right round." Mr Denison, of the Toronto Meterorological Observatory, gives a careful record of the violent twisting of a forked plum stick or bent wire used as a dowsing-rod by an amateur dowser. Mr G. W. Bennett, of Oxford, refers to the frantic motion and ultimate breaking of the twig " held firmly " in the dowser's hands. Mr Montague Price states: " I held one side of the forked rod myself and the ' diviner ' the other, and when we came to water [alleged underground water] the strain was so great on my fingers I was obliged to ask him to stop. From the position of the rod it was absolutely impossible for him to produce the pressure, which increased with the strength of the stream."

The usual practice, after watching a dowser at work, is for some of the onlookers to try if the forked twig will move in their

hands. Generally speaking, one or more, out of perhaps ten or twelve persons, discover to their astonishment that the twig curls up in their hands at the same places at which it did with the dowser. Here is such an experience. Mrs Minnie Hollands writes as follows from Dene Park, Tonbridge: " In answer to your note of inquiry about the divining rod, the whole thing is rather a long story, but the practical result of the water dowser's visit was to find water which now supplies the house. One of my daughters found she had the strange power which moves the divining rod, and it works for her now quickly over any spring. It is most interesting, as you can feel the rod if you take one side of it and take one of her hands, she holding the other end of the rod—it struggles up, and would break off altogether if you did not allow it to move. My daughter has since found several springs on the estate, where we have sunk wells. They have stood us in very good stead these last dry seasons."

A similar experience is given by Miss M. Craigie Halkett, who published some excellent photographs of a dowser at work in *The Sketch* for August 23rd, 1899. Miss Halkett writes from Lauriston, New Eltham, Kent: " The man depicted in the photographs is not a water-finder by profession. He is a tenant farmer residing at Catcott, a village near Bridgwater, and merely exercises the art to oblige his neighbours. Several of the country people in this neighbourhood (Somerset) have the gift. It has never been known to fail.

Personally, I was rather sceptical on the subject, but was converted by the stick turning in my hands when standing over a spring. There were about six persons present at the time; all tried it, but it would turn for no one excepting the man in the picture and myself. I experienced a sort of tingling sensation in my arms and wrists, but otherwise was quite unaware when the forked stick began to turn, it seemed to go over so quickly." Miss Halkett does not say how she knew she was " standing over a spring " when the twig turned in her hands: this is very characteristic of the statements of dowsers.

These facts are so curious that they have been adduced at some length, and the reader will have observed other instances in the foregoing pages. We do not propose to discuss them at this point, but only seek to establish the fact that the rod does often move, sometimes violently, without the volition of the dowser. Whether all the cases can be attributed to unconscious muscular action, as we claim, must be considered in the next chapter.

§ 4. Transmission of the Motion of the Rod

We have now briefly to consider what may appear at first sight a group of still stranger phenomena. That is, the fact occasionally noticed that when the dowser lays hold of the wrist or hand of a person with whom the rod will not turn, the twig instantly moves. This apparent transmission of involuntary muscular action was noticed by Thouvenel to occur with Bleton a century ago. Thouvenel states that when Bleton placed his finger on the hand of a person with whom the *baguette* would not ordinarily turn, the rod instantly rotated when they approached underground water. The

Fig. 61. The Rod as used by an Eighteenth-century German Dowser
J. G. Krüger, *Geschichte der Erde* (1746), pl. I. 2

Count of M. confirms this from his own experience.[1] A few years later Amoretti, the Italian scientist, discovered the same thing when Pennet touched his hands. He writes that the rod then turned against his (Amoretti's) will whenever he stood over veins of metal.

We do not lack modern confirmation of this observation. Thus Mr Duncan A. Morton writes: "I took the V-shaped wand in my hand, and passed it over running water without any result. Mullins laid his hands on my wrists, and grasped them firmly, when the twig instantly began to turn, and continued turning while it was in my hands." Mr Percy Clive states that when he held the rod and Mullins put his hands

[1] *Mémoire* (1781), p. 59.

on his wrists, the rod "twisted round in my hands with such force that when I held it tight it broke." Mr Cecil Woolley, of Lincoln, agent to Trinity College, Cambridge, writes, again of Mullins, that the latter having gone over the ground and indicated water in one spot, "I took the twig in my own hands and went over the same spot with no result. He [Mullins] then took hold of my wrists without touching the twig himself and when we together walked over the same place, the twig turned up in my hands. This was, I suppose, caused by muscular action on my part, but if so, it was certainly, as far as I was concerned, perfectly unconscious action." Lord Burton makes a very similar statement in a letter to the *Pall Mall Gazette*, for the 20th of February 1897. There can thus be no doubt of the reality of this curious fact, which seems to occur most conspicuously only with notable dowsers such as Bleton and Mullins, and it forms another item in the complete group of phenomena relating to dowsing which must be covered by any theory put forward.

§ 5. The Sensations Occurring in Dowsing

Nearly all dowsers assert that when the rod moves in their hands, or when they believe that underground water is beneath them, they experience a peculiar sensation, which some describe as felt in the limbs like the tingling of an electric shock, others as a shivering or trembling, and others as an unpleasant sensation in the epigastric region. With all there is more or less of a convulsive spasm, sometimes of a violent character. This *malaise* is very marked in some cases, but not experienced in others. That these physiological disturbances have a purely psychological origin is obvious from the facts that they are not experienced when the dowser is off duty, that is, when he has no suspicion that he is in the neighbourhood of underground water, and that like effects are not produced by the much greater masses of visible water in rivers, lakes and the sea. The interesting point is that these psycho-physiological phenomena have a real existence; they exist among dowsers in all countries, and can be traced back, as historical investigation shows, for upwards of two centuries.

Let us briefly note the principal facts. In the first place it is not, as some imagine, only when the "diviner" is in the presence of underground water that this physiological disturbance occurs. We have seen that when Jacques Aymar was sent for to trace, by means of his rod, the murderer of the Lyons wine merchant, Aymar was taken into the cellar where

the murder was committed; suddenly his *baguette* moved violently, he was seized with convulsive spasms, and his pulse rose as if feverish.

A century later another distinguished French physician, Dr Thouvenel, independently noticed much the same thing with Bleton. Thouvenel gives a detailed medical report of his own long-continued observations, and states that when Bleton believed he was over a subterranean spring he was seized with an extraordinary *malaise*, which affected his diaphragm and produced a sense of oppression in the chest; at the same time a shivering set in and the pulse fell, his body trembled and, in a word, he exhibited "all the characteristics of an attack of convulsive spasm."[1] Similar symptoms manifested themselves in the Prior of a convent at Autun, who was an amateur dowser and contemporary of Bleton. A few years later the Italian *savant*, Amoretti, noticed the same symptoms occur whenever the lad Pennet came over a vein of mineral ore or of coal. Amoretti states that a surgeon, Sanzio, an amateur dowser, found his pulse accelerated twelve to fifteen beats per minute when the rod moved in his hands.

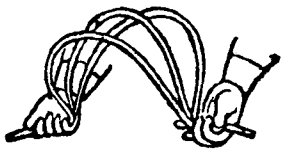

FIG. 62.
THE MOVEMENT OF THE ROD
From Luigi Sementini, *Pensieri e Sperimenti sulla Bacchetta Divinatoria* (1810), p. 21

Dr Mayo, F.R.S., Professor of Anatomy and Physiology in King's College and in the College of Surgeons in London, describes corresponding symptoms which he observed in 1847 in a youth with whom he experimented. The lad had never seen a "divining rod" before, but when Dr Mayo instructed him how to use it, and made him walk over a spot where he had reason to believe an underground spring existed, the forked twig twisted round, much to the lad's astonishment, and at the same time Dr Mayo states the lad declared that "he felt an uneasy sensation which quickly increased to pain at the pit of the stomach, and he became alarmed, so that I bade him quit hold of the rod, when the pain ceased. Ten minutes later I induced him to make another trial; the results were the same."[2] As Mayo was apparently unaware of Thouvenel's writings, he could hardly have anticipated or suggested the *malaise* experienced by his subject, and the effect observed was doubtless due to the same psychological cause as in the previous cases.

[1] *Mémoire* (1781), p. 53.
[2] *On the Truths contained in Popular Superstition* (1851), p. 18.

Abundant modern instances of a similar physiological disturbance and convulsive spasm occurring with various dowsers in different countries have reached us. Thus Mr J. F. Young says: "I have noticed, when divining, unpleasant and peculiar symptoms always occur when I am over an underground spring; often a convulsive feeling and staggering comes on." The sensation in this case, however, may have been due to suggestion or unconscious imitation, for this dowser's father, Mr Robert Young, had also been an amateur dowser. He wrote that whenever he came over an underground spring, so violent a trembling seized him that he had to be supported or he would fall. His daughter supplemented this statement by writing: "One day I asked father to point out to me the spring in Gough's close; he walked to and fro, and when he came to a certain spot he reeled and staggered and said the spring was below. To test the reality of his indication I privately marked the spot where he said the spring was. I then took him to the far end and blindfolded him carefully, then led him about the field by a circuitous route. Directly he came on the spot I had marked, he reeled as before and would have fallen if I had not held him up. Directly he came off the place he was all right." Of course, this interesting experiment was to an extent vitiated by the fact that Mr Young was led.

John Stears writes: "My feeling when I am on a stream is not pleasant, I can only describe it as being the same as produced by reading of a railway accident." Thomas Heighway says that he does not dowse much because his nervous system is so much affected that he does not recover for some hours. Still more interesting is the following letter from Leicester Gataker: ". . . when I am near the spring I get a distinct feeling or shock, which is greater when I am over the spring proper, thus I judge the depth at once, but the volume by the duration of that shock. . . ." The sensations felt by other dowsers, especially Lawrence, have been described on previous pages.

There are some sceptical persons who would explain these phenomena by asserting that these different dowsers conspire to exhibit similar symptoms as a bit of stage business in order to impress the onlookers. It is, we think, unnecessary to waste time in disputing such a belief if any one cares to hold it.

How, then, are we to explain these curious pathological phenomena? The facts are certainly incontestable and, we venture to think, deserve more attention from physiologists

than they have yet received. They are not, however, peculiar to the use of the so-called divining rod, but are found to exist more or less conspicuously in other cases of motor automatism. Pierre Janet, for instance, has drawn attention to very similar convulsive phenomena and physiological disturbances as associated with other phases of automatism.[1] Prior to this, however, Sir William Barrett pointed out that in trials with the "willing game," which is one phase of these varied automatic phenomena, curious physiological disturbances were often produced, such as dizziness, hysteria, and incipient trance.[2] In fact, a *malaise*, manifesting itself in different ways, and with different degrees of intensity in different subjects, is a usual concomitant of motor automatism and its allied phenomena.

The singular connection of visceral sensation, a visceral consciousness as it were, with a particular psychical state is familiar to us all in emotion, and forms the basis of the James-Lange theory. Emotion, in fact, is a *feeling* excited by an idea or train of ideas, and therefore the sensations experienced by the dowser are strictly emotional disturbances. Whether emotion is primarily a cerebral process, as some physiologists maintain, the visceral or vascular disturbance being secondary; or whether, as other eminent physiologists hold, the psychical process of emotion is secondary to the excitation of the visceral organs, through certain stimuli causing the discharge of a nervous impulse into those organs is a matter that does not concern us here, albeit physiologists may find in the facts cited some fresh light thrown on this controversy. The points of interest to us are that the *malaise* or other sensation felt by the dowser is probably an emotional effect, and the fresh evidence afforded of the nexus existing between emotion and muscular action, whether this latter be conscious or, as with the dowser and his rod, unconscious.

Furthermore, in many cases where subconscious acts are performed, as M. Janet points out, a state of partial catalepsy supervenes. Catalepsy, as Dr Ochorowicz has shown, is a state of mono-ideism,[3] that is, a "mental condition which concentrates every action upon one single and dominant idea and is not counterbalanced by any other." Now this is precisely the condition of the dowser when he sets himself to dowse, and in some few cases he passes into a state of complete catalepsy when the idea culminates. It is not, therefore,

[1] *L'Automatisme psychologique* (1889), pp. 208 *et seq.*
[2] *Proc. S.P.R.* (1882), i. 57.
[3] "La suggestion mentale," *Revue Philosophique* (1887), xviii. 122.

a question of underground water or mineral ore, but merely the result of a suggestion producing a state of mono-ideism.

The *malaise* felt by the dowser is therefore in all probability an emotional disturbance, the mind being dominated by a single idea and the subject being a person on whom suggestion is operative: using the word suggestion in the sense of an impression or influence exercised without the knowledge or consent of the subject concerned.

We have now narrowed the issue down to this problem: how does this subconscious suggestion arise in the case of the successful dowser? Here we enter upon the final stage of our inquiry.