

CHAPTER XIII
THE RATIONALE OF DOWSING

§ I. OBSOLETE THEORIES

UNTIL that attitude of mind which produces what is called scientific method had become established as the only proper manner in which to approach any problem, there arose from time to time, according to the fashion of the moment, a variety of explanations of the varied and numerous mysteries of nature. One of these, and one the mystery of which increased in men's minds in proportion to its value and wide application, was the dowsing-rod.

The earliest theory put forward in explanation of the phenomena of dowsing was that of sympathy. It was alleged that when the heavy-laden branches of some tree bent to the earth, they did so not in obedience to the laws of gravitation but to those of sympathy. It was alleged that there exists some innate affinity between certain objects, as between the heavenly bodies and the processes of nature, the moon and the fluctuations of the waters, and the like. Thus this theory was not altogether based on empty speculation; it was when they began to apply this hypothesis to matters for which they had no evidence, that these early investigators went astray. One example of their error, the idea that there existed a special sympathy between the wooden bough of the tree and subterranean metals, led to a further error in interpreting the facts of dowsing. It led to the obviously absurd error that the dowsing-rod moved towards the earth in the hands of the dowser when he passed over metals (for this was the only use of the rod in the sixteenth century and before) because of the attraction exercised by the hidden metal on the sympathetic wooden rod.

The next theory saw the light in France towards the end of the seventeenth century. Various known as the atomic or the corpuscular theory, it is, if anything, even more fantastic than the one just described, though it is obviously based on it. This theory is graphically shown in the accom-



FIG. 63. RODS AS USED BY FRENCH SEVENTEENTH-CENTURY DOWSERS
[P. Lebrun] *Lettres* (1696), p. 133

panying illustration, but to make the matter quite clear we cannot do better than quote the worthy and learned William Pryce on this subject: "The corpuscles . . . that rise from the Minerals, entering the rod, determine it to bow down, in order to render it parallel to the vertical lines which the effluvia describe in their rise. In effect the Mineral particles seem to be emitted from the earth; now the Virgula, being of a light porous wood, gives an easy passage to these particles, which are also very fine and subtle; the effluvia then driven forwards by those that follow them, and pressed at the same time by the atmosphere incumbent on them, are forced to enter the little interstices between the fibres of the wood, and by that effort they oblige it to incline, or dip down perpendicularly, to become parallel with the little columns which those vapours form in their rise."¹ We have already seen how this theory was enlarged in order to encompass the activities of Jacques Aymar in tracing murderers, it being decided that the body of a murderer gave off a special kind of corpuscular emanation which was named *matière meurtrière*. Nor have these ideas failed to find contemporary adherents.

Before the corpuscular theory had arisen and for long after its popularity had failed, the official religious dogma in regard to dowsing was the usual simple and comprehensive one: if the rod did good it was due either to divine inspiration or to the action of angels, if no result was achieved then the movements of the rod were due to the direct interference of evil spirits or even of the devil himself, as we can see in figure 9. This plain alternative was supplemented sometimes by the introduction of merely playful demons, who regarded the moving of the rod as a pleasant pastime.

The theory of sympathetic affinity and attraction outlived the name which it originally bore and we find the principle behind this theory transmogrified into Reichenbach's Od-force, or radio-active force, or dynamic force and the like. These new names were principally due to the fact that, as we have seen, the divining-rod was a familiar object long before the dowsing-rod became an object worthy of serious consideration. Naturally, therefore, the first explanations that were forthcoming smacked very strongly of this occult ancestry. Later, however, the occultists were in rather a difficulty; for, having claimed the rod as an occult phenomenon, they could not reconcile that claim with the disappearance of the theory of sympathetic affinity. How these writers then transferred the onus of the responsibility to science can be judged from

¹ *Mineralogia Cornubiensis* (1778), p. 114.

the following passage from Mr A. E. Waite: ". . . the ordinary divining-rod . . . is an instrument of natural magic and not of pneumatic art. This is substantially equivalent to saying that if its curious properties are really established facts, they are unappreciated phenomena of ordinary science and belong, like the loadstone, to the domain of magnetism."¹ This comparison of the rod to the loadstone is, of course, meaningless, but the magnetic theory itself has received very wide support.

Still later, with the general use of electricity, this further phenomenon was used and at the present day a majority of dowsers affirm with the most dogmatic emphasis that the phenomena they produce are due to electricity. In Germany

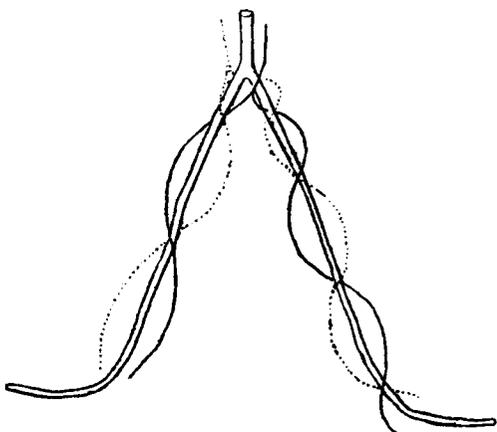


FIG. 64. "CURRENTS" PASSING THROUGH A ROD.

Count J. de Tristan, *Recherches sur quelques effluves terrestres* (1826), Fig. 7

most students of this subject are making heroic attempts to prove this assertion; they combine as a rule the theories of magnetism and electricity, and their ideas amount to this: that underground water exerts magnetic attraction on the dowsing-rod on the same principle as the magnet on steel. De Tristan² spoke of these magnetic currents as *effluves terrestres*, and held that water gave off, in addition to the magnetic currents, certain electrical currents which, passing through the hands of the dowser, formed a circuit with the earth whenever the dowser and his rod pass over water, the two currents passing through the rod as shown in Fig. 64. On this basis a

¹ *The Occult Sciences* (1891), pp. 151-162.

² Count J. de Tristan, *Recherches sur quelques effluves terrestres* (1826).

considerable number of mechanical appliances have been invented and are used by their inventors.

A novel theory has been put forward by Sir W. H. Preece, who writes: "The proper use of electric currents can show the existence of water and of metallic veins, but the so-called 'divining-rod' has nothing whatever to do with electrical or magnetic phenomena as far as I can conceive. I have come to the conclusion that it is mechanical vibration, set up by the friction of moving water, acting upon the sensitive vertical diaphragm of certain exceptionally delicately framed persons [which causes the phenomena of dowsing]."¹

These theories, whatever their intrinsic value may be, do at any rate attempt to explain the matter rationally, but there are many theories which are hopelessly eccentric or which entirely evade the main issue. Such, for instance, is that of an American writer who declares that the forked branch dips because of the physical impossibility of maintaining it in a horizontal position.² And that of Count von Klinckowstroem who writes in a letter that "the sun, and the moon which reflects its rays, can be considered as an essential source of energy for the motion of the rod." And that of Dr Aigner, the leader of the German dowsers' association, who looks upon dowsing as the "rudiment of an atavistic sense of smell." These opinions we need not discuss, though the last theory has the support of Bishop W. Boyd Carpenter,³ and of Lord Farrer, himself a dowser, who writes that dowsing seems to him to be "analogous to those disused powers which savages possess, but which civilized men generally lose. Is it just possible that at an earlier geological period the earth was drier and hotter, and for the preservation of the species it was necessary to track water?"

§ 2. CRITICISM OF THE OBSOLETE THEORIES

Nearly all these theories are still held by many persons, and not only by those who know little of the subject but by not a few students who are well acquainted with it. Therefore it is necessary to indicate briefly why these theories are untenable. This can be done very easily along several lines. The reader will have observed that those theories which postulate attraction between the underground metal or water and the

¹ *The Times* (16th of January 1905), p. 12d.

² P. Robinson, "Saunterings in Utah," *Harper's Magazine* (1883), lxvii. 705-714.

³ "Presidential Address," *Proc. S.P.R.* (1913), xxvi. 19.

wooden rod at once fall to the ground because of the fact, amply demonstrated in the previous chapter, that the rod is far from being always a wooden one, that it can be of any substance which responds to muscular movements, and that it can be entirely dispensed with. In short, any theory which seeks to explain the origin or rationale of dowsing on the basis of the material or shape of the rod is *ipso facto* valueless.

The theory of electricity can be disposed of in a very simple manner by any reader who cares to go to the trouble. Those dowsers who allege that the phenomena they produce are due to electricity, further allege that if they stand on a sheet of insulating material the rod will not move. It has already been pointed out that this fact, if it is a fact, would not demonstrate the falseness of the theory, for if the dowser stands on a sheet of insulating material or on a glass-legged stool, he is merely preventing electrical conduction from the earth and does not impair electrical induction. But this simple experiment can be adapted in this way: place the dowser over a spot beneath which he declares water to run and cause him to stand on a stool or the like which is capable of being caused to alternately insulate and uninsulate him. Now when the dowser knows that he is completely insulated, his rod will not budge an inch; then go through some elaborate, but meaningless, actions and inform the dowser that he is uninsulated: immediately the rod will dip. Nevertheless throughout the experiment the dowser was uniformly insulated. This simple test has been repeatedly carried out and proves in an incontrovertible manner that what causes the rod to move under these circumstances is not electricity but the dowser's own ideas, whether conscious or subconscious. This opinion gains strong support from an equally simple experiment described by Sir E. B. Tylor, whose clear intellect and power of discrimination led him to this view as far back as 1883. He said in a lecture given at the University Museum, Oxford: "That the spring or other object sought has really no effect on the instrument, but that its dipping has to do with the seeker, is sufficiently shown by its being considered to act with the most dissimilar objects—a spring of water, a vein of ore, a piece of metal, a dead body—which have, however, this in common, that they are what the dowser is in search of. It does not appear that he fraudulently moves the rod, but my sensations led me to agree with Chevreul that the slight movements of the hands are unconsciously guided to accumulate into impulses sufficient to cause the twig to dip or rise. I noticed that when I could allow my attention to stray, the rod would from time to time

move in my hands in a way so lifelike that an uneducated person might well suppose the movements to be spontaneous. It is hardly necessary to say that the rod always moves where the bearer's mind suggests an object. In the present case the special business of the dowser was to find springs of water, and his difficulty was to distinguish between the mere *top springs*, which though acting on the rod were of course practically worthless, and the valuable *main springs* which would repay the sinking of a well. In the trial an incident occurred which threw light on the whole operation. The rod when brought over my watch, dipped strongly, and the dowser looking up at me with innocent archness said: 'You see, sir, it's just over the *mainspring* of your watch.' The remark showed how his mind was so simply controlled by association of ideas, that he expected the same action from a *main spring* of water and of a watch, their likeness of name quite overriding their unlikeness of nature. Nothing could have better shown at once the man's sincerity and the purely ideal character of his craft, nor does one often meet with a more perfect illustration of the state of mind where magic has its origin in delusive analogy, whether of things or of their names."¹

Those theories which posit a magnetic, radio-active or other emanation from water, and the vibratory theory of Sir W. H. Preece, cannot be so easily disposed of. The case against them is based on the fact that the dowser is not only able to find underground water, but can also find mineral veins, coal, oil and petroleum, hidden coins and any object or substance whatever on which the dowser's intention is fixed.

§ 3. DOWSING FOR MISCELLANEOUS OBJECTS

We are obliged to relegate for brief mention many now subsidiary uses of dowsing. We have seen that at one time the rod was exclusively used for the finding of minerals. This use has now almost entirely died out, probably because of the very exact knowledge we now possess of the location of such mineral deposits. Nevertheless occasional use of the rod for this purpose still occurs. One of the most successful practitioners of dowsing for metals in contemporary days was a dowser named Hazel who lived near Bristol until his death in 1900. A record of general observations and experiments with Hazel has been kindly made by Mr W. Pole Routh, of Reading. Again, a report has reached us of a recent discovery of gold by means of dowsing in the Curone Valley in Piedmont, some

¹ "Anthropology," *Nature* (1883), xxviii. 58.

miles from Alessandria. Mrs Greig, of Mill, South Zeal, Okehampton, Devonshire, has had some interesting successes in the discovery of underground coal, and has proved equally successful in some experiments carried out with her by Colonel W. G. Lowther, J.P., for the discovery of metals. In this connexion it may be interesting to observe that early in 1917 Sir William Barrett had the idea that submarines and mines might be discovered from the surface of the water by means of dowsing; after consultation with Sir Oliver Lodge the idea was put before the Admiralty Board of Invention and Research, who authorized experiments to be made, which, however, owing to the expense involved, did not take place.



FIG. 65.
THE ROD AS HELD BY A GERMAN MINER
C. Sterne, *Die Wahrsagung* (1862), p. 88

Dowsing has also been applied in the American continents to the finding of mineral waters (a case of which will be found in Appendix B), oil and petroleum. Several accounts of these last applications have reached us which describe successes, more particularly in Peru; and Mr Frank N. Hales of Armstrong, British Columbia, has kindly sent an account of the achievement of an oil-dowser in California, who states that he learnt his art in China. But with all these forms we cannot deal. We may conclude this brief survey of the varied uses of dowsing

by quoting an extremely interesting and valuable relation of Sir Herbert Maxwell (also independently described in a letter by Andrew Lang), from which it will be seen that Aymar's tracing of human beings by means of his rod is not a solitary case. It may be mentioned that the Mr Howson referred to has subsequently carried out a number of experiments in dowsing which show that his achievements in the following case are far from unique. Sir Herbert's story opens with an account of cases of water-dowsing, which are worth reproducing, though we have not obtained independent testimony: "Our County Council having condemned open springs for the domestic supply of water and called upon landowners to provide covered wells, I found myself under the necessity of sinking no fewer

than ninety-five wells. In ninety-three cases water was found without difficulty; wells were sunk and equipped at an average cost of £25, or £2,375 in all. But on two farms we were defeated, we failed utterly to hit upon a supply.

Hearing of our dilemma, Mr Howson, a gentleman of Lancashire, most kindly offered his assistance as an amateur dowser. He had never been on the ground before,¹ but he came, he saw, he conquered. He walked at high speed over the fields quartering the ground as a well-trained pointer might do, and carrying before him, not the traditional forked hazel rod, but a piece of stout twisted wire, bent to form an acute angle, with an end held in either hand. On both farms he indicated a spot where we should sink a well; we did so and found an ample supply in each place, which has never failed in the ten years that have gone by since.

Some years previously, desiring to sink a well in the garden, I had availed myself of the power of a lady friend who had the gift of 'dowsing'. She went all over the ground, and her rod (an orthodox hazel this time) indicated one spot, and one only, where water would be found. The well was never sunk, and I bethought me of trying whether Mr Howson's wire would correspond in its action with that of the lady's hazel. I took him over the whole ground, and, sure enough, at the very same spot his index turned smartly up. . . .

We were sitting at luncheon one day, eight or ten of us, when Mr Howson asked whether we would care to see some further experiments with the divining rod. Of course we agreed. He then said that if he might take the 'power' of any one present by touching him or her with the point of the wire that served him as a rod, that person might go out into the park or woods or anywhere and that he would follow his or her footsteps at any time within, I think he said, 36 hours. So we sent out a young lady, whose 'power' he took in the manner prescribed, pressing the point of the wire on her arm. We gave her a ten

¹ The geological foundation is lower Silurian rock, overlaid with glacial drift, the surface soil or tilth being rather light gravelly loam. The land lies in a series of low ridges, and is under arable rotation.

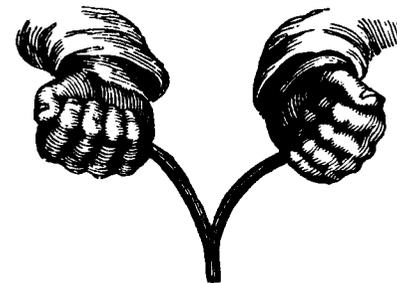


FIG. 66.
A SEVENTEENTH-CENTURY FRENCH ROD
P. Garnier, *Dissertation* (1692), p. 32

minutes start, and then set forth in pursuit, guided by the diviner. It was impossible that there should be any collusion between pursuer and pursued, for it was I who asked the lady to submit to the experiment, and Mr Howson had never met her till just before we sat down to luncheon. It was equally impossible that he should have seen from his seat at the table the direction she took in her flight; yet he hit the trail at once, followed it step by step, the index pointing upward when he was right and rising to horizontal when he was astray. Our operator followed that young woman across a wide lawn, into a wood on the far side, where she had described a considerable circuit, returning to the flower-garden near the house. Here Mr Howson got confused. 'There are several tracks here,' said he; 'I am afraid I am beaten this time.' It turned out that the young lady had been in the garden before luncheon gathering flowers!

The next chase ended more satisfactorily. A male member of the party was sent forth, his 'power' having been duly taken, and, after prolonged pursuit, was run to ground. . . .

Even more perplexing was Mr Howson's next demonstration of his power. He bade us arrange round a table a number of pieces of crockery—porcelain, delft, stoneware, etc., three or four of each manufacture. We did so, and allowed the operator to 'take the power' of one piece of a set. He was then brought into the room blindfold, was led round the table, and with his rod picked out the pieces of the set of which he had taken the 'power.'" Sir Herbert Maxwell proceeds to describe further and equally interesting experiments of the same nature.¹

§ 4. DOWSING FOR HIDDEN AND LOST OBJECTS

There is a large body of evidence showing that the dowser succeeds equally well in finding hidden or lost objects as in finding underground water, but one need do no more than quote a few typical instances. Thus Mr T. Forder Plowman writes: "Some time ago I met a personal friend, Mr William Brown, of Middlehill House, Box, at the Board Room of the G.W.R. Company, at Bristol, whither we had both come to attend a meeting, quite unconnected with either water or divining. While we were waiting, some one called to see Mr Brown, and before this person left my friend asked me if I had ever seen a water diviner, as he could show me one. I replied that I had heard of such persons, but had never dropped across them. He then introduced me to John Mullins, who, he

¹ *Memoirs of the Months* (1897-1922), vi. 171-174.

said, had been most successful in finding water on his property. After I had had some conversation with Mullins, my friend asked him to leave the room for a few moments. When he had done so Mr Brown informed me that, although Mullins would not bind himself to find anything but water, he had had proof of his capacity to discover hidden metal, and he would test it in my presence. He then took three sovereigns from his purse and placed them in a line, and several feet apart, underneath the Turkey carpet. I may say that the door of the room was closed, and that no one could observe our proceedings through the keyhole, as it did not command the end of the room we were in. We then called Mullins in, and asked him to use his rod along the left-hand side of the room. He took a forked twig from his pocket and proceeded up the room with it, holding it in front of him as I have described. It showed no agitation at first, but soon did so, and we marked the spot with a piece of paper. Twice afterwards this occurred, and Mullins said he had no doubt but that he had come across some water conveyed under the flooring, probably the supply to a cistern. We then turned up the carpet and found the sovereigns on the spots indicated by the rod."¹

Mr Brown carried out another interesting experiment of this nature, which he describes in a letter. In Mullins's absence he and some others who were present placed ten stones on the road, putting a sovereign under each of three of these stones. When Mullins came he was asked to pass his rod over these stones, the experiment having been explained to him, and without hesitation gave correct indications. When he came to a stone under which there was no sovereign he at once said, "Nothing here master," but when he came to the others he remarked, "All right, master, thankee," turned the stone over and put the sovereign in his pocket.

A number of similar incidents in finding coins, drain-pipes and the like, have been described incidentally in previous chapters. The following one is typical; Mr Bruce of Norton Hall, Gloucester, writes: "Mullins also found a half-sovereign I had buried in a walk we were then making. I would have lost the half-sovereign if it had not been for Mullins, as I was so careful not to put any mark [on the place where it has been hidden] that I was not able to find the place myself, and when Mullins stopped and said it was under his foot, I thought he was wrong, but there it was!"

In May 1909 a number of scientists and the three dowsers,

¹ "The Divining Rod," *Proceedings of the Bath Natural History and Antiquarian Field Club* (1889), vi. 414-415.

Mr J. F. Young, of Llanelly, Mr Ede, of Arundel, and Mr H. Farndell, of Littlehampton, gathered in the Caxton Hall, Westminster, for the purpose of carrying out set experiments such as those described above. One of the experiments was as follows: A coin was to be hidden in some part of the room in the absence of the dowzers and while all those present in the room looked out of the window, the person hiding the coin was then to leave the room, and one of the dowzers called in to try and find the coin. This was done five times: first the coin was hidden by Sir William Barrett beneath an article lying on a chair in the large Council Room, 45 other chairs being similarly covered. The odds against finding the coin at the first venture were thus 45 to 1, but when Mr Young was called in he immediately indicated the correct chair. Mr Young again left the room, accompanied by a guardian, and the coin was hidden under another chair, which was again correctly indicated by Mr Young. The odds against two such consecutive successes being due to chance coincidence are 2,025 to 1. A third experiment was made with Mr Young, and this time a sceptical gentleman, Mr A. E. Best, hid the sovereign, the dowzers being absent and all those present looking out of the window. Mr Best then left the room and the dowser came in and fixed on a certain chair. This was wrong, but when Mr Best came in he said he had first put it there and then removed it to another chair. Without any information being given to the dowser he was asked to try again to find the coin, which he did correctly. There would be good reason to consider this as two distinct, and even specially instructive, successes, but reckoning it merely as a success at the second attempt and reckoning the odds against such a success as being 20 to 1, the odds against the results at the end of the third experiment being due to hazard are 40,500 to 1. The fourth time the coin was hidden by Mr H. May and again found at the first trial by Mr Young. On the fifth and last trial the sovereign was secreted by Mr R. F. Duke, F.G.S., and found at the first attempt by Mr Ede. At the end of the experiment the odds against the results being purely fortuitous were over 80,000,000 to 1, presenting on absolute moral certitude that the dowser is able to find hidden objects. M. Charles Richet has carried out very similar experiments,¹ and among dowzers who have kindly submitted to such tests may be mentioned Mr R. G. D. Tosswill, of Budleigh Salterton, Mr Jermans, F.R.I.B.A. of Exeter, and Mr Young, some of whose successes

¹ "La Suggestion mentale," *Revue Philosophique* (1884), xviii. 639 et seq.

have just been recorded and who conducted, with himself as subject, many other similar experiments.

The Rev. H. J. T. Tringham, of Long Cross Vicarage, Chertsey, is an amateur dowser, and has carried out some interesting experiments, some of which he describes in the following letter (dated the 21st of January 1922): "Last night I was making

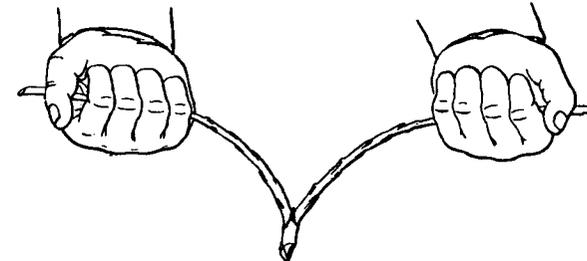


FIG. 67. THE ROD AS HELD BY GABRIEL DE MORTILLET: FIRST POSITION

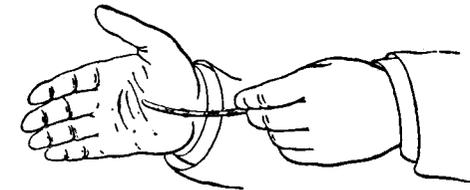


FIG. 68. THE ROD AS HELD BY GABRIEL DE MORTILLET: SECOND POSITION

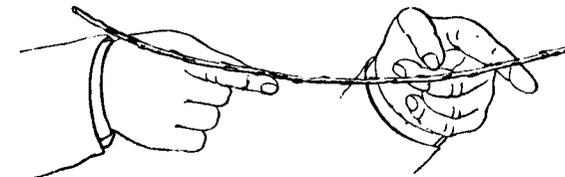


FIG. 69. THE ROD AS HELD BY GABRIEL DE MORTILLET: THIRD POSITION

From his *Histoire de l'hydrosophie* (1849), Frontispiece

the test [by dowsing] over a lot of coins—silver and copper, and the rod moved in a lively fashion, but I found . . . that it would only work if the thought of metal was in my mind. If I thought of water it would not work for metal, and vice versa. Well, that is weird enough, but it occurred to me that I might be deceiving myself as to the movement of the rod over the coins, more especially when I found that to get

it to operate I had to think of the particular metal of which the coins were made! So I devised a test. I made parcels of silver coins and parcels of copper coins, and 'jumbled' them up together so that I had not the least idea which metal any one of them contained. Then I selected one at hazard, put it on the floor and tried the rod over it, thinking of silver. 'Nothing doing,' as the boys say. Changed my thought to copper, and the rod moved. Copper it was. I tried each packet in turn and the rod never made a mistake! This is rather uncanny, but fascinating. I tried with pewter, and with an ordinary tin, and got no result."

Finally, under this head, may be quoted the following case of finding a lost jewel by dowsing. Miss F. M. Turner, of Hampton Court, near Worcester, writes on the 11th of April 1911: "A little while ago a valuable turquoise and diamond ring was lost, on a hockey ground, by the daughter of the Vicar of Pershore, in Worcestershire. The ring had been given to her to take care of while her friend was playing hockey, and the loser was naturally greatly distressed. Long and repeated search was immediately made for the missing ring, but it was without result, and all hope of ever seeing the ring again was abandoned. The loser one day chanced to hear of my 'divining' powers, and at once wrote to me, and I consented to go and see if I could help in such a minute search. The day was a very stormy one, and I had only time to carefully walk backward and forward by the pavilion and mark one place where my rod turned in my hand, when a very heavy storm of hail and rain came on, and when it was over the ground was so wet and muddy we could not properly examine the spot I had marked—also, I had to catch my train. Next day the lady and her sister went back to the place with a garden fork, and the very first sod they moved contained the ring; it had been trodden into the ground half an inch, and was only three inches away from the spot marked by me the day before. . . . I must confess that I was as surprised as everyone else that such a small thing as a ring could be found by the rod in such a large tract of ground as the hockey field." These facts were duly confirmed by a letter from the lady in question, Miss Mary Lawson.

§ 5. CRYPTSTHESIA IN DOWSING

The facts put forward in §§ 3 and 4 seem to us to prove in no uncertain manner that the phenomena of dowsing cannot be due to any kind of emanation or radiation. Sir W. H. Preece's

theory that the success of the dowser is due to an hyperæsthetic perception of the vibrations produced by underground water is readily traversed by the dowser's success in finding a hidden object or underground mineral vein, which produce no vibrations. Similarly, granting what is in itself a quite unfounded supposition, that underground water in some way throws out some kind of emanation which is hyperæsthetically cognized by the dowser, how would this cover the finding of other things than water? There can be no form of emanation known to science produced equally by all forms of matter and affecting equally all forms of matter. To say, therefore, that dowsing is due to an aqueous emanation or radiation is a mere terminological perversity.

Before proceeding to discuss our own theory a further series of facts has to be put forward. The reader will have noticed in the case of the boy Guy Fenley and in a few others that the dowser speaks of, or is spoken of, as "seeing" or "perceiving" the underground water or other objective. In the case of Miss Miles's discovery of a lost cistern for Mrs. Batson, Miss Miles wrote that when she came near the spot she "saw the tank unmistakably, it appeared large with a rounded top and something branching away from it." This was, in fact, the appearance of the cistern. Arising from this statement an experiment was made with Miss Miles, in which a coin was hidden under a carpet in Miss Miles's absence. When she came in, without any possibility of unconscious guidance being given, she correctly described the spot where the coin was hidden, saying as she closed her eyes for a moment: "I see it under the corner of that rug." This test was twice repeated with equal success, and when the very large number of places suitable for hiding a coin in an ordinary living room is remembered, this becomes a very valuable piece of evidence.

The following case of a boy in South Africa may be compared: Professor R. F. A. Hoernlé, of Armstrong College, Newcastle-on-Tyne, writes (22nd of December 1912): "In October, 1911, about 2½ months before I left S. Africa (Cape Town) for good, I received a letter (in Dutch) from a resident at Paarl, a small country town about 60 miles from Cape Town [actually 30 miles E.N.E.], in which he told me of a boy, aged about 11 (I think) who could find water by 'seeing' it. On my taking the letter to Mr J. Du Toit, Professor of Dutch at the South African College, Cape Town, I learnt that the case was well known to the Professor, because the boy in question lives in the Orange Free State on a farm close to one belonging to Prof. Du Toit's brother.

I summarise the facts as told me by Prof. Du Toit. When the boy was about 5 years of age, his father, finding the three wells on his farm inadequate, started digging for another without success. The boy came running to his mother: 'Why does father dig there? There is no water there. He ought to dig *here*. There is water here,' and he pointed to a spot some yards away from where the father was digging. At first no one paid any attention, taking it for childish prattle. But the boy insisted, and his curiously positive conviction finally impressed the parents so much that they dug at the spot indicated, where, in due course, they struck a plentiful supply. At first they were upset, believing it—as 'backveld' Boers are quite likely to do—a case of diabolical possession, but the minister of the Dutch Reformed Church had the good sense to reassure them. The story presently came to be hinted about the countryside; other farmers, either from curiosity or because themselves in need of fresh wells, asked the boy to visit their farms and indicate water. As a result, the parents soon lost their superstitious terror, and in fact ended by making a business of their son's 'gift',—by now, no doubt, regarded as 'divine.' At any rate, I was told that the fee—payable to the father—is £5 for three indications; money returned in case of failure. Many farmers, according to my informant, and also villages have successfully availed themselves of the boy's services. Of failures I could hear nothing—only of an alleged failure. When that was reported to the boy he insisted that they must have dug at the wrong spot, and revisiting the locality, he is said to have indicated as the original spot a spot about one yard away from the one where the people had dug, and at this original spot water was duly found.

The boy employs no rod or any other instrument or device. He is said to 'see' the water simply as if there were no solid soil between him and it at all. He will point to the slope of a 'kopje' and trace the line of a subterranean water-course, as if it were on the surface. And he speaks of seeing the water 'gleam' and sparkle as if it were in the sunlight. He estimates the volume at least sufficiently to advise his employers whether it is worth their while to dig or not. I could not get certain evidence as to whether he can tell accurately how deep down they have to dig before they strike water. Also, I could not ascertain whether he is in a trance or in any other way in an abnormal condition when 'seeing' water. But he was described as, apart from the gift, a perfectly normal and healthy child. Needless to say, he has no geological knowledge of any kind."

There is no lack of historical evidence for this method of dowsing by "seeing" the water and the like. In Appendix A are discussed the Spanish dowsers known as Zahoris, or clear-seers. In the eighteenth century there was Jean Jacques Parangue¹ in France and the woman Pedegacha² in Portugal; and in Switzerland in the first half of the nineteenth century occurred the striking case of Katharina Beutler and Anna Maria Briegger,³ both of Thurgovia. In none of these cases, however, is the evidence sufficiently ample to justify its being discussed here. By a curious chance that is not the case in an incident recorded by Dr Ashburner. This writer, in considering the facts of dowsing, gives a remarkable instance of a girl who, when mesmerised (the word was still fashionable when he wrote), appeared to be an excellent dowser; in the hypnotic trance, when the rod moved in her hands, she exclaimed that she saw the water a few feet beneath the surface, and gave a vivid description of it. Dr Ashburner quotes in full the letter he had received from a lady, a friend of his, giving a minute account of this experiment, which was made in a field adjoining the lady's house in Hertfordshire. At the spot where the rod turned and the girl declared that she saw the water, a well was dug, and an abundant supply of good water was found a few feet below the surface, though previously the lady states that they had "very bad water and had long been unable to find a good spring."⁴

This took place in the middle of the last century and it seemed hopeless to obtain any confirmation of the case, especially as Dr Ashburner gives no names. But by a fortunate chance a letter was sent to Sir William Barrett from a lady living at Waterford, who writing to a friend *à propos* of his first report on dowsing, gave an account of a visit she paid in 1847 to her aunt in Hertfordshire, Miss B., and narrates the very circumstance described by Ashburner. The writer confirms several

¹ See *Gazette de France* (12th of June 1772); *Mercur de France* (1772), i. 137, ii. 169-173; — Saurey, *L'Hydroscope et le ventriloque* (1772); *Histoire d'une jeune anglaise* (1773).

² *Mercur de France* (1725), ii. 2120-2125; (1728), i. 1175-1177; *Mémoire instructif pour un voyageur* (1738), i. 114, 120; Rozier, *Introduction aux observations sur la physique* (1772), ii. 255-260.

³ *Morgenblatt* (1810), iv. 1237-1244; L. Oken, "Die Rhabdomantin Beutler," *Isis* (1818), II. i. 140-146; J. H. D. Zschokke, *Ueberlieferungen zur Geschichte unsere Zeit* (1818), pp. 331-335; *id.*, *Eine Selbstschau* (1842), i. 226-227, ii. 172; J. F. Weisse, *Erfahrungen über arzneiverständige Somnambulen* (1819), pp. 75-84.

⁴ C. von Reichenbach, *Physico-physiological Researches*, ed. by J. Ashburner (1850-1851), pp. 90-106,

of his statements, and it was found that she was unaware that Ashburner had written anything on the subject.

In view of these facts it seemed desirable to arrange a set experiment along these lines; but it is almost impossible to induce a professional dowser to submit to such a test, because it requires a good deal of time, patience and intelligence: the patience and the intelligence he very often does not possess and the time he can more profitably dispose of in dowsing for water. It was decided therefore to have recourse to an amateur; about this time was received the following letter from Mr F. J. Young: "In the year 1893 I had a remarkable experience when out water-finding with the rod. . . . I found that after 'setting' myself to use the rod, *i.e.*, getting into an abstracted mental condition, lost to all around, when, or just before, the rod turned, I could—as it were clairvoyantly—*see* the underground springs and actually appeared able to trace them out as I walked along. My friend Mr Robertson, who, as you are aware, also uses the rod with success as an amateur water-finder, tells me he also had a similar experience, and we have since read that a 'diviner' named Adams, a Somerset man, frequently asserted the same thing."

It was therefore decided to ask Mr Young to submit to some experiments, to which he readily consented. The method was this: he was asked to try whether a pencil held in his hand would write automatically certain words or numbers that would be enclosed in a sealed envelope. Some words of three letters were therefore written in capital letters, the paper placed between the folds of a piece of thick paper and then enclosed in an opaque envelope which was securely fastened and sealed with a private seal. Three such envelopes were posted to Mr Young. He replied: "On receiving your letter I gave the envelopes to my sister-in-law, who took charge of them till I was ready to make the experiment. When at leisure in the evening she gave me one of the envelopes marked (3), which I placed inside my cap, and put cap and envelope on the top of my bald head. I sat at a table, as usual, with a pencil in my hand, and made my mind as blank as possible, patiently waiting till my hand appeared controlled to write without any volition on my part. After waiting for a little while my hand suddenly scribbled out, on an old postcard which was lying near, the enclosed, which looks like ONW, or else the last letter is E, ONE. I send the postcard to you with the scribble on it. Will you please say what the word is? I return the envelope.

I found the experiment very tiring, as if some vital force

were exhausted, and will try the other envelopes another time.

P.S. Before posting this letter, I made a second experiment with another of your envelopes, the one marked (2). First I tried with the rod in my hands, my sister slowly repeated the alphabet aloud; this she did three or four times. After the first repetition the rod moved at the letters A, B and C and no others. I then tried automatic writing with my eyes shut; the enclosed came, starting from the x—it looks like A.



FIG. 70. FIRST EXPERIMENT: LETTERS PLACED IN THE ENVELOPE



FIG. 71. FIRST EXPERIMENT: LETTERS PRODUCED BY MR YOUNG



FIG. 72. SECOND EXPERIMENT: LETTERS PLACED IN THE ENVELOPE

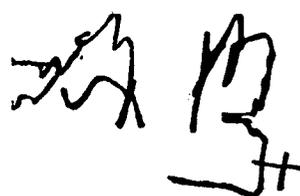


FIG. 73.
SECOND EXPERIMENT: LETTERS
PRODUCED BY MR YOUNG AT THE
FIRST ATTEMPT

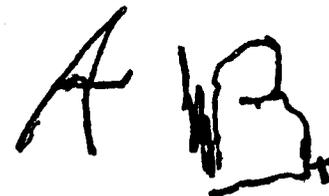


FIG. 74.
SECOND EXPERIMENT: LETTERS
PRODUCED BY MR YOUNG AT THE
SECOND ATTEMPT

B. On a second attempt the same letters came somewhat clearer."

On receiving the envelopes they were carefully examined and found not to have been tampered with in any way. They were then opened and in No. 3 was found the word ONE, and in No. 2 the word CAB. Figs. 70-74 are facsimiles of the original and of the writing sent by Mr Young. Sir William Barrett, who conducted this experiment, had no idea which of numerous words he had written was in the envelopes he had sent. The

experiment, therefore, was a strikingly successful one. Unfortunately, before Mr Young could proceed to the third envelope, illness and death invaded his house, and the experiments were laid aside and forgotten. Before this experiment Mr Young had made others of a similar nature, which are, however, recorded on his sole authority. Mr Young was a man of unquestionable integrity, who devoted many years to this problem, not only without any kind of gain but also without gaining, or seeking, notoriety. Nevertheless, the results must be taken for what they are worth. He wrote on the 5th of January 1900: "I made a few trials this evening. I cut some squares of paper all alike, put a number of one figure on each, then turned the squares upside down, shuffled them about in every way, and then picked up one of the squares with my eyes closed, put it on the top of my head and placed my cap on, it fitting close to the crown of my head. Then I made myself as passive as possible, and either slowly repeated the figures till a certain one seemed to be right, or the impression of a particular figure came as soon as I put the cap on my head; when it came thus quickly, it was invariably right. This is the result, and the order in which I took up the figures, of course one at a time. x denotes a wrong guess:

Figure on square . . .	2	4	7	5	3	2	9	3	6	1
Figure guessed . . .	x	4	7	5	x	2	9	x	6	1

The experiment was very exhausting, so that I could not go on any longer."

Finally under this head may be quoted the following passage from a statement kindly sent by Professor E. Garnett, Principal of the Pretoria Normal College and Professor of Education at the Transvaal University College. We have not obtained independent verification of his statement, but the facts are carefully recorded. Professor Garnett (writing from Alandale, Grahamstown, on the 3rd of February 1924), after describing various discoveries of note made by his eighteen-year-old son Edward Oscar Garnett, the manner in which he discovered his ability to dowse, and his procedure and sensations, proceeds: "During the past few months, my son has discovered (again trying simple tests by way of amusement) that in reply to definite questions the rod behaves as planchette.

The method he adopts is as follows:

The rod is held at forehead level, almost vertical.

Questions are asked in usual tone and pitch of voice.

For 'Yes' the rod moves forward and downward.

For 'No' the rod moves backward and downward.

The first trials were of a very simple and easily verified nature. During the last five weeks the following examination results were predicted, and the fulfilment realized within the past fortnight, viz.,

- (1) His sister Kathleen Erica's passing the Cape University Junior Matriculation, Class I.
- (2) His friend Barbara Bell-John's passing the Transvaal Matriculation.

Occasionally the answers were given by the *Morse Code* which my son knows, a tremor representing the *dot*, a sharp downward *stroke* the dash."

§ 6. THE CRYPTESTHETIC THEORY OF DOWSING

The several categories of phenomena surveyed above appear to us to lead inevitably to the conclusion that no physical theory can cover the facts. In our view the phenomena of dowsing are due to the following causative chain of psychological and physiological happenings: a suggestion is received by the dowser's subconsciousness by means of a sensibility as yet unknown to us and therefore admirably named by M. Richet cryptesthesia (*κρυπτός*, hidden + *αἴσθησις*, perception); the knowledge thus supernormally obtained can become conscious in several ways: (1) if the person is one whose access to, and ability to become conscious of, knowledge in his subconsciousness is more continuous and complete than those of the normal person, the cryptesthetic suggestion received by his subconsciousness can almost simultaneously become conscious either by a purely abstract cognition or by means of a visualisation or even by means of an hallucination of one or more of the senses. Under this head would come many of those phenomena which we have considered in which the dowser simply "knows" when he has discovered the object of his search or "sees" it.

Such cases, however, are exceptional, and the dowser generally becomes conscious of the subconscious suggestion, (2) by means of unconscious, automatic movements such as those which provide the phenomena of automatic writing, of the planchette, of the *pendule explorateur*, and of all those things which Sir William Barrett has named autosopes, including, of course, the dowsing-rod. Intermediately between these alternatives may be placed (3) those reactions of the subconscious suggestion which cause the phenomena which may be comprehensively described as the malaise of the dowser.

In short, we claim that dowsing is a purely psychological problem, that all its phenomena find their origin in the dowser's

mind, that no physical theory can bear close consideration, and that the movements of the rod and of the dowser have no more direct relation to the discovery of, say, water than as giving physical and visible expression to a mental and abstract cognition.

Much evidence put forward in this chapter and the previous one obviously can bear no other interpretation. How else can the simple experiment of insulating and uninsulating the dowser be explained? Nevertheless this theory has been strongly criticised, but before turning to these criticisms we may briefly review some of the support this view has received. Over two centuries ago Zeidler pointed out that the rod should not be asked questions transcending human intelligence, "for it is your own spirit that answers; you collect your mind, and it answers the rod according to the nature of the spirit."¹ Sir Lauder Brunton has well expressed this theory in writing: "I am inclined to think that the success of the divining rod, in some hands, for finding water or even for tracing criminals, is due to its causing involuntary muscular action, and thus enabling the person using it to consciously recognise that impressions have been made upon him which would otherwise never have arisen above the state of sub-consciousness."² This is the view endorsed by M. Charles Richet,³ and finally may be quoted a passage by a German writer. In Germany nearly all students of this subject are still hankering after electrical and magnetic theories, a circumstance which gives the following passage (with the terminology of which we disagree) all the more value: "The dowsing-rod is only an auxiliary meant to intensify the almost unnoticeable change in the physiological condition of the body, and to visualise more strongly the unconscious action of the muscles, the indication of a nervous stimulation of the body, as Heim very rightly remarks. The fact that the rod generally turns upwards in France and downwards in Germany is another clear proof that in dowsing it is only an unconscious physiological change, and that the whole act is of a subjective nature, and the mystic rod is but a means to fix the attention and to magnify by leverage the feeble motions of the muscles—an instrument which can be dispensed with after adequate practice."⁴

¹ *Pantomysterium* (1700), c. 6.

² "Truth and Delusion," *The Universal Review* (1889), iii. 54.

³ See e.g., *Traité de métapsychique* (1923), pp. 291 *et seq.*; see also Pierre Janet, *L'automatisme psychologique* (1889), pp. 367 *et seq.*; J. Grasset, *L'occultisme hier et aujourd'hui* (1908), pp. 112 *et seq.*; *id.*, *Le spiritisme devant la science* (1904), pp. 226 *et seq.*

⁴ R. Hennig, *Wunder und Wissenschaft* (1904), pp. 135-136. The translation is not ours.

§ 7. CRITICISMS OF THE CRYPTESTHETIC THEORY

The central criticism directed at the theory we have just outlined is a fundamental one, which, if it could be sustained, would nullify all that we have so far said. The critics who follow this line (the earliest of them was Mr E. T. Bennet)¹ state in effect that unconscious muscular action is not capable of producing some of the movements of the rod that have been observed, and that have been described above, and particularly that such unconscious muscular action does not account for the phenomena of the transmission of the movements of the rod, that is, the movements of the rod in the hands of a non-dowser when touched by a dowser (see §§ 3 and 4 in the previous chapter).

Before meeting this criticism directly, let us consider this important point: if the movements of the rod are not caused by muscular action on the part of the dowser, to what cause are they due? Mr A. P. Sinnett, the theosophist, wrote in a letter, ". . . when you get the hazel rods twisted with a force that seems disposed to break them it looks as if there were some elemental agency at work and I should be inclined to regard some of your 'dowsers' as mediums rather than clairvoyants." In our opinion the phenomena known as telekinesis, the movement of objects without physical contact, rests on a sufficiently broad basis of experimental evidence to be regarded as proved; we therefore are not disposed to reject *à priori* the suggestion that the movements of the rod are due to a force or ectoplasm emitted by the dowser. But there is no evidence whatever that this is the case, and an economy of hypothesis leads us to reject this view so far as the average case of dowsing is concerned. It must also be remembered that the use of a rod on which such a force could exercise its influence is not indispensable.

A view held by some persons was put forward in a letter by A. R. Wallace to the effect that the rod is used by discarnate intelligences. This opinion cannot be better criticised than by quoting from a letter from Sir Oliver Lodge, whose belief in human survival is well known: "I am interested in Wallace's view; suppose the dowser *were* a medium, how does that explain the movement of the stick? Does he suppose a deceased person comes and bobs the stick about? If so how does the deceased person know of the water? By clairvoyance? Then why not the dowser by clairvoyance?" In fact, we are again at the law of economy of hypothesis.

¹ *Journ. S.P.R.* (1897), viii. 151-155.

The theory occasionally is put forward that thought-transference can account for the phenomena of dowsing; this idea can be easily disposed of. Granting the possibility of thought-transference, and granting that this may be the explanation when some person living or dead knows the whereabouts of the object looked for, thought-transference cannot account for the finding of underground water, metals and the like, and of lost objects.

§ 8. UNCONSCIOUS MUSCULAR ACTION

We must now return to the contention of many critics and nearly all dowsers that muscular action is incapable of producing the observed movements of the rod. The dowsers themselves express this opinion in no hesitating manner; thus Major Wedderburn Maxwell writes: "I have taken hold of people by one hand and made them hold the wire or twig in their left hand and held the other end in my right hand, and the wire or twig will work and twist despite what any one does or wishes to do to prevent it." Dean Ovenden, after describing some experiments which he carried out, continues: "I felt a downward drag which I was unable to resist, although employing all my muscular force in the opposite direction. . . . There was, I am convinced, a force external to myself pulling against me." Dr D. W. Eshelby, of Stockton House, near Worcester, writing in a letter about a young farmer named Skyrne in his neighbourhood, who is a successful dowser, writes: "He [Skyrne] endeavours to *resist* the downward jerk of the branch. To assure myself of this I clasped his hands in mine and then walked slowly over the pipe of running water at night. The moment we came over the water the sensation was as though someone had seized the apex of the triangular branch and forcibly borne it down; our hands resisted this downward movement, and the two sticks gave way at the spot where they left his hands, and showed a 'green-stick fracture.' He did not move his hands or wrists as I had hold of them and should have detected any muscular movement sufficient to break the sticks." The late Sir Richard Harington, after describing his experience as a dowser, concludes that in his opinion his experiments (which seem quite inconclusive to us), "are conclusive that in my case at least there must be the operation of some force exterior to my own body. . . ." The reader will remember the Aymar-rivalling exploits of Mr R. Howson, who subsequently agreed to carry out some experiments; writing of these he states that

"no muscular action can account for the turning of the rod; that it is due to some independent and external force, the origin of which has yet to be discovered." And he concludes in unmistakable and courageous terms: "It is not the muscle that moves the rod but the rod that moves the muscle." We could quote many other letters from dowsers to the same effect.

We will now pass on to evidence which shows that the motion of the rod is really due to the muscular action of the dowser, notwithstanding the fact that there are certain positions in which the rod is held where it seems at first sight to be impossible for the dowser to move it. Such, for example, as that shown in figure 34, where Stone is shown holding a thick forked rod depending from the forefinger, second finger and thumb of each hand. Stone himself asserts that there is no movement of his fingers and that he holds the rod in this way because it cannot be moved by the dowser; but a careful eyewitness, Mr R. J. Charleton, writes as follows: "I must contradict the assertion that no movement of Mr Stone's fingers could be detected whilst he is using the divining rod. I watched him most closely, and distinctly noticed that his forefingers, second fingers and thumbs, between which he held the ends of the forked stick, were strongly compressed upon the pliant wood. At the same time there was an inward twisting action of the fingers which had the effect of raising the apex of the rod. Tremendous muscular force was apparently being used, to such an extent, in fact, that the operator's hands became quite swollen and tremulous when he had completed his experiments. I have myself been able to verify this explanation in my own person repeatedly, though I could not move such thick twigs as Mr Stone employs, but his muscular development is greater than mine and he is in constant practice."

Further testimony is afforded by Mr J. F. Young. Mr Young was at first inclined to think that the movement of the rod was entirely spontaneous and quite independent of the dowser, but after his attention had been drawn to the matter, he writes as follows: "I see that the motion of the rod, which is always held in tension by the water-finder, is really due to *unconscious* muscular action; this is specially noticeable with a watch-spring which I generally employ. In fact, I am so convinced in this matter, after endless experiments, that I defy any one to prove the contrary." A Somersetshire incumbent gives corroborative testimony, and states that, when holding the rod in the same way as the professional

dowser he employed, "the harder I grasped the stick to prevent it turning, the more it turned, till at last it broke in two, and hurt the hand that held it."¹

But this is no new explanation of the motion of the rod, for the fullest and best account of its motion, based upon experimental evidence, is given by the American writer to whom we have already referred, Mr Emerson, in the pages of the *American Journal of Science*. The writer shows how startling and apparently miraculous is the sudden motion of the rod, in the hands of a good water-finder, and remarks that if there be a fraud, the dowsers are themselves the dupes. It is true, he goes on to say, that nearly every one can urge it to turn in a fashion, but only in the hands of a very few does it move, not only without urging, but contrary to their best efforts. He himself tried again and again, but failed. At last, one day, watching a young and successful diviner, he noticed the peculiar spirit and air of determination with which he handled the rod. "Hoping to catch his lively manner [Mr Emerson says] I took the rod and tried my hand again. When I got to the bank of the rivulet the rod began to move, and I could not restrain it. He who for the first time in his life has received an electric shock will recognise the sensation which I experienced when I felt the limbs of the rod crawling round, and saw the point turning down in spite of every effort my clenched hands could make to restrain it. In this contest between myself and the rod the bark was stripped off the twig. The secret appeared to be to hold the rod in a *spirited* manner [by this he apparently means a determined and confident, not a weak and hesitating, manner], for since then the rod has never failed to move in my hands, nor in the hands of those I have instructed."²

These opinions may be supplemented by those of two trained observers who undertook experiments for the purpose of observing this specific point. Dr F. Purser, Professor of Physiology at Trinity College, Dublin, conducted such an experiment with Mr J. H. Jones, of whom we have already several times spoken. Dr Purser reported as follows: "The interview with Mr Jones was held under rather unfavourable circumstances, owing to the storm, but I think I was able to see the movement by which the turning of the stick is effected.

The movements by which the stick is turned are: (1) A

¹ *Notes and Queries* (1854), 1 S. x. 155.

² Cp. C. Richet, "La suggestion mentale," *Revue Philosophique* (1884), xviii. 639-640; M. Culpin, *Spiritualism and the New Psychology* (1920), pp. 37-38.

rotation of the forearms, or one of them; (2) a flexion of the inner fingers, by which the stick is made a lever of the first order with very short distance between the fulcrum and the power, or perhaps a lever of the third order. It was impossible to follow the movements when the stick was rapidly twirled, or when Mr Jones walked rapidly and the rod suddenly turned and he said: 'There is water here.' But when he stood over the place where he said underground water existed, and professed to struggle against the motion of the stick, the movement was evident, and I had no difficulty in imitating the movements myself, although, of course, not so dexterously as Mr Jones did. As to whether the movements are conscious or unconscious I cannot express any opinion,—but that the stick is moved by the muscles of the arm and not by any occult influence cannot be doubted, I think, by any reasonable being."

The second opinion referred to is contained in the following extract from the report of a small committee who, in 1894, critically examined a dowser at work. The committee of investigation consisted of the pathologist and the assistant physician of one of the Bristol hospitals, Mr Mole, F.R.C.S., and Dr F. H. Edgeworth, the latter having made neurology a special study, and the Rev. R. A. Chudleigh, of West Parley Rectory, Wimborne, Dorset. They were fortunate in securing the co-operation of a skilful amateur dowser, who placed himself, as well as his estate (on the border of the Mendips), entirely at their service. In the course of a lengthy report Mr Chudleigh says: "If there be one thing which is perfectly clear, it is that the movement of the wand is due to an unconscious muscular contraction, just like other muscular contractions, except that it is unconscious." He goes on to say: "The violent tremor which convulsed the over-strained arm is itself enough to suggest witchcraft to an ordinary spectator, and yet I am sure that it is nothing more than what is known as *muscle-clonus*." Anatomical reasons are then given to account for the sudden violent motion of the rod, and the report continues: "A precisely analogous phenomenon is seen in those cases where a spinal wound or a spinal poison throws the whole body into universal spasm; but the flexors master the extensors and the back muscles overpower the front ones, the result being the frightful and well-known pose called *opisthotonus*." The writer then points out that the sudden spontaneous tension of the muscles of the arms which occur when the dowser believes himself to be over a spring is probably due to auto-suggestion; "this auto-suggestion makes a diviner

positively tetanic when he knows or thinks that water is present."

It will be seen therefore that the assertions of the dowzers are over-balanced by those of competent observers. And we must therefore find the reason why so many persons feel unable to accept the obvious and reasonable theory of unconscious muscular action. This reason is not far to seek: the lay person cannot believe an unconscious muscular action to be perfectly compatible with a conscious resistance to that action. Nevertheless the evidence that this is not only possible but constantly done every day by everyone is overwhelming. To take a familiar case: many persons suffer from a tic, or twitching of a muscle, as that of the eyelid, for instance. This is an unconscious muscular action, and no amount of conscious muscular effort will restrain that muscle from twitching. Further, to conclude this argument, there is a simple experiment that everyone can try, and which not only covers the present point but also the apparent difficulty of the transmission of unconscious muscular action.

Most people will find if they hold in their fingers a thread which is weighted at the other end with a ring or something of the kind, that this thread or *pendule explorateur* will begin to move in a rhythmical manner. This motion is not due to anything but unconscious muscular action, for (and this applies equally well to the dowsing-rod) if the thread be suspended from a fixed support, it will not move.¹ Thus the possibility of unconscious muscular action is proved. Now, if a bystander suggests to the holder of the thread that it will move from north to south, it will generally do so. This proves the possibility of suggestion controlling unconscious muscular action. Further, if the holder of the thread tries by muscular effort or passivity to stay the motion of the thread, he will invariably fail. This proves the impossibility of conscious functions, as a rule, controlling unconscious ones. If now a suggestion concerning, say, the direction of the movement of the *pendule*, be given to somebody in another room and out of hearing, and this person returns to the room and holds the hand of the person who is holding the thread, the thread will obey the suggestion. This will occur if one or more persons are interposed between the holder of the thread and the person to whom the suggestion is given. In this way is proved the possibility of transmitting unconscious muscular movements. We need only add that concerning all these points there is an

¹ An experiment on these lines was made by Kircher three centuries ago; see pp. 12-13 above.

enormous mass of evidence which can be found in the writings of psychologists, hypnotists, psychical researchers, and others. It would be idle to pretend that we understand the rationale of such phenomena, but their existence no serious person can doubt unless he be of the disposition of that observer of Bleton who declared that he would not believe even if he saw. But it would be equally idle to pretend that unconscious muscular action in itself is a complete explanation; that is far from being the case. To mention only one point yet to be resolved, why does the unconscious muscular action take the form that produces a movement in a rod? This psychological difficulty has been very well put by Sir Charles Sherrington in a letter: ". . . An emotional stimulus is often directly connected with an unwilld movement; but the movement is as a rule such a one as without straining interpretation bears some obvious significance as appropriate for circumstances likely to be concurrent with the stimulus. It is curious to find a movement connected with emotion which *seems* comparatively meaningless. In the dowser the muscular contractions actuating the rod do not convey any feature of particular appropriateness to the event, *e.g.*, discovery of water. If they—to instance crudely—could signify the scraping of earth away to reach water, or the cupping of the hands to drink, etc., etc., it might be different. . . ." It is very difficult to say whether the striking of the rod has more relation to its original purpose, the indication of mineral ores, but such considerations drive to the foundations of all our psychological knowledge, and it would be hopeless to attempt to consider such things from the angle of dowsing alone.

§ 9. CONCLUSION

We may now state the conclusion to which we believe an impartial student of the facts set out in this book must come. The dowser, in our opinion, is a person endowed with a subconscious supernormal cognitive faculty, which, its nature being unknown, we call, after Professor Richet, cryptesthesia. By means of this cryptesthesia knowledge of whatever object is searched for enters the dowser's subconsciousness and is revealed by means of an unconscious muscular reaction, or less often by an obscure nervous sensation or emotion which produces physiological disturbances, or very rarely by means of direct supernormal cognition made conscious by a visualisation or hallucination.

We do not believe that the accumulation of further masses of

evidence, though of course this is not undesirable, will make the argument for these contentions any stronger. All that is required is the discovery of some fruitful generalisation which will permit the orthodox scientist to incorporate cryptesthesia into the canon of accepted and indisputable scientific knowledge. We believe that the first movement of thought in this direction will occur from the impossibility of finding any normal explanation of the phenomena of dowsing.