JOURNAL

OF THE

BRITISH SOCIETY OF DOWSERS

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CONTENTS

JOURNAL OF THE
BRITISH SOCIETY OF DOWSERS
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NOTICES

The Annual General Meeting was held on October 20th at the rooms of the Royal Asiatic Society, 74 Grosvenor Street, W.1. The meeting was followed by a lecture by Mr. W. W. Hawker on his dowsing experiences in Australia.

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Members are reminded that subscriptions for the current year, 1938-1939, should have been paid by November 15th.

Members who do not propose to renew their subscriptions are requested to be good enough to send a post card to that effect to the Honorary Treasurer.

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We much regret to record the death of Colonel S. H. Godman, D.S.O., on September 10th, after a long illness. Colonel Godman joined the Scots Guards in 1887. He served in the South African War, and in France and Mesopotamia during the Great War, being wounded at Loos and twice mentioned in despatches. In 1908 he became Secretary of the Council of County Territorial Associations. Latterly he took up dowsing with great enthusiasm and considerable success. He was an original member of this Society and contributed a notable article on dowsing to the *National Review* of August, 1935.

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Mumetal rods can now be obtained through the Editor at the reduced price of £1 10s. The use of the mumetal rod for accurate estimation of depth was discovered by the late Major Ralph Creyke. He contributed two articles to the Journal on the subject, one of which it is proposed to reprint in the next Journal.

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Several new members have asked the Editor for back numbers of the Journal. The Editor would be greatly obliged if members who do not require their old Journals would return them to him. Payment will be made if desired.

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Copies are being received of a new monthly paper, called *Le Radiesthésiste*, the official organ of the *Cercle Fédéral des Amis de la Radiesthésie de Belgique.*

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Angle rods with a swivel handle can be obtained from Messrs. Windley Bros., Crown Works, Chelmsford, for 6s. 6d. post free to any address in England.

Messrs. Devine and Co., St. Stephen's Road, Old Ford, London, E.3, supply pendulums of whale ivory, with central suspension and cavity for sample, at the price of 6s., and other dowsing instruments.

They also supply whalebone for rods, cut to size.

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Pendulums of rosewood can be obtained from the Hon. Secretary at 3s. each, and the Society's badges at 1s.

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Communications for the Editor, and inquiries, should be sent to Colonel A. H. Bell, York House, Portugal Street, London, W.C.2.

DOWSING EXPERIENCES IN AUSTRALIA

[Address given by Mr. W. W. HAWKER after the General Meeting on October 20th, 1938.]

It has come as a surprise and an honour to be asked to put my experience of divining in Australia before you.

It may not be out of place to tell you of the great difficulties diviners in Australia have to contend with. Our distances are so great, and we have so many and different geological formations which makes it very hard to work on any set plan, as I find, often, what holds good in one district won't work in another.

Adelaide, the capital of my state of South Australia, is 1,500 miles from Perth in Western Australia, over 500 miles from Melbourne, 1,000 miles from Sydney, and about 1,700 miles from Brisbane, so you can see how hard it is for diviners to even become acquainted with each other's methods.

I have had to work on my own and start at bed rock.

What is this power or gift of divining? What is the reason why one person has it and others not? It appeared to me that, not being able to take even a small electric shock without great distress to myself, it might be some sort of form of electricity we could detect. Then, knowing that pitchblend gave off radium rays, it seemed to me, why should not any object give off rays of its own?

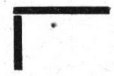
I noticed that the ants in Australia, which are said to have no eyes, always work from their home in one direction at a time. If you pick one up and put it down away from the beaten track it will wander about in an aimless manner for a time, then suddenly it makes off straight for its home. I conclude through its antennae it has either picked up the radiation of its home

or possibly a directional wave sent out by some ant in its home, just as the pilots of the aeroplanes are guided by the directional waves sent out.

The same applies to the carrier pigeons, only some of them have the gift of picking up the radiation of their home, and these have to be trained step by step to find their way over long distances. I have quite a number now wild on my property, which could not find their way home to Adelaide, which is 92 miles away. They have not the gift of divining beyond a certain distance.

I remember another case. When a youth, my father took a shooting in Scotland for my brothers and myself. A neighbouring farmer bought some calves at a market. One had been brought in a cart eleven miles by road to the market. The calf's home was six miles across the mountain from its new abode. The farmer turned this calf out in a field with the others. As he watched the calves to see if they settled down the one calf I speak of suddenly put up his head and galloped off straight across country to his old home and arrived there in due course, tired but happy. It had got the radiation of its old home and had followed it.

There is some other force which is hard to explain. I mean the power to divine the approximate site of water by working over a large scale map with the rod. Miss Penrose, with whom I have corresponded, has this gift. She can even feel a site miles away from where she is standing. This she did when employed by the Canadian Government to find water for farmers in a dry district. She can also tell the quality of the water by the taste in her mouth, whether it is good water or bad. This seems to me to point to some occult power or force we know very little of at present.

I first used a forked stick, but finding it impossible to get a rod with two sides equal in strength, I took to a V-shaped rod of No. 6 galvanised steel wire, each arm 22 inches long, for finding water or metals, and a  shaped rod, the short arm 11 inches long and the other arm 18 inches long ; this I use for following a stream and to trace out lodes of mineral and define masses of metal other than lodes.

The rod with me goes up for good water and down for metal or water heavily charged with minerals. When working for water I carry a case of test tubes with varying amounts of salt, epsom and glauber salts in solution, beginning with $\frac{1}{4}$oz. of salt and a few grains of the other salts to the gallon of water. I go over the stream and notice the strength of the pull I get. I then try the tubes in turn till I find one to neutralise the pull

of the rod. I generally put the tube in my mouth when working. When the rod ceases to work I read the label on the tube and, according to the quality, I decide if I will bore on that site or not. I generally find when the water is struck in the bore it is about the same as the water in the tube.

In Australia there is a great quantity of iron ore all over and under the ground. I find the steel rod neutralises this. When working on metals I put samples of the different metals on my head till I find the one which neutralises the pull of the rod; that is after I have found the body of ore.

I cannot tell the richness of the metal below or if it is in a refractory body. Horses require better water than cattle and cattle better than sheep; the latter will do well on water with 1¼oz. of salt to the gallon as long as there is not too much epsom or glauber salts in it as well. If the water is bitter as well as salt we do not use it.

On a property I own, 300 miles north of Adelaide, there is a condition which has beaten me. I would be very grateful for any help to solve this problem. I divine good water, which we generally strike, but the supply is small, about 200 gallons in 24 hours. On sinking lower a big supply of water as salt as the sea is struck. My rod will then go down and work as for metals. I am not able to detect the bad water under the good before boring. Having put down 59 bores and wells on this northern property at a cost of over £3,000 and only getting six usable supplies, you can see how valuable it would be if the bad water under the good could be detected without boring. If salt water is struck at first there is always the chance of getting good water under the salt if the supply of this is not too large.

When I find an underground stream I take my angle-shaped tracer and walk at right angles to the direction the tracer points; the tracer always points up-stream with me, and thus gives the direction from which the stream is coming. I then walk across the stream till I get to the centre of the stream. I know when this is reached, as the rod begins to turn back to the centre. I mark this point and the place where the rod started to turn. I then continue to walk out about 20 paces, turn round and walk to the centre of the stream and mark again where the rod starts to turn up-stream. Between this and the first place the tracer started to turn is the width of the stream. In following the stream I start in the middle; if I move even one foot to either side the rod turns to the centre. I have followed a stream for 11 miles, bored on it and got the full supply, but the water had the small supply of good water on top and the salt underneath; it had come through salt country and was useless.

In Western Australia a friend wanted water badly for his homestead, but he was very sceptical about anyone finding water

by divining. He took me out to a range of hills and said : " See if there is any water here." I struck a narrow stream, which pulled strongly, and the rod went up. When investigating this stream I got another pull, but the rod went down. Working with the tracer I found there were two streams only four yards apart, and told him the first was good water and the other bad water. He then took me half-a-mile down-stream and showed me two streams coming out of the face of a cliff. The one I said was good was beautiful water, fit to make tea with ; the other was horrible, bitter and very salt. He then owned up he was only trying me out. I found a site for him near his homestead on which he sunk a well and got a splendid supply of drinking water.

Another friend in Western Australia wanted a supply for his homestead. I located three streams which ran over the same site. I told him the first was only a small one, the second a big supply. I marked out with pegs the breadth of the stream. In time I got a telegram, " Have got down to second stream ; supply very small." I wired back : " Drive east." A couple of weeks after I got a letter saying when the miners had driven in five feet they struck such a large supply of water they had to leave their tools behind them, and, by the time the second man got hold of the rope to be pulled up, the water was up to his neck. The water was drinkable and the supply enormous.

When an underground stream is marked out, if shallow you sink a well, and if the supply is not enough you drive across the stream a channel six feet high by three feet wide. I find that in rock there is not a cavity right across the drive, but at irregular intervals streams come out of the rock. Sometimes they may be as big as three fingers, at others just a trickle. If in gravel the water runs evenly in and right across the gravel.

I have found any house with a stream under it is liable to be struck by lightning. I once owned a property in New South Wales where a stream ran under the station house. I told my manager to have a lightning conductor put above the chimney, which was the highest point of the house. He delayed doing this, and in a severe thunderstorm the chimney was struck and knocked through the roof. On the property where I live a telephone wire was twice struck by lightning and the wires fused. I put the rod over the place and found a strong stream. I then put lightning conductors on the telephone poles, and had no more trouble. About a year ago there was a very bad thunderstorm at night at my home We had a number of stud sheep in the wool shed and under it. The overseer got up to see the sheep were not crowding up too much at the ends of the pens. On his way to the wool shed was a very fine and large gum tree ; he saw a very bright flash strike the tree. He said the whole tree was a mass of blue lights, then a shattering crash, and the

whole tree was smashed up. Some of the pieces over 1cwt. were hurled over 60 yards away. Next morning I put the rod over the place where the tree had been and found there was a stream eight yards wide under where the tree had stood. This shows why people should never take shelter under a tree in a thunderstorm, in case there is a stream under the tree. I have often found the biggest trees are over streams.

I can often feel when I am over a stream or a body of metal, as the soles of my feet and the palms of my hands begin to tingle.

When coming to England I was sitting in the music saloon with a lady. I felt something below me pulling, giving me no rest. I asked her if she would mind if we changed our seats.

Next morning, before anyone was about, I took my rods to the saloon and got a strong pull downwards. On trying with samples I made out two areas, one gold and the other silver. I asked the staff commander if the ship was carrying gold and silver. He replied : " Not officially," but he asked which end of the ship I thought it was, the narrow (bows) or the blunt (stern). I said the narrow. Next day he asked me where I had found it. I took him to the music saloon and showed him where I got the pull. He said there was no gold under there. He then took me forward of the spot and asked me to try the rod there. I found a place, 5ft. by 3ft., where the pull was very strong ; in the saloon the pull was over a place 20ft. by 8ft. When we were at Bombay and the steamer quite still and no wind blowing I could not get any pull in the saloon, showing the radiation from the gold and silver was deflected by the wind which was caused by the vessel as she steamed forward.

I was told afterwards that the vessel carried three-quarters-of-a-million pounds worth of gold in the fore hold in front of the music saloon. My friend, who did not go ashore at Bombay, saw many bars of silver taken out of the fore hold ashore. After we left Bombay I could not get any pull in the music saloon of either gold or silver. What I think happened was that the silver remained at Bombay and the gold was moved to another part of the ship. I have learnt from this never to divine in a wind, as the radiation is deflected to one side according to the strength of the wind.

For depth I have been working on Henri Mager's method with an iron stake in the middle of the stream, with a thin wire running out at right angles to the direction of the stream. I walk along this wire with my rod over the wire. At the point where the rod ceases to work from that point to the iron stake I take as the full supply, of course measured with a tape. I am generally within a foot or two of the full supply.

Just before I left home my son asked me to find water, if possible, near a creek. It had a dribble of water running down,

but not enough to water the two paddocks which had no water ; this little stream always went dry in summer. I located a stream just where it was wanted, and told him the full supply was down 16 feet. He sunk a well and struck a small supply at eight feet. I told him to go deeper. I had a letter afterwards to say they had struck a very good supply of excellent water, but he omitted to say how deep he had to go for it.

The man who first brought divining to my notice had a peculiar gift. After I had found I had the power to divine moving water, I met him on Yorke Peninsula, where we were divining for oil. He said : " I will show you how I can stop underground water from running." He found out a stream and asked me to mark it out, which I did. He then got a flat stone and put it in the middle of the stream. He then took the hammer with which I had driven the pegs in, and knelt down, putting his left hand palm down on the ground. Then he began smartly striking the stone. After he had done this for about ten minutes he asked me to map out the stream below him. I found I could not feel the water for quite 20 feet, but beyond this point I felt the water as before. He kept on tapping the stone, and again feeling for the water I found it had receded another 10 feet. I then tried the stream above him, and felt it right up to where he was tapping. He then stopped striking the stone and told me to come away from the stream and sit down while he smoked a pipe. We sat talking for about 20 minutes, then he told me to examine the stream. I then found it had joined up again.

A friend of this man told me he had a good well which had gone dry, and he had got this man to try and find out where his supply had gone. He was told the stream had changed its course. " I will try and bring it back to the well," which he did by hammering a stone over the new course the stream had taken.

These two rods I have on the table have found over 300 successful wells and bores over 20 years ago. Since then they have found many hundreds more.

NOTES BY A DOWSER

It is not surprising that dowsing should be regarded with doubt in scientific circles ; the whole business is essentially fantastic, the tools appallingly crude ; some of the theories advanced to explain it are even cruder, but the final answer is that it works. In competent hands it can produce the correct answer time after time, and that when all is said and done cannot be disregarded ; the odds against become astronomical.

For the practising dowser theories are dangerous things. The dowser with a theory is apt to say to himself before he tries an experiment, "According to the theory I should get such a result," he confidently expects to get a certain result, so probably does, though perhaps he should not have done so. This is the first step into the morass from which it is not easy to emerge. In dowsing the mind has astonishing powers of interference, especially in the early stages, with those who are not particularly sensitive, and in trying delicate or difficult things. It is thus useless for the beginner to practise only over known answers; when the correct answer is known beforehand instruments work with most comforting precision. But on the other hand the learner must practise a great deal over known answers in order to find out what they feel like; he must accustom himself to a variety of known examples so that he may be able to recognise what they are when he finds them elsewhere. The difficulty of dowsing is not feeling the reactions, but correctly deciphering what they mean.

The most striking example I remember of this power of mental interference occurred with the most sensitive dowser I have ever met. He was supersensitive, used no instrument, but dowsed by spreading out his hands. For many years he had worked for a firm of well borers, who told me he had never made a mistake. Having watched him work and checked it over, I could well believe this. But he was firmly convinced that he could not dowse in rubber boots, so had to change into leather ones before he could show me. This curious insulation inhibition is over 150 years old and is complete rubbish. The car is a great timesaver, and dowsers even work in aeroplanes. Bléton, who believed in it, was tested by the French physicist Charles about 1782; mounted on a glass-legged stool he knew his rod would not move; whereupon Charles, who had secretly earthed him with a wire, denounced him as a charlatan.

So many tests of dowsers have been invalidated by tricks played upon them; suggestion produces belief and the deed is done. Perhaps the examiner is thinking in instrumental terms; a similar process would not affect a voltmeter.

The dowsing sense is commonly supposed to be rather rare; actually, the majority of people possess it to some extent. Given a really strong flow of water under a culvert, a light whalebone rod properly held, all the muscles alert but soft and relaxed, and a reaction will generally result if the flow is crossed briskly. Sometimes it is necessary to give them the feel of it first. If so, I stand beside them, our two outer hands hold the rod, our inner hands are clasped. We then walk across side by side, the rod rises gently as we approach the flow and turns over when we reach it. After this many who have failed before get

the reaction when they try again alone. Only a small percentage are quite " dead " and can feel nothing, but even with these the joint attempt never fails.

Some years ago I was asked to help with a two-day course for young R.E. officers. One of their Instructors was a very good dowser who had been most successful in India ; for some time he had unofficially tested for dowsing capacity batches of young officers in the intervals of more normal military instruction. The results were most encouraging, and a two-day course was authorised as an experiment. After a short talk, rods were made up and we drove out to the country to try, found a little stream in the chalk and tested them over it. Of the 24 only six could feel nothing, 12 could feel quite well, and two promised to be good. The attitude of most civil scepticism vanished at once ; they were as keen as mustard. On being told to find one themselves they were off like a pack of hounds. In two minutes they had got one, lined it out, and were certain it was right. It was, and only 18ft. down, so a Norton tube well was driven to get it. Ten minutes later they had six handkerchiefs out on the grass with a half-crown hidden under one of them. With the others doing everything they could to put him off, one of the best performers had found it correctly three times running, using another half-crown as a sample. The attempts to get the little streams failed, the flints proving too much for the tubes many feet before they reached them. Next day they tried to identify the metals contained in perhaps a dozen numbered envelopes, using samples of the metals for identification. The results were very good for a first attempt. The average standard of performance was unusually high, but they were young, very fit, and most intelligent.

EXPERIMENTS TO TRACE MUSCULAR REACTION TO ITS ORIGIN

By G. CUTHBERT SHERRIN

The aim of these experiments, which have been carried on from time to time for some years now, has by no means been achieved. None the less, the results obtained may prove of interest to some of the B.S.D. members.

About four years ago I had my first opportunity of watching a dowser. A hazel rod was used, and water was predicted in various parts of a field. As there were no means of verifying whether water existed or not I was naturally dissatisfied with

the demonstration. However, a further demonstration was given of finding gold. A bracelet was hidden under some hay which lay in the field, and the dowser—an amateur—not only found it at once but successfully repeated the experiment four or five times.

About a year elapsed before I had succeeded in obtaining reactions myself. I then set to work to test out various forms of rods, working on the beliefs popularly held about divining rods. I tested rods of all lengths and all weights; I tested a tubular rod through which water was made to circulate—not more extraordinary than carrying a bottle of water as a sample.

I tested a metal rod built up to produce what is known in electrical text books as "The Thompson effect"; another rod giving high frequency electric current. Frictionless rods with ball-bearing handles; rods which were electrically "earthed."

The results were all negative, excepting that the natural rate of oscillation of a rod seemed to be a subject worth looking into.

The outcome of these experiments was a small forked rod made of duralumin which folds together and fits the pocket, though for choice a well-chosen hazel is still preferred.

Having seen that it was equally possible to find water and to find gold—two objects which seem to me very remotely connected—it occurred to me that it would not be particularly ridiculous to suppose that a motor-car probably weighing a ton and composed of various metals and electrical equipment, and moving at a speed of 30-40 miles per hour, might quite possibly also give a reaction.

The experiment was easily performed. The road was about 60 feet away and motor-cars passed by every few minutes.

After three-quarters-of-an-hour my hazel rod had violently registered every car that passed, but not the cycles and not the pedestrians.

At one time a lull occurred in the traffic, and I was about to test its effect, which should have been to leave the rod at rest. Instead, the rod started an even greater oscillation than before. I was naturally astonished and rather disappointed until I realized that an express train was passing along the line 250 yards away on the opposite side of the house.

The following day I announced the result of my experiment to a friend who expressed the opinion that it was "pure imagination." I replied that that was precisely what I had been thinking myself, and under this confirmed impression I repeated the experiment later and received not a single reaction nor did my rod come to life again for several months.

When work was resumed it was of course recognised that the experiment with traffic would be of far greater value if the factor of auto-suggestion could be cut out. Up to this time I could

never prove to myself that the sound of the approaching traffic had not preceded the muscular reaction, although I otherwise felt convinced that the reaction was entirely involuntary.

After several weeks of experiment I devised an instrument, the main feature of which is a flat steel spring about 10in. x ½in. x $\frac{1}{16}$in. One end of it is mounted on a small block and the block secured to a wooden base so that the other end of the spring is free to vibrate. The free end of the spring is in contact with a light mechanical multiplying movement which multiplies any movement of the free end of the spring about 30 times. The multiplying movement is fitted with a 4in. dial and pointer.

The whole instrument is held in the hand and the spring depressed by pressing the thumb gently upon it. The spring has a tension sufficient to support about ½lb.

When held thus and the muscle of the thumb exerted I was extremely surprised to observe that the pointer on the dial started a rapid vibration of about 10 vibrations per second—so far as it could be estimated. The vibrations are not entirely regular, as they are interspersed with small shocks which increase the amplitude of the vibrations so that it is difficult to say the vibration is rhythmic.

At times, especially in cold weather, the vibration is reduced to almost nothing. At other times it is so excessive that it has to be damped down so as to be observed.

This vibration in the thumb muscle may be expected and, in fact, can be proved to exist in all the other muscles of the body when under tension—a fact which so far as I can discover has not before been realized.

At the same time that my experiments were being made the *Morning Post* announced the discovery of the vibration of the brain by Prof. E. D. Adrian, at Cambridge. A few inches of chart showing the vibration of the brain both active and asleep which were published later in the *Sunday Express* seem to correspond fairly closely with the muscle vibration, though I have not as yet attempted to make a chart with which to draw a careful comparison. It would be interesting to see a chart of the brain and muscle vibrations recorded simultaneously of the same person.

To return to the thumb instrument, the obvious experiment to be tried is to test it as a dowsing instrument.

Unfortunately, it is rather too sensitive to use in field work, so that as a water divining instrument I can say nothing about it. But it can be used admirably to give reactions to passing traffic. Its great advantage is that it cuts out the possibility of auto-suggestion. The instrument is held as explained above, and the dowser occupies himself merely with keeping the pointer in one position on the dial so far as possible. The vibrations and

shocks registered by the pointer are entirely beyond the control of the person holding the instrument.

When conditions are favourable the pointer will indicate the approach of a car when 50 yards away by a sudden shock which may cause it to leap an inch or more round the dial. As the car approaches nearer there is generally another shock, and two more as the car recedes. As the car actually passes there will be practically no definite indication. A passing train or a person moving about the house produces a similar effect.

It has been suggested, I think by our President, that the instrument is affected by earth or air tremor. He is quite right. If a ½lb. weight is resting on the spring of the instrument, instead of the thumb, a vibration is caused in the pointer as trains and cars pass by, but this mechanical vibration is a lifeless thing which bears no comparison with the sudden shocks produced by the touch of the thumb.

It may be that earth tremor is affecting the human body and thereby causing the reactions. If it is so, then we have found one definite cause for the doswer's reactions. But it does not explain the reaction for water and minerals ; neither does it support the B.S.D. theory of radiation, unless, of course, radiation and vibration are to be considered one and the same thing. At present I am waiting for a definition of radiation as understood by dowsers. I have seen a few mystic statements about it, but nothing that contributes anything towards science.

Having discovered that the natural state of a muscle under tension is one of continual and definite vibration, I carried the experiment further and replaced the multiplying movement at the end of the spring by an electric contact so devised that any muscular movement down to one-thousandth of an inch in magnitude would give a flash in a small electric lamp. This apparatus revealed the fact that in the pad of the thumb or finger or in the flesh of the hand minute shocks are taking place corresponding to the greater ones found in the muscles.

When this electric apparatus is used to detect passing traffic, although not the slightest sensation is felt in the hand holding it, distinct and definite reactions are received by the flashing of the lamp. A typical example of a good reaction to a passing car would be this :—

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A flash followed by three or four lesser flashes, the whole signal lasting only the fraction of a second, represents the car at a distance of about 50-70 yards. The second signal arrives when the car is about 15 yards away. Then there is a pause until the car recedes, and generally two more signals follow. And all these are reactions occurring in the soft thumb pad.

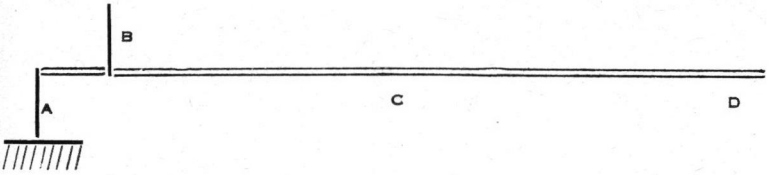
It must not be supposed that these instruments are any better than an ordinary forked rod. Like the rod, they have their days off. They misfire, they occasionally—but very occasionally—record something which cannot be accounted for. Their reactions cease when several cars are passing at the same time. But they do not require sunlight to make them work, nor orientation; neither does it appear to make any difference whether I am wearing rubber shoes, a blue necktie or coloured spectacles—not that I rule out the possibility of colour being a suitable objective for a dowser to work upon.

Another interesting result from this instrument is the following: —When suitably adjusted the lamp will flash in synchrony with the beat of the heart, either owing to mechanical shock through the body or else to the actual movement of the thumb pulse (both causes can be demonstrated). If there is no external disturbance the flashing gradually ceases or becomes very weak, but directly a car comes within the active radius the pulsation is vigorously renewed and continues until the car has passed. This demonstrates a fact which will be found several times mentioned in Sir W. Barrett's excellent book, *The Divining Rod*, that the heart is affected by the act of dowsing.

I do not profess to have arrived at any definite theory from the results of these experiments, but they have brought home to me in an emphatic manner that the human body is continually responding to exterior disturbance, that the reactions are very minute, and that they are in the form of extremely sudden shocks such as could only be produced electrically.

Some Experiments with Pendulums.

The pendulum, which seems to be a very popular device amongst dowsers, is a means of utilising the muscular reactions occurring in the hand. It is not the pendulum which tells the story, but the muscular movements. Therefore the hand must be studied first. Take a light rod about 30in. long of wood or light metal —I use a duralumin rod No. 6 S.W.G. Tie a short string to one end of the rod and another a few inches away. Arrange the rod thus :—



String A is fastened to a fixed support, *e.g.*, the edge of a table. Hold string B so as to support the rod horizontally and as though you were holding a pendulum. Watch the movement of the free end of the rod, D.

My personal experience with this device is that, while D will swing in a horizontal plane from right to left, by far its most important movement is in a vertical plane.

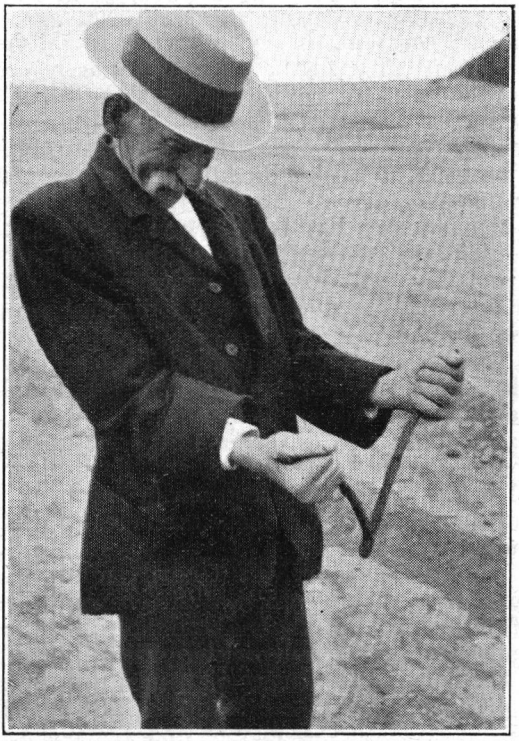
Testing it by moving traffic I find that the most definite reactions occur in the form of a dip and not in horizontal movement.

It seems to me, therefore, that the pendulum as commonly used is only half an instrument, because it fails to reveal the most important reaction of the hand, namely, the dip.

As regards the length of a pendulum, it seems evident that it must bear some proportion to the frequency of the impulses which are likely to set the pendulum in motion. These impulses come from the hand of the dowser holding the pendulum.

A few experiments I made some time ago showed that a metal rod clamped horizontally in a vice and weighted so as to vibrate with a frequency of about 120-130 p.m. would easily break into a strong and continuous vibration when the thumb was pressed upon it near the base. This frequency was about double that of my pulse.

Another simple method of experimenting on frequency is to use a steel wire, 20 or 22 S.W.G., about 10in. long and fitted with a small weight of about $\frac{1}{4}$oz. or less. The wire is held in a pair of pliers in a horizontal position, with the weight furthest away. The weight is free to vibrate both vertically and horizontally or to rotate in a circle. The frequency of the vibration can be adjusted by gripping the wire with the pliers at different lengths. When the length of the wire produces almost the correct frequency the wire will break into vibration and then almost immediately come to rest again, because the frequency of the wire's vibration runs out of phase with the frequency of the impulses acting upon it. What regulates the frequency of the impulses is a question which might throw useful light upon the science of dowsing.



John Gallienne, aged 76, water diviner of Torteval Parish, Guernsey, C.I.

Being very sensitive, he usually experiences a strong nervous reaction after dowsing, lasting a couple of days.

This photo was taken on the 400-acre aerodrome in Guernsey to illustrate the action of the arm muscles at the request of a doctor in Sydney. It was sent us by Mr. W. Savage, B.S.D., of de Putron Road, Guernsey.

DEEP DRILLING FOR OIL

[Adapted and reprinted from articles in the *Royalty Owner* for May and August, 1938.]

The modern, constant, heavy drain on established reserves lays large responsibility on the oil industry as regards development of new supplies to compensate for those being taken from the ground.

Deep drilling represents one of the principal solutions of this perennial problem, furnishing additional reserves from levels previously unexplored.

So far, the industry has been rewarded substantially in its efforts to maintain reserves through the deeper drilling, and necessity probably will drive the industry to further success along this line, in consequence of the diminishing possibilities of shallower drilling.

Making possible the present deep drilling and promising to make possible the reaching of even greater depths are the advancements in drilling methods and equipment.

The present ability to drill below 12,000 feet was gained only through years of experience, study, and determination on the part of oil company men and equipment company men. And more of the same elements will make even greater depths possible in the future.

Co-operation and Geophysicists

At the same time, making practical and economically sound the reaching of the increased depths has been the valuable co-operation of the geologists and geophysicists. Those men have kept abreast of the demand for deeper oil sands, developing uncanny ability to pick the right places to drill. The geophysicists repeatedly have proved their ability to find and outline structures buried thousands of feet beneath the surface. And they are now prepared to show the way to even deeper structures.

Thus all the elements exist for greater drilling and producing depths in coming years. The ever-increasing consumption of oil gives the incentive for finding new reserves. Deep drilling offers the best possibilities for yielding the discoveries. The geophysicists and geologists can find the deep structures, and equipment and methods will be available for reaching the deep formations.

With their sensitive electrical and seismographic prospecting instruments, petroleum geologists have found indications that oil formations may lie as deep as 25,000 feet below the earth's surface. Until the visible supply of oil begins seriously to dwindle, probably no one will try to drill five miles. Meanwhile, in California's San Joaquin Valley, Continental Oil Co. has bored to 15,004 feet—nearly three miles. This well, prosaically

designated as K.C.L. A-2, is the deepest hole ever made in the Earth. Having brought up oil from 13,100 feet, it was also the deepest producer.

Last week K.C.L. A-2 was uneventfully running 400 barrels of crude a day. It has been throttled down to that figure because of California's proration agreements. In a 24-hour free test run it yielded 3,600 barrels. Even under prorated production it is expected to return its investment—305,000 dollars—in three years.

The Continental's scientists and executives had no idea of making a record when the well was started. Encouraged by oil and gas strikes in a radius of 25 miles, they thought they would hit producing sand at 9,000 or 10,000 feet. They " spudded in " at midnight on June 21st, 1937, using a 20in. bit. In drilling for oil, the bit is carried on a shaft of hollow pipe, in 30ft. lengths screwed together A powerful steam engine on the surface spins the pipe and the bit. When a bit needs changing, all the pipe must be taken out of the hole and then lowered again by the derrick. The pipe is kept full of mud to counteract the gas pressures below, which might otherwise blow out destructively at the top.

9,000LBS. PER SQUARE INCH.

The first 500 feet were like a " knife through cheese." There the driller switched to a $15\frac{3}{4}$in. bit. At 9,500 feet drilling speed had dropped to a foot an hour, and a new bit was needed every 25 feet. At 11,600 feet the mud pressure was 9,000lb. per square inch. Apparently this huge force squeezed the water out of the mud into a porous sand formation at that depth, so that the mud caked and " froze " the bit collar. The drill pipe was fished out with difficulty, but the collar was immovable. By means of a knuckle joint the frozen collar was side-stepped, and the hole, now pinched down to six inches, went on down. Near the bottom, the weight of the pipe was over a quarter of a million pounds. The temperature was nearly 270° F.

Superintendent Alexander Hamilton Bell will never forget the day the first oil spurted into the slush pits from the sand which had been tapped 13,000-odd feet down. It was necessary to bail mud out of the pipe so that the gas pressure below could push up the oil. " We had swabbed 2,000 feet of mud," said Superintendent Bell, " when suddenly the fluid rose 1,500 feet in the hole. So we knew we had something. We swabbed a little more. Then it came naturally. For half an hour mud poured into the sumps, then turned to oil. I just stood there and looked at it."

The distinction of being the world's deepest producing well has passed from Continental Oil Co. No. K.C.L. A-2 to Fohs Oil Co. No. 1 Buckley-Bourg, in Terrebonne Parish, South Eastern Louisiana. Flowing from a depth of 13,266 feet, the

Fohs well is 166 feet deeper than the Continental well. Drilled to a total depth of 13,333 feet, the well lacks 1,671 feet of equalling the total depth of the Continental well.

Located in a tidal marsh area, the well is inaccessible by land, and is reached through a four-mile canal which the company had dredged specially. Another point of distinction is that it is the deepest hole ever drilled from a drilling barge. The total weight of the casing was calculated at 440,000lb. At the same time more than 12,000 feet of 4in. drill pipe was stacked in the derrick, which made a total load of 750,000lb., not including the weight of the drilling equipment which is supported by the barge. Only a trivial settling was noticed.

A DIFFERENT ROD

By S. MAUDE LAVERTON

To find a rod which will make no movement for any substance but the one for which it is being used has been the subject of many experiments.

Until a few years ago my method had been to cut out the movement by means of a sample carried in the hand. This was a clumsy and negative proceeding, and although the sample, generally speaking, stopped the rod from lifting over a similar substance, it was frequently inaccurate, either from being held in a slightly different position or from some other obscure reason. A sample on wood, with whalebone arms, or set into or on an ordinary hazel fork, was even more uncertain.

Hearing of Balsa Wood (Balsa Wood Co. Ltd., Kingsway, W.C.2), with its special properties of insulation, isolation and lightness, I began to experiment with small blocks, into which two whalebone arms were inserted, making no direct contact with each other. This, by itself, made no movement over water, metal or any other thing which I used in testing, although with ordinary wood or cork in place of Balsa it would have acted as an ordinary rod. Here, at all events, was my first " blank " rod.

Then came the working with a sample fastened to the upper side of the Balsa block. In the beginning this was always a piece of ore or metal, then oil in its spongy form, and liquid or powder in small glass tubes, corked. I found it was necessary to use a fresh block, or one which had been free for a considerable time, for each different sample, which led to the discovery that a piece which had been used, for example, with lead for an hour or so, would still act for lead for some time after the actual sample had been removed. This makes it important that the wood should be kept carefully, and well away from strong contacts.

If a small block of Balsa Wood has been held for fifteen minutes or more by someone other than the diviner, then fitted with its whalebone arms with as little handling as possible, it will rise to give the direction of the person who held it and dip over much-used possessions. This appears to vary slightly with different people, some of whom seem to influence their belongings to a greater extent than others !

I have used Balsa, whalebone and sample rods for practical work in finding water (though here I still prefer wire or hazel), lead, gold, oil, gypsum, sulphur, silica sand, marble and a disused mine working.

For practical experiment, with silver, tin, copper, uranium, radio-active water, polluted water, &c., &c., and also for experimental experience with people and their possessions, their whereabouts, footprints and photographs, maps, manures and weed destroyers, sound vibrations and many other things ; some of these tests have been satisfactory and some only partially so, but they are all only in an experimental stage at present.

These varied examples will be sufficient to show that the method is worth investigation by dowsers with more knowledge and time at their disposal than I am able to give, and the results obtained would be of great interest to me.

OBSERVATIONS REGARDING LIGHTNING

By M. H. CHIPPERFIELD

I have for a number of years been interested in thunderstorms, especially lightning, which, although awe-inspiring, is certainly fascinating.

Having studied dowsing for some years, I have used that art in an endeavour to discover why lightning strikes at various places ; for instance, why one tree which is struck by lightning should be shattered, whilst another may have only a strip of bark torn off. Or again, one tree may have the bark and sap torn out, and a branch torn off, whilst another may have its leaves on one side browned, the leaves subsequently falling off the tree with no apparent reason for so doing. From my observations I have noted the following cases :—

Not every tree struck by lightning is killed ; sometimes the bark unites over the place where the tree was struck, although it is always apparent where the unity takes place.

Three trees standing within six yards of each other—the centre tree struck and shattered, whilst the two remaining trees showed no signs of damage apart from a few twigs and leaves being blown off or browned by the intense heat from the lightning flash which would have been fatal to human life.

Cases where cattle have been killed, whilst others standing a few yards distant have escaped unharmed. Cattle standing close together, heading to a common centre, have all been killed—dropping dead on the spot where they had been standing. In another case cattle were known to have been thrown a distance and have been found with horribly distorted faces, whilst others have not shown a blemish, and in such cases a veterinary surgeon has often been asked to give an opinion as to whether the animals were killed by lightning.

A number of sheep killed by lightning, and others found unconscious. The latter recovered. These sheep were standing under a tree which was struck at the same time. The tree also died. Many other similar instances could be told.

A wheat stack struck by lightning and burnt out.

An old house struck, chimney portion of end wall blown out, stove thrown into the room and windows blown outwards.

In the case of another old house, the windows were blown inwards, tiles displaced, chimney-pot blown off.

A new public-house was struck by lightning in the centre of the building, causing some damage and shocking persons in the place. Although several persons felt the effect of the strike, no one was injured.

On two occasions during thunderstorms a parapet on the end of a high building has been dislodged.

During a recent storm lightning was observed to strike the earth close to a farmhouse. To onlookers at a distance of about two hundred yards, the house appeared to become enveloped in flames, and smoke, or steam vapour, drifted across a harvest field to a distance of some yards. Some of the onlookers within a distance of ten to twenty yards of the building received a shock, but beyond the cracking of one square of glass no damage was effected.

Many more instances could be given of cases where lightning has struck a point on the earth and scorched the grass surrounding that point. On occasions the lightning will make a hole in the ground. Although I have not been able to investigate such a case immediately after the storm, I should expect to find the soil fused.

The point which I wish to emphasize is that directly beneath the point where lightning strikes there are underground streams, and this without exception. The strike is either over the uprise of a stream, at a bend in the stream, the junction of streams, where one stream divides into two or more streams, or over the point where two or more streams merge into one.

When a tree is shattered by lightning, the uprise or bend in the stream is under the centre of the tree trunk. Where a strip of bark is torn off, or strips of wood and bark are torn out, the stream is just under, or quite close to, the trunk. In cases where

branches are splintered off, or leaves browned by lightning, an uprise is under the branches.

I have in mind a tree with a large top, on an estate a few miles from Norwich. After a thunderstorm, the leaves on this tree would turn brown on one side and fall off, whilst the leaves on the other part of the tree top would retain their colour until the autumn. This has happened on several occasions, although the trunk of the tree seemed quite healthy. During my investigations I discovered a bend in an underground stream just under the branches. There was a swirl, which suggested to me that the stream rose from a low to a higher level at the bend, the emanations being so strong that one does not care to linger over the spot. It is, however, a splendid place from which to work if a large supply of water is required.

Lately I was asked by a farmer to point out the spot where lightning had made a hole in a ploughed field about twenty years ago. He had observed the strike from a distance of fifty yards. He also asked me to point out the position of a lightning strike in a meadow where two cows and a bull had been killed some forty-five years ago. I found both positions quite easily over right-angle bends in underground streams.

I have yet to find a point on the earth which has been struck by lightning where there is no evidence of an underground stream.

DOWSING EXPERIENCES AT SCHÖNBACH

By DR. ING. VOLKER FRITSCH

Some experiments were carried out by the Association of Prague for the Study of Dowsing and Investigation of Earth Rays (Prager Verband für Wünschelrutenkunde und Erdstrahlenforschung—or shortly " Würu) in the neighbourhood of Schönbach, near Eger, Sudetenland, on July 17th, 1938. Arrangements were made by Herr Schwirtlich and Herr Jahnel, who had made a careful geological survey of the test area.

In all, seven dowsers took part in the tests, men of various callings and with several years' experience as practical dowsers. Tests were carried out in three different localities.

Unterschönbach.

It had been observed that in this area overhead electric cables were frequently struck by lightning. Five special lightning centres (Blitznester) had been identified.

(a) The geological conditions are as follows: To the north the subsoil consists of primeval clayey slate (Urtonschiefer), which changes gradually to mica schist towards the south, there being no clear line of junction. Above the mica schist at certain

spots lies brown-coal-sandstone (Braunkohlensandstein), which is in places strongly ferruginous. The four most important lightning-centres coincided with such places and near the junction between the brown-coal-sandstone (Braunkohlensandstein) and the early tertiary sands and clays which again overlie the latter.

A lightning-centre lies over the junction between the mica schist and the primeval clayey slate. The cause of this lightning-centre is probably to be found in the marshy subsoil rather than in the existence of this junction.

(*b*) *Electrical considerations.*—The brown-coal-sandstone has a higher conductivity than the mica schist. Its electrical qualities as compared with the early tertiary sands and clays and with the alluvial soils by which it is covered along the lowest point of the valley are dependent on the weather. Tests on the ground plates of the lightning conductor showed that the contact-resistance of the ground plates placed in the alluvial soil was particularly dependent on the weather. Variations of 3,000 per cent. and even more were observed.

(*c*) The agreement between the position of the lightning centres and the geoelectric discontinuity at the junction of the brown-coal-sandstone is beyond dispute.

In accordance with a geoelectrical theory of dowsing, dowsers should have been able to locate the junction with the brown-coal-sandstone. Lines were therefore laid out at right angles to the long axis of this feature, which were examined by the dowsers. Their results showed an agreement with the length of this feature, and the limits of the brown-coal-sandstone as defined by them were considered satisfactory by Herr Jahnel. According to data compiled by Herr Schwirtlich, the reaction zone corresponds with a lightning-centre.

Schönbach.

In this area, on the Vorberg, experiments were carried out near a certain house, No. 352, at a spot where two high voltage cables divide and cross over one of low voltage. The mast carrying the branch line had been repeatedly struck by lightning, so that the place was regarded as a lightning-centre.

(*a*) The ground rises towards the north-east and it is remarkable that the lightning centre is not at the highest point but on the slope. According to Herr Jahnel there might have been a landslide. In any case, the area, which consists entirely of primeval clayey slate, contains many fissures filled with rubble.

(*b*) *Electrical considerations.*—The conductivity of the primeval clayey slate varies greatly and depends specially on hydrological conditions. In normal weather the conductivity of the rubble filling is higher than that of the surrounding rock. Tests made on soils and provisional ground electrodes showed that exceedingly high variations were caused by the weather. At the time of

the tests contact-resistances of 77 ohms at low frequency were observed. Readings taken at high frequency, such as occur at lightning conductors, amounted to 200 or more ohms. It is clear that at such places lightning conductors are almost useless and that any flash will cause destruction of the insulators.

(*c*) *Dowsing.*—In this area dowsers found so many closely recurring reactions that a direct comparison was impossible, but they lay predominantly in a line N.E. and S.W. parallel to the line. Several dowsers moreover found a few reaction zones at right angles to this line, and one dowser, zones radiating from a central point. The result can be attributed to the extreme disturbance of the subsoil, the numerous fissures accounting for the increased attraction for lightning in this place.

Absroth.

This area is so often struck that it is cited in technical literature on the subject. Numerous houses have been struck on several occasions, and lightning conductors have often proved ineffective.

(*a*) *Geological conditions.*—The area is clayey slate, the strata being fairly level with narrow vertical fissures. At several spots there is soakage water, but this does not signify that the general water level is high.

(*b*) *Electrical considerations.*—The upper layers show very low conductivity under both high and low frequency, that of the filling again exceeding the conductivity of the surrounding rock. On geoelectrical grounds dangerous zones above the exposed surface of the filling in these fissures may be expected whilst conditions for conducting lightning are unfavourable so that lightning will as a rule jump.

The earthing of the conductors is usually on the upper layers, and its effectiveness is therefore very greatly dependent on the weather. For example, at certain masts and houses readings of 7, 25, 2 and 22 ohms were obtained in February. In July, during the experiments, readings increased to 193, 210, 100 and 170 ohms, showing that the earths were quite ineffectual.

(*c*) *Results from dowsing.*—Dowsers, examining the ground in the neighbourhood of two houses, located numerous fissures, but the positions of reactions in no way coincided. According to reports of two dowsers, several of the objects most frequently struck stood in close proximinity to fissures.

In this area no coherent picture can be given of the results of the dowsing, as the reactions were of too frequent occurrence. Danger from lightning in this area therefore depends on the existence of electrical power lines (Freileitungen), which are fairly well exposed and therefore increase the dangerous nature of the immediate surroundings.

In consequence of the inadequate conditions for earthing, lightning jumps are to be expected.

UNDERGROUND STREAMS AND EARTHRAYS

By ANKA VON KNOBLAUCH

Many articles and books have been written on this subject, much more cleverly expressed than I could ever do it, but to answer the replies from my article in the June Journal I will certainly give with pleasure my experience on these subjects in my own practice.

What are earthrays ? you may question me. Are underground streams and earthrays the same thing ?

Opinion is still very divided. The layman usually thinks of rays emanating from the innermost earth of the fiery magma origin, while the scientific world on the other hand inclines the theory that *no* rays, but rather certain disturbances in the power of the function of the soil *above* watercourses or other conditions are responsible for the effect of the divining rod. The power function of the soil consists of the magneto-static, electro-static and the electro-magnetic function, which manifest certain disturbances, when situated *above* certain water or mineral reefs. So the meaning is really the same and it confuses people a lot. Everybody who is sensitive and in whose hands the rod works can contact them. To me these underground streams are a common fact, and I cannot see anything peculiar in them any more ; they have become, so to say, my second nature.

Now I want to give you the effect these earthrays and underground streams have on human beings.

I just describe several cases from my work.

(1) A man of 68 years, suffering from migraine for nine years ; he tried everything and everybody. No relief. As I test his bed I find a stream of water running only over his *head*part, else the whole bed healthy. I turn his bed round and give him just magnetic treatments. The headaches disappeared like magic. He slept naturally and sound for the first time since many years. He has never had any aches in the head since.

(2) A young girl of 15 years, complaining of weakness, no strength, pains in the lungs. She looked pale, was slightly bent over, had no energies. Doctors frightened the mother with lung trouble, and strongly recommended going up country, where all the T.B. cases go to. When I saw her bedroom I could understand the whole condition of this poor girl ; her whole room over a wide water-stream, everything smells damp and cold ; it affected my breast in two minutes ; I had to gasp for air. The other rooms not very much better, a perfectly dreadful house. Even the wireless cracked continually and the clock never went right. So I explained to them

that not only they, but the wireless and the clock *as well*, were affected by these emanations. Every bed got isolated with *Celotex*. Celotex and *Tritex* or *Red Top* are all a kind of *Asbestos*, only softer, and is used nearly in every house by builders. It is very cheap, and a sheet 6′ x 3′ or 6′ x 4′ only costs 6s. Everybody can afford that, who cannot afford the *Phyllax* from Mr. Dannert in Hagen. You can put the Celotex either under the bed, or nail it on the wooden frame under the bed or put it on the spring mattress ; it only makes the bed a little bit hard, which some like and some don't. It is not necessary that the four legs stand on it ; that does not make any difference. Have I made myself quite clear ?

To come back to the little girl. She had a curvature of the spine, so she got in the hands of a chiropractor, had massage, magnetic treatment and building-up diet, and after one month the girl is not to recognize ; and the mother spent pounds and pounds on her with no results.

(3) A married couple, a girl and a dog ; please don't laugh, but even that dog plays some importance in this story. The husband suffering from bronchitis, and got pneumonia. The wife eaten up with rheumatism and bad feet ; the girl healthy, and the dog also eaten up with rheumatism, very irritable and bity. The husband recovered from pneumonia and was sent up country with his wife to recover. They both came back wonderfully strengthened ; in fact, the wife never had rheumatism. After seven days living in their old home again all the different troubles started with both. When, then, I was called and tested the rooms, the beds were completely over a very strong mineral deposit. The room they mostly lived in half bad and half healthy. The dog slept every night in a nice comfortable chair, which also stood over minerals ; several times in the night the dog gets up, is very restless and disturbs the family, which is, of course, very annoyed with him. So I explained to them that no dog can sleep over these rays, and has his bity temperament from that. The dog is very old and likes his nice cosy chair in the night and tries to go back and sleep for a while, but then he cannot stand it any longer and jumps down with all his rheumatic pains ; a very typical example. Now they are all in my hands, sleep in isolated beds and feel new born. The husband, by the way, can also find water and is very delighted about it all, but this idea never occurred

to him. The girl had a healthy bed, and she kept perfectly all right.

(4) A very well-known painter here in Capetown complained of sciatica in the right leg. To my surprise I found the right side of his bed over water, the left side healthy. In his studio painting, he stood with his left leg on healthy ground with his right leg over a water stream. It sounds incredible, but there we have a marvellous example. He recovered like magic after isolating the bed and giving him massage. He never had sciatica again, and a very fine picture of his hangs in my room.

(5) A baby, 10 months old, brought to me with one arm hanging down nearly lifeless. All the muscles had gone, the poor arm had been in plaster for such a long time, while he was withered away. The baby cried day and night, had no appetite, the bowels worked all wrong and the mother was nearly out of her mind, as it was her only child. I was her last resource, as I must be so often. I tested the little baby basket, which stood as usual over a mineral deposit ; the mother confirmed that the child stopped crying when she moved it into another room, but as the room got no sun she preferred to put it back into the " sunny " room. (We would all do the same !). So I moved the basket to another place in the " sunny " room, and treated the child twice a week for two months. The arm grew on the shoulder, got fat and thick, the baby had such appetite that her mother was in greatest excitement over that, it slept sound every night and was completely recovered, strong, rosy and healthy. It was touching to see how that baby loved me.

(6) A young woman, 35 years of age, with three healthy, pretty children, got rheumatoid arthritis after the last childbirth. She had to be wheeled around for seven years in an armchair, was only bones and cramped up, a terrible picture altogether. Her bed stood over *crossing streams*. I isolated everything and took her to me for 10 months, and she recovered completely. She is walking and doing all her housework alone. She looked like a witch when she came to me, and now she is a beauty again !

So I could go on for hours and hours, as I have tested now about 300 houses. For us water diviners this is no miracle, but for the layman this is too much for him and he will not believe it. To be a pioneer is not easy and pleasant, I do assure you all, but with God as helper it goes and you have the courage just to *do* the thing and trust that all will be well.

Some of you may ask me now, *what are we to do, when we have no water diviner, to test the house and bed?* Or, *when we travel, how can we enjoy life with this idea, we sleep over waterstreams?*

Very well, I will answer these questions. I can take all your fears away and give you some advice.

(*a*) I advise you to take a rod yourself in your hands, try if it will not work with you. Don't give up hope. If it does not work the first time, try again and again over a running stream or open your water pipe and let it run and try over it. You will be astonished how you *can* develop the power, and when it begins to work and you begin to feel the *pull*, which is a *grand* moment, then you will be able to test your own bed, and find out if there is water or not.

(*b*) Isolate your bed with either *Celotex* or *Tritex* or *Red Top* (all different kinds of Asbestos) and do what I described above.

(*c*) Don't worry when you travel; you move about and change and it does not so quickly affect most people as me, who feels it the first night.

(*d*) Take " Wright's Coal Tar Soap " before you go to bed in your left hand 30-60 minutes. It will load your body with this radio-active stuff; the soap contains and neutralises the water. With me, holding the soap for 10 minutes only lasts till next morning.

(*e*) Let your dog sleep under your bed and see if he stays there the night, as no dog can sleep over water streams or mineral deposits.

(*f*) Put a pot with a plant, not a good one, under your bed and see if the leaves begin to wither; then you know there is an underground stream under your bed.

(*g*) I sell magnetic chains, done after Prof. Lakhovsky's method, with the open circuit at the end. I suppose you all read how Lakhovsky put an open wire round geraniums which had cancerous growths, and it fell off. Many frauds went on with these chains, but I test every single one. One chain, worn by one person, isolates *two* beds standing close together. These are wonderful health chains, for all sorts of complaints, especially run down cases, where the blood stream is poorly and the vitality run down.

(*h*) Buy Mr. Dannert's *Phyllax* and isolate your house with it. Do you feel, now, happy again? So many just want a little " push " to try it out, and when it begins

really to work, they get excited and take it up seriously. Would it not be a tremendous help to you all when you could just say if your house is healthy or not? And that you understand suddenly why certain trees in your garden will not grow, and you just test if they stand over water or you dig out the tiny mineral deposits at each side, which follow each other every two or three feet? And all will grow beautifully? That alone is worth a thousand! And think how many you can help with this knowledge!

It might amuse some of your readers to see this article, which appeared in the *Cape Argus* in September, 1933.

CURE FOR RHEUMATISM.

A recent paragraph in the *Argus* about water diviners prompts me to write about a lady water diviner who is well known in Capetown and who has pronounced a rather remarkable theory. According to her the state of the health of sufferers from rhuematism and allied complaints is directly affected by the mineral formation of the earth immediately below their dwellings.

The minerals are supposed to give off emanations on the wave principle, and anybody subjected to them for sufficient length of time, such as when sleeping, would be adversely affected. She states that it is possible for some houses to be free from such subterranean water or mineral formations, and that these would be the best houses for sufferers to live in, because their state of health would certainly improve.

She further states that the ground floor of all houses ought to have insulation placed under the floor boards to counteract the emanations, or that the beds at least should have insulation placed under them. Some 50 people have already taken her advice and have insulated their beds, and many sufferers report a great improvement in their condition since they have done this.

It seems almost like having rheumatism by radio, and if many more discoveries will be made like this we shall soon be tuning our beds for all kinds of diseases.—J.S.

That was in 1933. Now we have '38, and about 300-350 houses investigated. I hope to be able to work with the Health Department in order to investigate every single house for the benefit of the common health of the town, as they do in many towns in Germany. Mr. Morton and I look often at each other in despair and think, When will Africa awake?

One day also Africa has to accept this truth, because it needs, more than any other country, trained reliable water diviners, and this day will come! So long we must do our job and our duty faithfully.

WATER DIVINING AT A DISTANCE

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The following letter from Mr. Frank Hives, an overseas member of the College, and the comments and information given by his cousin, Mr. Chas. V. Hives, resident in Queensland, Australia, will be particularly interesting to those of our members who are diviners themselves or take an interest in the subject. Mr. F. Hives and his cousin were in England last year, and their visit to the College is remembered with pleasure.

SALISBURY, S. RHODESIA,

18th February, '38.

"My cousin has sent me the enclosed notes in which you may be interested. The facts are these. My cousin being very worried about not being able to get water in the bore-hole he was sinking and knowing of my natural psychic gift, decided to ask for my help. He sent me a very rough sketch of his property, which only showed the boundaries of his property 'Inadale,' near Toowoomba, Queensland, the house, the spot where he was boring for water and the place where his windmill and well were.

"I gathered that the distance from the bore-hole to the well (a very poor one, I understand), was about 15 chains.

"I got out my crystal which I use for divining and put it on the rough plan and, as usual when working with a crystal, made my mind a blank. Almost immediately the crystal became cloudy and figures began to appear. 250 was shown and remained for some time, then disappeared and was followed by the figures 585, which remained till I removed the crystal. I then replaced the crystal on the plan and the figures 585 again appeared. Placing the crystal at the top of the plan I took my fine 'copper wires,' and worked these over the plan. When over the site of the bore-hole, the wires, instead of *going down*, as they do when indicating water, *rose up*, as they always do when indicating minerals, usually iron, and the figure 250 again appeared in the crystal, but changed again to 585 when the 'wires' went down.

"The 'wires' then stopped, but vibrated over a place on the plan which I took to be about a chain's distance from the bore-hole to the West. This spot showed that it was on a main road, according to the plan. This I think is the place where the bore-hole should have been put down instead of its present site and where water might be found at 385 feet, as these figures appeared over this spot. After a short rest I replaced the crystal on the plan, and very soon a thin blue line, increasing in width as it continued, as if drawn by an invisible hand, started from a place

on the plan, a few yards below the spot where the figures 385 had appeared and continued right off the plan, passing the present site of the well by about 20 yards to the East of it. I read this to mean that the well is *not* on the underground stream, as shown by the blue line.

" I have never been to Toowoomba and know nothing about the locality. I tried by clairvoyant means to help my cousin in his difficulty."

In the following notes Mr. C. V. Hives details the operations which have been going on on his estate and comments on Mr. Frank Hives' discoveries by divining from the plan :—

" The Bore. In May, 1936, a 5in. hole was drilled on tod of the ridge at the back of the house. This site was selected on the advice of the driller, who had 30 years' local experience. He was confident of a good supply at 180ft. or a little more. The divining machine (an English patent) corroborated this both as to the supply and the depth. The site was a very desirable one as it was only a few yards distant from the big tank which at present supplies the house. This is fed by water pumped up from a well by windmill—situated about 10 chains down the slope below the ridge—East of the tank. When the site for the bore was being picked the driller observed that ' it would be better over on the road, which runs a few yards to the West of the tank.'

" *Mem.* F.H. says, in letter to me of 13/10/37, ' The figures 385 came up just about 22 yards directly to the left (*i.e.*, from the bore-hole), but on the main road.

" ' Over the bore-hole itself figures kept changing, stopped a while at 250, then 585 came.

" ' Over the bore-hole (trying my best copper wire), the wires came up instead of going down. This always indicates mineral bearing rock, generally at depth.' (Note the dolorite presently).

" The record of the bore-hole to date (1st January, 1938) is as follows :—

" At 142ft. clay all the way, thence through soft red rock working gradually into blue basalt, very hard at 180ft. This continued exceptionally hard stone, to 249ft., when drilling was discontinued (June, 1936). In October, 1937, drilling resumed. Almost immediately at 250ft., the basalt changed to dolorite, a very hard igneous rock, harder than the basalt. At 468ft. we are still in the dolorite, and if there is no change at 500ft. the hole will be abandoned. The driller says this is the worst run he has experienced in 30 years. He hates being beaten, and he has his fine reputation to consider.

" Referring again to F.H.'s letter of 13/10/37 I note he says : ' I then tried on other parts of the plan, and a very thin blue line started on the dividing line between your grass lawn and the

lucerne, the blue line meandered about, getting thicker. I read this as follows. There is the beginning of a small underground stream starting not far from the edge of your private road, flowing under the lucerne down to the windmill. I don't think your well is in the centre of the stream.'

" C.V.H. says that in replying to this under date 19/11/37 he said that he knew nothing about an underground stream and dismissed this part of F.H.'s letter from his mind. (He had written to F.H. about the bore-hole and all his interest was concentrated on that). He thought it possible there might be an underground stream running down the valley somewhere on the property, but if so, he felt pretty sure it would only be a ' soakage ' stream, dependent on the seasons and of no value for his purpose. He wanted a good permanent supply such as might be obtained by a bore on the top of the ridge. The ridge forms the edge of a tableland where there are numerous bores at close intervals on a permanent supply (two of these are within 300 yards of the site selected for the bore being drilled).

" C.V.H. now records a most remarkable fact. Recently he was inspecting a paddock near the windmill with his stockman. The latter happens to be a grandson of the original pioneer selector of the property. He casually mentioned that he had recently been talking to his grandmother, who told him that, in the early days there was never any shortage of water—the rainfall was better, springs everywhere, &c. Also two water diviners at different times had divined a stream underground running in much the same direction as indicated by F.H. in his notes (C.V.H. who had not mentioned F.H.'s divination in any way to anybody, was naturally much interested). He casually raised the question of underground streams with the experienced well-borer, who has an extensive local knowledge as stated. He said he was quite aware of the fact that two diviners had indicated a stream on the property. He himself some few years before had tried his divining machine down the slope, and showed C.V.H. where a stream was indicated by the machine. This course corresponded with that of the two diviners just mentioned, and *also with the blue line* indicated by F.H.

" All agree that the present well on the windmill is off the line, though it is not clear where the stream ends. Generally it is thought that the stream would end or be lost in a gorge the head of which is five or six chains to the South of the well in question. There is no evidence of course that such a subterranean stream actually exists. The remarkable thing is that F.H. should have corroborated, by *clairvoyant divination* the findings of three diviners on the spot. With none of these was he in touch, and the idea of telepathic communications with C.V.H. is ruled out, as the latter knew nothing of the findings of the local diviners

until after he had received the letter with the information from F.H., who knew nothing of the local people who had the information. It should be noted also that no inquiry was made of F.H. concerning a subterranean stream of this description, he was asked to direct his mind to the bore-hole. It was entirely a spontaneous voluntary effort on his part."

January 1st, 1938. C.V.H.

NOTES AND NEWS

It is interesting to note that in the revised edition of *Geology for Engineers* by Brigadier-General R. F. Sorsbie, C.B., C.S.I., C.I.E., which has just been published, the use of water diviners is advocated in connection with prospection for water in the following terms: "When prospecting for water the engineer will do well to call in the aid of a well-known water diviner and collate the information thus obtained with the geological considerations. . . ."

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Mr. J. A. Clarke (B.S.D.) writes:

"Mr. Hawker's story of the finding of the brooch in the September number of the Journal reminds me of several occasions when I have found my rod a very useful friend.

"My wife had mislaid a ten shilling note and could not remember where she had put it. The note had been folded in a one pound note. Unfolding this note I picked up from the side where the ten shilling note had rested. Starting from the spot where she remembered separating the notes, which was in the dining room, the rod led me through the hall out into the kitchen. On the door, opened back across the corner of the dresser, hung my wife's overall, but on feeling in the pockets nothing could be found, although the rod indicated this. Returning to the starting-point, the rod again led to the same place. Close to the door, directly behind where the overall had been, was the drawer of the dresser; on opening same, the note lay just inside.

"On another occasion, I was with a party of friends visiting Castle Eden Dene. We had wandered about all the afternoon and were returning along one of the paths when we came to a fork in the track. A discussion arose as to which was the right one to take. One of the party had never been in the Dene before. Taking my rod I picked up this person's influence. Then going a little way down one path, I tried to pick up this person's trail by crossing the path; the rod would not react. Trying across the other path, the rod indicated the person had

passed up towards the fork, but had not returned, clearly showing this was the way back, which proved correct. I chose a person who had never been there before, for this reason ; I find that a trail can be picked up with the rod, even though years have passed since the trail was made, and had I chosen a person who had been there before, I might have picked up an old trail which might have led us astray.

" While on the subject of tracks and trail finding, it may be of general interest to other dowsers to know how I find the points of the compass with the rod. With the rod held shoulder high, I get 14 lifts of the rod for North, 12 for West, 10 for South and 8 for East. Tested near a large mass of iron which deflected the compass needle many points, the rod still gave the correct line.

" Entering the bakehouse of a friend one day, I found the foreman and a baker examining a batch of dough which refused to rise ; the foreman said he was sure the yeast had not been put in, the baker said it had been. Taking a piece of yeast as a sample, the rod would give no reaction over the dough. The dough was put back in the machine, the proper amount of yeast added, and the result was all that could be desired."

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Mr. G. W. Robinson (B.S.D.) writes :

" As a youth I was able to find water through seeing a dowser at work, and found many supplies of water simply by using the twig in the usual way.

" As a cyclist I won many prizes and championships, including the English championship, and could not understand at that time why some grounds were more favourable to me than others.

" I built a new house about fifteen years ago and found my own well, which is a splendid supply.

" Three years ago my District Council had to give a public supply. I and two other Councillors were appointed the Water Committee to carry out a £65,000 scheme. I never gave it a thought to dowse for the supply. It was arranged for a Newcastle firm to sink a bore. A supply of only 1,200 gallons an hour was found. This was not satisfactory, so the engineers advised a geologist to be consulted. He visited the site and said we could not get a supply from this site, and recommended us to look elsewhere.

" An emergency meeting was called on the site and the Clerk to the Council, unknown to the other members, had arranged for a dowser to attend. The Clerk explained he was unable to come. I suddenly remembered I could dowse. I at once got to work, and within twenty yards of the previous bore I found a supply of 5,000 gallons an hour. We sank two more bores on

the same site and now have a supply of 20,000 gallons per hour, which supplies 28 villages.

"I was then invited by the Gainsborough Rural District Council and found them three bores for a public supply.

"Newcastle R.D.C. recently asked me to find them water. There had been several debates in Council on the merits of dowsing. A clergyman on the Council expressed contempt of dowsers and asked that he could accompany me when I went prospecting. We met on the Lincolnshire Wolds. The clergyman turned up. I found a good site, and when the twig turned rapidly he could not believe it. I invited him to take the twig. With great determination he gripped the twig tight and at once was seized with cramp in the legs and, throwing down the twig, said the devil was in it. He is now a confirmed dowser."

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Mr. A. S. Laurie writes from Southern Rhodesia :—

". . . The whole country has been ruined by denudation and the subsoil water table level has reached a very low level. So far as my own farm is concerned due to hard conscientious work involving a hundred miles of contour ridging I have stopped all soil wash and maintained the subsoil water table level. I was held up to ridicule for fourteen years for resorting to contour ridging and then turned the tables on my adversaries and had them grovelling at my feet for advice. I have for some few years been putting down a number of wells, fixing the sites by divining. Of course this tickled everybody. Now I am glad to say they see it is not a deception and I am being worried to death with requests to find water for scores of people. It was exactly the same ridicule I went through in India for thirty-two years in the Indian Service of Engineers, where I completely turned the tables on my adversaries again."

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With reference to the report in the *Bridport News* of June 3rd, referred to in *B.S.D.J.* 21, page 253, Mr. H. N. Sanctuary (B.S.D.) writes :—

"As regards the Melplash well, the Beaminster R.D.C. commissioned a local water engineer, who is a diviner, to find water on a certain site. He found it and dug a well, but up to 30 feet had only found a dried up water channel at about 25 feet.

Another diviner was called in and confirmed that water was there and the well was continued down to about 40 feet without water but with a lot of rock. The R.D.C. refused to go on digging and the water engineer met me on the site and I advised him that he would not find water until 55 feet approx.

The R.D.C. agreed to bore, and the water was found as I predicted. The water was in sand and it choked the pump, and

the water engineer asked me to go again to confirm that the water was still there, which I did, taking my boy aged 12 with me, and we both confirmed that there was a good supply. The well has since been lowered to about 48 feet, and the water engineer tells me that the water has come up satisfactorily and that when pumping at 9,000 gallons per 24 hours they failed to keep pace with it."

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The *Evening Times* (Glasgow) of July 20th contained a short article about Mr. S. A. Meers, a Queensland grazier, who finds water divining very useful.

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In the *Bucks Advertiser* of July 22nd there was an article about the waterworks now being carried out on behalf of the Bucks Water Board by Messrs. Le Grand, Sutcliff and Gell between Wendover and Missenden. The site was apparently found by a water diviner.

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Mr. Charles Augustus Branford, who lives near Southam in Norfolk, is the subject of an article in the *Mercury and Herald* (Northampton) of July 22nd. He is over 94 years old, but is still active. During his official duties as Surveyor and Sanitary Inspector to the Rural and Urban District of Bicester he came in contact with Mr. Mullins and learnt to divine for water. He has located water in many parts of the country.

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According to the *Lincolnshire Chronicle and Leader* of July 23rd Mr. G. W. Robinson (B.S.D.) was engaged on behalf of the Horncastle R.D.C. and has found two good sources of water near Wolddale Trees, Scamblesby (See *B.S.D.J.* 21, page 252).

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In the *Mercury and Herald* (Northampton) of July 29th it was stated that the dowser engaged by the Towcester R.D.C. reported that water would be found at 60 to 65 feet. (See *B.S.D.J.* 20, page 192).

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According to the *Yorkshire Herald* of July 30th the water diviner employed by the Easingwold R.D.C. (see *B.S.D.J.* 21, page 253) had found traces of water at Yearsley and Whenby.

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The *Times of India* of August 3rd states that the Government of India has asked all provincial Governments whether they require the services of a Dutch woman water diviner who was visiting the country.

The *Sunderland Echo* of August 16th contained a long article about Mr. William A. Bell, water diviner, of Egglestone, Teesdale.

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As stated in the *Bath Chronicle and Herald* of August 22nd the Bathavon R.D.C. authorised the engagement of Mr. Mullins, the water diviner of Bath, with a view to obtaining an additional supply of water in the Brinscombe area.

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Articles about Mr. Bloom appeared in the *Eastern Daily Press* of August 6th, the *Norfolk Chronicle* of August 26th and the *Lynn Advertiser* of September 2nd. Mr. Bloom is a smallholder of Rose Villa, Southrepps, and is said to be in great demand as a water diviner.

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The *Daily Mail* of August 29th contained an account of the finding of a terrier belonging to Mr. H. A. Breathwaite, stationmaster of Tilton on the Hill, near Leicester, by a diviner.

The terrier disappeared after chasing a rabbit into a culvert. Next day Mr. Breathwaite asked a neighbour, Mr. Jack Walker, known as a water diviner, to find the dog. Using the collar and some of the dog's hairs as a sample Mr. Walker, who at his own request had not been told where the dog had last been seen, traced the dog to the culvert. When he arrived there his twig pointed towards a hill fifty yards away. After digging had been carried out at the spot indicated, the dog was found alive under a large stone five feet down.

Mr. Breathwaite has kindly written to us correcting the account in the *Daily Mail*, the facts being as stated above.

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According to the *Daily Telegraph* of August 20th a diviner assisted in the discovery of fifty ancient coins, thought to be part of an 18th century sumggler's hoard, at Carleton Glen, near Girvan, Ayrshire.

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The *Kentish Express* of August 3rd reports that a lady water diviner from Broadstairs visited the denehole at Wingham Well and found that there was running water somewhere beneath.

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There was an article in the *News Chronicle* of September 13th about Mr. John Clarke (B.S.D.), the well-known water diviner of Ab Kettleby.

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An article in the same paper of September 16th described how Mr. Sam Bloor (B.S.D.) identified a grave in Wrockwardine Wood churchyard.

The *Bath Chronicle and Herald* of September 20th reports that at a meeting of the Calne-Chippenham R.D.C. it was decided to proceed with the sinking of a borehole at a site selected by Mr. Lewis, a water diviner, with a view to solving the problem of a satisfactory water supply for the Foxham area.

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In the same paper of September 27th it is stated that, on behalf of the Bradford-Melksham R.D.C., the honorary services of a lady water diviner had been obtained to make a survey of the Atworth district, where the residents complain of a lack of water.

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As reported in *Reynolds News* of September 25th a water diviner called Sam Williams found a spring at the back door of Mountain Farm, Cresselly, where the occupier for the last hundred years had had to tramp a mile to fetch water.

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The *Southend Times* of September 28th contained an article on Mr. William Gladin, a water diviner of Church Road, Hadleigh. His grandfather and great-grandfather were also water diviners.

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A short paragraph in *Reynolds News* of October 2nd states that a water diviner is to be employed by the West Cork Board of Health to advise on the sinking of two pumps on Sherkin Island, where the supply of water is defective.

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According to the *Somerset County Herald* of October 8th the water diviner engaged by the Long Sutton Parish Council has confirmed the site selected for a borehole by a geologist. (See *B.S.D.J.* 21, page 254).

According to a letter from Mr. P. W. Merritt, which appeared in the issue of August 27th, the geologist stated that there was no great quantity of water at Kingweston and that if a bore were made to 60 feet about 10,000 gallons might be obtained.

Mr. Merritt, however, states that there are nineteen springs of water within a distance of 34 yards at Kingweston and that over 100,000 gallons per day could be obtained at this site.

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The *Nottingham Journal* of October 24th states that Mr. Clarke (B.S.D.), of Ab Kettleby, has been asked by representatives of the West Kesteven R.D.C. to submit a report in connection with the north regional water scheme.

REVIEWS

ZEITSCHRIFT FÜR WÜNSCHELRUTENFORSCHUNG

(February to July, 1938).

Parts 2 to 7, vol. xix.

These numbers are devoted, in the main, to two themes, of which the first is the vindication of dowsing by the enumeration of practical results, in which the dowser has by his methods detected the existence of faults and flows of water where other means have been insufficient or at fault.

The second theme is the declaration of the necessity of regimentation, and of the formation of a professional class of dowsers. For this latter purpose rules have been drawn up, and examinations have been held from time to time. Of these latter, a series of which was held in September, 1937, Dr. Kurt Osswald gives a careful analysis in the February number. Practical examinations were held on the determination of water, the ability of the candidates to detect faults and mineral lodes. In the detection of water over half of the candidates were classified as good or as very good, while in the other subjects less than half of the candidates attained this high standard.

The February number also contains a short article by Herr Baurat Hasse, on examples of the practical use of the rod. He himself used the rod, he says, with great success during the war of 1914-18. He states that in England tests have been made " of all officers as far as the technical and colonial (sic) forces are concerned, with respect to their proficiency in dowsing," and that it has been arranged " that they shall have preference in the allotment of commands (bei Besetzung von Stellen)." He does not quote the authority for this statement.

March.—Dr. Deibel contributes an article upon districts which are particularly liable to lightning stroke. He refers to measurements by Bogojavlensky who, he says, found rays " similar to the cosmic rays whose intensity was relatively high in places liable to lightning stroke." In connection with this subject Dr. Osswald, for the research committee, has drawn up a questionnaire asking for information concerning such places.

Dr. Osswald also starts, in this number, a series of accounts of successes in dowsing. This series of 38 cases finishes in the July number. Dr. Osswald is clear ; he gives exact details and measurements, and, as previous reviews of his work have shown, he does not hesitate to mention cases in which dowsing has not been successful. He does not, however, mention such cases in this series, which is simply a detailed account of cases in which success has been attained, frequently when it could not be got by other means.

April.—The only really interesting part of this number is the instalment of Dr. Osswald's series, to which reference has already been made. Karl Stier, however, writes a note upon a connection which he thinks he has observed between the flight of fireflies and zones of influence.

May.—This number begins with a short account by Dr. R. France of the iron ore mines of Austria. The author does not deal with dowsing problems, but the editor appends a note pointing out the great importance of the Austrian metal mining industry to Germany, and the necessity of its study by dowsers.

A note by Dr. Hagen, inserted by Dr. O., gives evidence to support a statement in a summary, " from the above facts I arrive at the conclusion that cancer belongs to the allergic diseases. Its allergenes are quite definite, already known irritating materials, and they also spring from earth influences, which, in the main, arise in certain areas (strichweise) which to investigate is the business of geophysics."

Dr. Franz Wetzel publishes a photograph from the air of the site of an old homestead, drawing the conclusion that " between tne remarkable pictures from the air and the dowser's reactions over prehistoric sites there is some kind of physical connection which should be investigated."

Dr. Wetzel also gives an account of a journey made by him into Austria. This fills three pages, largely with an account of how nicely the sun shines in Austria in May, and how much more pleasant he found his surroundings after the visit of Herr Hitler: before March Germans were strangely suspect by the ruling power, even when they came in the garb of dowsers.

Dr. Osswald continues his very interesting account of dowsing successes. With the possible exception of Dr. Hagen's paper this is the only part of this number that is worth reading from the standpoint of a dowser.

June.—Dr. Kurt Osswald writes an interesting account of a journey through Czechoslovakia. He paid great attention to two areas which suffer much from lightning, and came to the conclusion, from observations of the frequency of incidence in one district, that the strip liable to lightning stroke followed the strike of certain strata. Other cases were found by him to be connected with definite disturbances in the strata. He describes also the problem of the dowser in the investigation of the underground watercourses in Moravia. Also, in a separate note, he refers to the publication in a Sudeten German paper of accounts of certain phenomena on the Moravian and Bohemian tableland " because it gives an insight into local and regional disturbances of the atmospheric electric field, which seem to be caused by subterranean influences."

The rest of this number is taken up by official notices. Of interest among these is Dr. Beyer's announcement that the

annual congress is to be held this year at Krems, in Austria. Dr. Osswald also asks for reports with regard to the connection between rod indications and places subject to lightning stroke.

July.—This number contains the provisional programme of the annual congress. This congress was planned to last from September 17th to 20th, after which there was to be a short instructional course for dowsers, followed by an examination.

Dr. Wetzel spends some time in discussing whether the majority of dowsers should be classed just as workers or with the higher title of research workers, and comes to the conclusion that the former title is more suitable in the majority of cases.

Dr. Osswald concludes his interesting series of acounts of characteristic dowsing successes with the following words: "We close with this number our series of accounts of characteristic dowsing operations. The research staff will shortly publish this series in one volume, supplemented by a number of accounts previously published."

The remainder of this number is taken up by official notices of meetings of the different groups, instructional courses and the like.

C.S.T.