A.H. BEH

### JOURNAL

OF THE

# BRITISH SOCIETY OF DOWSERS

Vol. II. No. 9

September, 1935

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THE BRITISH SOCIETY OF DOWSERS
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#### BRITISH SOCIETY OF DOWSERS

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#### OBJECTS OF THE SOCIETY

(a) To encourage the study of all matters connected with the perception of radiation by the human organism with or without an instrument.

(b) To spread information amongst members, by means of a journal, lectures and other means, about the use of dowsing for geophysical, medical and agricultural and other purposes and for tracing objects animate or inanimate.

(c) To keep a register of dowsers for water, minerals, oil, and for other purposes.

#### RULES OF THE SOCIETY

I.—Membership.

The Society is open to all persons interested in radiation-perception.

The Council has power to appoint honorary members.

II.—Suscription. The subscription is five shillings per annum, or three guineas for a life

member.

III .- Management.

The Society will be managed by a Council consisting of a President. who will act as Chairman, and five members, one of whom will act as Treasurer and Secretary.

The President and members will be replaced as necessary by the Council,

appointments being confirmed at a General Meeting.

All questions regarding the publication of the journal, lectures, meetings, etc., will be settled by the Council.

Decisions of the Council will be arrived at by correspondence if necessary,

the facts being recorded in the Minute Book.

Decisions will be decided by a majority vote, the Chairman having a casting vote.

The Council has power to co-opt other members for special purposes.

IV .- Accounts.

The financial year will be from July 1st to June 30th. Accounts will be published annually within two months after the end of the financial year.

Accounts will be audited privately.

V.—General Meeting.

A General Meeting will be held annually, and other meetings when considered necessary by the Council.

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#### **NOTICES**

Members are reminded that subscriptions for the year 1935-36 are now due, as our financial year starts on July 1st.

M. René Lacroix-à-l'Henri, wireless officer in the Mercantile Marine, has sent the Society a copy of his book *Manuel théorique* et pratique de Radiesthésie. Although published in May of this year, it is already in its second edition.

M. Larvaron has sent us a copy of *La Radio-Tellurie*, by himself and Dr. Regnault, which has just been published.

Both these books will be reviewed in the next journal.

We have received the March, April and May numbers of *Les Nouvelles Perspectives*, a periodical of some 14 pages dealing with preventive and curative medicine, radiesthésie, electrobiology and the objective study of social questions. The editor is Dr. Andrée-Besson, and the editorial office is at 9 Rue Etex, Paris (xviiie).

The Annual Congress of the Society was held at the rooms of the Royal Asiatic Society on June 27th. Lectures, with lantern slides, were given by Dr. A. T. J. Dollar, Ph.D., B.Sc., F.G.S., on "Underground Water," and by Mr. J. Cecil Maby, B.Sc., A.R.C.S., F.R.A.S., on "The Psychical Element in Dowsing and Allied Phenomena." The lectures created much interest, and were followed by questions and discussions.

Next day a meeting was held at Netley Mill, near Shere, the pumping station of the Hurtwood Water Co. Ltd. Members had the opportunity of locating a large piece of copper which had been buried some weeks before, the rising mains from the pumping station, an old buried iron pipe, and also of distinguishing between saline and fresh water in vessels.

The nearest locations of the buried copper were made by Sir G. Abercromby and Major Creyke, the distances being six and seven feet respectively from the actual position. As often occurs in such tests, exact location was made difficult by the presence of a number of near spectators.

Ten members correctly selected the vessel containing saline water.

About fifty members and their friends were present at this meeting, one member coming from as far as Rothesay and another from Monmouth.

Our thanks are due to the Directors of the Hurtwood Water Co. for the use of their ground, to Mr. E. Broyd for his excellent arrangements and to Colonel F. E. Bray for the car park.

By the kindness of Mr. C. T. Cox, a meeting was held at Inchmarlo, Banchory, on the afternoon of July 24th. About ninety members and residents in Scotland were present.

They first assembled in the lecture hall at Inchmarlo, where Mr. Cox introduced the President and Mr. G. G. Fleming. After the President had explained the origin and objects of the Society, Mr. Fleming delivered a lecture on the general subject of dowsing and on his experiences as an oil surveyor in British Columbia and Alberta. Wearing rubber-soled shoes as a protest against a common superstition, he gave a demonstration with his coloured rods.

After the lecture, work of a practical kind was carried out on the hill above the house, where water is actually required. The use of the mumetal rod was demonstrated by Sir George Abereromby, and types of instruments other than the traditional hazel rod could be seen in use.

To end up with, Mr. and Mrs. Cox kindly entertained the meeting to tea.

The fourth International Congress of Radiesthésie was held

at Paris from June 3rd to 7th. It was attended by the representatives of several nations, including England, Belgium, Italy, Poland and Greece.

The opening meeting took place on the morning of June 4th. In the afternoon, M. de France delivered a lecture on Geology and Prospection. In the evening, there was a public meeting, during which short addresses were given by the representatives of the different nations attending.

On June 5th, addresses were given by Dr. Foveau de Courmelles on *Médecine Générale* and by Dr. Leprince on *Médecine Appliquée*, and in the afternoon by Dr. Abel Martin on *Médecine Vétérinaire* and by M. Lesourd on *Pharmacie*.

On June 6th, there was an excursion to Château-Thierry.

On the final day, June 7th, lectures were given by M. Nicolle on Agriculture and by Commandant De la Bastide on "Radiesthésie at a distance."

Mumetal rods, as described in the article below, "The Point Depth Method," can be obtained from the Telegraph Construction and Maintenance Co. Ltd., Telcon Works, Greenwich, for about £2 10s.

Whalebone for divining rods can be obtained from Messrs. Devine & Co. Ltd., St. Stephen's Road, Old Ford, London, E.3.

Communications for the Editor, and enquiries, should be sent to Colonel A. H. Bell, Backwoods, Lindfield, Sussex.

# THE PSYCHICAL ELEMENT IN DOWSING AND ALLIED PHENOMENA

(Address to the British Society of Dowsers, read on June 27th, 1935, by J. Cecil Maby, B.Sc., A.R.C.S., F.R.A.S.)

#### INTRODUCTION.

MR. PRESIDENT, LADIES AND GENTLEMEN,

I should have preferred, personally, to have inserted two other time-honoured words in the title of this address; namely, metaphysical instead of "psychical," and divination in place of "dowsing, etc." The President, however, quite rightly pointed out that the use of such terms was now not only unfashionable, but also distasteful to modern science. Without entering into a discussion of the exact meaning and derivation of these alternatives, I should, however, begin by fore-warning you that they are, in fact, very well fitted to convey the intention and argument

of the present paper.

This afternoon I am proposing to lay before you—though all too briefly and inconclusively, I fear, owing to the short time at our disposal—a number of experimental and logical reasons which, to anyone of an unbiased mind, will, I believe, appear to point very strongly to a psychical rather than a physical interpretation of dowsing and similar accomplishments. In other words, I hope to show, upon observational and rational grounds, that the term "divination"—disallowing its theistic implications, which modern man may not now care to accept—is nearer the truth than the majority of more pseudo-scientific words whose aim is to explain (logically) what is, in fact, still entirely inexplicable and mysterious.

Similar remarks may be applied to my other choice: the word metaphysical. Here, again, we have an excellently general and well-understood term, dating from the days of the Greek philosophers, with common reference to all those strange and wonderful facts of existence, such as Life, Mind and Spirit, with their various, emotional, aesthetic, moral, ethical and intellectual principles, as contrasted with what we understand to be the purely (if anything can be described purely and abstractly!) mechanico-

physical "laws" and workings of Nature.

Here I may be called to task by some of my scientific friends for assuming that anything in this world is truly metaphysical. I can only reply that one must have some tenets of faith and scientific hypotheses, and that the division of Nature into a dual system of MIND and MATTER, or of respectively psychical and physical principles, appears to me to be the least daring, the most obvious and also the most helpful hypothesis that Man has invented. So long, therefore, as such an idea continues to exert a creative influence upon thought and science, and lacking

any positive disproof—of which none, I believe, has yet been advanced, despite the untiring efforts of the mechanists, but rather to the contrary—let us continue to cherish a dualistic philosophy. That being so, we may content ourselves by calling metaphysical, or "psychical," all those special urges, ideational emotions and immaterial thoughts and feelings that we see operative throughout the animal and vegetable kingdoms;

especially in man and a few of the higher animals. In the ordinary way, in waking life, the sphere of thought, or horizon of psychic action, is largely limited by, and to, the spatio-material world of our physical senses. But when the mind is not thus materially and logically pre-occupied by sensory perceptions, it is free to wander, untramelled by physical fetters, in time and space—imaginatively, as we say—in an altogether different, or at least much less limited, manner. In sleep, in moments of "brown study" and in trance, such psychical release occurs, and under such circumstances Psychic Science gives us every assurance that what are called paragnostic or metagnomic faculties often supervene. Given these conditions, quite ordinary (I shall suppose all) people come to possess telepathic, clairvoyant and even prophetic abilities. But usually they are either still partly pre-occupied by the spatio-material here-and-now of the physical senses, or else forget their experiences or discount them as soon as they regain normal waking consciousness. This other more extensive phase of consciousness is known as subliminal consciousness, and it appears very probable indeed that the dowser, like other metagnomic subjects, attains his mysterious knowledge by giving rein, or dipping in, to this greater and more fundamental phase, or region, of the mind—which may even be continuous with a common-to-all, universal mind, or PAN-PSYCHE.

#### THE GENERAL PROBLEM.

So much for the broad attitude of mind and approach that I wish to recommend to your consideration. Our problem, then, is to decide whether dowsing for water and minerals is, properly speaking, a scientific prospecting procedure, based on known physical laws—or even unknown ones—or whether these and all other "divining" processes do not depend for their action upon certain metaphysical faculties of a living operator. In other words, does not the marvel reside in the mind, or psychic organisation, of the individual operator rather than in the actual spatio-material organisation of the hidden facts, e.g., the location, nature and extent of a subterranean water course or mineral bed in the case of a dowser, or the past, present or future actions of certain living persons in the case of a scryer or entranced medium?

In a recent lecture to the Society Mr. T. B. Franklin, trusting to the evidence of certain physical experiments which he has made in radio-detection of hidden minerals and water-courses, was inclined to decide in favour of a *physical* explanation of these

phenomena. Mon. Henri Mager, whose work will be well known to you, and many another successful dowser, does the same. Electromedical men of the Abrams school—now split up into various mutually exclusive camps, I believe—as well as living followers of the old "magnetisers" (Mesmer, Braid, Charcot, Janet, Binet, etc.), likewise believe in mineral, animal, vegetable and human radiations. Moreover, such persons, like yourselves, not by any means unsuccessfully practise what they preach. In short, their ideas preconceive their work, and their work appears to them and to the average observer, maybe, to substantiate their ideas.

It is with some regret for the pain that it may cause to such enthusiasts, to whose work (though not that of mere charlatans) we should, I think, give full credit, that I feel moved to drop another disruptive bombshell upon the radiation hypothesis. But this I feel less compunction in doing in view of the facts: first, that the ultimate truth is of more importance than personal feelings, second, that Sir W. Barrett and Mr. Th. Besterman, of the London Society for Psychical Research, were led to a like conclusion by a very careful examination of the evidence for dowsing, and third, that I myself started a series of investigations, some of which I shall next briefly outline, with a bias towards the physical (i.e., radiation) hypothesis.

As actual experience is the bedrock of sure knowledge, perhaps you will forgive me at this point for embarking upon personal

reminiscences.

My own interest in occult phenomena has been both an early and perennial one, stimulated partly by a natural leaning towards the mysterious, on the one hand, and by scientific inquisitiveness. on the other. I have also been fortunate enough to collect a considerable number of personal and first-hand telepathic experiences; and actual laboratory experiment showed a fair clairvoyant faculty, which, as Dr. Rhine has recently deduced from his systematic studies of what he calls collectively "extrasensory perception," seems to be naturally correlated with telepathic percipiency. A few years back the writings of several nineteenth century authors turned my interest to the problem of human radiations and animal magnetism, and from these it was a short step to the work of Dr. A. Abrams and his followers on the diagnosis and treatment of disease, to Dr. Boyd's recent work upon the effects of mineral radiations on a suitable human subject; and so, lastly, to water and mineral "divining" as set forth by the physical school.

I will not trouble you unduly with the evolutionary course of my personal ideas, but I should say this: that, having *started* with a tentative acceptance of the work of Mesmer, Reichenbach, Baraduc, Binet and Féré, Boirac, and Maxwell upon what appeared to be radiations and effluvia capable of being sensed by entranced "mediums" and hypnotised subjects, conducted along wires, etc., and even influenced by magnets, I have, nevertheless, ended with the opposite impression—and that as a result not merely of armchair speculation, but of a lengthy series of laboratory tests. Such a position, of course, makes no claim to finality, since in this world everything is uncertain and finality non-existent. Some of these enquiries are yet incomplete, and others will, no doubt, receive subsequent enlightenment from later work. I would, therefore, prefer not to enter into written detail until the time is ripe for a final account in book form—as will, I hope, be possible, so as to co-ordinate and integrate all these apparently varied phenomena within a single psychological scheme.

The best thing, I think, for me to do to-day will be to refer, one at a time, to some of the apparatuses and methods claiming to demonstrate or record the existence of such organic, human and inorganic radiations which we have recently investigated in my laboratory. The former cover experimental (i.e., voluntary) telepathy and clairvoyance, on the one hand, and radiations from celestial, terrestrial and human bodies on the other. That may appear to be a rather diffuse and ambitious programme, but as we have not aimed at the collection and statistical analysis of large masses of data so much as at the intensive examination and testing of a single method or apparatus, it has actually been possible to cover a fair amount of ground in a comparatively short while. Moreover, one becomes quicker at "spotting winners" and avoiding "snags" and illusions as one's familiarity with Psychic Science as a whole grows more intimate.

Having first satisfied myself from enquiry of reliable observers and authors, aided by a few personal experiences, that the phenomena of the séance room, the hypnotic subject and the somnambulist, the diviner and the medical "electronist," were often genuine and repeatable phenomena of an objective sort, I decided privately to put to critical laboratory test a few of the more outstanding methods and instruments employed by successful practictioners.

At this point I ask myself two simple questions:

(1) If telepathic, clairvoyant and other paragnostic (or metaphysical) factors are excluded, will such and such a specified apparatus or procedure render the results that are commonly claimed for it? and

(2) Given objective physical results, such as needle movements, etc., what is their cause?

The answers, as usual, were not always so simple; and although the generalised conclusion, that nearly all such phenomena required a *psychical*, not a physical, explanation gradually dawned on me and gained conviction, a number of interesting, not to say important, physical facts also came to light. The latter I shall barely mention in passing, as they are purely incidental to the present inquiry and will, I hope, soon be published

separately in suitable technical journals, in so far as their seeming novelty may be thought to justify that procedure.

#### OUTLINE OF INVESTIGATIONS.

The following are the chief lines of enquiry that it was decided to take up, and which have been practically completed, some in full detail and at length, others in so far as was deemed necessary to satisfy ourselves of the reality of phenomena already described by others, and to give a clearer idea of their nature and/or working.

And although in such matters it is desirable for every serious enquirer to satisfy himself first-hand, I can honestly assure you that the very greatest pains and critical precautions were taken in every case to ensure the accuracy of the results (on which my general deductions are based), in accordance with approved

methods of physical and psychical enquiry.

I only wish that I had time to tell you of those precautions, with the repetitions and control experiments that we carried out, since I realise that even the most well-intentioned audience tends to scepticism where statements happen to run counter to its own ingrained beliefs or experience. I will, however, try to sandwich in as many details as possible in describing the lantern slides ex tempore.\* But if anyone should happen to be interested in

<sup>\*</sup> The Lecturer gave examples and slides in connection with items (1) to (4), showing, severally, how readily the bodily senses could be deceived and deluded by certain non-habitual forms of stimulus; how auto-suggestion might bring about involuntary and subconscious motor automatisms (e.g., gazing at or thinking about a geometrical figure, such as a circle or an elipse, whilst holding a pendulum in one hand, would set the pendulum moving in a figure of equivalent form and size) and more or less powerful sensory hallucinations; how either logical ideas or visual images might be transmitted, by unquestionably extra-sensory means, from one person to another when the correct attitude of mind was adopted by the percipient; how events, facts and images might also be perceived clairvoyantly without the aid of a living agent; how the received "message" or idea might suffer more or less distortion and fragmentation by the fore-conscious mind when such ideas were ultimately projected," or spatio-materialised, in the normal waking state; and how the ultimate perception did not necessarily coincide with the spatiomaterial orientation, etc., of the original object which had been "paragnosed," but rather tended to get the idea itself, in abstract form, which it then precipitated in spatio-material terms of the bodily senses—as an hallucination, that is to say. He concluded from these experiments and their evident close resemblance to "divining" phenomena as a whole, that dowsing was another paragnostic phenomenon, subject to the same (as yet unformulated) psychic laws as telepathy, clairvoyance, etc., whereby physical laws and spatio-material principles are—as many are now prepared to agree—transcended. All imaginative (i.e., abstract) thought, with all re-cognitive and pre-cognitive processes, he suggested, was physically transcendental in exactly the same way; the mind acting and enduring in (true, not astronomical) time, whereas the body and all material things acted and endured in space. Hence the philosophical need for a dual conception of world structure, namely, psycho-physical structure, having, perhaps, a psychical primordium, or "ether," as well as a physical one—as had long been maintained by Sir Oliver Lodge.

a particular apparatus or experiment I shall be only too glad to discuss it privately or to welcome him at my laboratory in Oxford, as a public lecture is always too brief to make a convincing case of any single point where much ground has to be covered.

- (1) A consideration of various optical and other sensory illusions, including the effects of expectancy and attentiveness upon the degree of illusion. The commonplace "illusion" of objective solidity due to stereoscopic (superposed binocular) vision was examined in this connection, and its persistence, through force of mental habit, when a binocular observer employs only one eye or even no eyes at all—as in imaginative thought, unaided by external stimuli. And hence the relationship of normal sensory perception to what is known as sensory hallucination (as when one so vividly imagines an idea as to render it apparently objective) was entertained.
- (2) A few experiments on the effect—both psychological and physiological—of auto-suggestion upon sensitive and suggestible, but otherwise "normal," subjects.
- (3) Experimental clairvoyance by a single subject of drawings and prints, and the location and nature of hidden objects, believed to be unknown to other living persons, as possible telepathic agents.
- (4) Experimental (i.e., voluntary) telepathy between two human subjects regarding simple ideas, visual images and hidden objects, known to one subject (the agent) but not to the other (the percipient).
- (5) A theoretical and brief experimental consideration of the probable relationship between normal sensory perceptions of objects at a distance, and telepathy, etc. Thus, in normal perception we focus our attention upon a given object in such a way that one may not unreasonably assert that thought is projected out and away from the living organism towards and upon its actual objective. For note that all sense perceptions are felt as if at their point of origin, never as if within the subjective organism or nervous system itself,\* except in the case of tactile sensations, whose point of origin is actually in the organism where it is felt. But evidence is available to show that even the tactile sense may, in hypnotic and " mediumistic" trance, be projected outside of the subject's body, if and when autosuggestion leads a subject to imagine sufficiently intently that his body is, indeed, located at such and such a place distant in space from his real corporeal self.

<sup>\*</sup> This conception of sensory perception I first put forward in a paper upon Telepathy and Clairvoyance read before the Oxford University Psychical Research Association last autumn, and have not yet had an opportunity to develop it in expanded form.

When these facts are considered in conjunction with that form of extra-sensory perception known as "telepathy" on the one hand, and that other form of metagnomy variously called "clairvoyance," "cryptesthesia," "telesthesia," "intuitive perception," "psychometry," "divination," "scrying," etc.—according to immediate context—on the other hand, you will, I hope, appreciate that the incarnate(?) mind may, on rare occasions, act so powerfully upon its distant object as to create either—

(a) "inspired" (telepathed) ideas in the mind of another living subject, who happens to represent that objective, plus various sensory hallucinations, according to

subjective circumstances; or

(b) some kind of physical modification of the ether of space, due to the influence of the psychic force at its point of focus, thus creating a local physical impression, or "ghost," of some sort. . . . This I rather doubt.

Case (a) has again and again been demonstrated both in ordinary and extraordinary circumstances beyond all possibility of doubt, except for the sceptic who "hath eves that see not and ears that hear not."\* Case (b), however, is open to another interpretation, namely, that the action is, again, really telepathic—from mind to mind—and that collective hallucinations are due to one mind (the primary percipient's) infecting those of others around by secondary telepathy or strong suggestive example. In that case, we are relieved of the necessity to postulate the occurrence of physical radiations and material impressions. Reliable photographs and instrumental records of such apparitions also seem to be lacking, though recent work by Gelev, Schrenk-Notzing and others upon the claimed extrusion of ectoplasm and its assumption of "thought forms," as well as the apparent ability of a medium such as R. Schneider to project a something materialistic into space, capable of interfering with a beam of infra-red rays and so working a photo-electric cell, may eventually negative such an idea.

Telekinesis, or the movement of objects at a distance by occult means, must likewise be taken into account.

But facts seem to indicate that such *physical* phenomena—if finally accepted by science—fall in a separate category, and one that does not, I believe, concern the phenomena of dowsing and divination generally, which I am inclined to class as purely *psychical* in origin.

<sup>\*</sup> Vide, for example, Proceedings of the London S.P.R., "Telepathy and Clairvoyance," by R. Tischner, and Dr Rhine's recent book on extrasensory perception.

- (6) Next, I made and tested pretty exhaustively a number of simple instruments for which their inventors have, from time to time, claimed "divining," radio-detective or yet more miraculous diagnostic powers. These instruments,\* to each of which, successively, we devoted our whole time and energy during several days, weeks or months, according to the complexity of their construction or the obscurity of their action, may be divided into two groups: viz.:—
  - A. Instruments for detecting and measuring hitherto unrecognised mineral radiations or effluvia.
  - B. Instruments for detecting and measuring hitherto unrecognised organic and vital radiations.

In group A were the following:--

- (1) Various forms of divining rods and pendulums;
- (2) Fortin's magnetometer, adapted by Mager for water and mineral prospecting;
- (3) Mager's coloured detectors;
- (4) Drs. Simon and O'Connor's (recent) "Radio Doctor," or triggered valve detector;
- (5) Various "electronic" detector devices by Dr. Abrams;
- (6) Dr. Boyd's "Emanometer"—a modification of Abrams' "Biometer";
- (7) Dr. Wigglesworth's "Pathoclast"—also a yet more elaborate modification (with three-valve amplification) of Abrams' principle, evidently;
- (8) Steiner and Kolisko's chemical detectors of celestial influences:
- (9) Also a study (after Douglass) of the supposed correlation between the sun-spot cycle and the rate of the growth of 25 British and S. African oaks;
- (10) Slow photography of "earth rays" as recently described by von Pohl, Dobler and Beichl;
- (11) Mr. T. B. Franklin's thermionic valve "earth-ray" detector devices—as far as I could gather them from his recent lecture.

Group B embodied the following:—

- (1) De Briche's and Reichenbach's human vibrometers;
- (2) Baraduc's "Biometer"—or non-magnetic needle;
- (3) Dr. Russ's "Instrument Affected by Vision"—a modification of Baraduc's instrument;

<sup>\*</sup> I am indebted to various friends for the suggestion of several of these investigations and for their criticisms and invaluable advice throughout several years of work.

- (4) Dr. Kilner's dicyanine screen as an aid to "auric sight," and also the normal detection of the "digital effluvia" (Maxwell and Reichenbach);
- (5) Simon and O'Connor's apparatus, used as a possible detector of human radiation and residual impressions of the kind described by Boirac and others in connection with metagnomic sensitives;
- (6) Wigglesworth's "Pathoclast" as diagnoser and neutraliser of pathogenic human radiations;
- (7) Dr. Moner's thermionic valve device for the detection and measurement of digital emanations;
- (8) Dr. Bertholet's method for photography of digital radiations. (Actual plates shown);
- (9) Dr. Abrams' "Biometer," etc;
- (10) Prof. Waller's "Blaze Current" as an index to life in seeds, etc.

A friend is also at present repeating Dr. Watters' interesting and curious experiments on animal ghosts (supposed "intraatomic quantity" or "etheric double") after death, using a Wilson cloud chamber. We shall all look forward eagerly to hearing his results, as coming from a physicist of repute.

#### GENERAL DISCUSSION OF THE INVESTIGATIONS.

As you will have noticed, these investigations have covered a fairly extensive field of instrumental and methodological enquiry, sufficient at least to afford a shrewd idea of the main lie of the land. A preliminary intimation of a few of the results obtained will not, therefore, be out of place in this paper.

Inorganic Radiation.—Photographic tests for "earth rays" are still in progress, so that I would rather omit their discussion for the present. I may say, however, that photographic images have been obtained (as claimed by the discoverers), so that, whatever the cause, there is at least something concrete to work upon here. (Actual plates shown).

The effect of the solar cycle upon plant growth, as first suggested by Sir W. Herschel for the wheat harvest and subsequently noted by Poynting for Chinese silk production, and yet more definitely by Douglass for certain tree species, was confirmed upon a number of British and S. African oak trees of parkland type. But the sun, as you know, is a grand radiator! The

correlation may be due to direct radiation effects of a sort vet undetermined or, more likely, to indirect action via climatic changes and rainfall. You will remember that such a correlation has already been shown to exist between the solar cycle and both the weather and wireless reception. The N. and S. aurorae and "magnetic storms" are also involved here, so that Mager may be right in supposing that changes of the Earth's electromagnetism. acting upon mineral beds and water-courses of appropriate orientation, should cause minute local electromagnetic disturbances capable of detection by a suitable instrument. Personally, I have entirely failed to obtain deflections of a Fortin's magnetometer when a rapid flow of water was led under it-even right through the solenoid—in a rubber, iron or lead pipe. Nor, by employing a very delicate galvanometer connected to two platinum points along the length of such a water-flow were any electrical effects observed, or changes of such with the orientation of the pipe, time of day, insolation, etc. In any case, I doubt very much whether any receptor mechanism—either purposive or accidental—may be thought to exist in the human body, susceptible to such minute electromagnetic effects, though Crile's bipolar cell theory may be helpful in this connection.

Another astrophysical investigation, carried out with my friend Mr. F. A. Baker,\* upon the effects claimed by Kolisko,† of stellar influences upon terrestrial physicochemical reactions was, alas, entirely negative—astrologically. The sensitivity of the chosen reactions to slight impurities and inequalities of the solutions and papers used, temperature, humidity, etc., was, however, clearly shown. Above all, selective sensitivity of the reaction to different wave-lengths of light radiation was demonstrated, as in the case of ordinary photographic emulsions. Many hundreds of critical tests were carried out in this connection, there being at least fifteen separate variable factors to allow for and get constant—which will give you some idea of the complexity of such reactions and the great need of caution before jumping to conclusions as to their cause. (Photos of precipitations shown).

Of the other items in the above group (A) I have not, personally, gone fully into the actual application of Boyd's "Emanometer," but the general principles are clearly those enunciated by Dr. Abrams—whose "Biometer," etc., I have made and tested without any conviction of its physical utility—despite Dr. Boyd's own denial of the fact, I believe, and his very evident good faith. Yet the enquiries of the recent Horder Committee into this

<sup>\*</sup> Vide Journ. Brit. Astron. Assn. Vol. 45 (4), p. 165.

<sup>† &</sup>quot;Sternenwirken in Erdenstoffer," pub. by Biol. Inst. Goetheanum, Dornach.

apparatus and Dr. Boyd's use of it evidently attest that he actually gets the results claimed. But one who was connected with those enquiries and actually took part in the tests was, he told me, satisfied that a metagnomic (i.e., psychic) faculty on the part of Dr. Boyd himself was the vera causa of the successes, as I had also concluded from a careful study of the printed reports as well as from actual observation of parallel cases.

To cut a long story short, therefore, I may honestly affirm that a very careful and unbiased examination of the technical construction and actual working of Abrams' "Biometer," Simon and O'Connor's detector and Wigglesworth's "Pathoclast" has satisfied me personally, and certain qualified friends, that none of these instruments really detect and record in a clearly recognisable manner the "radiations" and "emanations" that they claim to do, despite various electric effects. I cannot cite details here, but it may be noted in passing that, of these three apparatuses, the second is capable of rendering (in a modified and improved form) fine readings of a property of bodies known as their electric inductive capacity; whereas Abrams' devices evidently act mainly as rather crude electric resistance and capacity regulators, once granted an ordinary electric current through them and the subject; while neither Abrams', Boyd's nor Wigglesworth's instruments will yield results mechanically—a human subject as detector is always involved, if not a metagnomic "sensitive" as operator into the bargain.

Here we see at once the close analogy to the dowser's conditions, viz.: a human "sensitive" is always required as detector; though his subliminal muscular contractions (due to change of muscule tonus over water, etc.) may be made to activate secondary indicator mechanisms, such as a rod, a pendulum, or even a rubber bulb held between the teeth, and connected to a recording tambour and graph tracer.\*

Dowsing.—Considering now for a few moments your own particular interest, dowsing, note well the following objections to a physical explanation:—

- (a) The movements of a rod or pendulum over water, minerals, etc., only occur in response to involuntary muscular action by a human operator, who acts as detector.
- (b) Such movements only occur with certain subjects whose psychological type and nervous organisation appear to agree closely (often coincide) with those of persons of a telepathic, clairvoyant or "mediumistic" disposition.

<sup>\*</sup> G. A. M. Lintott, "Some Observations on so-called Water Divining" in Guy's Hospital Gaz. June 24th, 1933.

- (c) The psycho-physical conditions for the success of dowsing operations are the same as those for telepathic reception, "psychometry," etc.
- (d) No physical instrument that I know of appears to record the supposed emanations or vibrations to which human sensitives respond. Even Mager's magnetic instrument and Mr. Franklin's modified wireless receiver are limited in their reaction by conditions not affecting the dowser.
- (e) The great disagreement amongst successful dowsers on the best procedure when estimating the nature, depth, extent and amount of a hidden mass suggests that dowsing is not a physical *science* so much as a personal and psychic art.
- (f) The procedure of carrying samples in order to concentrate the operator's attention (mentally) upon the right type of object to the exclusion of others suggests psychic action, and is in conformance with methods sometimes successfully employed in "psychometry," clairvoyance, etc., where no physical radiations may be in question.
- (g) The single fact, that some dowsers can work equally well with a pendulum over a map, and at a distance from an unknown locality of which the formations may be either known or unknown to other living persons, affords an irrefutable proof that psychic clairvoyance, not physical radiations, is the true explanation.
- (h) The various mechanical or electrical devices proposed for the detection of the supposed radiations either depend upon the concurrence of a human sensitive or else are too insensitive and unscientific to be of possible utility for the given purpose.
- (i) Devices such as Mager's coloured detectors evidently represent another form of the "samples" method, in which the colours are merely symbols of, and triggers to release, subconscious psychic ideas discreetly conceived.
- (j) A dowser's subconscious method of information, resulting in what are known as motor automatisms—even accompanied, in extreme cases of hydrophobia, by intense sensory hallucinations—strongly suggests the congenesis of such phenomena with other well-known ones of a paragnostic kind.
- (k) The physical radiation hypothesis will not, surely, credibly explain the ability of good diviners also to locate human

corpses, track murderers, locate diseased animal tissues, distinguish between hot and cold objects, the two poles of a magnet, conducting and insulating substances, etc. Here, obviously, is far too catholic an assortment to be covered by any single detector and analyser mechanism. Even our remarkably critical chemical senses of taste and smell would fail us at such a moment; besides, effluvia do not appear to be in question in the case of dowsing.

On the other hand, it is not altogether inconceivable that the faint mechanical tremor of running water should record itself subconsciously on a hyperaesthesic subject in cases of rapid flow and large yield. But then, how about mineral deposits, subterranean cavities, etc.? Again, if air or earth humidity were the clue, still water would be as easy as running water. And again, what of minerals? Also note that, for telepathic and clairvoyant experiences hyperesthesia can, in carefully conducted experiments, be entirely ruled out of court.

Is it not evident from all these considerations that small doubt can well remain as to the fact that a psychical explanation is the true one, and that, despite Mr. Franklin's little joke at the expense of the Encyclopædia Britannica, dowsing is really divination? And for the latter (as they inform us) "see MAGIC"! Such words merely happen to be old and unfashionable, but they are, I suggest, about as good as any others that we have since invented. Intuition, extra-sensory perception, metagnomy, paragnosis, divination—all really mean the same thing; namely, a magical faculty of the human mind for gaining knowledge of intangible things in an occult manner, and not always as accurately as might be desired, thanks partly to the fact that we cannot see the problem clearly and partly to our present ignorance of psychic laws.

Organic Radiations.—Human radiations do not especially concern this Society, nor have we time to consider them this afternoon. But I should state that the result of our examination and tests of the ten devices that I listed in group (B) is that not one has yet satisfied us of its ability—lacking subjective clairvoyance, auto-suggested hallucination, etc.—to detect and record radiations or changes of a novel or useful kind. Mechanical vibrations, heat rays, small electronic charges and discharges and optical illusions were variously recorded and found to afford a reasonable explanation of any such positive phenomena as were obtained. Mostly, the reactions were of an extremely delicate, complex and interesting nature, and the greatest care and skill were needed to observe and interpret them; as I say, however, nothing positively in favour of the physical explanation of any "occult" phenomena—wherever such occurred—has yet been

observed. Personally, therefore, I have no hesitation once again in casting my vote in favour of the *psychical* hypothesis.

For the rest, the remarkable successes of some persons with such apparatuses, whether they use merely a few dried peas in a tin or a complex set-up of many valves, etc., appear to my friends and me to be due entirely to a finely developed paragnostic faculty alone; while their instruments are merely secondary indicators of subliminally initiated automatisms.

#### CONCLUSIONS.

The experimental evidence appears to be cumulative against any purely *physical* explanation of "divining," as it has also been found to be with regard to telepathy, clairvoyance and other metagnomic processes, whereby the ordinary laws of matter, space and time seem very patently to be transcended, and certain other, *psychical*, laws must now be recognised and formulated. At the very least, I can only hope that the facts I have just put before you, together with the slides and examples that still remain to be shown will make it clear to those of you who favour the physical hypothesis that an opposite conclusion is not based upon any flimsy or uncertain evidence.

For such as may lament the seeming collapse of a physical substructure to their science of dowsing, I would point out that the poet Wordsworth's sentiment: "To the solid ground of Nature trusts the mind that builds for aye" is no better than a piteous proclamation of a barren materialism, unless we also admit to Nature the great rôle of the PSYCHE. In that sense—the only rational one—all phenomena, whether patent or occult, physical or psychical, are natural phenomena, and hence form part of the proper field of analytical science. Words such as "supernatural" and "supernormal" thenceforth fall into the limbo of disused jargon, while all natural phenomena are realised to be mysteriously wonderful and, in the last analysis, also occult. Why, therefore, wish to deny psychic powers?

As we are here evidently on the brink of a profound abyss of thought, I would like to end with an amusing and, as usual, cynical remark of Voltaire's: "When the man who listens understands nothing," he said, "and he who talks understands as little, then they are discussing Metaphysics." He might equally well have said paragnostic phenomena instead of Metaphysics!

#### THE POINT DEPTH METHOD

#### By ELVAN

It seems essential for progress that successful new methods which have been sufficiently developed and tested, should be published so that other Dowsers may try them.

Nearly five years ago it appeared to the writer that two things were badly needed—a simple and accurate technique for measuring the depth of fissure streams, which did not require long experience or cumbrous apparatus—and a sound method of gauging the rate of flow in gallons per minute along the fissure. The technique developed for the latter, though reasonably reliable for flows up to a certain volume, has an unsolved pressure complication, and is not ready. But the depth method seems to have reached a satisfactory stage. Except for two improvements in the special tool employed, there has been no material development for three years. It is now giving results roughly to tape accuracy for several Dowsers, some of whom, though sound performers, have no great length of experience behind them.

That a metal rod stuck vertically into the ground acted as a "radiating point" for what might be below it was discovered at the end of 1930. This system of measuring depth has been gradually evolved from that discovery. A great deal of experimental work has been done, and quite a number of different metal "points" tried.

The well-known "insulated wire" technique, which M. Viré attributes to M. Probst, presents no difficulty to any Dowser, and is perhaps the most reliable of published methods; but it involves the transport and setting up of much clumsy apparatus (a drum of wire alone is not very portable), sufficient space at right angles to the stream line, and is very slow. With the majority of methods normally used, considerable skill and experience are essential for any kind of accuracy; quite a large margin is usually allowed, and the "off day" is always possible; while a number appear to be purely psychic.

The "point" method needs space, but not necessarily at right angles to the stream line. It is very quick, and the "point" is little trouble to carry. During selection, rough pacing is good enough; when the choice has been made and real accuracy is wanted, marking out with the rod often takes less time than measuring up with the tape.

The Point now used is a cylindrical rod of Mumetal, about half-an-inch in diameter. For convenience it can be made up as a walking stick, with a crook at one end and a slightly sharpened point at the other. Mumetal is an induction melted nickel iron alloy of extremely high permeability, as its name implies. After

it has been worked or bent it must be heat treated to restore its full magnetic properties.

The Technique.—The "point" is stuck vertically into the ground (as a rule 6in. is enough to hold it), just inside the "stream band"—i.e., the band of radiation directly over the stream. The Dowser stands with the "point" immediately behind him, holding his rod and water sample. He then walks straight out from it. At a certain distance the rod will lift sharply; a couple of feet or more beyond, the lift will fade out, and the counter pressure applied to the rod will make it flip down. The spots where these reactions occur should be carefully marked, and their distances from the "point" measured with a tape. Suppose these measurements are 57ft. and 60ft.; the former is the depth of the top of the stream below the "point," the latter the depth of its base.

It is unnecessary to walk out at right angles to the stream line, the "depth band" lies round the "point" in a wide arc on both sides of the stream, fully 50 degrees on either side of the right angle. This is useful, as a line of sufficient length, free from obstacles or excessive slope, can usually be found within a reasonable angle to the perpendicular on at least one side of the stream.

While the point is in position, radiations from other objects will not be felt by the Dowser walking out from it. Last year I depthed two big streams of about equal size, flowing roughly parallel in the bedding at c. 150ft. down. In each case on the line taken, the "stream band" of the other stream was crossed before the "depth band" was reached; in neither case was it felt.

If the "stream band" is narrow and the "depth band" wide, the flow is along a steeply inclined fissure; a narrow "depth band" indicates a flat flow. Examination of the two bands thus provides useful information. For example, where a small flat flow is spread out widely, the pump will not draw it well; and where a fissure is almost vertical and really deep, it offers a narrow target for a borehole.

The inside edge of the depth band can sometimes be fixed more sharply by re-crossing the band towards the point; the drop is often cleaner than the lift; but the best way to get the exact position of the edges is to turn sideways over them.

Occasionally there may be more than one stream below the point. I once examined a case where a minor flow at a shallower depth had been mistaken for the main stream. This minor flow had been cut by the borehole at about the depth given; the main stream was much deeper. If there is a single flow below the point, the lifts over the stream and depth bands are roughly equal in strength. If there are two flows at different levels there will be two depth bands; the relative importance of the

streams they represent can be judged by comparing the intensity of the reactions over them.

During the summer of 1933 I showed this technique to one of the most experienced and successful professional Dowsers, whom I will call "X." Some months later I discovered he had adopted it, having found it simpler and more accurate than any method he had used during over 30 years of professional dowsing.

At this stage a copper point was used. With copper there was a gentle lift at once; perhaps half-way out this began to increase in strength; so, though the final drop was good, it was by no means easy to judge just where the true lift came, especially if one was tired and touch had become a little dulled. In the spring of 1934 I tried a point of Low Moor soft iron. With this the preliminary lift did not occur, the true lift was sharp, and the whole action cleaner cut and stronger. This suggested that permeability might be the governing factor, so a Mumetal point was ordered.

Before it arrived, I saw "X." again and showed him the soft iron point. At first he was loath to leave it, saying he could not get his "current." Eventually he walked out protesting, he could feel nothing, and so forth; suddenly he got a strong lift and stopped dead: his expression of delighted astonishment was most eloquent. The Mumetal point was a further improvement both in sharpness and strength, but the change from copper to soft iron was the real step forward.

Examples.—In 1933 "A" asked me to test him. I found he was a very good natural Dowser, and gave him a number of lessons. During the summer of 1934 he did his first three wells. The first was in Hampshire chalk; being his initial attempt, he summoned an experienced local professional to assist. They found a good fissure stream, which the expert said was about 50ft.; using the copper point, "A" made it 45ft. The borehole cut the fissure at 45ft., the water rose up it to 13ft., and the supply proved more than ample.

The other two were in slate (Macduff group, Highland schists). The first taped 35ft., which proved correct. The second, two miles N. and 300ft. lower, was sited on a steep slope. Accurate measurement proved impossible; it was judged to be 39ft.; the fissure was cut at 36ft.

Early in 1935 "B," whom I had coached in September, was asked by an engineer friend to find a water supply for a farm and three cottages: his first independent attempt. The existing supply came from three shallow wells in boulder clay on andesite. Before their covers were removed or any information given, "B" offered to read for each well—the distance from the ground surface to the water—and the total depth. He made the former—17, 5 and 7 feet: all three proved exact. The total depths were

22, 10 and 11 feet; in each case he over-estimated these by either 1 or 2 feet. He wrote asking if these apparent errors might not actually be due to an equivalent saturation of gravel or fissured rock below the well bottoms. The Engineer, who had never seen Dowsing before, was much impressed, but within an hour proved to be a good natural Dowser himself.

Deeper examples:—In December, 1933, "X" pegged for several wells in a Scottish county. In September, 1934, the Engineer responsible took me to see them. The first had been bored, the pumping test completed, and the borehole covered pending arrangements for a permanent pump. To try the depth of the main stream, I stuck the point in over it a few yards from the borehole (where there was a deeper cross stream), walked out with the rod, marked the edges of the depth band with matchboxes; we taped them—138ft. and 142ft. I then asked at what depth the stream had been cut; out came the pocket book, but it only contained "X's" original copper-point estimate, 125-145ft.—an excellent illustration of the difference between copper and mumetal. The 9in. bore cut the fissure at 138ft.; the water rose to 60ft. from the surface. This borehole is in Old Red Sandstone.

At the second, seven miles away, the pumping test was being carried out. I found more than one flow: working from near the borehole, the base of the shallowest taped 125ft. When the pump was stopped, the water level, which had been 176ft. down, rose rapidly; the Engineer followed its rise with the float wire. Suddenly the sound of water falling in ceased: the rising water had reached and submerged the shallow stream entry; he nipped the wire, pulled it out and measured it—120ft. Satisfactory, if rough, confirmation. Except for the first few feet, this borehole was entirely in olivine dolerite.

More examples could be added, but these should suffice; actually, twelve have been given. They have been chosen, firstly, to show that long apprenticeship is not essential for accuracy; secondly, to prove the all-round precision possible; they have not been selected from less successful ones; the general standard seems fairly level. When I last saw him some months ago, "X" told me of a very close recent result at about 500ft., but I have no details. So far, I have not heard of a proved example with bedded clay, often considered the Dowser's bête noire.

The need for lateral space is an obvious disadvantage, but the system is easily applied. I know of no other which consistently gives this standard of accuracy. Only its simplest application has been described, it has also proved successful for more complex dowsing problems.

One further experience might be of interest. Last May, I went to see a very sensitive Dowser who normally uses no

instrument; he dowses with his hands. For many years he has been employed by a firm of well-borers in Exeter, who assured me that he had never made a mistake. They added a story of a local authority's refusal to allow them to bring their Dowser. The Surveyor sited the borehole; after it had failed, this prohibition was withdrawn, and a satisfactory supply obtained.

He gave me an exhibition with a stream under his cottage garden. I have never seen anyone so sensitive. After checking it with the rod—a good little stream of some eight gallons per minute total flow—I asked how deep it was; he replied that he did not profess to tell depth, but thought it about 30ft. I stuck the point in, paced out, and made a little mark—a flat flow at c. 45ft. Then I asked him to start out in the same direction from the point, holding his hands as he normally did when dowsing, and walked out a few yards to watch.

On reaching my little mark his hands lifted strongly and then dropped, just as my rod had, and at exactly the same places; he was obviously much surprised. When I paced out, the expert remained by the point; no doubt he realised that something happened when I reached a spot 15 yards from it, but as he was directly behind me he could not have seen what occurred.

#### DIFFERENCES OF REACTION.

By Captain W. H. TRINDER.

Although the basic principles of Dowsing must be the same, it may be of interest to beginners, and possibly to those more experienced, to consider the very different reactions which occur with different dowsers.

I wonder how many Dowsers have tested themselves with the pendulum to find out which is their most sensitive finger or, to put it in another way, through which finger the reactions are picked up. I have found that if I hold the string between the thumb and first finger of my right hand the pendulum will react over an object, but will not do so if held between the thumb and any other finger of the right hand.

With the left hand it is entirely different. In the first place I get a very poor reaction and, secondly, the only reaction I get is when the string is held between the thumb and second finger. I presume that the reason for this is that the particular nerves which react to the influence are reached through the first and second fingers of the right and left hands respectively.

It would be interesting to hear the experiences of other members of the B.S.D. on this subject.

Many dowsers find that the rod turns DOWN with them for water and UP for metals, or vice versa, and of course there is

the well-known difference of the rod turning UP over water for some dowsers, and DOWN for others. This is, no doubt, explained

by people being of different polarities.

I find that, with me, a rod always turns AWAY from an object. For example, in experiments I have tried in my own house I find that if I put an object on the floor of a room and walk over it the rod will turn UP, but if I put the same object on the floor of the room above me the rod will turn DOWN when I am exactly under the object.

I have lately met one dowser with whom the pendulum would not react when held over an object, but if he moved away and then pointed at the object with his left hand he then got a good reaction of the pendulum. This may be worth a trial by those for whom the pendulum has, hitherto, refused to work.

I also tested him with the colours of Mager's rosette (Water Diviners and their Methods, by H. Mager, p. 205), and the result was most curious. I had shown him that I got a lift of the rod at the four cardinal points of the compass when IRON was placed on the Red sector, walking clockwise round the rosette, and the same when lead was placed on the line between the red and grey sectors. He then tried, and only got a slight lift of the rod at the N.E. point.

I then suggested that he should walk round anti-clockwise, and we found that he got the reactions well, but that the colours were REVERSED, *i.e.*, the rod reacted when lead was placed on the red sector, and when Iron was placed between the Red and Grey sectors. In fact, everything was exactly opposite to what I experienced. This is the first case I have met of any departure from what Mager gives as the normal rule.

These results are instructive, as it rather goes to show that the reactions to colour may be individual in the same way that the serial numbers are individual, but until I have had the opportunity of testing several other dowsers this must be only conjecture on my part.

In the case of this dowser, also, when he was approaching water the rod dipped and then rose when he was over the water.

The above are examples of variations with the rod and pendulum, but there are other methods, or rather media, used by some dowsers, which will only work for a few.

A good example is the motorscope used by Major Pogson, which for myself and several others I know will not work at all. I have recently met a professional dowser who used a straight rod of hazel, which he held in his right hand, pointing it at the ground in front of him, and when he was over water the free end described circles anti-clockwise.

I have never seen anyone else use such a rod, but he seems to be very successful with it. I tried it myself, and it certainly

worked with me, though not to the same extent. I should hesitate to use it, as I should be afraid of influencing it unconsciously. I found recently that when going against a stream the rod revolved, as in crossing the stream, but going with the stream it merely moved up and down.

No doubt many dowsers will have had the experience of their rod, or pendulum, giving a reaction for metals over a certain spot, but on digging at the spot have found nothing. The reason for this is, most likely, the presence of some radio-active stone or clay.

It was brought to my notice by my getting a very strong reaction at a certain spot. On digging and finding nothing, I tried over the hole, and got no further reaction. I then tried over the heap of soil which had been thrown out of the hole, and got the same good reaction there; so I sieved over the soil and tried sieve by sieve until I got a reaction to a sieveful. I then went over this soil very carefully, and eventually tracked down the reaction to a small pebble about the size of a cherry. I may say that the reaction was so strong that I first picked it up from nearly fifty yards away.

Dowsing is so individual that the method which I employ in order to distinguish between the reaction from metals and radio-activity may be quite useless for most dowsers, but in case some may find it useful, it is as follows:—

Suppose I were looking for iron. I should hold a sample of iron in my right hand with the rod, or pendulum, and in the same hand hold a small bar magnet with the N. pole pointing away from the point of the rod, or, in the case of the pendulum, with the N. pole pointing UP or away from the pendulum. With the magnet held thus, reactions will only be got over the iron, and no reaction will be got over the radio-active stone, or clay, whereas, if the magnet be reversed, no reaction will be got unless one is over a radio-active substance. A good test for those who wish to try this is to test it over a watch, or clock, which has luminous hands and figures, as the substance with which they are coated is radio-active.

The bar magnet is also useful in another way.

In Abbé Mermet's Comme J'opère, he tells of the false images which are thrown out by gold, and gives a diagram showing how, except at certain times of the day, one gets no reaction over the actual spot where a piece of gold is hidden, but only at certain points, usually eleven in number, all round it. He is of course using a gold sample with his rod.

Now, if one takes the bar magnet, as before, and holds it with the N. pole away from the rod or pendulum, one will find that the false image is eliminated and that the reaction occurs immediately over the hidden gold. It is very interesting to try first with the gold sample only and get the false images, and then try with the magnet as well as the sample and see how the reaction is brought back to the spot where the gold actually lies.

I must admit that, owing to the difficulty of testing this over a vein of gold in England, my tests have only been carried out over gold which has been hidden by someone for the purpose of the test, but I hope that some member of the B.S.D. who has the opportunity of working over an actual gold vein will try this out.

#### THE MINING ENGINEER AND THE DIVINER

By W. W. VARVILL, B.Sc., MI.M.M.

It is the purpose of this article to discuss the possibility of employment of the divining rod for the discovery of mineral veins and to point out the difficulties which lie in the way of its use at the present time.

I am assuming that the art of divining is genuine and that veins of ore have in the past been discovered by this method, but I may state frankly at the outset that I am not convinced as to this fundamental fact, although I have witnessed demonstrations which are difficult to explain. There are, however, many everyday occurrences which, although understood to-day, would, even fifty years ago, have been considered supernatural, and it is possible that science will, in a few years' time, have shed light upon the phenomena which to-day are not understood. This article does not claim to discuss the bona fides of the art but to indicate some of the problems which the diviner would have to face in the search for minerals, if his art were accepted by the business world as being useful and capable of some clear scientific explanation.

It seems that the earliest published description of the divining rod as applied to minerals is found in "De Re Metallica," by Georgius Agricola, 1556. This is the world's oldest mining textbook, and its author appears to have been just as sceptical as to the uses of the rod as are the present-day writers. He states that "it seems that the divining rod passed to the mines from its impure origin with the magicians. Then, when the good men shrank in horror from the incantations and rejected them, the twig was retained by the unsophisticated common miners, and in searching for new veins some traces of these ancient usages remain."

He places the divining rod in the same category as that with which Circe changed Ulysses' companions into swine and says that if a miner is prudent and skilled in natural signs he can see the natural indications of veins for himself without the help of twigs.

So it seems that scepticism as to the utility of the divining rod is by no means a modern characteristic. Let us compare the mining conditions which prevailed in mediæval times, when belief in divining was wide-spread, with present-day conditions. Mining was then confined principally to high-grade deposits near the surface, whose outcrops could be detected quite readily by an experienced prospector. The divining rod seems to have been introduced into this country from Germany in the times of James I., and was much used in Cornwall for the location of copper vein outcrops, and in Wales and the Pennine counties in the search for veins of lead ores. The large ore bodies such as the great copper deposits of Rio Tinto in Spain and Parys in Anglesea had been worked in Roman times and were so conspicuous on the surface that the services of a diviner would be unnecessary. As a result, his main field of research would lie in seeking hidden outcrops of high-grade narrow veins which generally occur in rock fissures and faults, whose dip is steep or vertical.

This class of ore deposit provided the bulk of the world's output of base metals, and much of its gold, up to the latter part of the 19th century.

The following table is of interest in showing how the grade of ore worked has fallen off:—

			1	Average yield of		
Year.			English Copper Ores.			
1772				12.72 % Cu.		
1800				9.27% ,,		
1850	• • • •	•••	•••	7.84% ,,		
1885			• • • •	6.56% ,,		

No copper ore is now worked in Great Britain, but the following figures from Michigan, the oldest copper mining district of U.S.A., may be quoted:—

1865-1885	 • • • •	4.15 % Cu.
1886-1905	 	2.96% ,,
1905-1925	 	1.35 %

In 1929 three-fourths of the copper ore of the U.S.A., the country which produces more than half the world's supply, was mined from open pits or by block caving, both methods of mining applicable only to very large deposits, the discovery of which presents little difficulty to the prospector. These deposits are not veins but huge masses of rock containing a small percentage of the metal disseminated through them. It is only the employment of highly mechanised conditions that renders such deposits economically workable. The largest mine

of this type is at Bingham, Utah, which has a capacity of 50,000 tons a day. Here they mined, in 1929, 17,724,000 tons of rock, at an average cost of 87 cents per ton. It has ore reserves amountint to 640,000,000 tons.

The recently discovered and now actively producing deposits of the Rhodesian-Congo border are of much higher grade, from 4% to 8% copper, but they again are huge disseminated deposits whose surface indications are so conspicuous that much of the prospecting work has been done by aeroplane photography.

Similar conditions also prevail in the tin mining industry. Upwards of 70% of the world's tin is produced from surface alluvial gravel deposits by means of dredging and sluicing processes. The average tin ore contents of such gravel will be about 0.25%. The diviner who can detect so small a percentage as this must indeed be sensitive!

The tin ore which is still worked from veins comes mainly from Bolivia and such old mining fields as Cornwall and Saxony. The older countries have been so thoroughly prospected that it is improbable that many unknown shallow outcrops remain. The life of the alluvial tin deposits is limited, and after their exhaustion the vein tin in the future will again come mainly from deep levels of vein mines far beyond the reach of any diviner.

As regards gold, the search for which is causing so much activity at the present time. The general public do not always appreciate the fact that a gold ore containing only loz. of metal per ton of veinstone is considered very rich, and that the bulk of the world's output is obtained from quartz which contains less than half this amount. Furthermore, gold mining is an industry conducted on a scale comparable with coal mining, from veins yielding enormous daily tonnages from great depths.

On the Rand, gold is now being won from depths as great as 8,000 feet vertically below the surface and it is to be expected that 10,000 feet depth will be reached in a few years' time. Mining operations of this class demand vast sums of money invested in plant to ensure their successful fulfilment, and should only be undertaken after exhaustive research as to the probabilities of continuity in depth, by means of trial sinkings, boreholes and geophysical surveys. The recent claims for discoveries of additional gold-bearing areas on the Rand by geophysical methods should be accepted with reserve. What has been done is simply that by using a field magnetometer the continuation of a magnetic shale bed has been traced under the cover of overlying strata. The existence of this magnetic bed, and its relationship to the gold-bearing "reefs," is known in the areas being worked elsewhere, and by deduction the assumed position of the gold-bearing "banket" can be calculated in the hidden and unknown areas. This is well worth investigating with boreholes, but until the

existence of gold in payable quantities has been proved the fluctuations of shares are due to pure speculation.

In spite of the claims of inventors and users of electrical geophysical apparatus, the fact remains that few valuable ore discoveries have been made by those methods, and such discoveries as have been made are near the surface. These appliances enable the prospector to map out electrical anomalies, that is to say, areas of ground whose electrical conductivity differs from the normal. By inference, such anomalies are assumed to be due to rock disturbances such as faults, dykes or mineral Unfortunately, the electrical conductivity of rock varies greatly with its degree of saturation, and this differs from place to place and from season to season. It follows, therefore, that with so many variable factors the electrical methods of prospecting give extremely erratic results and must be looked upon as putting a useful additional tool into the hands of the geologist rather than a precise means of ore discovery. The seismic and gravitational methods on the other hand have been employed with more success, but they are only useful for aiding the study of large geological features, such as the location of strata inter-Magnetic methods have a more positive field of use, but can only be employed to detect the presence of some mineral whose degree of magnetic susceptibility is detectable by field instruments. Nevertheless, all these geophysical methods of prospecting have what the diviner has not, a definite and understandable scientific basis.

Perhaps for this very reason they have been boosted beyond their merits and employed under conditions where success was improbable, and with resulting disappointments.

The diviner, however, will have to contend with very much the same difficulties as the geophysicist. We will assume that the practice of his art depends upon the detection of physical rock differences or anomalies by some means not properly understood. Since those anomalies may be produced and affected by many causes, such as degree of saturation, change of chemical composition, shape and attitude of deposit, distance from the observer, thickness of overlying clay and soil, etc., all of which are not visibly perceptible to the prospector, it follows that the correct interpretation of any results obtained will present a problem of very great difficulty.

In conclusion, it may be stated that the diviner can expect no useful field for his art in the mining industry until he can produce a scientific explanation for the phenomena of dowsing, and it is to be hoped that this journal may help in the discovery of such an explanation.

#### WHAT IS IT THAT FEEDS CANCER?

By Rev. G. GLANDFIELD

The riddle of the cause of cancer is still unsolved, in spite of vast sums of money spent on investigation. There appears to be no hope as yet from such quarters for the multitudes of sufferers throughout the civilized world. Is there, however, some common factor or factors to be found in all cases of cancer? It is my belief, based upon investigation, that such is so, and the following is the theory which I have formed on the subject:—

- (1) There is a ray found in salt which corresponds with another ray found in a large number of cancer sufferers, and which emanates from the growth. Excess of salt may arise from personal taste, from eating salted meat, or from excess of salt used in the cooking of vegetables, etc. There should be, however, enough salt in bread, and the natural salts in diet to satisfy all ordinary human requirements. This ray is probably acquired during the various processes the salt goes through before it is put on the market, and this ray is retained in the salt and becomes an invisible part of it.
- (2) There is another ray very similar to the former which is found in milk, and all that is made therefrom. Milk, butter, cheese, cream, all contain this basic ray, though there may be found a little change in the composition of the ray as milk is manufactured into butter, &c. Then of late caseine has been used for a multitude of articles such as combs, hair slides, picnic cups and saucers, and these things have also the same harmful ray.

Both salt and milk are the recipients of practically the same ray, and in the course of experiments extending over seven years I have never found any variation. Milk in tins from the Continent or America and from various parts of England always has in it this ray. When, however, milk is taken from the cow direct into a glass receptacle, there is no ray; it is only when it has been in contact with metal that the ray is found.

(3) There are other rays often found in folk suffering from growths, but they are all of a secondary nature and do not play any important part in the life of the person. On the other hand, every cancer case examined has ray number one or two, and often both.

I have put this theory to the test with people living in various parts of the country and with happy results. Both men and women who have suffered from growths in different parts of the body have been dieted, and when the recommendations have been faithfully carried out, in the course, say, of twelve months, sometimes less, the growth cannot be discovered, and the person

made well. The diet is, perhaps, looked upon as drastic, but surely it is safer and better than an operation. No medicines whatever have been given, but by abstaining from food in which this particular ray is found, slow but sure recovery has taken place. Cases, too, where operations have taken place and recovery seemed doubtful, the diet treatment has been successful.

This cancer ray can be detected by the methods of the dowser, by rod or pendulum, though I myself first of all examine a person without either instrument, for, the ray being so pronounced, by simply trailing one's fingers down a person it is possible in a few minutes to find out if the ray exists. If so, then further and more careful examination follows. If the vital forces are not too far gone and the person, apart from the growth has moderate health, there is by means of diet alone a real chance of successfully dealing with the problem.

#### **REVIEWS**

#### BULLETIN DE L'ASSOCIATION DES AMIS DE LA RADIESTHESIE.

(No. 32, May, 1935).

There is a letter from M. Bonnerne describing the finding of the body of his sister, who was drowned in the Saône, in accordance with indications supplied by Abbé Mermet from a plan.

This is the eighth occasion in six months on which Abbé Mermet has been successful in locating the bodies of drowned persons.

An extract from the Courrier de l'Allier gives an account of the finding of the body of Francis Labrot, sub-lieutenant of Engineers, who was drowned in the Tarn as a result of a canoe accident on March 26th, on indications on a plan supplied by M. Joseph Treyve.

In an article entitled Exposition of certain principles in radiesthetic analysis for medical purposes and in ordinary radiesthésie, Engineer in Chief of Aviation E. Pitois expresses his distrust of the simple movements of the pendulum for revealing diseases and remedies. He has found that two medicines which, considered separately with the pendulum, are shown as favourable, give contrary indications when mixed, and vice versa. In a future article he will show that a phenomenon exists which he calls radiesthetic condensation—similar in some respects to, but in others totally different from electric condensation—which

accounts for many of the errors in estimating depth and also for the series as observed by MM. de France, Gorceix and Voillaume. The author describes an apparatus for the study of specimens, the essential feature of which is a frame which can be set parallel to the axis of the magnetic field of the earth.

Professor Georges Edouard gives an account of the activities of the Reverend Father Tremollet, at present Curé in a parish in Morocco. He is famous throughout the country for his successful discoveries of springs, and his services are much in demand. He uses a scientific method in which the personal factor is non-existent and which can be applied with identical results by any real dowser. Location is obtained by an improvement of the method of M. Christophe as described in his book Tu Seras Sourcier, and the yield by noting the number of "discharges." A similar precision can be obtained in other forms of dowsing, such as distinguishing the sex of the original of a photograph or estimating the value of a jewel—"it is simply a question of numbers."

On January 18th, a medical section of the A.A.R. was formed, with Dr. Foveau de Courmelles as President, and Dr. Maynier and M. Lesourd, the distinguished chemist, as secretaries. Meetings were held on March 29th and May 10th. At the former meeting, Dsse. Besson read a note on an inquiry regarding the injurious radiations from the soil, and at the latter a paper was read by M. Lesourd on the use of radiesthésie in hygiene. This paper is reproduced in the Bulletin. It deals with the causes of intestinal intoxication resulting from the eating of bread, which M. Lesourd claims to have discovered by the method described in his book, Méthode Radiesthésique. In a short note, Dr. Maynier reminds us that Dr. Foveau de Courmelles was one of the first to use X-rays in France, and has just undergone, for the third time, a serious operation for lesions caused by radium.

In an article, Talks by M. Bauban at the headquarters of the A. A.R., M. Bauban distinguishes between physical and metaphysical radiesthésie. He considers that the phenomena of dowsing are caused by electromagnetic radiations between ten mm. and several hundredths of a mm. in length, and discusses various experiments which support his supposition. He has invented an ondemètre for measuring wave lengths and other apparatus (the plans and descriptions of which have been deposited at the Académie des Sciences) capable of projecting waves of the same length as those of cell tissue and therefore of causing interference and consequent vibration to a new rhythm. Thus the wave of colchicum has healed cardiac rheumatism in 16 minutes.

The section of the A.A.R. at Aix-en-Provence holds regular meetings, and a general meeting of the Section du Nord was held at Lille on February 25th. On the initiative of M. Joseph Baradat,

Professor at the Lycée Lyautey at Casablanca, a group has been formed in Morocco.

In Solenoids applied to arboriculture M. Reynaud gives examples showing how the growth of plants is improved when they are surrounded by spirals of wire. The upper part of the wire acquires a positive charge and the lower a negative, and the electromagnetic field so formed is nourished by (1) waves emitted by the tree itself, (2) cosmic rays, (3) telluric rays.

A.H.B.

#### ZEITSCHRIFT FÜR WÜNSCHELRUTEN-FORSCHUNG

(April-June, 1935).

A third part of this number is taken up by a communication from Dr. W. Laue, a veterinary surgeon who has devoted much time to the study of the relationship between dowsing phenomena and animal disease. His article, which is entitled Opinions in favour of the use of the dowsing rod in medicine and veterinary medicine, consists mainly of a collection of letters from men of repute throughout Germany and Austria. All express themselves as believers in the connection between dowsing phenomena and disease. The majority of his correspondents give little of positive interest, but one quotation appears to be worthy of complete translation. This is an extract from The riddle of the diviner's rod, by Dr. Johannes Walther, Professor emeritus of Geology and Palaeontology. It runs as follows: - "I had repeatedly proved by tests during several terms that a large number of my students were sensitive to earth influences; and in consequence it struck me that it would be a good thing to submit them to an expert who could observe the effect on their nervous system. A well-known member of the staff undertook systematically to carry out this investigation, and a scheme was worked out for the purpose. Each man was first tested clinically by the usual methods; after which he took the rod in his hands and went over an area to which he showed himself to be sensitive. When he manifested this geopathic condition the same clinical tests were applied with the same apparatus. My respected colleague describes his results as follows: 'I examined about fifty students before and during the dowsing period, and gave particular attention to blood pressure, pulse, sweating, blushing, in short to the vegetative nerve apparatus. In all the students in whose hands the rod gave strong manifestations a nervous agitation was observed, with increased frequency of pulse, and in many cases with an increase in blood pressure of 20 to 30 mm."

Dr. Kurt Osswald, whose contributions are always of interest, communicates a short article by Dr. Schreiber (Schönecken), attempting to outline a scheme for investigation of dowsing phenomena.

Dr. Osswald also writes a comment on the question of depth determination. He commences with a communication from Cav. de Vita, from certain details of which he finds that in seven out of ten examples the estimated depths lie within 11 per cent. of the actual depths found. As he points out, however, 10 is not a large enough number for statistical calculations; and in consequence he gives a table of his own, worked out from a large number of observations made in German S.W. Africa and in Germany. In certain cases the table shows marked differences between the actual depths and those originally predicted; but as a result of 442 determinations it appears that in 79 per cent. of cases there was an error of less than 5 metres, while in 61 per cent. of cases there was an average error of less than 2 metres. At the end of his short article Dr. Osswald attempts to deduce factors which might create errors which may be merely apparent and not real.

Dr. Hugo Bach mentions the successful boring of a mineral well, detected by dowsing, in a place where the occurrence of such wells was thought to be unlikely; and Dr. Franz Wetzel writes shortly on the conductivity of the air in places which are frequently struck by lightning. Dr. Hermann Fricke contributes a short theoretical explanation of earth rays.

The controversy continues between Dr. Dobler and Dr. Wüst. The former attempts to refute the criticisms of the latter, who replies in a fairly long communication. Without further proof it is certainly hard to concede to Dr. Wüst his postulate of "magnetoid" oscillations, but he certainly seems to have the better of it in his destructive criticism of Dr. Dobler's observations. He also replies to Professor Linke's criticism.

Dr. Wendler gives a short personal explanation of his work with the "gerameter."

Dr. Braun-Fernwald contributes extracts from foreign publications. He includes a short report from Cav. de Vita to the Ministry of Public Works, showing actual practical results obtained by him in boring after dowsing. Dr. Braun-Fernwald also gives a short account of the International Dowsing Congress in Paris.

The remainder of the Zeitschrift deals with the work and organization of the Association itself. Dr. Beyer, writing for the Association, earnestly requests all members of the Association and readers of the Zeitschrift to refrain from private publication and to publish all their observations through the Association itself. Dr. Kurt Osswald writes a short communication from which it seems that there has not been much response to the

recent request for figures. He writes: "Dowsers do not seem clearly to understand that the whole future of dowsing science may be said to depend upon the compilation of a complete statistical account and that they spite themselves in their refusal to supply evidences of their practical ability."

C.S.T.

#### LA CHRONIQUE DES SOURCIERS.

May.—M. de France has received two letters from M. Jacquemin, manager of a factory of chemical products at Toul, informing him that he always makes use of the "balance" (mentioned on page 44 of *The Modern Dowser*) for rough analyses. M. de France refers to the analogous system of Colonel Godman, which was described on page 72 of B.S.D.J. 4.

June.—On May 4th, Comte Francois de Clermont-Tonnerre and M. de France's son, Henry, continued their experiments in the neighbourhood of Amiens from an aeroplane. The experiments were conducted in such a way as to eliminate the possibility of auto-suggestion and mental orientation. At 2,500 metres the dowser could perceive clearly only the wells bored by the English during the War on the line of a large fault in the Cretaceous formation, the large underground refuges of Naours and high tension electric cables. At a greater height nothing could be clearly distinguished. These experiments afford, in M. de France's opinion, confirmation of the profound difference between physical and mental radiesthésie. The former is subject to the law of the square of distance; the latter has no such limitation.

July.—There is a short account of the fourth annual Congress, which opened at Paris on July 4th.

#### LES CAPTEURS D'ONDES.

January—February, No. 10.—Towards the end of 1934, the Revue du Génie Militaire addressed to certain persons the following questions: (1) What do you think of Radiesthésie and how would you define it? (2) What is its position to-day? (3) Is it an art or an experimental science? (4) In the latter case what are the basic phenomena which could serve as a foundation for a scientific theory? (5) Under what conditions can these phenomena be reproduced by any operator? (6) What theory results from the phenomena and how can it be defined? (7) What are the practical applications of the phenomena? (8) Is an answer to these questions possible to-day, or is their discussion premature?

Commandant Gorceix gives his answer to the first question. Ferdinand Corvilain continues from No. 5 the exposition of his theory of disintegration of all bodies in the universe which he considers the principal element in the phenomena of radiesthésie.

There is an article by Mr. Christie about the effect of dowsing on the heart.

March—April, No. 11.—Commandant Gorceix gives his answers to questions 2, 3 and 4. As regards (4) he considers that there are two roads of approach, the purely physical, involving a study of electromagnetic waves of lengths from one to ten metres, and the invention of an apparatus for their detection, and, secondly, the metaphysical, in which the will and personality of the operator play the major part.

#### LA CÔTE D'AZUR MÉDICALE.

May.—There is an article on the differential diagnosis of tuberculosis and echinococcosis in cattle by radiesthetic methods.

In an article by Dr. Leonid Andrenko, astronomer of Kharkov, he shows that the honour of the discovery of the corpuscularundulatory theory of light is due rather to the Spanish astronomer, José Comes Solà than to M. Louis de Broglie.

June.—In a note, L. Mercier discusses the observations of Mlle. Maracinéanu regarding the supposed radio-activity of certain metals used as roof coverings. He states that Prof. A. Boutaric, after a series of experiments, concluded that certain materials used in roofs, after years of exposure to the elements, emitted  $\beta$  radiations.

July.—Dr. A. L. Tchijevsky, in an article entitled The electrostatic function of the respiratory apparatus, describes how he and Prof. L. L. Vassiliev discovered that the respiration, acting in the manner of an Armstrong machine, and causing a movement of saturated air along the bronchial tubes, produces electric charges of opposite kinds on the surface of the respiratory organs which in man amount to about 100 square metres. In this way the blood is affected and considerable differences of potential are produced.

There is a long article by Dr. S. Abravenel Aysoy on the seroradiesthetic diagnosis of gestation and of the sex of the foetus.

In a note, Henry Copin describes a new oscillator to produce waves of 60 centimetres.

#### RADIOTELLURIE.

May—June.—The third Congress of l'Association Française des Radiotelluristes, Puisatiers, was held at Nice on April 28th. Addresses were given by the President, M. Lucien Marcel, the distinguished geologist, and by the Vice-President, M. Portepan, which were followed by a demonstration of the following apparatus by Dr. Jules Regnault: the neutraliseur and émetteur d'ondes of M. Larvaron, and the baguette à manchons and radiocapteur of Dr. Regnault (see pages 140 and 141 of B.S.D.J., 6) and Cavaliere de Vita's electrometer. M. Bovis gave a demonstration of his biometer (for estimating the vital force) and of his latest instrument, the momificateur, which dessicates by magnetism all perishable bodies such as fish, meat, vegetables.

M. Portepan then read an article by M. Rebuffel, an acknowledged expert on map-dowsing, and M. Laugier, hydraulic engineer, gave an address on the cause of errors in radiesthésie.

M. Bovis demonstrated how he could deflect the 5in. needle of a large marine compass to the extent of 20 to 25 degrees by the movement of his hands.

After déjeûner the company proceeded to an area where borings had been made by the *Compagnie Générale des Eaux de Nice*, and here more than 30 dowsers carried our prospections, which in many cases proved fairly accurate as regards quantity. quality and depth. Amongst the dowsers were Louis Sauvigo-Aurengo, a boy of 11, and M. Bernayer, aged 86.

#### LA PROSPECTION A DISTANCE.

May.—M. L. J. Bonnard, in a letter to M. l'Abbé Mermet, tells him how the body of his son-in-law had been found in the Seine in accordance with the Abbé's predictions.

June.—This number contains the address delivered at the International Congress on June 9th. It deals with the subject of diagnosis by radiesthésie, and explains why this sometimes differs from pathological diagnosis in that radiesthésie indicates the cause of the disease rather than the effect. Radiesthésie is particularly efficacious in detecting the noxious rays which emanate from the soil. The manner in which the effect of such rays can be neutralised is described.

July.—There is an extract from L'Ouest-Eclair of May 28th describing how Mme. Martin, of St. Maixent, traced a boy of 14 who had run away from home. Using one of his socks as a sample and travelling in a car she traced the boy to a wood, and he was caught when about to throw himself into the Guirande.

A.H.B.

## JOURNAL OF THE BRITISH SOCIETY OF DOWSERS

Vol. II. No. 10 December, 1935 NOTICES.

The Annual General Meeting was held on October 14th, and was followed by an address by Dr. J. A. Simpson Emslie, which is printed below.

At a meeting of members of the Society held at 34 Bridge Street, Aberdeen, on November 1st, it was decided to form a group to be called "The North-East of Scotland Group." Sir George Abercromby was in the chair and Miss M. E. Macqueen agreed to act as Honorary Secretary.

M. René Lacroix-à-l'Henri has kindly presented the Society with a copy of his book *Manuel théorique et pratique de Radiesthésie* (reviewed in this Journal). It will be sent on loan to any member asking for it.

A copy of *Cours de Radiesthésie théorique et pratique*, by M. Henri Lemonnier, has also been received. It consists of a course of instruction in twelve lessons, based on the system of M. Turenne.

A copy of the proceedings of the Congress on Electro-Radio-Biology held in September, 1934, in Venice, is available for issue on loan. The proceedings, in two large volumes, contain the addresses in the language in which they were delivered, and summaries in Italian, French, German and English.

Psychic Science, the quarterly transactions of the British College of Psychic Science Ltd., is now received in exchange for our Journal.

Whalebone for divining rods can be obtained from Messrs. Devine and Co. Ltd., St. Stephen's Road, Old Ford, London, E.3.

Pendulums of rosewood, about  $1\frac{1}{4}$ in. in diameter, can be obtained from the Hon. Secretary at 3s. each.

Members are reminded that subscriptions for the year 1935-36 are now due, as our financial year started on July 1st.

Communications for the Editor and enquiries should be sent to Colonel A. H. Bell, Backwoods, Lindfield, Sussex.