the best test of dowsing powers would be the location of a spot where water does not exist, whilst the opposite would be the case with such rare commodities as gold, oil, &c. The difficulty of providing such proof is financial.

The lecturer ended with some remarks on the advantages of discussion and co-operation between dowsers, and the value of a second or third opinion in locating sites for water. The good faith of water diviners may be accepted by the fraternity, but there are still many sceptics, and it cannot be over stressed that discussions with such should be limited to the more familiar theme of water divining, and discussion regarding claims to other powers which might appear fantastic, rigidly avoided.

THE SEXING OF EGGS BY RADIO PERCEPTION BY DOROTHY BARTLAM

It is but little more than seven years since I first started serious experiments in egg-sexing by radio-perception. Actually, my first experience was at the age of ten or thereabouts, when my father bought for half-a-crown a gaudy bauble on a piece of string, with which I proceeded to sex all and sundry, from the cat's latest kittens to the pigeons' eggs in the loft! Like all children, I employed this new toy with great gusto, and—so far as I can remember—considerable success.

The remembrance of this childish enthusiasm returned to me one morning when I met a neighbouring farmer by chance on the way home from market. We started discussing farming in general, and poultry in particular. I had recently bought some turkey eggs from a well-known breeder, and was telling my neighbour of the extremely poor results—over 50 per cent. being infertile—when he laughed and said: "Ah, you should keep your own breeding stock, and do what my wife does." I enquired what that might be, whereupon he continued: "She tests them for fertility before she puts them down. It is done this way. She takes a ring, her wedding ring is the best, and ties it on a loop of cotton, which she then holds over the egg. If the ring moves up and down or round and round, then the egg is fertile. If the ring remains stationary, she knows it will never hatch a chick." I asked him if she ever had a failure, and he replied, "Not very often!"

From then on I started experimenting in earnest, for I considered that if this principle could be applied to turkey eggs, why not to duck, goose and hen eggs?

I had for several years used an ordinary hazel rod for dowsing for water, and had also found various metals, such as silver, gold,

brass, &c., and inanimate objects such as lost keys and the like. This time I discarded the forked stick, and made myself a bobbin or pendulum. I used various home-made contrivances, such as brass rings on pieces of fine string; brass bobbins on thin brass chain; a gold watch on a gold chain. Finally, I came to a small lead weight, suspended on a piece of string. With this instrument I had varying success, but the best I could achieve was only about 70 to 80 per cent. I felt that this was not good enough. Something was definitely wrong somewhere. Either I was at fault, or the medium was incorrect, for I felt that if one could sex one egg correctly one should be able to sex every egg correctly; otherwise the whole business was pure foolishness; a form of self-delusion.

However, about this time—it was three years ago—I purchased a very fine-looking Rhode cockerel from a friend of mine. From the breeding point it was an untried youngster. Eventually I mated him with half-a-dozen of my best hens, birds which were proved for fertility and stamina. In due course I tested the first batch of eggs, about fifty. I sat down at the table, with the eggs in front of me, and selected one. No reaction. pendulum remained perfectly still. I tried another egg, and another, until only a score or so of eggs remained to be tried. Still no reaction from the pendulum. I began to feel exasperated. Here I must explain that I always placed the eggs on a wooden table, and usually it is immaterial to me whether I touch the egg myself, or whether an assistant places the egg under the pendulum. This time, thinking that I must be at fault, I picked up a previously tested egg, and held it resting on the palm of my hand. Immediately the bobbin started to rotate in clockwise motion. I placed the egg aside, transferred another in front of me, and placed the tips of my fingers upon it. Immediately the bobbin swung north and south with vigour. Here was a puzzle. Sex the eggs I could not, for every one gave a different reaction, according to whether I held it in my hand, or rested my fingers upon it on the table. Now I must state that at that time I knew nothing of the positive and negative reaction which could be obtained by the operator touching either the top or the bottom of the object dowsed. In fact, I only learned about this particular phenomenon during a discussion with Mrs. Barraclough a few weeks ago; for it must be realised that my experiments at that time were being conducted on a purely amateur basis, for beyond dowsing for water I had seen no practical demonstrations, not even for metals, &c., and, in fact, was quite ignorant (to my everlasting sorrow) of such a Society as the British Dowsers!

Now thoroughly bewildered by this apparent *impasse*, I put all the eggs into the incubator to await results. At the end of the week I tested them by the strong-light method, to find that

every one was infertile! To prove the point, I transferred this cockerel to another batch of tried hens, with exactly the same results.

About this time of trial and error, another accident occurred. Through, as I eventually discovered, a slip-up in my Breeding Record book, I had included a two-year-old bird in the mating up of a pen, the cockerel of which was a full brother through a long line of close in-breeding. I found these eggs were usually hard to sex. The motion of the pendulum was most indeterminate.

So the eggs from this particuar hen were marked and set separately and notes were made of the resultant progeny. As I expected, having studied Mendelism, they were non-viable. In every case, if the chick managed to get out of the shell, it died before it was three or four weeks old!

This set me furiously to think. I had always prided myself on the hatchability and liveability of my eggs and chicks, due of course to keeping a strict account of pedigree and performance. I therefore decided that not only were there three groups in egg testing, i.e., the male, the female, and the infertile, but a fourth group: the weak germ.

About this time I made another discovery. I had mislaid my lead and string pendulum, and on the spur of the moment I tried a silver chain, with a small silver medallion attached, which I always wear around my neck. This seemed to give excellent results, the reaction being much quicker than in the case of the lead bobbin. I thought of my neighbour, the farmer whose wife had always got the best results when using her wedding ring. It occurred to me that anything particularly personal—something which is always worn night and day—would probably be more closely attuned to the operator, possibly by virtue of the fact that it had in some way "acquired" a closer link with that individual's particular vibrations.

Following this line of thought for the next two years, I was delighted to find that last year I obtained a consistent 100 per cent. success. I sexed goose, turkey and hen eggs, but not duck eggs; owing to the stringency of rationing during the war, I had had to give up the ducks.

To record what had happened and to prove my theories, last year I sexed nothing but pullets in several batches of eggs, choosing only those with the strongest reactions to the pendulum. I was delighted to see that, at six weeks old, there was not a single cockerel among them. Every chick lived, growing into a fine, strong pullet, and in just over six months all the birds were laying well.

Remembering the experience of the brother-and-sister mating, I mated a particularly fine Rhode cockerel to a full two-year-old sister, which had been progeny tested as a pullet the previous

year, and whose chicks had shown great stamina. On my first test I took ten eggs: the reaction to the pendulum was weak, and the eggs extremely difficult to sex. However, I eventually resolved it down to six cockerels and four pullets, one of the pullet germs being extremely weak. The result was as I expected. The weak-germ pullet-egg proved dead in shell when almost fully developed, the remainder proved to be six cockerels and three pullets. They grew very slowly, and at four weeks the first pullet died; thereafter up to six weeks one after another died, until at two-and-a-half months old, only one pullet remained, when this, too, unaccountably died. There was no disease of any kind; it was simply sheer inability to live. These chicks were in fact reared with sexed-egg pullets of exactly the same age under exactly the same conditions, and not a single one of the sexed-egg pullets died!

The above is a very short and, I fear, somewhat sketchy review of my experiments. But I am very enthusiastic about the future of egg-sexing, when it is more properly and generally understood. I should like to test out my theories on a much larger scale, through some independent source, and would welcome the opportunity to do so. This new science in my opinion is of the greatest importance to all poultry breeders and hatcheries, eliminating as it does the vast amount of labour used in the testing of eggs by the light method, and loss through the incubation of infertile eggs, the subsequent wastage of an over-plus hatch of unwanted cockerels, and also the further disappointment, apart from the waste of precious feeding stuffs, of having numbers of chicks die upon one's hands for no apparent reason. It would also completely obviate the employment of expensive chick-sexers: a practice which is most strongly to be deprecated, owing to the risk of injury to the delicate membranes of a newlyhatched chick.

My conclusions are these: that a bobbin made from some article in constant personal contact with the operator gives far the best results; lead, of course, is at any time a poor medium, being less conductive than many other substances. When sexing eggs I usually sit facing south, and get the best results when resting both elbows on the table, and holding the pendulum in the right hand, while supporting the right wrist with the left hand. I have never tried an ivory bobbin, or, in fact, anything made from a once-animate substance, as I should imagine that the sex of the creature from which it was made might have a perversive effect upon the result.

It would seem therefore that, given the requisite and suitablytuned bobbin, a plain wooden table, and possibly an assistant to move the eggs for you, constant and careful practice should in time bring at least a profitable measure of success..