

pointed by the conference to continue the organization and work of the conference: Assistant State Superintendent U. J. Hoffman, chairman; Anna L. Barbre, county superintendent, Taylorville; C. H. Watts, county superintendent, Champaign; Hon. J. B. Burrows, Decatur; Mrs. Scott Durand, Lake Bluff; Alice Jean Patterson, Illinois State Normal University; Professor W. G. Bagley, University of Illinois; Professor Fred. L. Charles, University of Illinois.

The above-mentioned committee presented the following resolutions which were unanimously adopted by the conference:

Resolved:

1. That this conference request and authorize Professor Fred L. Charles to appoint a representative committee to serve with him as chairman in the preparation of a course of study in agricultural nature-study which may be suitable for the eight grades of the elementary schools of Illinois.

2. That we may request those who are responsible for the conduct of the agricultural short course, that provision be made for a second meeting of this conference during the next annual short course at the university.

3. That this conference appoint a committee of three to enter into communication with the Illinois Farmers' Institute, through its committee on Agricultural Education in the public schools, to bring to its attention the urgent necessity of furnishing to the teachers of the elementary schools of the state all possible aid in the organization and adaptation of agricultural materials suitable to the purposes of these schools, and, further, to request that they take such action as they deem necessary to secure at the next session of the legislature ample funds to equip the University of Illinois, through its college of agriculture and school of education, to carry on the following most essential lines of work: (1) Research in the organization and method of nature-study and agriculture in the elementary schools; (2) the training of specialists within this field; (3) the publication of abundant literature for the use of the public schools; (4) the maintenance of a correspondence bureau to meet the rapidly growing demands from the teachers and elementary school interests of the state; (5) the establishment and maintenance of a bureau for

the preparation and distribution of equipment and materials essential to instruction in this subject; (6) the employment of thoroughly competent demonstration teachers who shall be sent out into the state to assist in the introduction of this study in the elementary schools; (7) such other means of advancing this study as may later appear to be desirable.

The committee of three to communicate with the Farmers' Institute Committee was as follows: Hon. Joseph Carter, Hon. J. B. Burrows, Dean Eugene Davenport.

One interesting result of the work of this conference was the plan to assemble at the university model rural school equipments in agriculture, domestic science, hygiene and public health, and in manual training. The university is very fortunate in already being provided with an equipment in manual training. This model outfit for rural schools was presented to the university by the Bradley Polytechnic Institute of Peoria, and is the product of a study by Professor C. S. Van Deusen.

A statement has gone out to the papers that manual training in the schools had received a set-back in the discussions of this conference. The statement was entirely erroneous, nothing to that effect was even suggested.

*REPORT OF AN INVESTIGATION OF THE
PHENOMENA CONNECTED WITH
EUSAPIA PALLADINO*

THE undersigned had three sittings with the Italian medium Eusapia Palladino in the Physical Laboratory at Columbia University in January last. The object in view was to secure and report any evidence of the operation of hitherto unknown forces through her or in her presence.

Though the investigation may fairly be called patient and laborious, no convincing evidence whatever of such a phenomenon could be obtained. Many indications were obtained, however, that trickery was being practised on the sitters. These indications will be more fully stated by the individual investigators.

So far as these sittings afford data for judgment, the conclusion of the undersigned

is unfavorable to the view that any supernormal power in this case exists.

CHARLES L. DANA, M.D., *Professor of Nervous Diseases, Cornell University Medical College.*

WILLIAM HALLOCK, *Professor of Physics, Columbia.*

DICKINSON S. MILLER, *Professor of Philosophy, Columbia.*

FREDERICK PETERSON, M.D., *Professor of Psychiatry, College of Physicians and Surgeons, Columbia.*

WALTER B. PITKIN, *Lecturer on Philosophy, Columbia.*

AUGUSTUS TROWBRIDGE, *Professor of Physics, Princeton.*

EDMUND B. WILSON, *Professor of Biology, Columbia.*

ROBERT WILLIAMS WOOD, *Professor of Physics, Johns Hopkins.*

It has been said that Eusapia finds trickery more easy than the exercise of her supernormal power; that she consequently resorts to the former whenever the control by the sitters permits it; and that the only fair test is had when there is such control as makes trickery absolutely impossible. During a fourth sitting, at which the undersigned were present, something like this control was exercised; and while this was the case none of the so-called evidential phenomena took place.

C. L. Dana, W. Hallock, D. S. Miller, F. Peterson, W. B. Pitkin, E. B. Wilson.

We take this opportunity of making our acknowledgments to Professor Hallock for his courtesy in putting his private office and workshop at the disposal of the investigators; and to the members of the groups at large for giving their time to the sittings in the midst of professional duties, in especial to those who came from a distance. We wish to record our regret that, owing to circumstances beyond our control, the X-ray test, ingeniously devised by Professor Wood, could not be applied.

W. P. MONTAGUE,
W. B. PITKIN,
D. S. MILLER

I have been present at nine sittings with Eusapia and in an adjoining room at a tenth. Broadly speaking, her "phenomena," as observed in America and as reported before, fall into seven classes: (1) levitations of a table, (2) rappings, (3) touches, (4) breezes, (5) lights, (6) "materializations," (7) movements in and about the cabinet. With the lights I was not favored. Of all the other classes, I can say: (1) That conclusive and detailed evidence was gained as to the method by which typical specimens of them were repeatedly produced,¹ and (2) that when the medium was securely held they were not produced at all.

Statements of observations on essential points will, I trust, be published later. These include each of the classes named.

It may be asked, however, what we are to make of the results presented in the *Bulletin of the Institut Général Psychologique of Paris* and in the *Proceedings of the Society for Psychical Research*. Of these two documents it is, by common consent, the latter which presents the strongest body of evidence for Eusapia's supernormal power. The Paris committee had worked mainly to establish that the "phenomena" really occur and are not the mere hallucinations of the sitters. Of course they do occur; we must admit it. But the English committee try, by reporting in detail how the medium was held and watched, to give the reader evidence that the phenomena could not have been caused by trickery. The result is that we have the record of a long, hard and conscientious piece of labor. It is imposing. It seems at first to warrant the writers' unanimous "Yes, the thing is true." But read Richard Hodgson's comments on the case, written sixteen years ago when he was in consultation with Mr. W. S. Davis; or read Mr. W. S. Davis's article in the *New York Times* of October 17 last. Read one of these enough to grasp it; then attend one sitting; and the impressive effect of the English report has vanished. One finds himself able to point out on page after

¹ Accounts are presented in the article by Professor Jastrow in *Collier's Weekly* for May 14, 1910.

page how the writers were deceived. On page after page one finds them the victims of the old "substitution-trick." Examples of this will be given elsewhere. One can go through the report and write on the margin at almost every phenomenon (where the "control" is stated) by what hand or foot it was probably done. No substantial evidence remains.

Thanks are due to Messrs. W. S. Davis, J. L. Kellogg and J. W. Sargent, who have all had much experience, both of professional conjuring and of the investigation of mediums, and who gave their time and invaluable services at my last two sittings. Mr. J. F. Rinn, a merchant, who is a trained observer and an investigator of spiritualism, deserves special acknowledgments for his work as a watcher.

DICKINSON S. MILLER

I agree substantially with the committee's report. My sittings with Paladino have failed to convince me that she possesses any unknown force. In fact, she has been detected in so much trickery that there is in my opinion an extremely high probability that all of the manifestations which I witnessed were produced by merely natural means. But I do not feel that the methods and conditions of our experiments were of such a kind as to warrant the rigorously scientific and finally conclusive verdict for which we had hoped, or even to justify quite the degree of emphasis expressed in the majority report.

It has long been known that Paladino resorted to trickery, and the claim has been made and will still be made that she finds it easier to perform fraudulently than which she can and sometimes does accomplish otherwise. The Cambridge exposure of 1895 proved that she used trickery, but did not put a stop to her scientific vogue. I had hoped, perhaps foolishly, that our investigation would be rather more than a repetition of something already accomplished. And it seemed plain that the policy to pursue was to insist upon conditions of control by mechanical means, which, instead of encouraging fraud by their looseness, should be so rigorous as absolutely to eliminate her well-known tricks of foot and hand substitution.

If this plan had had a fair trial, and no "phenomena" had resulted, our report might have given a permanent quietus to the Paladino cult.

W. P. MONTAGUE

I sign the majority report, believing it correct as far as it extends. But it does not go far enough. It gains, I think, a certain fictitious importance through the absence of all those details about methods and results which are properly considered indispensable to any such statement made by scientists to scientists. Were those details here recorded, the difference between this report and the sort SCIENCE usually prints would instantly appear.

One may take either of two attitudes toward Eusapia and her like. Judge her by shrewd common sense, if you choose; then almost everybody will briefly pronounce her an egregious and unmitigated humbug, as I do when thus considering all that I have seen at seven of her seances. On the other hand, though, you may prefer to subject her phenomena to the strict scientific method; and now, having elected the intellectual game you are to play, you must observe its rules. If my understanding of the canons of induction is correct, the investigators sometimes unwittingly and sometimes unavoidably changed their point of view very often in the midst of their experiments with the result that their verdict, like my own, is based upon impressions and "human" probabilities. That these latter are very strong does not make the conclusions from them scientific. Perhaps it is not worth while trying to be scientific over such matters, but that is another issue.

W. B. PITKIN

Professor Miller has asked me to add to the statement which I signed as a member of the committee, a personal report of the impressions made on me by the three sittings with Eusapia Palladino which I attended in January.

Judging from the earlier sittings which I attended on the invitation of Mr. Hereward Carrington, I should say that those held with the committee were fairly representative as

regards the class of phenomena which Palladino has attempted to produce in this country, though as regards quantity, rather than quality, they should be regarded as poor sittings.

I was particularly struck by an incident which occurred during the third sitting (January 22, 10:32 P.M.) which goes to show how very cautious one must be in accepting as evidential motions of objects apparently out of reach of the medium.

From 10:29 P.M. until 10:32 P.M. objects were moved in the cabinet behind E. P. while she was under the following conditions of control—feet tied together by a rope which prevented her from separating them by more than eight inches, in addition her ankles were held by one of the sitters who had taken up a position on the floor, each wrist tied to a wrist of her neighbor, on the right and left, by means of a rope which allowed her ten inches free motion in case she should elude the tactile control which her neighbors were endeavoring to keep. The light in the room at the time was that from a frosted electric bulb which I estimated to be giving about four candle power, placed about four feet from the medium's head.

It would seem that the objects moved in the cabinet were outside the range of free motion of her hands and feet and the motions seemed to be taking place under what might be called "test conditions." However, the shorthand report of this sitting shows that three of the sitters were convinced that the motions were caused by the medium knocking over objects in the cabinet with the back of her chair—I noted that so soon as her chair was moved openly a few moments afterwards more objects fell.

I mention this particular incident as I think it shows how difficult it is to obtain really "test conditions." Incidents of a similar character at other sittings I have attended, where at first sight the conditions of control seemed excellent, have rendered me extremely reluctant to base an opinion as to this remarkable woman on the very interesting reports of her numerous European sittings, but,

so far as the evidence collected at the relatively uninteresting American series of sittings is concerned, I think it is decidedly unfavorable to Eusapia Palladino's pretensions.

AUGUSTUS TROWBRIDGE

After attending six sittings with Eusapia Palladino, I find myself in much the same position as at the start.

Many things have occurred which I find great difficulty in explaining by fraud while I have repeatedly seen trickery employed. I have succeeded in watching the manifestations within the cabinet throughout two entire evenings, the floor being illuminated with a feeble light which was thrown by means of a mirror through a crack between the bottom of the cabinet and the floor. The cabinet was of wood built into a doorway, so that it projected back into the adjoining room. My plan was to employ a powerful X-ray apparatus and a large fluorescent screen, so that a shadow picture of whatever was going on within the cabinet could be obtained in the back room at any instant without the knowledge of the medium.

The interior of the cabinet I viewed through a large hole cut in the top, reclining on a mattress placed on the top of an instrument case adjoining the doorway. The X-ray tube was placed within the instrument case and carefully muffled, the fluorescent screen three feet square was placed against the opposite wall of the cabinet, on the outside of course. This apparatus was never actually used, owing to the sudden termination of the sittings, but it was set up and thoroughly tested, and gave excellent satisfaction. I mention it as it may be of use to future investigators, for, if properly installed, it is proof against any fraud, as it can be used without the medium's knowledge.

From my position above the cabinet I saw that whenever anything in the cabinet was moved the curtain was pushed back, a black object reaching in from Palladino's back groping around and finally seizing the table. Those who believe in Eusapia's supernormal powers will say that this was the third arm.

I need not say that an X-ray picture of this third arm as seen on the fluorescent screen would be an interesting subject of study. It would not be difficult to so arrange the apparatus that the shadow of the medium's entire body could be obtained. The switch for operating the coil should be placed within reach of the observer on the top of the cabinet, so that the flood of rays need only be turned on when something is going on worth investigating. In this way no possible injury could result.

At the first sitting at which the illumination of the floor was tried Eusapia complained of this light, which appeared to be quite accidental. I accordingly constructed a grill of vertical strips of thin wood, painted black. The floor of the cabinet was covered with this. From her position in front Eusapia could not have seen the light on account of the grill, while the observer above, looking down directly between the strips, could see the illuminated floor without difficulty. The object of illuminating the floor was of course to obtain a luminous background against which moving objects could be seen. It proved to be a very effective way of investigating cabinet phenomena.

On two occasions the black object which appeared was pointed, on the third, when the table was seized it was blunt and rounded. Eusapia had pushed her chair back until her back was against the curtain, and I doubt if what I saw was the "third arm"! On the occasion when I held one of Eusapia's hands, nothing was disturbed in the cabinet, but some very fine levitations occurred, in a brilliant light, and I could not only see between the medium's knees and the legs of the table, but passed my other hand between them and her skirts. I felt very positive that the legs of the table were free from contact with any part of her person.

The proper system of investigation, in my opinion, is the one outlined. Whenever I saw anything going on in the cabinet, I sent an electric signal to seance room, so that particular pains could be taken by the persons

holding her hands, to see whether the contact had been broken at the moment.

If the phenomena are genuine it can be proved by the X-rays, I think, *and in no other way*. Madam Palladino need have no fear of the X-ray test, if the thing seen in the cabinet is a supernormal third arm. If the sittings had not been suddenly terminated, I feel certain that at the next one we should have had a complete explanation of how the disturbance in the cabinet was created. I am quite ready at any time to aid Madam Palladino in establishing the genuineness of her supernormal powers by means of the X-rays.

R. W. Wood

THE CARNEGIE FOUNDATION

THE following letter has been addressed to the trustees of the Carnegie Foundation for the Advancement of Teaching:

COLUMBIA, Mo.,
March 9, 1910.

To the Board of Trustees of the Carnegie Foundation for the Advancement of Teaching.

Gentlemen: At a largely attended meeting of members of the faculties of the University of Missouri it was voted that the following communication be addressed to your board as a body, and to its individual members:

The purpose of the foundation of which you are the administrators, as set forth in the expressions of the founder and in subsequent official statements of the trustees, are "to serve the cause of higher education by advancing and dignifying the profession of the teacher in higher institutions of learning," especially with a view of rendering that profession attractive to increasing number of able men. Through the desire of many institutions to enjoy the benefits of the foundation, it has come to be also an important instrumentality for influencing and coordinating the educational policy of a considerable number of American universities and colleges. It is evident that these functions, of great potential usefulness, can in the long run be successfully performed only if the management of the foundation retains the confidence and sympathy of university officials and of the general body of university teachers. Though the foundation may do something to increase the material comfort in old age of some