

II.

ON SPIRIT PHOTOGRAPHS ;
A REPLY TO MR. A. R. WALLACE.

BY MRS. HENRY SIDGWICK.

The review of the evidence for what are called "spirit photographs" which I am about to present to the reader was substantially written in 1885 or 1886, when I was engaged in writing an article on Spiritualism for the *Encyclopædia Britannica*, and had, therefore, to read and estimate the evidence in all branches of the subject. I did not offer the paper to the Society for Psychical Research, because its attention had not been specially drawn to the subject and, as will be seen, my conclusions were on the whole negative. It appeared to me that, after eliminating what might certainly or probably be attributed to trickery, the remaining evidence was hardly sufficient in amount to establish even a *primâ facie* case for investigation, in view of the immense theoretical difficulties involved.

But recently Mr. Alfred Russel Wallace, in an article entitled "Are there Objective Apparitions?" contributed to an American periodical, *The Arena* (for January, 1891), has again appealed to Spirit Photographs as evidence of the objectivity in question, and has challenged the Society for Psychical Research to deal with this evidence. He says:—

"This long series of photographic experiments and tests . . . has been hitherto not even alluded to by the investigators of the Society for Psychical Research. But they cannot much longer continue to ignore it, because they have entered on the task of collecting the *whole* of the evidence for psychical phenomena, and of fairly estimating the weight of each of the groups under which that evidence falls. Now I submit that this photographic evidence is superior in quality to any that they have hitherto collected, for two reasons. In the first place, it is experimental evidence, and experiment is rarely possible in the higher psychical phenomena; in the second place, it is the evidence of experts, in an operation the whole details of which are perfectly familiar to them. And, I further submit, this evidence can no longer be ignored because it is evidence that goes to the very root of the whole inquiry and affords the most complete and crucial test in the problem of subjectivity or objectivity of apparitions."

Mr. Wallace is too eminent a man and too much interested in our investigations for such a challenge to pass unnoticed and it has, therefore, been thought that the following examination of the evidence to which he appeals had better be published.

I may add that Mr. Wallace is expressing now the same opinion that he expressed in 1874, in his book entitled *Miracles and Modern Spiritualism*. He said then of spirit photography: "It is that which furnishes, perhaps, the most unassailable demonstration it is possible to obtain of the objective reality of spiritual forms."

Spirit photographs—or at least those species of them which I propose to deal with here¹—are photographs representing figures or objects which at the moment the photograph seemed to be taken had no apparent counterpart in the field of view discoverable by the normal sight. A photographer with the faculty of producing such photographs would, in taking a portrait of a human sitter, sometimes obtain that of some other person on the same plate. If the sitter was fortunate, it would be that of a deceased relation. Sometimes persons possessing, or supposed to possess, the faculty of seeing spirits said that they saw the form which ultimately appeared on the plate hovering near the sitter, though invisible to ordinary eyes.

As this paper will be critical rather than descriptive, it will be desirable to give at the outset a brief account of the periodicals and books where evidence on the subject may be found, which will have the further advantage of saving continual references as we go on.

A collection of the evidence on the subject was made by "M.A. (Oxon.);" in a series of papers contributed to *Human Nature* in 1874 and 1875, and this is the best summary of it which I have seen. It needs supplementing, however. In particular Mr. Beattie's accounts of his own experiments (see *British Journal of Photography* for 1872 and 1873; *Spiritualist* for July, 1872; *Spiritual Magazine* for September, 1872, abbreviated slightly from the *Spiritualist*; and *Spiritual Magazine* for November, 1873, from the *British Journal of Photography*) should be read. Some of the evidence scattered through the *Spiritual Magazine* from 1872 to 1875 is important, though the best is given by "M.A. (Oxon.);" Also much light is thrown on the subject by the controversy about the genuineness of Hudson's photographs in the *Spiritual Magazine* and *Spiritualist* for 1872, and by the trial of Buguet, for accounts of which see various numbers of the *Spiritualist* for 1875 and 1876, and especially Madame Leymarie's *Procès des Spirites* (Paris, 1875). Mr. Wallace devotes several pages to the subject of spirit photography in his *Miracles and Modern Spiritualism*. The *Spiritual Magazine* for 1869 gives the trial of Mumler, and the *Spiritual Magazine* for 1862 and 1863 contains

¹ Mr. Wallace applies the name also to photographs of so-called "materialised spirits." In the case of "materialisations," however, it is not usually the genuineness of the photographic process, but merely the spirituality of the figure photographed which the sceptic calls in question.

some account of Mumler's early performances at Boston. To these references I must now (1891) add M. Aksakoff's *Animismus und Spiritismus* (Leipzig, 1890), in which a long chapter devoted to the subject contains some additional evidence.

We may divide the evidence for Spirit Photographs into that obtained with professional photographers who made a profit out of it, and that obtained by investigators apart from anyone with a pecuniary interest in the result. I shall begin with the first class, because it is by far the largest.

Mumler in America, who began operations at Boston in 1862, Hudson and Parkes in London 10 years later, and Buguet at Paris, who flourished and fell in 1874-1875, have been the principal professional Spirit Photographers. There have been others, especially in America, but they are less well known, at least in this country, and at any rate the four I have named will sufficiently serve as types. Of these four, Mumler, Hudson, and Buguet produced sham Spirit Photographs, whether they produced real ones or not.

Mumler had been at work but a few months when, early in 1863, it appeared that a living person figured in at least two of his photographs as a spirit of the dead. This seems temporarily to have given a blow to his credit and he sank into obscurity. In 1869 he reappeared at New York, with testimonials mostly dating from 1862, which looks as if he had not done much in the interval. It was a few months after he settled at New York that his trial—referred to by Mr. Wallace—for swindling credulous persons by what he called Spirit Photographs took place. This time he was more fortunate than in 1863. Only New York evidence was admitted, and the only definite New York evidence against him appears to have been that of Marshal J. H. Tooker, who had been sent by the Mayor (it was a public prosecution) to "look up" the case. This he did by assuming a false name and having his photograph taken by Mumler; and the result was a "spirit photograph," which he was told represented his father-in-law, but which he said bore no resemblance to his father-in-law, or any other person he had known. For the defence was brought the evidence of photographers and others who had failed to discover any trick, and that of persons who had obtained recognised likenesses of departed friends. The trial ended in Mumler's acquittal, the judge saying, "That, however he might believe that trick and deception had been practised by the prisoner, yet . . . he was compelled to decide that he should not be justified in sending the defence to the grand jury, as, in his opinion, the prosecution had failed to prove the case." (*Spiritual Magazine* for June, 1869.) This acquittal, considering that the previous evidence against him was necessarily excluded, and that the prosecution seems to have been premature and hasty,

relying on the *a priori* probability that he cheated and not on proved instances, can hardly be regarded as triumphant, nor as in any way invalidating the previous evidence of fraud.

As to Hudson, very soon after he began the business, Mr. J. Enmore Jones, a leading Spiritualist, discovered on some of his photographs clear signs of trickery. Other Spiritualists—some of them expert photographers—now inquired into the matter, and the fact was clearly established that there was something wrong about many of the photographs. It was alleged against them (see *Spiritualist* for September, 1872) that they showed obvious signs of double exposure, such as the background appearing through the dress of the mundane sitter, and marks in the background appearing duplicated; that some of them bore evident marks of having been altered by hand; and that in one or more of them Herne, the medium, had sat for the ghost. The marks are so clear that Mr. Beattie, of Clifton, “pronounced the photographs alluded to to be not only deception, but deception of the stupidest; and more, that the evidence was so palpable that, unless we are to become as ‘little children’ in common observation, and very weak children too, we could not but see them as such.”

A controversy now began to rage among Spiritualists:—Hudsonites, headed by Mr. Thomas Shorter, editor of the *Spiritual Magazine*, supported by the *Medium*, against anti-Hudsonites, headed by Mr. W. H. Harrison, editor of the *Spiritualist* (a paper which at that time held much the same position that *Light* does now). Both parties believed that Hudson produced some genuine photographs, and the appearances of double exposure were not denied by the Hudsonites. But these last stoutly maintained that there was no proof of fraud against Hudson. They explained that the effects which looked like those of double exposure, &c., were probably produced by the spirits. Thus “spirits” told them that “the success of our manifestations in these cases is to bring ourselves within the sphere of the sitter, and to amalgamate that sphere with our own. When rays of light pass through this mixed aura they are refracted and often cause things to be apparent on the plate which you cannot account for.” (See *Human Nature* for October, 1872, p. 448, and editorial article in the *Spiritual Magazine* for November, 1872, p. 482.) Another advocate suggests that the “psychical aura” may produce the effect either owing to its having the property of double refraction, or to its having a different density from the atmosphere and being introduced after the exposure has begun, so that the rays of light are differently deflected during the first and second half of the exposure. Again, it is suggested in the *Spiritual Magazine*, 1872, p. 413, that the spirits may produce the effect by slightly displacing the camera. “Photographers,” the writer continues, “will say that a proof of that would

appear upon the picture of the sitters" (which, we may remark, would apply also to the last mentioned theory); "but as a spirit can, in the sphere of some mediums, change the modes of material substances, can a spirit not also, in such a sphere, so modify light that the pictures taken by him shall not interfere with that of the sitters taken by the photographer?" And in an editorial article in the *Spiritual Magazine* for October, 1872, p. 465, we are told "when professional photographers are as familiar with the laws and methods of spiritual photography, as the more scientific members of the profession are with those of common photography, their opinions on this question will be entitled to greater weight. Perhaps by that time they may have learned that phenomena of spiritual agency are not to be wholly judged by those narrow canons of professional criticism which apply well enough to phenomena of purely physical and mundane origin."

Arguments such as these show to what straits Hudson's defenders were reduced. It should, however, be said for them that they believed that a Mr. Russell, of Kingston-on-Thames, experimenting for his own satisfaction, had obtained Spirit Photographs with Herne and Williams as sitters, exhibiting signs of double exposure, though only one exposure had taken place. As, however, neither the negatives nor prints from them were ever openly produced in this case, and as their disappearance was explained by saying that, "unfortunately, some mischievous gnome . . . used means to obliterate the most interesting pictures while in an unfinished state" (*Human Nature*, November, 1872, p. 499) we may be permitted to consider this evidence as worthless. Hudson's friends also argued that double exposure could not be a sign of fraud, because a certain photograph obtained by Dr. Dixon, with a recognised likeness of his dead son,¹ showed signs of it, and also a likeness of a spirit friend, recognised by Mr. H. Clifford Smith, came out *positive* on the *negative* of the sitter. To most of us it will, I think, appear that the peculiarities of these photographs throw doubt on the value of recognition as a test of genuineness in a Spirit Photograph, rather than prove that genuineness is compatible with double exposure.

Buguet's fraud is, if possible, even more beyond question. He was brought to trial for swindling by the French Government in 1875, and stated at his trial that all his Spirit Photographs were fraudulent and generally done by means of cardboard heads and dummy figures draped at discretion and produced on the plate by double exposure. Later, after he had escaped to Belgium, he partly retracted this and said that some were genuine. But there can be no doubt that, as "M.A.

¹ This likeness does not seem to have been very successful as to face; a peculiarity of dress satisfied Dr. Dixon. (See *Human Nature* for November, 1874, p. 485, and *Spiritual Magazine* for 1872, pp. 321 and 484.)

(Oxon.)" puts it (*Human Nature*, 1875, p. 334), "a recent trial in Paris has furnished clear evidence of a long and systematic course of fraud. . . . Buguet, by his own confession as well as by demonstration, stands revealed as an impostor."

Parkes, the fourth professional spirit photographer I have named, produced photographs of very suspicious appearance, but took the line of frankly admitting this and even calling attention to it, while he attributed it to the peculiar methods of operating adopted by the spirits. He gave investigators less opportunity of examining into his processes than Mumler, Hudson, and Buguet seemed to do, and there could, therefore, be little chance of proving any fraud so long as he kept clear of Mumler's great error—producing living people for dead ones. This is a description of one photograph taken in his studio which illustrates what I mean by suspicious appearances :—

"It was taken on a plate freshly purchased, and which had never been in Mr. Parkes' possession. The plate had been prepared and placed in the shield, when a photographer who was present requested that it might be taken out and turned upside down before the exposure. This was done, and, on developing the plate, a rude outline of a figure, composed of *two* busts, appears; the busts pointing in opposite directions. Had this occurred on a plate which the photographer had had in his possession before, most of us would have jumped at unfavourable conclusions." (*Human Nature* for April, 1875, p. 157.)

Probably most of our readers will still arrive at "unfavourable conclusions" as to this performance, taking into account the conditions described. I may observe that if Parkes' statements are accepted as trustworthy, they present a hard nut to crack to those who maintain that spirit photography is a proof of the objectivity of phantasms. He propounded the view, in the course of a discussion on the subject reported in the *Spiritualist* for December 10th, 1875, that the lens had nothing to do with the spirit photograph. Also that the "spirit light" had the power to pass through opaque substances, such as the skull and reflecting mirrors. He proved this to his own satisfaction—so he said—by experiment. Sitting himself and inserting a mirror in the camera which would throw his image on to a sensitive plate at the side of the camera, and placing another sensitive plate at the back of the camera behind the mirror, he says he obtained, as was natural, an inverted image of himself on the side plate, but the "spirit" came out erect on the back one. The "spirits" told him that "in the case of a 'spirit' placing himself by the side of a sitter, it was, of course, necessary to produce an inverted image, and herein was one of their greatest difficulties in taking spirit photographs." Mr. Parkes consequently could not focus his spirit sitters. He generally saw them, he said, but moving the camera made no difference

to their appearance as seen through the lens; he had, therefore, to place it so as to harmonise the spirit's appearance with the sitter.¹ Parkes also said that he could obtain spirit figures only on *spiritually* sensitised plates, and that any doubt or uncertainty in his mind as to whether the plate had been spiritually sensitised prevented success.

From these statements of Parkes we must infer either, as he did himself, that "spirit photographs" are not really photographs at all, in which case spirit photography does not afford an unassailable proof of the objective reality of spirit forms as Mr. Wallace thinks it does; or that Parkes never carried out the experiments he described.

We now come to the question whether, notwithstanding the fraud, any of these four persons ever produced genuine Spirit Photographs. Those Spiritualists who were most decided in maintaining that there was deception contended that they all also produced the genuine article. They thought so because

(1) Competent persons had watched the process throughout without detecting trickery; and

(2) Because among the photographs taken a certain number were recognised as likenesses of some dead person.

It is on the first of these considerations that Mr. Wallace relies in his article in the *Arena*. And I think some force must be allowed to it. It is certainly remarkable that there is, so far as I know, no record of either Mumler or Hudson being detected in the act of committing the fraud, so that the proof against them rests only on the results produced. At Mumler's trial evidence was given by a photographer, named Silver, who had sold his studio and apparatus to Mumler, that with unusual opportunities for observing, and working with him from November to March, several times watching the process he went through as closely as he could, he at no time detected any fraud or deception on his part. I do not know whether Mr. Silver was a disinterested witness, but he swore that there was no collusion between them, and said he was not certain that the impressions were produced

¹ He does not say whether the spirits stood on their heads to make this possible, but I may observe that no such peculiarity is noticed on one occasion in which "M.A. (Oxon.);" believed that he saw the "spirit" while he was being photographed by Parkes. "M.A. (Oxon.);" says:—"In my clairvoyant state I saw the child standing or hovering by me close to my left shoulder. She seemed to be standing near the table: and I tried in vain to call Dr. Speer's attention to her. As soon as the exposure was over, and I awoke, I stated what I had seen, and on the plate being developed, there stands apparently on the table a little child's figure. The position is exactly where I saw and felt it." (*Human Nature*, 1874, p. 397.) I am not, under the circumstances, disposed to attach much importance to this correspondence of "M.A. (Oxon.);"s impression and the photograph as evidence of genuineness, partly because a baby sister of Dr. Speer's was believed often to communicate through "M.A. (Oxon.);" at seances, and it is not unlikely that Parkes knew this.

by supernatural means. (See *Spiritual Magazine*, June, 1869, p. 249.) Mr. J. Gurney, a well-known photographer at New York, and a Spiritualist, also stated at the trial that he had failed to discover any trick ; but I confess that this gentleman's evidence would have more weight with me had I not seen an account of his experience with another medium, Mrs. French. (*Spiritual Magazine* for 1861, p. 433, &c.) A third photographer, named Slee, of Poughkeepsie, about whom I have no other information, wrote to the *New York Tribune* that Mumler had produced spirit photographs in his (Mr. Slee's) studio and with his apparatus, &c., and under the closest scrutiny of his operator and himself and assistants, without any second negative or mechanical arrangement whatever being discovered. (See *Spiritual Magazine*, June, 1869, pp., 264-266.)¹

About Hudson we have the evidence of Mr. Beattie, already mentioned, whose honesty is beyond suspicion, and who had himself been a professional photographer ; who was, moreover, one of those most strongly convinced that some of Hudson's photographs were fraudulent. He and a friend, an amateur photographer, visited Hudson and had photographs taken, watching the process with care, and he says of the spirit figures which came out :—

“They were not made by double exposure, nor by figures being projected in space in any way ; they were not the result of mirrors ; they were not produced by any machinery in the background, behind it, above it, or below it, nor by any contrivance connected with the bath, the camera, or the camera-slide.”²

Similarly Mr. Traill Taylor, the editor of the *British Journal of Photography* (*Human Nature*, 1874, p. 477) says that he had tried experiments in Hudson's studio with his own plates and collodion, and that “at no time during the preparation, exposure, or development of the pictures was Mr. Hudson within 10 feet of the camera or dark room. Appearances,” he adds, “of an abnormal kind did certainly appear on several plates.”

Mr. Thomas Slater, optician, of 136, Euston-road, again, says that he took a new camera, a new combination of lenses, and several glass plates, and then, watching the process throughout, obtained “a fine spirit picture.” (*Spiritual Magazine*, June, 1872, p. 258.) And this

¹ I do not think that Mr. Guay's evidence should be introduced in this connection as it is by “M. A. (Oxon.)” and by M. Aksakof, because Guay seems to have been Mumler's assistant, receiving half the profits of the business. (See *Spiritual Magazine*, 1869, p. 243.)

² *British Journal of Photography* for July 11th, 1873, as quoted in *Human Nature* for November, 1874, p. 479. Mr. Beattie and his friend had four photographs taken ; the first (in which Mr. Beattie sat) was a failure ; the two next (in which Mr. Beattie sat), successes, the last (in which the friend sat) was again a failure.

was after having twice watched the whole process so far as this could be done whilst also acting as sitter.

When Buguet came to England, in 1874, Mr. W. H. Harrison, with others, witnessed the process. Mr. Harrison sums up his report in the *Spiritualist* of June 26th, 1874, as quoted in *Human Nature* of January, 1875, p. 15, after describing how he watched throughout all that Buguet did: "Obviously it is not possible to say much about spirit photography on the slender experience of observing one experiment, but I do not know how to produce by artificial means a similar picture, under like conditions."

And Mr. Slater (already mentioned), says of Buguet (see *Procès des Spirites*, p. 145):—

"J'ai fait avec lui plusieurs expériences. Comme photographe, j'assistai à toutes les manipulations depuis le nettoyage de la plaque jusqu'au développement de l'image, et dans aucun cas, il ne m'a pas trompé ni ne l'a pas pu. J'ai eu le portrait de ma tante, qui a été une mère pour moi."

This absence of detection by persons watching is certainly remarkable; but I think that Mr. Wallace and others overrate its importance. The question is how far an intelligent person ought to expect to detect trickery of the kind here supposed—which is practically conjuring—how far he ought to expect to see all that goes on within his possible field of vision when someone else is trying to prevent his seeing it, and I believe that the majority of persons expect too much of themselves and others in this way. It is not a proof of stupidity to be unable to see when or how a trick is done; even conjurers cannot do this always, or they would not need to buy each other's tricks. The ordinary mistake of eye-witnesses who relate experiences of this kind is to over-estimate their powers of observation and memory. In particular the assertion, "I never for an instant lost sight of so and so," if the "never" extends over any considerable length of time, is generally, I think, untrue, and is almost certain to be untrue if the observer has attempted to guard simultaneously against all the ways in which he conceives that the trick may have been done. I believe that any one who would endeavour conscientiously to write accounts of what he saw at a conjuring entertainment would convince himself of this; unless he convinced himself—as some Spiritualists have done—that the conjurer is a medium. On this point I would refer to Mr. S. J. Davey's experiments (*Proceedings*, Vol. IV., pp. 405-495), which appear to me to prove conclusively that intelligent persons thinking that they have the conditions under their own control may not only be taken in, but may believe the event to have occurred in such a way as to render the particular trick actually practised impossible.

In the particular case of spirit photography there are several things which seem to make it especially hard to detect trickery. One is, the

great complication of the process of photography and the number of ways in which sham ghost pictures may be done. Then, again, if the watcher be also the sitter, there are special difficulties in the way of his observation. For instance, "M.A. (Oxon.);" tells us in *Human Nature* for September 1st, 1874, p. 395, of a certain photograph of which he gives a copy:—"This particular group was taken under strict test conditions. Dr. Speer and I followed the plate throughout. . . . We never lost sight of the plate from the very first, and can give unhesitating testimony that no suspicious element presented itself." But it is obvious from the plate itself that neither Dr. Speer nor "M.A. (Oxon.);" were looking at the camera while the photograph was taken, and "M.A. (Oxon.);" at any rate was not looking at the photographer. Trickery is, of course, also made immensely easier by the fact that the photographer is under no necessity to produce a Spirit Photograph at all if detection would follow.

Taking everything into consideration, I do not think that the non-detection by experts affords sufficiently strong ground for believing that the photographers in question have sometimes produced genuine Spirit Photographs.

We have next to consider whether the recognition of portraits of spirits affords the required evidence of genuineness. This is not quite the simple question it looks, and incidentally the discussion of it has an important bearing on another branch of Spiritualistic evidence—the supposed materialisation of recognised spirit friends.

In the first place we must observe that a large proportion of the spirit photographs were definitely unrecognised¹; and many photographs were recognised which never ought to have been. As "M.A. (Oxon.);" says (*Human Nature* for May, 1875, p. 202):—

"Some people would recognise anything. A broom and a sheet are quite enough to make up a grandmother for some wild enthusiasts who go with the figure in their eye, and see what they wish to see. . . . I have had pictures that might be anything in this or any other world sent to me, and gravely claimed as recognised portraits; palpable old women authenticated as 'my spirit brother dead seventeen years, as he would have been if he had,' &c."

When "M.A. (Oxon.);" was compiling his papers on spirit photography for *Human Nature*, some 460 photographs came under his notice, mostly, I think, sent by persons who thought them interesting, so that these 460 must be considered as a selected lot. Out of these,

¹ Buguet (see *Procès des Spirites*) named 50, 60, and 70 per cent. to clients on different occasions as the proportion of his successes. These numbers may be taken as the largest numbers he dared give without risking being afterwards regarded as an impostor. Probably the actual proportion which were thought to be recognised was much smaller.

he could only select 90, or about one-fifth, for description, as being either distinctly recognisable or done under conditions such as, in his opinion, excluded trickery, and of these 90 I think some 82 are counted mainly because they were recognised. For evidential purposes this number must be considerably reduced, especially when it is remembered that even when a recognised likeness was obtained it was very seldom that of a particular person previously expected. "M.A. (Oxon.);" says (*Human Nature* for June, 1876, p. 268): "Out of some 600 photographs which I have seen and examined, and of most of which I have heard the history, I do not know of half a dozen in which the expected form appeared." And if I may infer from "M.A. (Oxon's.);" descriptive lists which the half-dozen are, I should add that in only one of these does it seem to me that there is not reason, apart from the success, for thinking that the photographer knew beforehand what was expected.

I think that we must as a general rule regard recognition as evidentially unimportant in the following cases:—

(1) Spirit portraits of well-known or historical people and leading Spiritualists—Dumas, Judge Edmonds, Allan Kardec, Livingstone, President Lincoln, &c.

(2) Photographs of near connexions of well-known Spiritualists, since it would clearly be natural for a fraudulent spirit photographer to make himself acquainted by sight with as many Spiritualists as he can, and to obtain likenesses of their deceased relatives.

(3) Cases where an appointment made in advance or a second visit gives a chance of preparation—especially if such appointment has been made at the suggestion of, or through another medium, who may be in collusion.¹ If it be urged against this that it would, in many cases, be difficult for the fraudulent photographer to procure a likeness of a deceased friend of his sitter, it may be replied that this very fact may be the reason why distinctly recognisable spirit photographs of departed friends were not more often produced. In some cases it is easy to obtain photographs of persons not long dead; and with regard to those who died before photography was known it may be remarked that the length of time since they were seen is sure to have caused their features to have faded somewhat from their friends' memories, and a portrait having a family likeness to the sitter might easily be produced by the photographer, and would in some instances pass muster as a likeness. We have to keep clearly before our minds that

¹ This excludes such a case as Mumler's photograph of Mr. Dow and Mabel Warren; also such a case as Mr. Livermore's, who obtained an unrecognised figure at his first visit to Mumler, and, when he came again (on which occasion he thinks he was recognised), obtained a likeness of his wife.

the photographer is under no obligation to produce a spirit photograph, that, if he does produce it, it need not be a likeness, and that it would not have told against him with Spiritualists had he produced what was taken for a double of the sitter.

After cutting out the three groups above mentioned, there doubtless still remains a residuum to be accounted for; this, however, must be yet further reduced owing to certain considerations as to the value of recognition, which I shall now proceed to discuss. In doing so I shall quote as instances of possibly inadequate recognition photographs of which some would, probably, even if really recognised, be excluded from an evidential list on one of the above-mentioned grounds.

One important consideration is that in the majority of spirit photographs the head is surrounded by white drapery in a way which we never see in real life, and which, therefore, makes recognition more difficult. This unaccustomedness of the appearance seems to me to interfere with the reality of the recognition in several published cases. Thus, Mr. Sutherland (see *Human Nature* for November, 1874, pp. 474, 475) says of an alleged photograph of his mother: "I do not think anyone but myself could have recognised this photograph owing to the unaccustomed appearance." In a photograph representing his sister he touched in the hair as it was habitually worn by her in earth-life, and in this condition it was at once recognised. But perhaps it was then recognised by the hair, and if he had touched in the hair in the way it was worn by some other relative it might have been recognised as that other.

"M.A. (Oxon.);" quotes as recognised other cases where I cannot think the recognition was adequate. Thus I cannot think the likeness was clear which Madame Brocard Boulland discovered after a quarter of an hour's examination. (*Human Nature*, January, 1875, p. 20.) Nor am I satisfied with the identification of an alleged portrait of Mr. Wallace's mother, of which he says, in his *Miracles and Modern Spiritualism*, pp. 190, 191, footnote:—

"I recognised none of these figures in the negatives; but the moment I got the proof the first glance showed me that the third plate contained an unmistakable portrait of my mother,—like her both in features and expression; not such a likeness as a portrait taken during life, but a somewhat pensive, idealised likeness—yet still to me an unmistakable likeness. The second figure is much less distinct; the face is looking down; it has a different expression to the other, so that I at first concluded it was a different person. . . . On sending the two . . . portraits to my sister, she thought that the second was much more like my mother than the third—was, in fact, a good likeness, though indistinct, while the third seemed to her to be like in expression but with something wrong about the mouth and chin. This was found to be due, in part, to the filling up of spots by the photo-

grapher ; for when the picture was washed it became thickly covered with whitish spots, but a *better likeness of my mother.*" His brother writes to him : " I looked at the photograph attentively, and recognised your face, and remarked that the other one was something like Fanny (my sister). I then handed it across the table to Mrs. W. and she exclaimed at once, ' Why, it's your mother ! ' We then compared it with a photograph of her we had here and there could be no doubt of the general resemblance, but it has an appearance of sickness or weariness." " M.A. (Oxon.)" calls it (*Human Nature*, November, 1874, p. 479) " a very clear spirit form."

Recognitions depending on peculiarities of dress are of very doubtful value. I cannot regard it as beyond the range of coincidence that Mr. S. C. Hall's father should be represented with a pig-tail (which was practically the only point of identification), since pig-tails were the ordinary costume not so very long ago, even if Mr. Hall's father was one of the last to wear them ; nor that Dr. Dixon's son should appear to be draped in a " hood and mantle in one," a costume which it appears he had much approved of in his earth-life.

Another possible source of error has been suggested, namely, that when the sitter and his friends set to work to guess whom among their deceased friends a spirit photograph represents, with the idea that it probably represents one of them, a comparatively small amount of resemblance may mislead and satisfy them. This may explain the likeness of Dr. Thomson's mother. Dr. Thomson's mother had died at his birth, 44 years before, and there was no picture of her. He obtained a spirit photograph which he did not recognise, and sent it to his uncle, " simply asking him," he says, " to let me know if he recognised in the figure any resemblance to any of my relations who have died, and he has written to say that he recognises in it the likeness of my mother."¹

There is another possibility in this and other cases, namely, that a sketch or altered photograph of the sitter himself adapted to pass as a mother or sister may serve as a model for the spirit and be recognised from family likeness. I think the evidence about Mr. Wallace's mother suggests this, and the following case, related by Mr. Beattie, does so also. He tells us in a paper on the philosophy of spirit photography (see *Spiritual Magazine* for January, 1873, p. 26) that he has before him, as he writes, two photographs of the same gentleman. In one of them is, he says, a figure, " clearly from an etching of a face,

¹ These are Dr. Thomson's own words (see *Spiritual Magazine* for October, 1873, p. 475), and I may notice by the way that the field of inquiry suggested by them is very much narrower than that implied in " M.A. (Oxon.)'s" version. " He sent the photograph to his uncle in Scotland, saying that he was sorry he could not recognise it. The reply was that that was not surprising, seeing that the figure was that of Dr. Thomson's own mother, who died at his birth." (*Human Nature*, October, 1874, p. 426.)

with a *profile type exactly like* his own ; in the other, there is a standing figure extremely tall and ill-defined. *In both cases it is said to be his mother.* A first-class artist examined them with me, *and no likeness could be discovered between the two.*" The photograph, already referred to, which Buguet did for M. Brocard Boulland again suggests this procedure. He says :—

"Two days after I went again to M. Buguet and he gave me my photograph ; I examined it with the most minute and scrupulous attention. I admit that the white hair bothered me a little ; but all at once I recognised my mother, smiling at me with the same smile that she had when on this earth. . . . I should further add that it matters not to whom I show this photograph ; everybody sees between us a resemblance which was frequently observed in life."

The difficulty of trusting to recognitions is yet further increased by a curious piece of evidence that came out at the Buguet trial. A photograph had been taken by Buguet, which "M.A. (Oxon.)," before Buguet's detection, speaks of as (*Human Nature* for February, 1875, p. 82) "perhaps the most remarkable spirit-picture with which I am acquainted." . . . "The face is the thoroughly developed face of a living man, every feature distinct, more so, in fact, than the faces of the sitters." A copy of the photograph accompanies "M.A. (Oxon.)'s" article, so that all can see for themselves how clear it is. The process of photographing was carefully watched by the sitters,¹ and this spirit photograph was recognised by several persons as the likeness of a Monsieur Edouard Poirer, who died at Pimprez (Oise) twelve years before.² But this same photograph was also recognised by a M. Raymond as that of his father-in-law, still alive at Dreux, who was much annoyed at being sold about as a spirit before his time. M. Raymond had taken steps to stop the sale of the photograph and gave evidence on the subject at the trial. Now what happened in this case ? Were M. Poirer and M. Raymond's father-in-law exactly alike, or were some

¹ Monsieur Carré, Colonel d'Artillerie, said at the trial of Buguet : "Nous avons pris la plaque nous-mêmes ; nous l'avons vu mettre dans le châssis, que nous n'avons pas laissé un instant ; en un mot, nous avons suivi et terminé l'opération entière avec le photographe ; . . . Buguet n'a pas opéré." (*Procès des Spirites*, p. 47.) M. Cochet (p. 54) says much the same : "J'ai vu nettoyer la plaque ; . . . j'étais derrière les operateurs et aucun détail ne m'a échappé. Buguet ne prit part aux opérations que pour mettre l'appareil au point."

²The evidence of several persons was brought to this at the trial. Thus M. Bastian, aged 70, says : "Or, j'ai parfaitement reconnu dans cette photographie . . . le portrait de M. Poirer, un de mes amis avec qui j'ai vécu pendant près de trente ans." (*Procès des Spirites*, p. 55.) In his written testimony M. Bastian uses the expression, "Avait une grande ressemblance." Others say, "beaucoup de ressemblance," "quelque ressemblance" (this was said by M. Poirer's nephew), "à peu près la ressemblance," "reconnu . . . la ressemblance" (p. 177).

of the witnesses mistaken in their recognition of this very definite likeness? ¹

Of course I do not mean to draw the inference that no evidence could be obtained from recognition of spirit photographs. But I think that we have not got, and that it is very difficult to obtain, evidence of sufficient quality and quantity to carry conviction, considering the character of the photographers. For good evidence we must, in the first place, be sufficiently well acquainted with the witness to estimate his recognition rightly. Secondly, we must be very certain that by no means could the photographer have acquired a knowledge of what the spirit photographed was like. Thirdly, we must be sure that the spirit was not like enough to the sitter for the portrait of the latter dressed up in spirit drapery to be mistaken for the spirit's. Fourthly, we must have a sufficient number of likenesses clearly to exclude accidental coincidences like that of Monsieur Poirêt.

We have still to consider the evidence for spirit photographs obtained without the presence of a professional spirit photographer. Several accounts of attempts to obtain them under these conditions have been published.

Dr. Williams, of Haywards Heath (see *Spiritual Magazine*, September, 1873, p. 423; *Human Nature*, May, 1875, p. 200; *Miracles and Modern Spiritualism*, p. 193), succeeded, after eighteen months' experimenting, and exposing some hundreds of plates, in obtaining three plates with what appeared a part of a human form, one of them having "the

¹ There undoubtedly is a great deal of apparent evidence to recognition as regards Buguet—especially in the correspondence about his photographs published in the *Procès des Spirites*—a great deal even after eliminating cases where only nine people out of twelve recognise the likeness, or when some of those who ought best to know hesitate about it. And there are one or two cases of scars, of attitudes, of bare places on the head where a lock of hair had been cut off after death. One would like to see these photographs and know how definite they really were.

It must be remembered that if one frequently sees a portrait of an absent person, one's recollection is of the portrait, not really of the original, so that once a person had clearly made up his mind as to the likeness, his recollection of the original would adapt itself. It is not, surprising, therefore, that the recognisers should not be shaken by Buguet's confession. As to the original recognition, cases like that of Poirêt, and cases where the sitter does not recognise the portrait, but writes afterwards to say that several of his neighbours see in it a likeness of A. B. who died in his village some years ago—suggest that some of us are made sufficiently on the same model for it to be possible to buy a ready-made portrait like ready-made boots, provided the scale be small; and it is observable that Buguet told M. Boyard (*Procès des Spirites*, p. 123) that for large photographs "il lui fallait dépenser beaucoup plus de fluide; que cela lui occasionait beaucoup de fatigue, et qu'il avait besoin après d'un ou deux jours de repos." Why this should be on the hypothesis of genuineness it is difficult to see, since we cannot really suppose that the spirit makes itself up larger in order to be photographed on a larger scale. But why, if it was all fraud, Buguet should prefer doing small ones, is obvious.

features distinctly marked, the eyes and nose being very plain." On a fourth plate he perceived a well-formed figure of a man standing at the side of and looking at the sitter. He "saw it distinctly for several seconds, and after examining it proceeded to strengthen it by further developing, which," he continues, "I succeeded in doing, when all at once it faded away before my eyes, and nothing is now to be seen of it." It may, therefore, have been either a hallucination or an illusion, and I suspect that the three earlier ones were not beyond the range of some accidental flaw resembling part of a human figure.

The following experience, of which we received the account only a few weeks ago, may be compared with Dr. Williams's:—

March 15th, 1891.

One fine summer's afternoon in July or August, 1888, I decided to be photographed in the small yard at the back [of the house] with my baby boy on my shoulders. His mother, as you know, had died eighteen months before, leaving me a widower at 27 years of age, with a boy scarcely a fortnight old. I prepared the apparatus, focussed it, and instructed my "buttons" how to expose the plate and then took up my position with the child crowing with delight as he occupied so prominent a part in the affair. In a few seconds the sun had done its share, whereupon I retired to the dark room to develop the "picture." I was watching the plate, as I slowly agitated the solution it was in, with deep interest to see with what success we were to be repaid for the trouble, when suddenly there appeared before my startled eyes the form and lineaments of my dead wife! It was there and then and has been ever since absolutely inexplicable. The very idea was entirely unthought of and unknown to me. I had not then even heard of any such thing as spirit photography.

Her portrait appeared just behind myself and child, between us and an ivy-clad wall. It became clearer, and then slowly faded, though still discernible. When I had passed the plate through the hyposulphite of soda, washed it, and took it to the daylight, the likeness was no longer traceable. As a photograph it was wretched, owing to over exposure and the child having moved. Business occupations soon caused me to forget the incident and the plate was probably thrown away with other bad ones. Six months or a year after that Dr. P. was visiting me, and knowing he believed in spirit apparitions I told him the above particulars. He was deeply interested in the occurrence and asked me to seek for the plate. I did so, but never found it. That is all.

I was then, and still am, incredulous as to the power of spirits departed to reappear in a spiritual imitation of a material form, and am inclined to consider the "vision" referred to above similar to those faces and forms that I, for one, can see in nearly any wall paper of fantastic design, if so desirous.

Mr. Christian Reimers is quoted as having been successful in obtaining spirit photographs in private, but I have never seen any good account of them. "M.A. (Oxon.)" quotes in *Human Nature*, May, 1875, from Mr. Reimer's account, but gives, I think, a wrong reference. If they are the

photographs referred to by Mr. Reimers, in *Procès des Spirites*, p. 150, as I presume they are, they were, I think, done with Firman, a fraudulent and exposed medium, as sitter, and suggest the procedure described in *Confessions of a Medium*. I find a brief account of the experiments in the *Spiritualist* for May 15th, 1874, p. 238, quite insufficient as to details.

Mr. Thomas Slater, optician, of 136, Euston-road, obtained recognised likenesses of dead friends, but he, again, has not, so far as I have been able to discover, published sufficient details to enable one to judge of the conditions under which they were obtained. He and his family were, I believe, themselves mediums and required no extraneous assistance.

M. Augustin Boyard (Ingénieur des Arts et Manufactures et Chimiste, 104, Avenue de la Reine, à Bruxelles) says that he obtained at different times apparitions on plates, of which he had shown the best to photographers and chemists without their being able to explain it. It could not come, they thought, "d'une image mal effacée d'un cliché antérieur." (*Procès des Spirites*, pp. 122-124.) He gives an account of his experiments in the *Revue Spirite* for November, 1874, but again, I think, a quite inadequate one. We have no proof that a trick was not practised upon him, and the account seems to me to suggest a considerable probability that it was.

But the series of experiments on which more stress has been laid than on any other are those of Mr. Beattie, of Clifton. M. Aksakoff regards his results as the foundation-stone of the whole phenomenal region of mediumistic materialisations in general and of transcendental photographs in particular (*Psychische Studien* for May, 1886, p. 210), and Mr. Wallace calls them, in his article in the *Arena*, p. 143, "perhaps the most remarkable series of experiments ever made on this subject." Mr. Beattie, whom I have already mentioned more than once, was a retired photographer who enjoyed, I believe, the respect of all who knew him. Disgusted with the evident signs of fraud in some of Hudson's photographs, he determined to experiment in the subject himself.¹ Accordingly, in 1872, he arranged with an intimate friend, Mr. Butland, a good trance medium, to aid him in his experiments. Dr. Thomson and Mr. Tommy also joined him. He "next went to Mr. Josty, a professional photographer, and arranged with him for the use of his studio, glass, instruments, and such assistance from himself" as might be required.

¹ His accounts of his experiments are to be found in the *Spiritualist* for July 15th, 1872, and in the *British Journal of Photography*, 1872 and 1873, and the *Spiritual Magazine* for September, 1872, and November, 1873. An account by Dr. Thomson is given by "M. A. (Oxon.)," in *Human Nature*, for September, 1874, but it is less full than Mr. Beattie's, and makes no mention of Mr. Josty, whose importance in these experiments has been unaccountably ignored.

(*Spiritualist*, July, 1872, p. 55.) Mr. Beattie tells us nothing about Mr. Josty or what previous acquaintance he had with him.

The first day, in nine exposures, nothing of interest occurred. The second day, on the ninth exposure, an abnormal appearance developed itself, which they could not account for. Up to this time Mr. Josty had laughed at the whole affair, but this appearance, Mr. Beattie tells us, staggered him a little. On the third day an appearance presented itself which gradually changed and developed on successive plates. During one of the exposures, Mr. Josty, having uncapped the lens, suddenly went into a trance, from which he awoke much frightened. "After that took place, for the rest of the evening, he could not be induced even to touch the camera or slide, he was so superstitiously afraid." The next day no results were obtained; the next time twelve exposures were made with no results, and at length, both Mr. Josty and Mr. Butland being entranced, Mr. Josty, after uncapping the lens, moved to join the sitters during the exposure; on this occasion a white figure came out in front of him, just leaving his head exposed. Mr. Josty did not, he said, remember having placed himself among the sitters. After this, it seems to have been arranged that Mr. Josty should sit with the circle, Dr. Thomson uncapping the lens. Mr. Josty described during three exposures fogs which came out as described, and Mr. Butland said on one occasion that he saw a figure before him which duly appeared on the plate. At the next seance there was only one result out of fifteen attempts; and at the next, strange flames, we are told, in each case minutely described by both mediums as to number, position, and brightness during exposure. At the last seance three exposures succeeded out of twenty-one. Mr. Beattie says that he himself did "all the photographic manipulating," and that they "closed every door from which there was the remotest suspicion of wrong getting entrance."

In 1873 the experiments were repeated "along with the same gentleman and under the same conditions." The description published of this second series is less complete than the first, though the results would appear to have been more striking. This time, as before, the failures far exceeded the successes. There were two mediums present, presumably Mr. Butland and Mr. Josty again. "The medium next the background, we are told, became entranced and then by his influence he caused the other to pass into some strange, spiritual condition," from which description, in connection with what we are told about the two in the account of the series of 1872, I infer that the second was Mr. Josty. He used to describe during the exposure the appearances which were ultimately found on the plates, generally strange lights of varying shapes, developing through a series of three or four exposures. On one occasion he said "it rose up and over another person's arms,

coming from his own boot," which seems a pretty definite placing of it. On another occasion one medium said he saw a black figure and the other a light one. Both appeared on the plate but rather faintly, the light one indefinite in form.

The result of the two series consists, I believe, of thirty-two successful photographs, but of these I have only seen sixteen which are reproduced in *Psychische Studien* for April, 1886, and in M. Aksakoff's *Animismus und Spiritismus*. The figures on these are vague splotches of light, such as it appears to me might have resulted from some method of letting light fall on the sensitised plate through a crack or chink of some sort. One of these looks rather like a dragon, and some have forms vaguely resembling the human form, but so vaguely that one feels the resemblance might well have been accidental. If we can suppose that Mr. Josty was deceiving the others, these vague figures are just what it would probably be easiest for him to produce; and as the room and apparatus used were his, and as it is clear from Mr. Beattie's account that the camera and plates were not kept out of his hands altogether, it is most important to know whether he was a man who could be completely trusted. We accordingly made inquiries at Bristol through an Associate of the Society residing there, who wrote on January 27th, 1886: "I have tracked Josty to the workhouse, a natural and fitting conclusion to his career, according to all accounts. He had long been going down hill; was drunken, insolvent, and in money matters quite unscrupulous, having still many unpaid debts about here." Under these circumstances, deceit by Mr. Josty appears to me to be too probable a hypothesis to make it possible to attach much importance to Mr. Beattie's experiments as evidence of spirit photography. It is true that the description given beforehand by Mr. Josty, and sometimes by Mr. Butland, of the position and number of the figures counts for something evidentially. But if Mr. Josty was playing tricks he would naturally have some information as to this; and we do not know that on the comparatively rare occasions when Mr. Butland mentioned them he did so without suggestion from Mr. Josty.

I have still to speak of one series of experiments, that of Dr. N. Wagner, Professor of Zoology at St. Petersburg, made in 1881, and described in *Psychische Studien* for May, 1886, and in M. Aksakoff's *Animismus und Spiritismus*. Professor Wagner was making experiments in the hopes of proving a theory of his that when a person is hypnotised a psychical self can separate itself and assume a form which, though invisible, can be photographed. He was entirely unsuccessful in this, but in the course of the experiments he obtained on one plate (out of 18 taken under the same conditions) a white mark, resembling a hand with part of a full sleeve, some distance on the plate above the portrait of the hypnotised sitter, Madame de Pribitkow.

The resemblance to a hand at once strikes everyone who sees the photograph, though it is very ill-defined and on more careful inspection is seen to be badly formed. The experiment is more carefully described by the persons present than such experiments generally have been, though there is no indication that the accounts were written at the time. From what we are told, taken in connection with the photograph itself, of which a reproduction is given by M. Aksakoff, it is almost impossible to suppose that any one concerned practised any deception. Moreover, the camera was a stereoscopic one, and Professor Wagner states that the same appearance showed itself on both halves of the plate, so that it cannot have been due to a flaw on the plate itself or to an accident in developing; it must, it would seem, have been caused by light reflected from some external object and passed through the lens. Perhaps if the photograph were a better one—it was not sufficiently exposed and the definition is very bad—we might be able to discover what the object was; and if we had both halves of the stereoscopic photograph (only one of which has been reproduced in M. Aksakoff's book) it might enable us to discover the position of this object relatively to the medium—whether, for instance, it could be an accidental reflection off something in the background. But in any case it must, I think, be held as more probable that a single photograph like this is due to accident than to spirits, until more experimental proof of so-called spirit photography, produced under circumstances where trickery is out of the question, is forthcoming.

APPENDIX.

It should be mentioned that "M.A. (Oxon.)'s" belief in Buguet rested on evidence somewhat different in kind from any that has been discussed in this paper, and depending on a special experience of his own interesting enough to be worth describing here, though not, as I think, leading to belief in Buguet as a legitimate conclusion.

Likenesses of a living, but absent, sister obtained through Buguet by the Comte de Bullet suggested to "M.A. (Oxon.);" that he might obtain a spirit photograph of himself. He therefore arranged with Mr. Gledstones to go to Buguet's studio in Paris at a given hour to try for this. (See *Human Nature* for March, 1875, p. 97, *et seq.*) Mr. Gledstones did so on January 31st, 1875, and the Comte de Bullet was also present. No mention is made of precautions to prevent Buguet's knowing what was expected, but it is not stated that he was told. Buguet had photographed "M.A. (Oxon.);" in London in July, 1874. (See *Human Nature* for January, 1875, p. 13.) "M.A. (Oxon.);" was at the time of the present experiment lying on his bed in London

in a state of deep trance. The following is his description of the results obtained :—

“On the first half of the plate first exposed appeared a faint and indistinct image of my face. The features were barely discernible, but Mr. Gledstones has no doubt that they are mine. A second exposure . . . produced a perfect result. The first half of the plate contains a decided likeness of me ; the second half one of an old man. . . . The portrait of me is quite unmistakable. . . . The form gives the idea of being smaller than I am naturally, and the features are those of an entranced person.”

So far there is no particular difficulty in accounting for the occurrence by fraud. But now comes the confirmation. “M.A. (Oxon.)” was at that time in the habit of receiving communications by means of a voice not audible to others, but appearing to come from a distance. On the morning after the photographing, before he received any news from Paris, this voice informed him, and by automatic writing it was noted in his book, that :—

“Two exposures had been made . . . but only the second was important. On the first half of the plate was a good picture of me as I appeared personally . . . and on the other half the picture of the spirit who had arranged and carried out the operation.”¹

Here, therefore, there are four correspondences between what “M.A. (Oxon.)” seemed to know about the thing, and what actually happened, viz.: (1) that there were two exposures, (2) the first unimportant, (3) the second a good likeness of “M.A. (Oxon.)” as to its first half, and (4) with another figure on its second half. If it be regarded as very improbable that this amount of correspondence should occur by chance, we shall have at any rate evidence of something like thought-transference or clairvoyance. But I am not sure that it is beyond chance. It was not uncommon to make two exposures, and that the first should be a failure. Nor was it unusual to obtain a second figure. Still, the incident is undoubtedly interesting, and goes to support some other evidence that in the trance state “M.A. (Oxon.)” could become aware of what was happening at a distant place where his thoughts were.

To “M.A. (Oxon.)” himself the evidence afforded by this incident of

¹ Another peculiar incident occurred in connexion with this, which, however, does not, I think, materially affect the question of the genuineness of the photograph. The information was further given to “M.A. (Oxon.)” that his spirit was after the photographing taken to the rooms of a friend of his. And he learnt from the said friend that at the hour in question “he became powerfully impressed with the conviction that I was near, or was about to enter the room. He looked round more than once, expecting to see me, and the impression was so strong that he noted the exact time, and conveyed his impression to me the same evening, remarking that it struck him as curious, considering that his mind was occupied with other subjects.” If the friend was unaware that “M.A. (Oxon.)” was engaged in any special manner at the time this looks like a telepathic incident.

the genuineness of spirit photography is of a different kind. I do not consider with my present knowledge that there is sufficient reason to conclude that his "guides" are external to himself; but he firmly believes that they are external, that he has known them long and tested their veracity, so that to him what he seems to learn from them comes with the strength of a friend's assertion. He believes that the photograph was a genuine photograph of his "double" because his "guides" told him so.