

the phenomena," that is a most important result, and one which would amply repay the time and pains bestowed on collecting and examining the cases. The prime reason why it seems a scientific duty to collect and examine such evidence is not to support a foregone conclusion, not to prove this or that, but to see what is really involved in it; how far, when rationally criticised, it reveals facts which our previous knowledge fails to explain. No rational opinion could be formed on the subject, no rational guess even could be hazarded, till a wide effort had been made, and a large body of material got together and arranged. Mr. Peirce's provisional conclusion is, therefore, a quite sufficient justification for the book; for I do not imagine that he would deny that, if this collection actually goes some distance towards *disproving* telepathy, telepathy is not very likely to be proved. At the same time, his is not a conclusion which I can pretend that I expect many to share who devote an equal amount of study to the matter. He regards me, no doubt, as an advocate rather than a judge; and he is so far justified, in that the mistakes which I have made are all mistakes which tell in favor of my conclusion. He will pardon me if I say that he is in the same position; he has made (I think) a larger number of mistakes in seven pages than I in as many hundreds; and they all tell in favor of *his* conclusion. Thus the impartial reader who may be led to the book by this controversy will start fair; and that some may be so led is, I trust, one probable and useful result of a controversy which, I gratefully acknowledge, has not been without other uses.

Finally, let me urge on American readers that good as criticism is, cases to criticise are even better. I have expressly stated in "Phantasms of the Living," that, though the book may reasonably be accepted as supplying a proof of Telepathy, the proof is not one which all candid minds are likely to accept. More cases, and contemporary cases, are needed; and for this we must largely depend on the wide assistance of educated persons in many countries. We trust that it is from the United States that the next considerable batch of evidence will come.

19 BUCKINGHAM STREET, ADELPHI, LONDON, W.C.

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MR. PEIRCE'S REJOINDER.

[*Note.* — In the copy of the above criticism, which was sent to Mr. Gurney, and on which he has based his reply, the following errata occurred: —

Objection	Line	True reading	Reading sent Mr. G.
2	6	238	237
4	8	28	29
4	8	236	211
5	4	695	702
9	9	249	201
12	3	249	201
13	4	or	and
16	3	170	180

C. S. P.]

When "Phantasms of the Living" appeared, I desired for my own satisfaction to examine the arguments for spontaneous telepathy. But, as I lacked the leisure to study the whole, I was forced to confine my attention to a single argument, — the most important one. Having reached a definite opinion in regard to the validity of this, I found myself in the possession of a good many notes which I thought might be useful in economizing the time of another student of the book. I, therefore, abridged these notes as much as possible, and so constructed an article afterwards communicated to the American Psychological Research Society and now printed above. In the abridgment of my notes a number of errors have crept in; but none of these are such as to alter my conclusion: only one or two are important; most of them consist in misstating my points; several are absolutely without significance, and some are errors favorable to the telepathic hypothesis. The reader may well ask whether I have not corrected in the proof-sheets as many of these errors as I have been able to discover; for to bring before the public a paper containing acknowledged faults certainly seems like an act of presumption. In truth, none of the errors have been corrected, except those in the list above, which are of a purely clerical nature. My excuse for pursuing this course will, I hope, be admitted. One of the chief points of Mr. Gurney's reply is that I have committed as many mistakes as he has. Accordingly, instead of simply dropping the cases against which he is forced to admit fatal objections for the purpose of the argument under examination, he labors to show that I have

fallen into some small errors in my account of them. This line of argumentation seems more appropriate to a school-disputation than to a scientific inquiry; for it would not help the theory of spontaneous telepathy in the least to prove me never such a blunderer. With Mr. Gurney's own intellectual character it is different. He stands to a certain extent as endorser of the witnesses for his ghost-stories. The public, which comes into contact with these witnesses only through him, is obliged to confide in his sagacity; and it thus becomes very important to ascertain whether he is an accurate and stern logician or not. Now, the manner in which he conducts his reply might be judged quite significant in this regard; and hence I was unwilling to make corrections which might interfere with the development of Mr. Gurney's thought. I must beg pardon of the reader for the extent to which this course has lengthened the discussion. As long as I allow my errors to stand, since the reply is of the nature of an attack upon my scientific morals, involving accusations of garbling, suppression, and invention of testimony, it is incumbent upon me to notice the strictures in detail; and I have preferred to review the whole argument, repeating as little as possible what I have already said, but rearranging the matter in such a form as to render the force of my various objections more clear. My first paper was intended only for the use of close students of the book, and the several objections were indicated as briefly as possible. The present rejoinder is sufficiently expanded to permit any one who has read the work attentively, and who will actually turn to the pages I cite, to form a judgment of the correctness of what I allege.

Every attempt to explain ghost-stories without admitting anything supernatural (by which I mean anything counter to the great body of human experience) has dealt largely with supposed fortuitous coincidences; and students of the theory of probabilities must have entertained no little doubt whether a larger number of such coincidences were not supposed than was morally possible. Mr. Gurney has, for the first time, undertaken a statistical inquiry with a view of putting this question to rest; and he thinks he has reached an irrefragable conclusion. But I maintain he leaves the question just where he found it. (In the last paragraph but one of his reply, he does not observe the significance of my phrase "as far as the evidence goes." My judgment, I repeat, is that, "in view of the uncertainty of all the data, it would be very rash to draw any conclusion at all." I abstain, after reading the book as I did before, on account of the doubt just mentioned, from any positive denial, though I decidedly incline to disbelieve in any supernatural theory of ghost-stories.)

Mr. Gurney does not demur to my *résumé* of his argument. He

says, "It may be calculated that the odds against the occurrence, by accident, of as many coincidences" within twelve hours, of visual hallucinations with the deaths of the persons presented as a natural explanation would require, are, from the thirty-one cases he takes as established, "about a thousand billion trillion trillion trillions to one." To my remark that no human knowledge can reach such a probability as this he dissents, and gives an illustration from the throws of a die. I will grant, at once, that problems of that sort can be imagined which yield probabilities indefinitely nearer certainty than the above. For instance, if a die be thrown but once, the odds that one or another of the six faces will turn up is, upon the usual assumptions, absolute certainty, or infinity to one. But this only refers to an imaginary state of things. In any actual case there is a possibility—ordinarily very rightly neglected, but far greater than one out of trillions of trillions—that the die may rest on its vertex, or fly up to heaven, or vanish altogether, or that before it reaches the table earth and heaven shall be annihilated. The continuance of the order of nature, the reality of the external world, my own existence, are not as probable as the telepathic theory of ghosts would be if Mr. Gurney's figures had any real significance. And for that it would be requisite, too, that each one of his thirty-one cases should be established with a degree of certainty far transcending the odds he gives. He might reply that the enormous number given does not profess to be anything but the calculated probability of the thirty-one coincidences happening by chance; but this would be admitting at once what I allege, that the number has no real significance; and it is because the thinking man will see this, while the vulgar may not, that I say such figures may be calculated to overawe the latter, but can only repel the former. Mr. Gurney, in his reply, continues to insist upon the number, for the sake, as he says, of accuracy. To my mind, it is precisely against strict accuracy of thought that such insistence offends.

I will first consider the census of 5,705 persons, taken at random, of whom only 21 could recall having had within twelve years a visual hallucination of a living person while they were in good health, free from anxiety, and wide awake, two of these having had two such experiences. If it would answer the purpose to accept these answers in the rough, as Mr. Gurney has done, the census would be large enough; but this is not so. It is essential to ascertain the proportion of hallucinations that have been forgotten. I have pointed out that Mr. Gurney assumes that hallucinations with coincidence of death within twelve hours of the person presented are no more likely to be remembered for twelve years than similar hallucinations without coincidence! Mr. Gurney, in his reply, has the air of denying that he has made this assumption;

but I submit that a careful reading of the passage will show that, on the contrary, he fully admits it. Mr. Gurney sharply censures me for saying that there are numerous cases in the book of an apparition being totally forgotten after the lapse of a few months. The remark is certainly somewhat exaggerated; I should have said, so far forgotten that in the absence of coincidence they would not have been called to mind in answering the census-questions. But I think it is unjust to say that the expression "totally forgotten" is "thoroughly misleading," since it is a very common exaggeration, and I add the qualifying clause, "and was only brought to mind again by the news of the death." Mr. Gurney doubts if there are as many as three cases of forgetting an apparition in the book. I cannot say how many there are; I have noticed the following, and I suppose there are others. In Case 165, "all seemed forgotten." In Case 177, it was not until long after hearing of the death that it occurred to the percipient to "put two and two together" and to associate the apparition with the death, although the recognition was perfect. In Case 235, the percipient says, "But for the fact of his death I should never probably have recalled the circumstance." In Case 258, the percipient only "happened to remember" the apparition. In Case 306, the percipient's mind "recurred to it from time to time," and no doubt would soon have forgotten the apparition in the absence of any coincidence. In Case 552, the percipient testifies that she heard of the death after six weeks, but did not mention the apparition for many months. Mr. Gurney, however, on the ground of subsequent conversation, says that this appears to be an error. In Case 579, the percipient thought no more about the vision, and therefore probably would have forgotten it. In Case 588, "the thing was in great measure forgotten." In Case 607, "no more was thought of it;" but that may not mean by the percipient, who was a child. Perhaps a pedantic accuracy might object to calling these cases "numerous," though there are doubtless others. There are not a great many cases in the book in which an apparition has been recalled at all where the death constituting the coincidence has been heard of only after the lapse of a long time, unless the experience had created the fear of the death of a relative or friend, or was brought to mind by some record, or was kept in remembrance by being a collective or reciprocal experience. I am confident that Mr. Gurney is wrong in supposing that hallucinations are experiences particularly well remembered. They are so with the few persons who take a special interest in them; but whatever has no apparent bearing upon facts we consider important or interesting is quickly lost from mind. I should have said unhesitatingly that I personally

had never had a visual hallucination, until almost as I write these words I recollect such an occurrence about thirty years ago. At any rate, the question cannot be settled by discovering microscopic errors in my criticism; the average index of forgetfulness, in these cases, ought to be positively ascertained; and the census proves nothing until it is made so large that the affirmative replies can be classified according to their dates, without too much diminishing the numbers in the several classes. It would also be needful, in order to arrive at satisfactory results, to separate the different kinds of hallucinations. First, the genuine hallucination, the product of an overwrought brain, which is preceded by great depression, accompanied by faintness (manifesting itself in damp weather as an icy chill as soon as the skin has had time to cool), and followed by an access of terror; second, the dream continued through the process of waking up and even for a second into the wide-awake state; and third, the mere illusion, or imaginative misinterpretation of something really seen, without any disorder of the brain, should be distinguished in this inquiry. There was no good reason for limiting the census-question to a period of twelve years; on the contrary, it would have been better to use all the available data. It was a mistake, too, to limit the question by the clause relative to being in good health, free from anxiety, and wide awake. The entire answers should rather have been printed, and the subtractions on account of illness, anxiety, and drowsiness have been made within the view of the public. Finally, a fallacy seems to be involved in limiting the question to hallucinations presenting persons really (and not merely supposed to be) alive; for there may be a decided tendency for hallucinations to represent those who are approaching their end. A new census should be undertaken upon a larger scale and with the sufficient means to carry it out in a thoroughly scientific manner.

In the estimate which I made of the size of the circle from which the coincidental cases were drawn, I relied on the statements in the "Phantasms of the Living." We there read¹ in the discussions of these cases, "Our chief means of obtaining information has been by occasional requests in newspapers." But Mr. Gurney now says, "Had the cases used been mainly obtained by means of public appeals," this calculation of the population from which the coincidences were drawn, made as it was, would have involved "a stupendous blunder." In point of fact, however, as he says, "Only five cases . . . out of the whole list were obtained in this way." But on the same page of the book last cited he allows 250,000 as the number of persons who have

¹ Vol. II., p. 14.

become acquainted with the inquiry through the newspapers, and only 50,000 as the number of those who have derived the same information through private channels. If the former class have furnished only 5 cases, or 1 for every 50,000, while the latter class have furnished 26 cases, or 1 for every 2,000, it would seem that the bulk of Mr. Gurney's cases have been drawn from a class which is twenty-five times as fertile in ghost-stories as the general population. This furnishes food for reflection. An attempt is made to check the estimate by a piece of imaginative statistics. "Would any one," he asks, "suppose that if he canvassed the first one thousand adults whom he met in the streets of any large town, he would find that twelve or thirteen of them had within the last three years been aware of what we wanted, and of the address to which information might be sent?" Perhaps not; but here again the author forgets that people not only send their *own* experiences, but also cause those of others to be sent, of which they have heard. I have estimated that the advertisements in the newspapers ought to have drawn the really remarkable ghost-stories from a population of three millions; and though I admit the extreme uncertainty of this estimate, I still see no reason to modify it. Mr. Gurney puts forth two objections to it. One is that 5 of his 64 coincidental cases have been obtained by canvassing a body of 5,535 persons taken at random. The other is that a very large proportion of the 31 cases on which the argument under examination has been based, have been the experiences of the friends and friends' friends of half-a-dozen persons. These objections seem at first glance crushing; but they both involve one and the same *petitio principii*. For the whole question is whether the advocate of naturalistic explanations of ghost-stories is forced to assume a greater number of purely fortuitous coincidences than the doctrine of chances will permit. Now this devil's advocate, whose office I endeavor to fill, is not by any means forced to attribute the whole of the 31 visual and 33 auditory cases to the operation of chance alone. I have only examined the former class, but of these I find only one which I am obliged to call a purely fortuitous coincidence. It is the case of Mrs. Duck, number 238. This case did not come from the 5,535 persons, nor from the friends' friends, but was taken from the "Englishman" newspaper of May 13, 1876. If we are to suppose that every very striking ghost-story published in any prominent newspaper back to 1876 and susceptible of investigation has come to Mr. Gurney's ears, surely three or four million is not a very large number to assign to the population from which they were drawn. In my view of the matter, then, what Mr. Gurney calls his well-attested coincidental cases are of two classes: one derived from closely ques-

tioning a relatively small number of persons, not one of these stories being capable of sustaining a severe criticism; the other confined mainly to the more remarkable of the experiences of a far larger population, among which one visual case seems to involve a purely fortuitous coincidence. That something like this is the truth of the matter will, I am confident, be the final judgment of students.

Mr. Gurney takes as the chance that a given hallucination will fall accidentally within twelve hours of the death of a person whom it represents, the ratio of deaths in a day to the number of the population. This would be correct if the death-rate for persons represented in hallucinations were the same as that of the whole population. But the examples given in the book are sufficient to show that this is not the case. Persons who, from the percipient's stand-point, appear particularly likely to die are, we find, particularly apt to appear in hallucinations. This is not surprising, for genuine hallucinations are accompanied by a peculiar terror, as one of their physiological symptoms; so that it is quite natural that they should tend to take the forms of those whose death the percipient has most reason to expect, rather than of those in whom he may be more interested. This is, at least, a natural supposition; the burden of proof is not upon me to show it actually is the rule; for I am not trying to prove anything, but only to show that nothing has been proved. Until we obtain some positive statistics, we can only assume that the thirty-one cases under consideration are fairly representative of hallucinations in general in regard to the lengths of time that the percipients might expect the apparitor to live. Suppose, now, that a given person is to have a hallucination on a given occasion. The apparition might take the form of a person belonging to one of several classes having different death-rates. Let $d, d', d'',$ etc., be the antecedent probabilities to the percipient in the given case that individuals belonging to these several classes will die on a given day. Let $h, h', h'',$ etc., be the antecedent probabilities that the apparition in the same case will take the form of individuals of those several classes. Then, $hd + h'd' + h''d'' +$, etc., will be the antecedent probability that the hallucination in the given case will be accompanied within twelve hours by the death of the apparitor (but it will usually be unnecessary to take account of more than one term of the algebraical expression); and the reciprocal of this quantity will be the number of hallucinations like this among which, in the long run, there would be one accompanied by such a coincidence. We do not, it is true, in our existing ignorance of the subject, know whether more or fewer ordinary hallucinations than of hallucinations like this would be requisite to yield such a coincidence. But we can only assume that if we sum these numbers for the whole

thirty-one cases (or as many of them as are admitted into the argument), we shall obtain about that number of hallucinations among which there would be thirty-one coincidences of this sort. If there are two different natural explanations of a ghost-story, one giving P and the other Q as the number of hallucinations per coincidence, and if the respective probabilities of these theories are p and q , where $p + q = 1$, then the number to be adopted is $pP + qQ$. If one of the explanations is complete, we need only take account of one of the terms of this last formula, since the other will be very small. If there is a probability, r , that the case ought to be excluded from the calculation, then P is to be multiplied by $(1-r)$. I have estimated the numbers given below to the best of my judgment, but it will be seen that for the most part considerable changes might be made in them without essentially affecting the conclusion. But logic will forbid the making of any changes in favor of the telepathic hypothesis, except where the number given by me may be unquestionably wrong.

It will be seen that, in treating the stories upon these principles, I have somewhat refined upon the method of my first criticism. This I have done in response to Mr. Gurney's protest that I have pinned him down to too hard and fast an interpretation of his argument. I thought it fair to meet a roughly stated argument by a roughly stated reply. But since he seems to desire to leave his demonstration of his theory hazy, while insisting on great precision in my objections, I so far comply with his wish as to attempt to estimate numerically the effect of the latter, instead of ruling the case out altogether, when the objections are not absolute in their nature.

In the discussion of each story, I shall endeavor either to show that it has no bearing on the argument under examination, or else to explain it in a way that is more probable than the telepathic theory. This explanation is either *complete*, if it leaves nothing to be accounted for by a chance coincidence, or *partial*, if it serves to increase very greatly the probability of the coincidence. It is necessary and sufficient that the explanation which I propose for each story should be more probable than the telepathic explanation. This opens the question how antecedently probable that theory is. Now there is a considerable body of respectable evidence in favor of telepathy, in general. Yet I am clear that we cannot probably infer that there is any influence of mind upon mind otherwise than through the recognized avenues of sense. It must be regarded as exceedingly unlikely that such a proposition should ever be established by means of evidence of the kind hitherto chiefly relied upon. For this proposition, being counter to some of the fundamental elements of the general conception of nature which we have formed

under the influence of our aggregated experience, has against it antecedently odds of hundreds of thousands, perhaps, to one. In order to refute it, then, for the time being, it is only necessary to bring some other explanation of the facts less improbable than that. Telepathy might conceivably, by another method, be put out of all doubt. You might, for example, begin by establishing a proposition, A, not in itself very improbable, which in turn might lend so much probability to a second proposition, B, that it might be possible to establish this by evidence; and this again might render a third proposition, C, sufficiently probable to be capable of being established by observations; and by proceeding thus, you might bridge over the profound chasm which separates telepathy from the solidarity of our ordinary experience. This is the way in which all the marvels of science have been made credible. But to mix with the well-compacted body of scientific truth sporadic propositions contrary to the main principles of science, simply because we find ourselves without any other ready explanation at hand for certain outlying facts, would be a proceeding calculated to throw our whole knowledge into confusion, even if but a small minority of the propositions so accepted should be false. To admit the existence of a principle, of which we certainly only meet with manifestations in very exceptional observations, is to rashly set the prosperity of scientific progress at hazard. Moreover, though nature gives us examples enough of rare substances, a rarely operative fundamental principle is yet to be discovered. On the contrary, every force or other cause we know works almost everywhere and at all times. But telepathy, as the evidence stands at present, if it acts at all, does so only with the extremest infrequency.

The degree of my disbelief in telepathy in general is such that I might say that I think the odds against it are thousands to one. But even were I convinced of the general phenomenon, I should find the telepathic explanation of ghost-stories but little more acceptable than I do at present. Even if telepathy exists, we know next to nothing of the conditions of its action. I have heard ignorant persons attribute table-tipping to electricity, an agent which they only knew from sporadic manifestations. I thought such persons not only ignorant, but foolish; and it appears to me that we should be imitating them if we were to try to explain anything by an agency that we know so little about as we do about thought-transference. The phenomena, so far as we know them, seem to depend for one condition upon a vigorous effort on the part of the telepathic agent; and it is fair to presume that this would be impaired with other powers in sickness, and would cease with death. Then again, why should we

draw upon such an extreme rarity as telepathy, so long as we have such ordinary elements of human experience as superstition, lying and self-lying (from vanity, mischief, hysteria, mental derangement, and perverse love of untruth), exaggeration, inaccuracy, tricks of memory and imagination, intoxication (alcoholic, opiate, and other), deception, and mistake, out of which to shape our hypotheses? For these reasons, I hold the telepathic theory of ghost-stories to be an unwarrantable and wild surmise. I would prefer to this an explanation which I deemed antecedently very improbable, provided it was not utterly preposterous. I do not therefore think it incumbent upon me in opposing the telepathic theory to suggest only positively probable explanations. No explanation within the bounds of common sense can well be so unlikely as that one. Mr. Gurney, in his reply, admits that he has the bias of an advocate; but thinks that I, on my side, have so too. Perhaps: I certainly profess a legitimate and well-founded prejudice against the supernatural. But observe that a bias against a new and confounding theory is no more than conservative caution; while a bias in favor of such a theory is destructive of sound judgment.

Before I take up the stories in detail, there are a few of my objections concerning which a few additional words seem necessary. In referring to these objections, I preserve the original numbering.

2d. Certain percipients were dead before the advertisements of Messrs. Gurney, Myers, and Podmore were inserted in the newspapers. I propose to surrender this objection altogether. It is logically sound; but the estimate of the population from which the cases have been drawn is so exceedingly uncertain, that it is hardly worth while to insist on this point. Accordingly, I now admit one case of purely fortuitous coincidence, No. 238.

3d. I have not clearly expressed this objection. What I say is that every case must be thrown out in which the percipient has "had two hallucinations fortuitously." But I intended to say, what the logic of the case required, that every case must be thrown out in which the percipient remembers having had any other insignificant hallucination; — for Mr. Gurney has shown that only 1 person in 59 remembers having had the illusion of a voice in twelve years, and only 1 in 248 remembers having seen an apparition of a person in the same period. Hence, as not over half-a-dozen cases of pure coincidence from his list can be admitted by any careful critic, if any of the percipients in these cases remembers a hallucination of any kind at any time of his life, the probability is large that he is abnormally subject to hallucinations. It is to be observed that the census question very rightly says nothing about the recognition of the apparition.

6th. Mr. Gurney says that I have not perceived that the question is not whether the percipients were awake, but whether they believed they were awake. *First*, I think it would be absurd to include dreams in this inquiry. *Second*, waiving this, the question is, not whether the percipients do believe themselves to have been awake, but whether they would have continued to do so had there been no coincidence. For a like reason, the including of cases in the census where the percipient was in bed cannot balance the objection to this circumstance in the coincidental cases.

12th. The percipient may have been intoxicated. I should have added that he may have taken opium, chloral, or other exciting drug. This throws a certain suspicion upon every case in which the percipient was even slightly unwell. Of course, such cases may be thrown out on the ground of ill-health. But that is not an explanatory objection, — it only going to show that the cases have no relevancy to the argument. In the present view of the matter, it appears that there may have been circumstances rendering hallucinations specially probable (relatively to ordinary circumstances), thus partially explaining the coincidences.

15th. If the percipient has not told of the vision until after having received news of the death, several modes of explanation are suggested.

A. He may be lying. This is a disagreeable hypothesis, especially when it is more probable that he is telling the truth. Still, an almost inappreciable possibility of lying may outweigh the probability of the telepathic explanation.

B. In ordinary indistinct vision, if the person is led to think that he ought to recognize what is seen as a certain person or thing, he will often feel sure he has already so recognized it, although the perception may be quite incompatible with the identification made. The same is true with dreams. "So far as my own are concerned, I have long convinced myself that they are largely fabricated after I wake up, in trying to recover and go over in my mind what I had been dreaming. I am confident, therefore, that, in some cases, the memory of the hallucination could be greatly modified by subsequent suggestion."

C. Just as a person often has considerable difficulty in persuading himself that he has not previously been in the same situation in which he finds himself, so, if, on hearing sudden news of another person, an image of that person is presented before his eyes, he might think he had seen that vision before.

16th. If the principal witness is shown to be inaccurate even in a small matter, we, who have no opportunity to cross-examine him,

must make up for that disadvantage by throwing out the case; for an essential perversion of the truth — an unintentional one — by such a witness is more likely than the telepathic hypothesis. It is not necessary in such a case to make a definite hypothesis of what the truth may be.

17th. A story so meagre that we cannot judge of the thoroughness of the cross-examination nor of the real character of the witnesses, and which does not fully detail the circumstances, must go for nothing. Anyone in a large city by frequenting the right company — that of highly cultivated people, too — may, with a little encouragement, hear such stories in an endless flood.

I will now consider, one by one, Mr. Gurney's thirty-one cases of visual hallucinations with coincidence of the death of the person represented within twelve hours, and show the force of my objections.

Case 26 (Vol. I., p. 207). An old farmer sees the apparition of a cousin. "See objections 6 and 8."

The percipient was in bed, but says he was "perfectly wide awake."

There is a doubt about the date; for he says he searched the papers on the same day he told his friends. Namely, his words are, "The next day I mentioned to some of my friends how strange it was. So thoroughly convinced was I, that I searched the local papers that day [Saturday]." The local papers appeared, as Mr. Gurney now tells us, on Saturday. On Saturday, then, the percipient first told his friends. But three of his friends sign a statement that he told them he had the vision "during the previous night." This does not quite agree with his testimony that it occurred "about two o'clock on the morning of October 21st;" for the 21st was Friday. I think the odds, then, two to one that he meant it occurred about two o'clock in the morning of the night of October 21-22, which would harmonize the whole, but spoil the twelve-hour coincidence. Mr. Gurney, on the other hand, thinks that by the statement first quoted he means to say: "That same day I mentioned it to my friends, and the next day (Saturday) I searched the local papers. He still insists on using the case as a premise from which to draw a conclusion to which (since "it is as well to be accurate") he assigns a probability of a thousand billion trillion trillions to one."

The percipient's age is seventy-two. He would seem to have no immediate relations; so that I shall assume that those who might be represented in his hallucinations would be as old as he. The probability of dying on a given day at that age is 1:5000. But the probability that there was a twelve-hour coincidence is only $\frac{1}{2}$. Then, the probability of such a coincidence, if this was one, is 3:5000.

Case 27 (Vol. I., p. 209). A gentleman, while dressing in the morning, sees in his mind's eye the face and form of an old friend. See objections 5 and 16. I have reckoned this case among those in which inaccuracies, small or great, might be detected in the testimony. In this case, the inaccuracy I meant, if it be one, is very small. It was supposed to consist in the lady's saying that her husband "had always been particularly unbelieving as to anything supernatural." Everybody who has patiently listened to many such stories knows that phrases like this are so perpetually in the mouths of cultivated people inclined to superstitious credulity, that they are just a little suspicious in themselves. Now, in this case the percipient did not have a regular hallucination at all; so that there was probably no physiological fear; and yet he was more agitated and impressed by the occurrence than a person uninclined to credulity would have been by the most substantial apparition. It therefore clearly conveys an erroneous impression to say that he is "particularly unbelieving." The lady's account contains no sentence attributable to a desire to bring to light any circumstance telling against the supernatural character of the vision; but both matter and phraseology ("strange to say") are directed to heightening the effect. The story is very well told.

I have also reckoned this case among those in which the percipient was anxious. My reasons are as follows: The decedent was an old friend of the percipient, so intimate that the latter was informed of the death by a letter received the next morning; and the peculiar illusion seems (on any hypothesis) to reveal a close bond of sympathy between the two men. Now the percipient knew that the decedent had a mortal disease. Hence, I think a certain degree of anxiety must have existed. This may not have been so great that a really vivid non-coincidental hallucination affected by it would have been on this account unnoticed in replying to the census-question; but the vision in question was only seen "in the mind's eye," and was so little removed from an imagination that the percipient's wife thinks it necessary to say, "My husband is the last person in the world to imagine anything." I think, therefore, that, had there been no coincidence, husband and wife would have concluded that the apparition, if it can be called one, was a product of an imagination worried by anxiety. Mr. Gurney says, "I can scarcely think Mr. Peirce seriously believes that the hallucination was due to anxiety." But it is not the question whether the hallucination was really due to anxiety or not, but whether it is certain that there was not sufficient anxiety to prevent such a case from being reported in the census, provided it had proved to have no significance. In my

opinion the chance is that the case ought to be excluded for this reason.

At the same time if it were a pure coincidence it would be nothing remarkable. Though the percipient was not very anxious, he was probably more anxious about the decedent than about any other friend; so that it may be assumed that the probability that this decedent would be represented in any hallucination that the percipient might have at this time was four-fifths. The decedent was known to have a cancer; and that cancer was a mortal one, because it was an "incurable" one, and the phrase that "we were in no immediate apprehension of his death" shows that he was expected to die of it at some time. The average duration of such a cancer may be five hundred days. But the percipient does not seem to have been very well informed in regard to the particulars; and we may therefore presume he did not know how long the malady had been going on. If so, it was an even chance that the decedent might die in two hundred and fifty days. That is, there was one chance in two hundred and fifty that he would die that day. The antecedent probability of the coincidence is $\frac{4}{5}$ of this, or 1 in 312. The case is thus insignificant, even if it be admitted. In view of the anxiety, I will reckon its antecedent probability as 1 in 156.

Case 28 (Vol. I., p. 210). An employé in an office while on a sofa in the evening sees an apparition of a fellow-employé. See objections 4, 5, and 6. There was a certain inaccuracy in my putting this case among those in which the percipients were taking afternoon naps. But my notes were only the briefest references for students. By the word "nap" I meant that the percipient was not in bed, but either snoozing or liable to do so.

This is a very impressive case, owing both to the unexceptionable character of the testimony and to the numerous details which the fine observation of the percipient brings out. Nevertheless, I do not think it proves anything; and I am gratified to find my judgment borne out by the witness A. C. L. (p. 212, at the end of his letter), who was in so much better a position to judge it than the public can be. The present discussion of the case must of course be limited to its bearing on the single argument under examination.

The percipient was apparently reclining upon a couch at nine o'clock in the evening; but he had only leaned back the minute before. He was, however, not well. He not only had a headache, but he said to his wife that he was, what he had not been for months, rather too warm. He was, therefore, probably feverish. It is possible that he may have taken some exciting medicine. This degree of illness would not have been sufficient of itself, I suppose, to prevent such a case,

if not coincidental, from being reported in the census; but it is significant on another account. For I believe that the derangement of the percipient's health was brought on by sub-conscious anxiety concerning his friend the decedent. Mr. Gurney, in his answer to my criticisms, represents that the only knowledge the percipient had of the illness of his friend was that he knew he had an attack of indigestion. But there was nothing to be called an "attack" of indigestion. On Monday, the decedent "complained of having suffered from indigestion;" that is to say, he had, no doubt, had a pain which he referred to his stomach, and which had been so severe that he mentioned it after it was over; and he still felt that something was the matter, for he consulted an apothecary. This apothecary "told him that his liver was a little out of order, and gave him some medicine," doubtless a blue pill. On Thursday "he did not seem much better," so that it was apparent that there was something more than mere biliousness the matter. Nor was this all; for on Saturday he was absent from the office. All these symptoms were known to the percipient; and, besides these, there must have been indescribable indications of illness. For a man can hardly have an aneurism of the aorta and be so little ill that the derangement of his health wholly escapes the notice of a sympathetic and observant friend who sees him every day. Such a wonderful sympathy existed between these two men, that when A. L., the brother of the decedent (the same whose opinion of the case has been cited above), came to announce the death to N. J. S., the percipient, the following extraordinary conversation took place: A. L. said, "I suppose you know what I have come to tell you?" N. J. S. replied, "Yes, your brother is dead." A. L. said, "I thought you would know it." N. J. S. replied, "Why?" A. L. said, "Because you were in such sympathy with one apothecary." Here was a man, in a better situation to judge the case than any one can now be, and who is so little given to marvels that after this occurrence he continues to disbelieve in telepathic visions, and who says he gives his testimony "to strengthen a cause I am not a disciple of;" and yet this excellent judge thought the percipient would know of the death. The same good judge must, then, have thought the percipient would have been anxious. The reason he gave for his surmise shows that, like a good observer of human nature, he knew that deep sympathy, as the word implies, may produce a wonderful exaltation of sensibility. In such a condition perceptions of the truth may be reached which are founded on differences of sensation so slight that even an attentive scrutiny of the field of consciousness may not be able to detect them, and which may be almost magical in their effects.

I would propose, then, the following hypothesis to account for this story. The exalted sensibility of sympathy had unconsciously detected alarming symptoms in the decedent, and given rise to very great anxiety. But anxiety is a vague sensation, which frequently escapes recognition, even though it be enough to make the person sick. So I suppose it was in the present case. Fever resulted, with headache due to over-excitation and exhaustion of the brain (owing both directly to worry and also to the heat of fever), and faintness due to an irritation of the sympathetic nerves. When the percipient leaned back on the couch I suppose he felt the weakness of approaching faintness; then, a moment later, an icy chill passed through him,—a sure sign that the blood had been withdrawn from the periphery long enough for the skin to cool. The brain must have been already left bloodless; and this withdrawal of the blood, in the condition in which the brain was, sufficed to bring on a hallucination. I submit that this hypothesis keeps nearer to the facts, and is less far-fetched, than that of spontaneous telepathy, and is also far more antecedently probable.

I assume it to be practically certain antecedently that any hallucination that the percipient might have on that day would refer to the decedent, and further that his unconscious, anxious clairvoyance showed that the decedent was a very sick man. It is, therefore, fair to say that the latter's antecedent chance of dying was ten times that of the average man, or say 1 in 2,000, which is, therefore, the antecedent probability of the coincidence.

Case 29 (Vol. L, p. 242). See objections 4 and 12, with Mr. Gurney's replies, especially under the former head, where he communicates the important additional fact that the percipient was in perfect health.¹ I am sorry he does not say on whose testimony he states this, for such supplementary testimony must be received with special caution.

This gardener stumbling about the churchyard in the evening suggests an Ingoldsby legend. When he got home he half thought what he had seen must have been his fancy. Such uncertainty is odd, and seems to show something was the matter with the man. I suspect drunkenness; but perhaps this is too gratuitous, for the man has an excellent character. Yet I do not think that the drunkenness of a man to whose character the vicar of the parish certifies is quite so improbable as the telepathic hypothesis. Let us, however, assign to the former only one-third the probability of the latter.

But, further, as the percipient on his return half thought what he had seen must have been his fancy, he perhaps would have settled

¹ I only refer the reader to Mr. Gurney's replies in cases where they include new testimony.

down to that belief had there been no coincidence, and consequently would not have reported the case, had the census-question been put to him. Observe that I am not supposing there was such a case among the persons to whom the census-question was put; but probability deals wholly with what would happen in an indefinitely long run, and in the long run there would have been such a case; besides, though there may not have been any case in the census exactly analogous to this, yet to balance this defect there were probably cases of suppression of hallucinations which find no precise analogues among the coincidental cases. Still, as the case might have been reported under the circumstances supposed, I will not cut it off altogether on account of this objection, but only reduce its weight by one-third.

Finally, it appears to me that this case has not been sufficiently inquired into. I cannot help thinking, for example, that if we knew as much about it as we do about No. 28, that if we had a better acquaintance with the witness than is conveyed by the vicar's banal certificate to the man's character, and that if we were fully informed concerning the events of that day, some explanation might offer itself which does not now occur to us. I will estimate the probability of this at one-third that of the telepathic hypothesis, to which I think I have thus been unduly liberal. These probabilities sum up to the equivalent of the telepathic hypothesis.

As the news of the death reached the town the next morning, it is fair to assume that the gardener was aware of the illness of the decedent. We may, then, reasonably estimate the antecedent probability that the hallucination would relate to the invalid whose tomb was before his eyes as four-fifths. I further assume that the widow in a coal-scuttle bonnet was sixty-five years of age, and that, being poorly, her chance of dying was five times the normal. According to the table of the English Institute of Actuaries, out of 49,297 assured persons living at the age of sixty-five, 2,141 die in the year, or say 1 in 23. Then the chance that such a person will die on a given day is 1 in 365 times 23, or 1 in 8,400. But this woman's chance was five times that, or 1 in 1,700. However, there was only a probability of four-fifths that she would be the object of the hallucination; so that the probability of the coincidence was only $\frac{4}{5}$ of $\frac{1}{1,700}$, or $\frac{1}{2125}$. In other words, there would have in the long run to be 2,100 hallucinations before a coincidence equivalent to this would occur. But there is an even chance that one of the above objections is valid, when we are not obliged to fall back on fortuitous coincidence, so that in the long run only 1,050 hallucinations would be necessary.

Case 170 (Vol. I., p. 428). A woman saw an apparition of her

mother, and her aunt died. See objections 2, 6, 7, 8, and 16. Owing apparently to an error of a copyist, Mr. Gurney understands me, under the 16th head, to object to Case 180, instead of to this; and hence his smooth remarks on my "rough inadvertency."

The percipient was in a delicate condition, and consequently, perhaps, not in good health.

It was in the morning, and she had not risen, though she had been awake, and probably still was so.

She did not recognize the apparition as the person who died, but as another person.

The date is altogether doubtful.

Owing to the lapse of time the testimony is not good.

The case has not been very thoroughly investigated.

Mr. Gurney gracefully surrenders this case, which must go for nothing.

Case 172 (Vol. I., p. 430). See objections 5, 6, and 15. A housekeeper, alone in the house, as she is going to sleep at night, sees the apparition of a dear friend.

The honesty of the witness cannot be doubted. She did not tell the experience, apparently, until long after she had heard of the death; but in this case that could hardly make any difference, unless we suppose outrageous lying without any known motive.

It is quite possible that a real person may have been seen; yet there is no positive indication whatever of the presence of such a person.

The percipient was in bed, and at the beginning of the hallucination, at least, not wide awake, as required by the census-question. Such a case, if non-coincidental, would probably not be reported in the census, and therefore should not be counted in the argument under examination.

Moreover, the percipient expressly says, "I was anxious about her." Mr. Gurney replies that she was not anxious in the sense in which he uses the word. But she would have understood the word "anxiety," in the census-question, as she herself uses it. For this reason, I must positively exclude the case.

Yet, even if all the above objections fail, it has no value. For it was antecedently practically certain that the dream would relate to the decedent, an "intimate friend" about whom the percipient was anxious; and since the decedent "had been for some time seriously ill," and anxiety existed, the antecedent probability of death, and, therefore, of the coincidence, may be put at 1 in 200.

Case 173 (Vol. I., p. 431). See objections 3, 6, and 15. The captain of a steamer was killed by the fall of a spar at six o'clock in

the morning. The percipient was the stewardess, and was then asleep in her berth. I suppose there was loud talk about the event, and that this talk, being heard by the stewardess in her sleep, produced a vivid dream. This dream was continued for an instant after she woke or half woke up, "probably between six and seven." She rose at once and went to the pantry and there heard what had happened, being very likely not yet wide awake. This explanation is complete and satisfactory.

Were it necessary to suppose any fortuitous coincidence, we should have to take into the account that the percipient has had another hallucination.

Case 174 (Vol. I., p. 431). A young lady in bed saw a vivid apparition of an acquaintance, Major G., walking in the room. See objections 4, 5, 6, and 15.

The percipient did not mention the vision to the family for fear of ridicule until after the news of the death. Hence, upon general principles, we should entertain a doubt whether her recognition of the person she seemed to see was quite as absolute as she afterwards thought it had been. Yet, in view of the details,—"neither his features nor his figure any whit altered,"—I do not think we can attribute any importance to her having kept her experience to herself.

The percipient was not in good health. Mr. Gurney says that unless the percipient's health was favorable to subjective hallucination, her illness is of no consequence.¹ But he himself sufficiently refutes this notion in his summing up. It is not so; for as she was far from being in good health, if the hallucination had been non-coincidental, it would not have been reported in answer to the census-question; and a case which would not have been reported if non-coincidental must not be counted as coincidental. Mr. Gurney is obliged to admit that this is logical. He says he cannot tell whether the percipient's particular malady would be favorable to subjective hallucination or not. But the young lady says, "An attack of rheumatism and nervous prostration left me far from well for some weeks last spring, and one night," etc. This seems to mean that she had not recovered from her nervous prostration. On that night she "had gone to bed early," showing she felt more tired than usual, so that her brain must have been unusually taxed. I should think it plain that such a condition was favorable to the production of hallucinations.

I have reckoned this as a case in which the percipient was certainly

¹ I note in the second proof-sheet, that Mr. Gurney has modified this statement. The passage, as it will go to the reader, furnishes a curious illustration of how the census was constructed.

anxious. I do not, however, think that she was so to such a degree as to exclude the case on that ground. But she knew that the person seen in her vision was fatally ill, and his case had been "a topic of conversation" in the family. "We had also received bad accounts a few days before, and were aware that he was in a critical condition." This, I think, implies such a degree of inquietude about the decedent as to give an antecedent probability of nine-tenths that he would be the object of any hallucination which she might have at that time.

After no hopes of his recovery were any longer entertained, further bad accounts were received, and he was "known to be in a critical condition." His chance of dying on any given day may therefore be put at one in ten. Hence, nine-tenths of one-tenth, or one-eleventh, was the antecedent probability of the coincidence.

But, for the reason given above, the case cannot be counted at all.

Case 175 (Vol. I., p. 433). A gentleman dreamt he saw his neighbor lying on the bed between him and his wife, and, waking, still thought he saw him. See objections 3 and 6.

The percipient has had other hallucinations many years before. He describes them as "day-mares." "That is, . . . I quite believe I was *asleep* while experiencing them." The present case was of the same general character, but more vivid, and continued into, or at least up to, a fully waking condition. Probably the old experiences were more vivid than he now remembers them as being; and even if they were not so, I cannot think they were of a radically different nature. He admits that "It is difficult to define the difference in these cases." Mr. Gurney says, "There is no ground for regarding them (the former experiences) as hallucinations at all, in the sense in which I throughout employ the word." But they were so according to the definition of the census-question; that is, they were "vivid impressions of seeing" human beings. The percipient says, "In the earlier cases many years ago I concluded that *waking* had caused what looked real to disappear." The phrase implies that he was some time in coming to this conclusion, and there can be little doubt to an unprejudiced mind that, in the absence of coincidence, he would have come to the same conclusion regarding the present case.

The percipient falls into confusion in trying to make out whether his state during this vision was that of waking or sleeping. He says, "I reflected, 'Am I awake, or is this a dream?' I cannot yet answer this question to my own satisfaction; I cannot tell when my dream merged in my waking thoughts. I only am sure that as the figure disappeared I was as wide-awake as I am now." That is, he fully woke just as the figure disappeared, and he knows not whether

to call his previous state sleeping or waking. "I had not a peculiar sense of breaking out of sleep at once, and with a snap, as it were. . . . I believe I might be awake. I even *think* I was awake, with the image of a dream still strongly on my mind. . . . Briefly, I cannot be sure . . . that I was asleep, although all experience would go to say that I was." All this shows it was a dream continued through a slow process of waking up and just into the fully waking state. Cases of this sort are so common, and so little attention is paid to them, that they could not possibly get fully reported in the census, and should be altogether excluded from the class of hallucinations for the purpose of this argument. I am willing, however, to give it one-fourth weight.

There seems to be nothing surprising in the percipient's dreaming of the decedent, who seems to have been an intimate acquaintance, and who was a sufferer from bronchial asthma. There probably was no other acquaintance about whom he was more anxious. I will put the antecedent probability of the hallucination relating to the decedent at two-thirds. A man could not die of asthma without it being generally known to his friends that his attacks were frightful. Hence, I think we may assume that the antecedent probability of his dying on a given day was 1 in 2,500. This would make the probability of the coincidence 1 in 3,700. In other words, 1 hallucination in 3,700 would present a coincidence as remarkable as this. But, owing to the percipient being exceptionally subject to hallucinations of this nature, say more so than 1 man out of 20, we must divide the 3,800 hallucinations by 20, making 190. Finally, as the case is to have only one-fourth weight, we divide again by 4, and so reach the number forty-eight.

Case 182 (Vol. I., p. 441). The case of the young lady on the voyage to the Cape of Good Hope. See objections 3, 5, 6, 8, and 16, and Mr. Gurney's replies, especially under 16. I regret that a number of material errors have crept into my account of the case. Mr. Gurney also now furnishes new testimony, he does not say whose, affording important corroboration of that of the principal witness.

The percipient experienced another apparition shortly afterwards of a dressmaker who died about that time, the dates not being ascertainable. This shows that the percipient was at that time very unusually liable to hallucinations. But it seems to me that the rough coincidence of the second apparition with death almost forbids the hypothesis that either coincidence was purely fortuitous. I can see but two alternatives. The first is, that there has been some important suppression or falsification of the testimony, the nature of which I cannot divine. This possibility should be gravely considered, though

in my numerical estimate I will not take account of it. The second is, that this young lady had a wonderful hypnotoid sensitiveness, by which she was sometimes able to make unconscious estimates, or rather unconscious mental modifications analogous to estimates, of how long consumptives approaching their end would live, with a probable error of perhaps a few months, at the end of which time she would have apparitions of them. It would then be a chance result that in the hallucination on shipboard the error was, say, only three or four hundredths of the probable error. The telepathic hypothesis would leave it very strange that the young lady should have visions of two persons in whom she had no special interest, and whom she had not seen nor probably thought of for a long time.

I assume that the antecedent probability that the hallucination would relate to the decedent was one-half, and that the antecedent probability of death was 1:200, so that the probability of the coincidence was 1:400.

Case 184 (Vol. I., pp. 444, 516, lxxx, 196, 235, 255). Mr. Keulemans, in Paris, has two visions of his little boy in London. See objections 3, 5, 6, and 15.

I have said that the percipient seems to have hallucinations nearly every day. Mr. Gurney replies: "He has had only one other hallucination in his life. This occurred many years ago in his boyhood, and represented a vague, unrecognized figure." The census-question asks whether the person addressed has "had a vivid impression of seeing . . . a human being." This defines what we have to understand by a hallucination for the purposes of the argument under examination. Now we find (Vol. I., p. 256, note) that on New Year's eve, 1881, this percipient, Mr. Keulemans, had "a vivid picture of his family circle in Holland." Nor was there any coincidence of the death which this vision had led him to expect. What I meant by saying that Mr. Keulemans seems to have hallucinations nearly every day (for I made no positive statement) was that he has constant vivid impressions of seeing objects, not always human beings. Mrs. Keulemans says (p. 256), "My husband looked at some eggs, and made the remark that he had seen them before." This shows that Mr. Keulemans speaks of these experiences as acts of seeing. Mr. Gurney tells us (p. 196), "He has experienced so many of these coincidences that, even before our inquiries quickened his interest in the matter, he has been accustomed to keep a record of his impressions." I assumed, as there was nothing to the contrary, that a large proportion of these would present human beings. But it is not of much consequence whether they do so or not. Unless we adopt the telepathic theory at once, it is plain that this

percipient is so excessively liable to hallucinations that a coincidence or two is no more than natural.

Mr. Gurney says that the percipient, having absolutely no ground for anxiety, was naturally not anxious. The decedent was a child of his, five years old, who had been removed from his parents, and from Paris to London, on account of an outburst of small-pox. Here I think is ground for such a degree of anxiety as would determine the hallucination to take the form it did.

I assume it to have been antecedently practically certain that any hallucination at that time would relate to the decedent. The antecedent probability of death, and therefore of coincidence, may be taken at 1 in 25,000. But, owing to the great liability to hallucinations, I multiply the probability of coincidence by 1,000, making it 1 in 25.

Case 195 (Vol. I., p. 528.) See objections 5, 6, 8, and 14, and the reply of Mr. Gurney under the 8th.

Miss Rogers saw her mother and grandmother about the time of the death of the latter. This happened in 1878, and does not seem to have very profoundly impressed anybody at the time. It is only set down on paper in 1884, one of the family being then interested in telepathy. Consequently the memory of the witnesses is hardly adequate to giving correctly all the circumstances. The percipient "cannot fix exact times and hours; but, at the same time, she thinks her vision corresponded with the time of the death." Mr. Gurney, however, now adds a circumstance to the account (it is a pity he seldom cites any testimony for his numerous additions) which makes an error in the date less probable.

The percipient, I still think, was anxious. A witness whose house she was visiting, and who was therefore in a better condition to judge than we can be, says she "doubtless had gone to bed with an anxious mind."

The percipient herself is inclined to attribute the vision to the effect of a strong imagination. (This comes to us at second-hand. I should like to have her develop her views on this point.) Now, the imaginations of different persons differ enormously, and the percipient ought to know her own imagination better than Mr. Gurney can do,—expert if he be.

As two persons appeared in the vision, and the death of either of these would have been reckoned as a coincidence, the probability is doubled.

That the grandmother would be one of the two persons represented in any such coincident hallucination of the percipient at that time I take to be certain; for she says she was continually thinking of her grandmother. The antecedent probability of death, in view of the

age of the decedent, her state of health, and the anxiety of her granddaughter, I take to have been 1 in 200, which is therefore the probability of the coincidence.

Case 197 (Vol. I., p. 531). The apparition of Mountain Jem. See objections 8 and 16, and Mr. Gurney's reply under the latter head. The following remarks were written before the discovery of the diary.

I carelessly represented the witness as saying that the time of death coincided with that of the apparition.¹ What she does say is, that the "date, allowing for difference of longitude, coincided." We are to conclude, then, that the dates would not have been the same without such allowance. The meridian of the death is seven and a half hours west of that of the apparition, and the apparition occurred at 7 A.M. Thus, what she probably means is, that the civil date of death was one day previous to that of the apparition. I consider the hypothesis that the witness applied the longitude the wrong way both gratuitous and improbable. It is true this would make the hour agree; but she seems to have no remembrance of the hour agreeing. Unfortunately there is no record of the date of the apparition, and probably never was. The witness could not have heard of the death for some weeks, and hence there must be great doubt whether the apparition really came on the right day. On some Wednesday, she says it occurred, "a few days ago." Now, it should have occurred 1874, September 8. But that day was Tuesday. Eight days might conceivably have been called "a few days ago;" but, unless she had already forgotten the day, she would have been more likely to refer to that interval as "about a week ago." Is there no postmark on the letter? Does the hotel register show that she was there on Wednesday, September 16? What was the weather at Interlaken on September 8, at 7 A.M., since she speaks of the rose-flushed morning?

Mr. Gurney admits the coincidence of time is not proved to be within twelve hours, but still thinks the ease should be allowed, because the limit of twelve hours is arbitrary, and might have been fixed at eighteen or twenty-four hours. But he is altogether wrong in this. The doctrine of chances supposes the instances to be drawn blindly; and the conditions of the drawings must not be modified so as to take in known cases. If a silver mine was to be sold, and Mr. Gurney, on the part of the sellers, and I, on the part of the buyers, were to be sent to the mine to collect a fair sample of the

¹ It was Mr. Gurney himself who first made this mistake and thus led me into it. For he says (p. 532), "The coincidence cannot have been as close as Mrs. Bishop imagines." But she says nothing of a closer coincidence than a day.

ore, and if, after we had done so honestly, Mr. Gurney were to propose to throw in a particular lump, because he could see, from its appearance, that it was rich in silver, and because it was lying close to another lump that had been taken, I should feel it my duty to say, "No, sir, that is just what you wished to do in Case 197!" But here, in point of fact, it is not a question of a few hours merely. It is quite likely that the time of the vision was several days from that of the death.

The testimony of the witness is not in every respect accurate. There was probably no record made, as she testifies that there was; and she was not writing a letter, but may have been dozing. These symptoms of inaccuracy make the coincidence still more uncertain.

The percipient was in bed, and the vision was very likely a dream.

She knew the decedent was ill; although she had heard he was getting well and going about. She had recently received news of him; and it is no wonder, after his impressive speech at parting with her to the effect that he should see her after death (meaning, I suppose, in another world), that any dream or vision she might have at that time should take that form.

I assume the antecedent probability that the hallucination would refer to the decedent to have been nine-tenths. The chance of death on a given day, since he was ill in Colorado, may have been one in a thousand. Owing to the uncertainty of the date, I multiply by 2, and thus find for the probability of the coincidence 1 in 550.

[The discovery of the diary, which, as I interpret it, makes the vision to have occurred September 5th (according to Mr. Gurney's view the 6th), excludes the case altogether.]

Case 199 (Vol. I., pp. 534, lxxx). Mr. B. in bed with his wife sees a lady friend of his flit across the room. See objections 1, 6, 8, and 16.

Mr. Gurney states that the narrator says "nothing which independently marks the day of the week of the vision." I am at direct issue with him here, for I say the narrative reads as follows: "He was very disconcerted by seeing the form of a lady friend of his glide or flit across the room. He thereupon woke Mrs. B. and informed her of the fact. This was Saturday." The reader will please refer to the book, and decide whose statement is correct.

It may be that a real person was seen.

Mr. B. is a very careless witness. He vouches for an erroneous day and for an erroneous year.

The case is outside of the twelve-year limit; and it would be wholly unwarrantable to change that limit to thirteen years, as Mr.

Gurney suggests doing, for the sake of including a known instance. However, he gives up the case, and it cannot be counted at all.

Case 201 (Vol. I., p. 542). A lady was lying down, when she seemed to see a man come in whom she afterwards identified with an old servant, the decedent. See objections 4, 6, 7, 8, and 9. I have twice mentioned case 201 when I meant case 249, as Mr. Gurney notes.

The percipient "had been in ill-health for some years." True she was better at that time than for long before, so that she says, "I felt a strength and enjoyment of life for its own sake, which was a delight to me." But these are the expressions of an invalid who is making a great improvement, and not those of a person in good health.

The percipient was lying down; and she herself suspected she might have been asleep. She applied a test, and so far deserves credit; but the test is not conclusive.

She totally failed to recognize the person. Mr. Gurney says I have misquoted the account. I have merely abridged the expression, by omitting some words that are altogether in favor of my view. She "knew the face quite well, but could not say whose it was," although "the suit of clothes impressed" her "strongly as being exactly like one which" her "husband had given to a servant named Ramsey the previous year." She thus appears to have recognized the clothes as Ramsey's, and also knew the face quite well; but notwithstanding this, could not say who it was! News of the man's death having arrived, she now adds, "I believe the face of the man I saw was that of Ramsey as I had known him at first, when I visited him as a dying man in the infirmary." She is thus not sure even now.

The date of the apparition is wholly uncertain. It occurred "about March."

Mr. Gurney gives up the case; and I am not inclined to give it any weight.

Case 202 (Vol. I., p. 544). A near-sighted lady sees a victoria, horse, driver, lady, and child. See objections 4, 8, and 9.

The percipient had "been ordered by [her] doctor to take absolute rest, not even to read at all, and to do no work whatever." At the same time, she was apparently allowed to drive about in an open landau. This suggests, at least, some nervous or mental derangement. At any rate, she was not in good health; so that the case is ruled out.

She is also near-sighted, so as to wear glasses, — a fact which is mentioned as if she was unable to recognize anybody without them.

Had it been proved that the lady she thought she saw was, for example, travelling on the Continent at the time, she would doubtless herself have concluded the incident was due to her near-sightedness, and not have reported it in answer to the census-question say six years later, had she answered that question.

The agreement of the date is doubtful, especially as the sole witness may have been hysterical. Mr. Gurney's thinking the probability of the date being correct is "very high" should be noted in connection with objection 18.

The recognition was ambiguous. That is to say, two persons were seen (besides the driver), the death of either of whom would be counted as a coincidence.

I think it plainly a case of mistaken identity. I have often remarked furs worn in hot weather in July in London.

Case 214 (Vol. I., p. 563). An aunt, on receiving delayed news of the sudden death of her niece, falls down, and, after many days, of delirium, unconsciousness, or oblivion, not having been out of bed for three months, at length declares that at the instant of the death she saw a startling apparition of the decedent. See objections 2, 4, 8, 13, and 15.

In the copy of my criticism sent to Mr. Gurney, owing to a confusion between this case and No. 236, I committed an oversight (though probably not a misstatement) in enumerating this case among those in which the percipients were not in good health.

Not having mentioned the apparition, as it would seem, on receiving news of the death a week after it occurred, "She fell off from the chair, remembering no more until days afterwards she found herself in bed, where she remained" for about three months. The doctor "said that she had received some great mental shock, and for some time he feared that she would not recover from it." She was in a delirious or oblivious condition for days; and her remaining in bed for three months in consequence of a mental shock suggests, to say the least, some nervous or mental affection.

In my opinion, it is altogether uncertain that she saw any vision before her illness, or, if she did, on what day she saw it. At any rate, it must be allowed that there is a chance amounting say to 1 in 100 that this is the case. The antecedent probability, then, of the event, — perhaps it was a coincidence and perhaps it was not, — is at least 1 in 100. I shall give the case this weight, although Mr. Gurney gives it up entirely.

Case 231 (Vol. II., p. 47). A volunteer officer in Zululand fancies he sees a dying comrade standing outside his tent. See objections 5 and 8.

The percipient's mind was not free from anxiety. It may not have been of a kind to produce hallucinations; but it would have prevented his truthfully answering the census-question in the affirmative. On account of this, I will multiply the probability of coincidence by 3.

There seems to have been an interval of two days between the apparition and the death. Mr. Gurney admits an even chance of this, but still argues that the case might be included. I do not think the chance as great as one-half; but still I will adopt this factor.

The case is most probably a mere instance of a dreadfully fatigued man looking at one person and fancying him another, and therefore not strictly a hallucination at all. In any such mistake that he might make at that time, he would be quite likely to think he saw the friend concerning whom his mind had been worried. We may take two-thirds as the antecedent probability of this.

As the decedent was known to be dreadfully ill, and to have suffered an utter collapse, and as the percipient had been told two days before that he was dying, we may assume as the antecedent probability of death on that day one-third. The probability of the coincidence was then, antecedently, two-ninths, or 1 in 4.5. In other words, there would, in the long run, be a coincidence as remarkable as this for every 4.5 hallucinations. But there is an even chance that there was no coincidence; so that this must be halved. Then, on account of anxiety, there is only a probability of one-third that the case should be counted, so that the number must again be divided by 3, which reduces it to less than unity, so that the case is, for the purposes of the present argument, of less value than the average hallucination. Mr. Gurney gives up the case altogether.

Case 236 (Vol. II., p. 52). A governess fancies she sees a dark figure just outside the [house?] door, in the evening, which reminded her of her brother. See objections 3 and 7, and Mr. Gurney's reply under the latter head.

The percipient had had for weeks a sound in her ears like the ticking of a watch, and shortly before, on several successive nights, had heard a tremendous crash like the smashing of a lot of china. Mr. Gurney admits that these were symptoms of a purely physical affection; and they certainly seem to indicate some disease of the brain. They render a hallucination at least ten times as probable as it would be under average circumstances.

The fright and weakness caused by the apparition, although it was only a dark figure, are most readily explained as physiological, and go to show that a genuine hallucination was experienced. The previous symptoms also render this probable.

The percipient does not say she saw her brother. "I saw what

appeared to me to be a dark figure standing just outside the door, with outstretched arms." Later she says, "The apparition did remind me of my brother." This form of the indicative shows that she had either been shown some statement to that effect or had been asked some leading question equivalent to the exhibition of such testimony. (See objection 18.) In any case, the figure was not recognized as being her brother; it only reminded her of him.

In my opinion, the date of apparition is somewhat uncertain, as it was not recorded, and few persons remember days of the month accurately, especially against the influence of a mental suggestion tending to error. There is no circumstance, not even the day of the week, to corroborate the bare memory of the day of the month.

The second witness does not commend herself to my judgment so much as the percipient herself. This second witness, whose testimony is not in every respect consistent with that of the percipient, says the latter said she knew something must have happened to her brother. The percipient herself mentions no such effect; but there may have been a transitory fear for him, as he was at sea.

The antecedent probability that the hallucination would refer to the decedent may be taken as nineteen-twentieths. Assuming the brother to have been twenty-five years of age, his chance of dying on a given day would normally be 1 in 55,100. But his being a sailor would double this. Hence, there would be one coincidence as remarkable as this in 28,600 hallucinations. But this number should be divided by 2 on account of the defect of recognition, and again by 2 on account of the doubt about the date. Finally, it should be divided by 10 on account of the liability to hallucinations. Thus, 1 hallucination out of 700 would be as extraordinary as this.

Case 237 (Vol. II., p. 54). A servant girl sitting with her mother in the evening and reading to herself distinctly saw a dear school-friend, the decedent. See objections 8 and 17.

We are obliged to trust to the apparently unaided memory of one witness as to the year. She says, nearly ten years after, that it happened in 1874. If it really occurred in 1873, of which there may perhaps be one chance in ten, it does not come within the twelve-year period.

We know little of the character of the witness, though the style of the narrative (if she wrote it unaided), as well as the impression she made on Mr. Gurney in a single interview, were very favorable.

We know nothing of the state of her health, which ought in every case to be closely inquired into.

The only person in the room at the time, her mother, thought she might have been dreaming. This is the more important, as the

mother is not convinced by the occurrence, but continues to disbelieve in ghosts. Had there been no coincidence, the daughter would probably in time have fallen in with this view, and would consequently not have reported the vision in answer to the census-question.

After the lapse of ten years, it is impossible to be certain that the death and the vision occurred within twelve hours of one another, there being no record of either. Most persons' memory is very treacherous about coincidences. Mr. Gurney's thinking the probability that there was a 12-hour coincidence "very high" is remarkable.

Not so much as the name of the decedent is given.

We have no information about what kind of a room it was, nor have we any means of assuring ourselves that no real person could have been seen. I confess it seems more likely to have been a hallucination; but this is by no means established.

Mr. Gurney professes to consider this account as eminently satisfactory. But the story is too bald. From this point in the list on, the accounts are generally too meagre. With more details, some other explanation might offer itself.

There seems to have been no particular reason why the decedent should have been the object of the hallucination; so that we fall back on the general calculation that there is 1 chance in 17,000 of a coincidence. But owing to the doubt about the date, I multiply this by 2, making it 1 in 6,000. Since, if non-coincidental, it might have been set down as a dream, I multiply this again by 2, making 1 in 3,000. And on account of the baldness of the story, I multiply again by 2, making 1 in 1,500. I think this number, though I will adhere to it, is really much too favorable to the story.

Case 238 (Vol. II., p. 55). A laborer's wife sees her husband in the woods and speaks to him. See objection 2.

There was a strong hallucination, with faintness, causing the percipient to fall.

I assume that it was antecedently certain that the hallucination would refer to her husband, whom she seems to have loved. This is the assumption the most favorable to telepathy, since he was a well man. The probability that he would die on a given day might be 1 in 40,000; but, as he was exposed to accidents, I will take it at 1 in 30,000. But this probability is so microscopic that a very forced explanation is to be preferred to it, say, for instance, that the whole tale has been concocted. I cannot admit that the chance of there being some such explanation can be less than 1 in 20,000, which value I will therefore adopt.

Case 240 (Vol. II., p. 59). Mrs. Ellis three times during one day distinctly saw the face of an old friend. See objections 5 and 17.

The apparition occurred first at 10 A.M. and last at 6 P.M., so that the 24-hour period within which death would be considered as coincidental ought to be reckoned from 2 A.M. Only the date of the death being known, there is 1 chance in 12 that it did not fall within these 24 hours.

There is no record, nor independent recollection of the date of the apparition.

Mr. Gurney says there was probably no anxiety, because the parties "*had not been*" on friendly terms. But the pluperfect, taken with the context, seems to signify that a reconciliation had recently taken place. The mother of the percipient, at the decedent's desire, went to see him just before his death. There was, thus, a reintegration of friendship.

As the decedent was an old friend and known to be near death [for the percipient says, "Nor did I know that he was so near death"], it may be taken as practically certain that one or more of the hallucinations would relate to him. The chance that he would die on that day may have been 1 in 5. Owing to various doubts, I will call it 1 in 4. Mr. Gurney abandons the case.

Case 249 (Vol. II., pp. 71, xxiii). This is the case depending on identification by means of a man's hat, the silver hair of the top part of his head, and the droop of his head, seen over a wall. See objections 7, 8, and 12.

No jury would hang a man on such an identification. Far less can such a theory as the telepathic be accepted on such evidence. For here we are dealing with explanations whose antecedent probability is microscopic.

My hypothesis of a slight degree of intoxication is needless and too gratuitous. It is, however, far more probable than the telepathic theory.

As the decedent was a neighbor of the percipient, and known to be ill, we will assume the antecedent probability that the hallucination would refer to him was one-half. As he was an aged man and ill, we will assume his chance of death was ten times the average. As he had silver hair and his head drooped, we will assume his age was eighty. Then, the probability that he would die on a given day was 1 in 256, and the antecedent probability of the coincidence was 1 in 500. But I do not believe there was any hallucination at all, and cannot admit anything more extraordinary than 1 in 100.

Case 298 (Vol. II., p. 143). A woman who is scrubbing a floor

thinks she sees her old lover looking in at the window. See objections 3 and 17.

The percipient has "had an auditory hallucination on one other occasion, when she heard herself called by the voice of her husband, who, it turned out, had died at a distance two days before." Voices of absent loved ones are too common to be reported duly in a census.

There is little evidence that the percipient did not really see the person she thought she saw, except that a witness *says* that the decedent's employers in the city *said* that they had *received news*, the testimony of some witness in Madras, this testimony itself being very likely *second-hand*, that that person had died on that day. I am not convinced he ever went to India at all.

The coincidence of date is not certain. Mr. Hensleigh Wedgwood took a note of the apparition, May 16, 1878. This note gives the time as "one Saturday evening, about six weeks ago." Six weeks before May 16 was April 4, and April 6 was Saturday; but the death was reported to have occurred on Saturday, March 30.

The whole circumstances are not sufficiently given.

The probability of coincidence would be 1 in 17,000; but, owing to the doubt about the date, this would have to be doubled. I prefer, however, the supposition that she saw the real person, since I do not think the probability of this hypothesis is less than 1 in 1,000. This measure of improbability I am willing to allow.

Case 300 (Vol. II., p. 146). A sailor sees his father on a voyage. See objections 11 and 17.

Women, children, sailors, and idiots are recognized by the law as classes peculiarly liable to imposition. If sailors' yarns are to be admitted, the reality of ghosts is put beyond doubt at once, and further discussion is superfluous.

The story is meagre. Mr. Gurney thinks it would be more credible if still more so. I disagree with him. I shall give it no weight whatever.

Case 350 (Vol. II., pp. 244, xxv). This is the ridiculous tale of the three maid-servants and the face in the window. See objection 10. My explanation given above is complete and satisfactory; and Mr. Gurney has not been able to pick any flaw in it of the least consequence. As tricksters invent strange things, and do not tell their secrets, I am at liberty to draw much upon my imagination in this kind of explanation. Nor is it at all necessary to suppose all the details of the testimony true. It is only necessary to invent an explanation which will strike a shrewd person as not utterly preposterous, and as sufficiently accounting for the stories told by the witnesses. Every amateur juggler will agree that it would be asking too much to re-

quire me to assume the witnesses saw precisely what they thought they saw. I acknowledge that the mistress says that it was not known that the person with whom the apparition was identified was near death. But that does not prove that the servants did not know all I have supposed they knew. I have said the decedent had a cancer. I may have confounded the case with 27; at any rate, there is no testimony that the disease was a cancer. Mr. Gurney endeavors to make much of this possible error; but it is quite insignificant; no part of my theory is based upon that. He also thinks that I have taken a great liberty with the evidence in changing the phrases "trying to look in" and having "come up [from the village] to make game" of the girls, into looking in and smiling at the girls, where I use no quotation marks. It seems to be the inferred smiling that offends him so. He splits hairs to find a weak point in my theory. He says the skull is inconsistent with some of the evidence, as if we were bound to admit that ghost-seers see all they think they see! I hope the reader will turn to the case and see which hypothesis he judges the more credible. I flatter myself common-sense will be upon my side.

Case 355 (Vol. II., p. 256). A nautical case occurring in 1853. Mr. Gurney withdraws it.

Case 695 (Vol. II., p. 693). A mother sees her son, who had died eight hours previously of enteric fever in the Soudan. See objections 2 and 17.

A meagre story, told at second-hand.

We know nothing of the state of health of the percipient.

Her husband says she was not anxious; but this is hard to believe. It is more likely she concealed her anxiety in order not to alarm her husband. The son had dictated a letter August 20, to say he had enteric fever, and had dictated another September 7, to say that he was better and expected soon to be home. There was nothing more till October 12, when he could not even dictate a letter; but a Sister Thomas wrote to say that he had been very ill, but "is getting on very nicely now." This last letter could not have been received long before October 24, the date of the apparition. How could a mother fail to be anxious? Is it not a calumny to say that she was not so? And if the hallucination had proved non-coincidental, would it not have been attributed to anxiety, and so not reported in answer to a census-question?

I assume that it was antecedently certain that the hallucination would relate to her son, and I estimate his chance of dying on a given day at 1 in 100, which is therefore the antecedent probability of the coincidence.

Case 697 (Vol. II., p. 695). The "practical" wife of a "practical business man," who informs us that "there can be no doubt whatever that there is some transmission for which no explanation has yet been given by the savants," sees, one night, an apparition which, the following evening, she recognizes as a clerk in her husband's counting-house, just as her husband is about to announce the death of this clerk. See objections 6 and 7, and Mr. Gurney's reply under the latter head.

The percipient's shivering fright lends color to the view that there was a genuine hallucination.

She may have heard of the death during the day; before she had made up her mind whom the apparition resembled. Mr. Gurney avers that this had not happened; but as he adduces no testimony but his own, the statement goes for nothing.

The practical business man gives us a hint when he says, "I should scarcely have believed [the story] if related to me of any one else." I am somewhat disposed to follow his example.

The lady had seen the unfortunate fellow; and the husband's expression, "I have some sad news to tell you," shows that her pity had been excited; so that we may assume that the antecedent probability that her hallucination would refer to the decedent was one-fourth. Considering what appears to have been the nature of the disease, and its history so far as we can make it out, the antecedent probability that he would die on a given day, though very uncertain, may be taken at 1 in 200. This would make the probability of the coincidence 1 in 800.

Case 702 (Vol. II., p. 703). The percipient, while laid up with Jamaica fever, had a dream, which, after sudden waking, was continued as a vision. It represented an old lady friend of his, who spoke. See objections 4, 5, 6, and 8.

The percipient, in his first account, says, "I believe the following was the result of illness." Although he has since been converted from that opinion by Mr. Gurney, it is clear that if the case had not been coincidental, it would not have been reported in answer to the census-question, with its good-health clause. Hence, it must positively be excluded from the argument.

The date is quite in doubt. In his original account the percipient has the year wrong. He now alters his recollected date by four days, in order to make it accord with that of the death. There is no independent evidence, and he was so ill that his memory was not to be trusted. My original statement conveys an entirely correct impression, except that I may have misunderstood the *altered* statement, that the vision took place "a few minutes past midnight, June 11."

My professional habits led me to understand this in the sense in which an astronomer would use the expression. But as the story has been cooked, I suppose the intention was to make it right.

An unnumbered case (Vol. I., p. 230, note). See objection 17. Mr. Gurney admits that the story is told in so meagre a form that it has no evidential value. Still he retains it. I cannot do so.

I will now collect and sum up the numbers of hallucinations that there would have to be in the long run, to have among them thirty-one coincidences as extraordinary as these. The following are the numbers already estimated:—

Case.	Number.	Case.	Number.	Case.	Number.
26.	1,667	195.	200	249.	100
27.	156	197.	50	298.	1,000
28.	2,000	199.	0	300.	0
29.	1,050	201.	0	350.	0
170.	0	202.	0	355.	0
172.	0	214.	100	695.	100
173.	0	231.	1	697.	800
174.	0	236.	700	702.	0
175.	48	237.	1,500	Unnumbered.	0
182.	400	238.	20,000		
184.	25	240.	4	Total	29,851

Thus, 29,851 cases of hallucinations are called for, in order to produce as remarkable a series of coincidences as these. A believer in telepathy would, no doubt, reckon the number as larger; on the other hand, I have ascertained that many shrewd and experienced men would hold that I have not allowed sufficient weight to possibilities of fraud and concoction. I have, of course, been biassed; but I have endeavored to be on my guard against my bias. I am sure that hypotheses of small probability, say less than 1 in 500, have not been allowed their due weight. Especially, I have not sufficiently taken into account the possibilities of explanations that have not been thought of. On the other hand, it is easy to see that Mr. Gurney has not constructed the strongest possible argument of the same general nature. We can only conclude, then, that 30,000 coincidences *may* be the number called for. If we suppose that hallucinations are four times as common as the census shows, the 30,000 coincidences ought to have occurred in a population of two millions; but two-thirds of this number is wanted to account for Mrs. Duck's case alone, and no probable

induction can, of course, be based on a single instance. This case, however, comes from the "Englishman" newspaper, which may recount the most remarkable experiences of more than a million of persons. It is likely that some of the other more valuable cases, such as 26, 237, etc., have been derived from the advertisements, which, for the reasons I have given, must have drawn the most remarkable experiences from a large population, going up perhaps into millions. A candid consideration of the whole matter will, I think, convince thereader that until the telepathic theory of ghost-stories has been rendered far more antecedently probable than it now is, it is useless to try to establish it as a scientific truth by any accumulation of unscientific observations.

REPORT OF THE COMMITTEE ON THOUGHT-TRANSFERENCE.

The Committee on Thought-Transference has little but negative results to report. In fact, the only work of which an account can be given this evening is a set of experiments undertaken by the chairman and secretary of this committee, with the assistance of Dr. W. S. Bigelow and some observations made by the secretary, or communicated to him in response to the last request for cooperation.

Among the conditions possibly favorable to thought-transference, supposing it to be a genuine phenomenon, the effect of a *sudden* and *unexpected* impression made on the mind of the agent seemed particularly worthy of investigation. For this purpose experiments were made in which a brilliantly illuminated figure or diagram could be suddenly displayed to the agent while sitting in a darkened room. This was effected by the withdrawal of a shutter, either permitting the agent to look directly upon a transparent illuminated surface upon which the figure was drawn, or allowing the figure to be projected by a beam of sunlight and a lens upon a screen in front of the agent.

The chairman of this committee, the secretary, Mr. Hodgson, and Dr. W. S. Bigelow took part in these experiments, which were twenty or thirty in number, and conducted on different days in the month of July last. As absolutely no evidence of thought-transference was obtained, the details of the experiments may be omitted.

The suggestion made in the last report of this committee that a drug might be discovered, which by its action on the cerebral centres might favor thought-transference, seemed also worth testing. For this purpose experiments were tried with Mr. Hodgson, acting both