

SCIENCE

FRIDAY, NOVEMBER 11, 1887.

THE ANNOUNCEMENT which has been going the rounds of the press, of the perfecting by Mr. Edison of his phonograph, certainly seems startling, and one which might be denied without arousing surprise; but it now appears as if the world were soon to be treated to another great fruit of inventive genius, and that one of the great R's may soon be displaced. Mr. Edison, in a letter to the editor of *The Engineering and Mining Journal*, has expressed in his frank and usual hearty way such utter confidence in the successful performance of all, or even more than all, that is hoped for, that we look forward to the receipt of our first phonograph with anxious curiosity. Those who remember the phonograph of ten years ago will recall that it was next to impossible to reproduce tones that were absolutely distinct; that is, sufficiently distinct to be recognized without difficulty or mistake by some person who had not heard the original utterances. To-day these difficulties have been overcome; and the sender of a message, after setting the machine in motion, need only talk into the machine with his natural and usual voice, then withdraw the phonogram, which corresponds to the old sheet of tinfoil, which could not be withdrawn, and mail to his friends in this way his verbatim utterances. These phonograms will cost but little more than an ordinary sheet of letter-paper, and will be made in various sizes to accommodate messages varying in length from eight hundred to four thousand words. On the receipt of such a phonogram, it can readily be placed in the apparatus of the receiving instrument, and it will at once speak out with distinctness and clearness equal to that of the human voice at the same rate of speed at which it was originally dictated. These phonograms will not be obliterated by the first use, but may be kept on file, ready for reproduction whenever necessary.

THE OCTOBER NUMBER of the *Journal of the Society for Psychical Research* contains this statement; "It will be remembered that the earliest experiments in thought-transference described in the society's Proceedings were made with some sisters of the name of Creery; and that, though stress was never laid on any trials where a chance of collusion was afforded by one or more of the sisters sharing in the 'agency,' nevertheless some results obtained under such conditions were included in the records. In a series of experiments recently made at Cambridge, two of the sisters, acting as 'agent' and 'percipient,' were detected in the use of a code of signals; and a third has confessed to a certain amount of signalling in the earlier series to which I have referred. This fact throws discredit on the results of all former trials conducted under similar conditions. How far the proved willingness to deceive can be held to affect the experiments on which we relied, where collusion was excluded, must of course depend on the degree of stringency of the precautions taken against trickery of other sorts, as to which every reader will form his own opinion." The prompt publication of this damaging discovery, and it is a very damaging one, is only another evidence of the thorough candor and fair-mindedness with which Messrs. Myers and Gurney have conducted the experiments in behalf of the society. These Creery girls, daughters of a Devonshire clergyman, and from ten to seventeen years of age when the experiments were originally tried, were among the first in whom the so-called 'telepathy' was discovered. The record of the experiments with these girls was one of the most interesting chapters in the society's early history. It is extremely mortifying,

therefore, to find them tainted with fraud; and the exclamations, "I told you so!" will be numerous. Yet it does not follow that all the experiments were worthless. A searching revision of them must, however, be made, and we may rest assured that the able and untiring executive officers of the society will make it.

AN INVESTIGATION OF DREAMS.

THE American Society for Psychical Research is collecting accounts of cases where one person has had some remarkable experience, such as an exceptionally vivid and disturbing dream, or a strong waking impression amounting to a distinct hallucination, concerning another person at a distance, who was, at the time, passing through some crisis, such as death, or illness, or some other calamity. It appears that coincidences of this sort have occurred, but it may be alleged that they are due to mere *chance*. For the determination of this, it is desirable to ascertain the proportion between (a) the number of persons in the community who have not had any such experiences at all; (b) the number of persons who have had such experiences coinciding with real events; (c) the number of persons who have had experiences which, though similar to the foregoing in other respects, did *not* coincide with real events.

The society has therefore issued a circular requesting every one who receives it in the course of the next six months to repeat the questions given below, *verbatim*, to as many trustworthy persons as possible, from whom he does not know which answer to expect, and who have not already been interrogated by some one else, and communicate the results. The questions are so framed as to require no answer but 'yes' or 'no.' Special attention is drawn to the fact that the object of the inquiry would be defeated if replies were received only from persons who have had remarkable experiences of the kind referred to (whether coincident with real events or not); and there should be no selection whatever of persons who have had such experiences. In case of negative answers only, it will be sufficient if the collector will send (not for publication) his own name and address, with the replies which he has received.

If there are any affirmative answers, the society desire to receive also (not for publication) the name and address of any person who answers 'yes.' If the experience has been coincident with a real event, they specially request the percipient to send an account of it.

All communications should be sent to the secretary, Richard Hodgson, 5 Boylston Place, Boston, Mass., from whom additional copies of the circular may be obtained. It is of the utmost importance to obtain answers from a very large number of persons, and it is hoped that many thousands of replies will be received. The questions are as follows:—

I. Have you, within the past year, when in good health, had a dream of the death of some person known to you (about whom you were not anxious at the time), which dream you marked as an exceptionally vivid one, and of which the distressing impression lasted for at least as long as an hour after you rose in the morning?

II. Have you, within the past three years but not within the past year, when in good health, had a dream of the death of some person known to you (about whom you were not anxious at the time), which dream you marked as an exceptionally vivid one, and of which the distressing impression lasted for at least as long as an hour after you rose in the morning?

III. Have you, within the past twelve years but not within the past three years, when in good health, had a dream of the death of some person known to you (about whom you were not anxious at the time), which dream you marked as an exceptionally vivid one, and of which the distressing impression lasted for at least as long as an hour after you rose in the morning?

IV. Have you, at any time during your life but not within the past twelve years, when in good health, had a dream of the death of

some person known to you (about whom you were not anxious at the time), which dream you marked as an exceptionally vivid one, and of which the distressing impression lasted for at least an hour after you rose in the morning?

V. Have you, within the past year, when in good health, and completely awake, had a distinct impression of seeing or being touched by a human being, or of hearing a voice or sound which suggested a human presence, when no one was there?

VI. Have you, within the past three years but not within the past year, when in good health, and completely awake, had a distinct impression of seeing or being touched by a human being, or of hearing a voice or sound which suggested a human presence, when no one was there?

VII. Have you, within the past twelve years but not within the past three years, when in good health, and completely awake, had a distinct impression of seeing or being touched by a human being, or of hearing a voice or sound which suggested a human presence, when no one was there?

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HEALTH MATTERS.

Cholera at Quarantine.

IT will, we imagine, be somewhat of a surprise to our readers to learn that there have been thirty-eight cases of cholera at the quarantine islands in the port of New York since Sept. 22; and yet from reputable sources this seems to be the fact. From the report just made to the College of Physicians of Philadelphia, and published in an extra issue of the *Medical News*, we learn that eight persons sick with cholera were removed from the steamship 'Alesia,' to which *Science* referred in its issue of Oct. 14, to Swinburne Island; five of these died: subsequently twenty-seven others were stricken with the disease, of whom nine died: of the passengers of the 'Britannia,' whose arrival from Italy was recorded in *Science* of Nov. 4, three have been attacked with cholera, at least one of whom has died,—a total of thirty-eight cases and fifteen deaths. So far as we know, no new case has developed since Oct. 24.

The report to which we allude is a most important one, and one which will attract the attention and thoughtful consideration of physicians and sanitarians, not only in the United States, but throughout the civilized world. On Oct. 5, the College of Physicians of Philadelphia appointed a committee to consider the present danger of the importation of cholera into this country, and to secure concerted action among the medical societies of the land in urging upon the State and National authorities the adoption of a uniform and efficient system of quarantine for all exposed ports. This committee consisted of Drs. James C. Wilson, E. O. Shakespeare, and R. A. Cleemann. It will be remembered that Dr. Shakespeare was selected by President Cleveland to investigate cholera in Europe and India. These gentlemen investigated the quarantine stations at New York, Philadelphia, and Baltimore, and presented their report Oct. 28. The following day an extra issue of the *Medical News* of Philadelphia, one of the leading medical journals, was published with the following editorial comment: "The paramount importance to the public of preventing the importation of cholera into the United States calls for a special issue of the *Medical News*, giving in full the report of the commission appointed by the College of Physicians of Philadelphia . . . to investigate the condition of affairs in the quarantine of New York. It will be seen that the grave dangers which exist may render prompt action necessary with a view to establishing some national system of quarantine for the protection of the country."

The committee visited personally the quarantine stations at the three ports mentioned, and made a careful and thorough examination of every thing pertaining thereto. It will be impossible for us to do more than refer to their conclusion. In reference to the stations at Philadelphia and Baltimore, they say that it is evident that they fail in the most essential requisites of the necessary number of properly equipped buildings for the isolation and observation

of a large number of immigrants. In regard to the station at New York, they find the buildings to be sufficiently large and numerous, and to have adequate arrangements for heating and cooking, but that they are not divided into a sufficient number of small compartments to permit the strict isolation of the immigrants into small groups. The water-closets and bath-tubs are inadequate, the pumps by which sea-water is obtained for flushing the water-closets were out of order, and the soil-pipes from the water-closets had a number of right angles in their course to the sea, thus interfering with thorough scouring. There is no provision for the general washing of clothing, and the immigrants performed this work for themselves in such proximity to the underground cisterns of water as to render it possible for this water to become infected. The use of this cistern-water for drinking had been forbidden, and other water supplied for this purpose; but there were no means of enforcing the order, and access to the cistern could be had at all times. The lack of bedsteads, chairs, tables, and proper eating utensils, added to the hardships of the immigrants and to the dangers of infection.

The committee comment on the absence of a resident medical officer, and of an adequate force of watchmen, patrolmen, and attendants. The possibility of occasional clandestine communication between the detained immigrants and their friends by means of small boats, constituted a danger to the country difficult to estimate, and against which, so far as could be learned, there were no precautions. At Swinburne Island, where the hospital is situated, there were, at the time of the committee's visit, nine cases of cholera in the wards, and they noted with surprise the absence of a resident physician. It was also a reversal of modern ideas to find male nurses in charge of female patients. The clothing of patients is sent back to Hoffman Island to be disinfected, although there is a disinfecting-chamber in connection with the hospital; and the committee were informed that the convalescents were, as soon as they were strong enough to be about, returned to Hoffman Island without having been previously bathed and disinfected.

In reference to the steamship 'Britannia,' it would appear that the committee believe that cholera appeared during the voyage from Italy, and that its existence was either not recognized by the ship's surgeon, or else concealed by the deliberate falsification of the ship's sanitary record. In either case the committee think that this has seriously increased the present danger of the ultimate introduction of cholera into the country through the port of New York. They state that the continuance of cholera among the passengers of the 'Alesia' so long after their removal to the station of observation, in itself demonstrates the inefficiency of the measures which have been adopted and enforced, and further add, that, although they have not heard of the development of the disease anywhere on the mainland, nevertheless, in view of the almost uncontrollable tendency of cholera to spread at times, and of the original insufficiency and the present faulty constitution of the police force on Hoffman Island, they feel impelled to believe that the immunity up to the present time has been owing to singular good fortune rather than to good management.

Having pointed out the defects of the quarantine stations, the committee turn their attention to the principal cause; namely, the cost of supplying these defects. Were it not for the question of money, there would have been physicians constantly in attendance at the New York station, and, consequently, better management and discipline would have been maintained; while at Philadelphia and Baltimore there would have been adequate establishments provided for the isolation and observation of large bodies of immigrants. The remedy suggested is to put quarantine into the hands of the national government. The committee recognize the difficulties in bringing this about, but at the same time they regard this as the only efficient remedy.

In reference to this report of the Philadelphia committee, we have little to say at this time. It certainly is a very serious indictment of the quarantine stations and methods of the three ports specifically mentioned, and of the other ports of entry upon the Atlantic and Gulf coasts, in reference to which the committee state, that, although they have not inspected them, there is no reason to believe that they are in any respect superior. It will not answer to say, as officials are reported in the daily press to have said, that this is an attack by a jealous city upon New York in order to divert