

by M. Marillier. The question asked in England had been, "Have you ever, while in good health, and believing yourself to be awake, seen the figure of a person or heard a voice which was not in your view referable to any external cause?" In England 17,000 answers had been obtained, and about 1 in 10 persons (taken at random) who had answered had had some such hallucination in their lives. The great majority of these hallucinations consisted of realistic appearances of living men, a small minority of dead persons, and a still smaller group of grotesque objects. A remarkable class was that of hallucinations of several persons at one time—collective hallucinations; and a still more remarkable class was of those coincidental with some distant event unknown to the percipient, such as the death of the person whose figure appeared. The President came to the conclusion that after careful allowance for all sources of error, the probability against these coincidences being chance was enormous, and if the hypothesis that they were not casual was to be accepted, the assumption of the inaccuracy of the informants and inquirers must be strained to an extreme pitch. M. Marillier explained that it had been very difficult to get any large number of answers in France because of the dislike shown by the French to answer any psychological questions about themselves.

On Thursday morning, in Section A, Dr. Donaldson gave an interesting account of the minute investigation of the brain of Laura Bridgeman, the well-known blind deaf mute, who died in 1889 in Boston. There was depression of the motor speech centre, with slender sensory nerves and somewhat thin cortex over the areas of the defective senses. In Section B Dr. Berillon raised a lively debate by describing the good effects he had brought about by hypnotism in the education of about 250 children, who were suffering from many childish discomforts, such as night-terrors, insomnia, somnambulism, or faults, such as kleptomania, idleness, cowardice, &c. After this Mrs. H. Sidgwick gave a summary of some experiments in thought-transference she had made, with the help of Miss A. Johnson and Mr. G. A. Smith as hypnotiser. By thought-transference she meant the communication from one person whom they called the agent to another, whom they called the percipient, otherwise than through the recognized channels of sense. The successful percipients were seven in number, and had generally been hypnotised. They had succeeded in transferring numbers, mental pictures, *i.e.* mental pictures in the agent's mind, and induced hallucinations given by verbal suggestion to one hypnotic subject, and transferred by him to another. In the total number of experiments the number of failures was much larger than of successes, but as the antecedent probability could in most cases be accurately determined, the proportion of successes was amply sufficient to show that the result was not due to chance. The many precautions necessary to such experiments were described in detail. One percipient succeeded in the experiments with numbers when divided from the agent by a closed door at a distance of about 17 feet. Attention was called to the great variability of results with the same percipients and agents for which they had not been able to discover any reason. An account was added of some experiments in producing local anaesthesia under conditions apparently excluding all suggestion other than mental. The President wished to remark that he thought it important in such experiments that all the failures should be recorded as well as the successes. In the afternoon, after papers by Dr. Lightnar Witmer, Dr. Wallaschek, and Prof. von Tschisch, the President put several questions to the vote as to matters of future organization, and it was decided to hold the next international Congress in Munich in 1896, with Prof. Stumpf as President and Baron von Schrenck as secretary. A suggestion was also made that there should be an extraordinary meeting in America next year, and a small American committee was appointed to consider this. After a hearty vote of thanks to the President and Secretaries, and a brief reply, the Congress was dissolved.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, August 1.—M. de Lacaze-Duthiers in the chair.—On boron pentasulphide, by M. Moissan. If the tri-iodide of boron, instead of being treated with sulphur in the dry way at a low red heat, as in the preparation of boron trisulphide, be mixed with sulphur and dissolved in carbon bisulphide at the ordinary temperature, boron pentasulphide is ob-

tained. It fuses at 390°, and does not pass through the pasty state. In contact with water it forms boric acid, sulphuretted hydrogen, and a precipitate of sulphur. Mercury and silver reduce it to the trisulphide, forming metallic sulphides. Heated to fusion in a vacuum it decomposes into sulphur and the trisulphide. Its density is 1.85. It is very difficult to obtain free from iodine, but in all the preparations the ratio between the boron and the sulphur has indicated the formula B₂S₅.—On the stripped plants of autumn, and their utilization as green manure, by M. P. P. Dehérain. It has been found that by planting the ground with vetch or mustard, and digging it in during the autumn, the amount of nitrogen retained in the soil was nearly doubled.—Remarks on alimentation in the Ophidia, by M. Léon Vaillant.—A report on the great anaconda of Central America kept in the reptile menagerie. Since 1885 the snake has eaten on the average five times per annum, its nourishment consisting of goats, three rabbits, and one goose. The interval between two meals was in one instance 204 days.—On symmetric tetrahedral curves, by M. Alphonse Dumoulin.—On Stokes' law, its verification, and interpretation, by M. G. Salet.—A spectrum, given by a spectroscope with quartz prisms, is received on the fluorescent substance contained in a Soret eye-piece. It is then projected transversally on to the slit of a second spectroscope. Through this the diagonal spectrum of Stokes' classical experiment is seen with perfect definition, no ray exceeding the theoretical limit. The law thus verified can also be deduced from thermodynamic considerations. According to Stokes' law, "the rays emitted by a fluorescent substance always have a smaller refrangibility than the exciting rays." If it were possible to transform yellow into violet light by fluorescence, many chemical reactions would become possible which only occur at the higher temperature at which violet appears in the spectrum. This would be equivalent to the passage of heat from a colder to a hotter body, in contradiction to the second law of thermodynamics.—Constitution of pyrogallol, by M. de Forcrand.—On Cascarine, by M. Leprince.—Physiological examination of four cyclists after a run of 397 km., by MM. Chibret et Huguet. This distance, which was covered by the youngest of the party, an Englishman of 18, in seventeen hours, was that between Paris and Clermont-Ferrand. It was found that the temperature was at the finish rather below than above the normal; that the coefficient of utilization of urinary nitrogen varied inversely as the degree of fatigue, and that therefore a decided waste of nitrogen is a concomitant of excessive fatigue. The nutriment taken during the course consisted of much alcohol, champagne, beef-tea, and Kola solution in the case of the Englishman. He and the next in speed both took Kola. The winner was extremely fatigued at the finish; the next man, a Frenchman of 28, not at all. His pulse was beating at 60, that of the former at 84. The coefficients of utilization of nitrogen were 76.32 and 58.27 per cent. respectively.—On the properties of the vapours of formol or formic aldehyde, by MM. F. Berlioz and A. Trillat.—Subcutaneous grafting of the pancreas: its importance in the study of pancreatic diabetes, by M. E. Hédon.—On the habits of *Clinus argentatus* Cuv. and Val., by M. Frédéric Guitel.—On a Permian Alga, with its structure preserved, found in the boghead of Autun: *Pila Bibractensis*, by MM. C. Eg. Bertrand and B. Renault.—The chalk of Chartres, by M. A. de Grossouvre.

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