SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

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Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinions expressed in the communications of our correspondents. Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

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BOOK-REVIEWS.

Proceedings of the Society for Psychical Research. Part XV. London, Soc. Psych. Research. 8°.

This number of the ''Proceedings,''though dated December, 1889, has just come to hand. Its contents are very varied, and the titles of the contributions illusively attractive. We may select as the most interesting pages of the number the brief preliminary report on the census of hallucinations, and Mr. Barkworth's paper on ''Duplex Personality.'' The census of hallucinations relates to the answers received to the following query: ''Have you ever, when believing yourself to be completely awake, had a vivid impression of seeing or being touched by a living being or inanimate object, or cf hearing a voice, which impression, so far as you could discover, was not due to an external physical cause?'' In England 2,928 answers have been received (1,633 women and 1,293 men); and of these, 363, or 12.4 per cent, have answered ''yes.'' Of the 363, more

than two-thirds (251) are women. The nature of the impression was visual in 205 cases, auditory in 115 cases, and tactile in 24 cases. Further subdivisions are made, and several interesting points suggested, which will doubtless be fully considered in the complete report. For this, 50,000 answers are desired, and the inquiry is going on in France, Germany, and the United States. In France, up to last October, 633 answers were received (366 from men and 161 from women), of which 106 answer "yes," the percentage of affirmative answers being again much larger among women than among men (31 per cent and 16 per cent). Professor Sidgwick explains the purposes of the census from a point of view certainly not that of those answering the queries, and places as the very last of his remarks a caution, that should have been printed in red ink and large capital letters on all pages of the blanks; namely, to record separately all those who give, or are asked to give, a reply because something is known or suspected of their having had an hallucination. Without this precaution most strenuously observed, the result can have little value in fixing the prevalence of hallucinations. Mr. Barkworth's essay deals very ably and interestingly with those subconscious automatic phenomena whose vital importance in the intellectual life has been so clearly shown, and not least by the phenomena of hypnotism. The tracing of the relation of these degrees of consciousness to various strata of personality, and to those bizarre disintegrations of self presented by morbid psychology, forms the main purpose of the essay.

To deal first with the supplement, we find an account of the recent congress of experimental psychology, and especially of the proceedings of the section on hypnotism, by Dr. A. T. Myers, and several reviews of recent hypnotic literature by Mr. F.W. H. Myers and Mr. Leaf, those by the former being rather controversial in character. To deal fairly and yet critically with the main papers of the number is no easy task. It is all too evident, that instead of profiting by our increased knowledge of the possibilities of deception, and the many sidelights of psychic phenomena which this society, either directly or through its antagonists, has aided and encouraged, the experiments seem to be conducted with fewer and fewer precautions, and speculations indulged in more and more freely. This is not the place or the occasion for the detailed review of the experiments on thought-transferrence offered by Professor and Mrs. Sidgwick and Mr. Smith, and those of M. Richet on clairvoyance, necessary to show how much weaker the evidence collected will be when clearly and logically stated. The possibilities of those who guess the numbers drawn from a lotto-bag getting a glimpse of what was going on does certainly not seem to have been excluded by the experiments (as related); and nothing can be more suggestive than the small number of correct answers when Mr. Smith is in the next room, compared with the successes when in the same room. Professor Richet's jubilant tone is not consistent with the facts he has to tell. To sit up all night with a nervous subject holding an envelope containing a playing-card in her hand, and taking an hour or more to guess the card enclosed, is certainly a marvellous devotion to science. But a little more method and caution, and enclosing the cards between sheets of metal instead of in envelopes, would probably be more to the purpose than this devotion. We are told nothing of the history of the cards from the time they were bought until placed in the envelope; and so significant a fact as that court-cards were guessed rightly so large a proportion of times is recorded as a peculiarity of the clairvoyance; and over M. Richet's calculation of the chances in the matter one loses all patience. There are also a collection of notes of séances with D. D. Home, by Mr. Crookes, for which there seems no sufficient raison d'être, and the longest article of the number, by Mr. Myers, on apparitions occurring more than a year after death. It is difficult to take Mr. Myers seriously in this contribution. One always admires the patience in analyzing and describing these many cases of apparitions, but ends by suspecting that Mr. Myers's detailed knowledge of the mental habits of ghosts must be telepathically obtained,