

The treatment has not been carried on long enough to enable an accurate estimate of its true value to be formed.

Dr. H. C. Wood states that the method has been used in the Philadelphia Hospital in a large number of cases, and that a personal inspection shows that the statements made by the French observer are correct, and that there seems to be no doubt that under the treatment there is rapid alteration of some cases of phthisis for the better. Dr. Wood thinks that Bergeon is wrong in supposing that the natural waters are superior to the artificial. In Philadelphia the bottle is charged with ten grains each of chloride of sodium and sulphide of sodium, and this answers for a number of patients. The amount of sulphuretted hydrogen received by each patient is unknown and very variable, and is very small. Dr. Wood thinks that the evidence is already sufficient to indicate that we are in the presence of a very important addition to medical therapeutics, and that it is of vital importance to decide the mode in which the treatment acts.

The experiments of Dujardin-Beaumetz show that the sulphuretted hydrogen is the medicinal agent, and not the carbonic-acid gas. He thinks it improbable that the good achieved is the result of any parasitoidal influence. There is, at present, no proof that sulphuretted hydrogen, when it does good in phthisis, acts by killing the bacilli, and there is still less proof that it in any way increases the direct resistive powers of the individual to the action of the bacilli. It is probable that Bergeon's plan is simply a means of making an application of sulphur to the pulmonic mucous membrane and tissue, and this view is confirmed by the benefit resulting from the treatment of asthma and pulmonic catarrh by the same method. Dr. Wood had under his care a patient who had met with a railway accident, followed by pleurisy and pneumonia, whose symptoms led him to believe she would die. He employed the gaseous injection, and at the time of his writing he considered her as convalescent. In this case, although rectal injections were at first employed, subsequently Dr. Wood gave by the mouth the sulphuretted hydrogen in saturated solution artificially prepared, and the effects were apparently the same.

In order that the solution may be uniform in strength, Dr. Marshall of the University of Pennsylvania has devised an apparatus by which it may be made by the patient at his own home. The liquid is sweetish, and not at all unpleasant to the taste.

From the foregoing *résumé* of what is being done abroad and in this country in testing the efficacy of Bergeon's method, it will be seen that the evidence is gradually accumulating to determine its efficacy. It is still too early to declare that tuberculosis is curable, and that the method by which the cure is to be effected has been discovered; at the same time much may be hoped for from a therapeutic agent which has the support of so many well-known authorities in medical science. We deem the matter of sufficient importance to bring it thus fully before our readers, and shall keep them informed on the subject from time to time.

MENTAL SCIENCE.

The Natural History of Error

THERE is always a strong psychological interest in the study of such phenomena as the English Psychic Research Society investigate, apart from all considerations of the ultimate bearing on the truth of any theory. No matter whether houses really are haunted, or the raps made by spirits, or thought transferred from mind to mind; it will be of great value to ascertain how belief in these unusual manifestations arises and progresses, to be on the alert for facts apparently favoring their genuineness but really pointing to obscure psychological processes which might otherwise be overlooked. These important side-issues and preliminary investigations have been much neglected by the English society, and it is an encouraging circumstance, that, in their most recent issue, they make an important step towards making good this neglect.

Messrs. Richard Hodgson (now secretary of the American society) and S. J. Davey contribute a highly important paper on 'The Possibilities of Mal-Observation and Lapse of Memory from a Practical Point of View.' Mr. Davey became interested in spiritualistic phenomena several years ago, and was so deeply impressed with what he saw, as to be on the high-road to conversion, when

he gradually gained a truer insight, and through skill and practice can now perform many of the medium's favorite manifestations. His specialty is the slate-writing phenomena, — 'psychography' is the technical word, — and in these he has achieved great success, his performance having been declared superior to Englington's. Mr. Davey, under the assumed name of Clifford, gave sittings to friends of Mr. Hodgson and others: he did this, not as a medium, took no fee, but simply posed as a phenomenon, asking his spectators to watch him as they would a conjurer, and afterwards to send him a *detailed written account* of what they had seen. These accounts are all published, and are extremely instructive. What was really done is here accurately known, and a comparison of this with the accounts of the 'sitters' at once shows how reputed marvels come to being, simply by inaccurate description. One must remember, too, that Mr. Davey was decidedly in a less advantageous position for deceiving and exciting wonder than a professed medium; for the latter, at the worst, deals with a person who has a little belief in the possibility of some supernatural agency, and this remnant of belief induces a mental attitude that does not watch trifling movements, slight delays, and so on. The witness of a conjurer's performance has an interest in minimising the mystery of the tricks. Some of Mr. Davey's sitters had no notion that they were to witness mere slight of hand, others more or less strongly suspected it, and a few were as much as informed of it beforehand. It is extremely interesting to see how the report of each is modified by his previous knowledge. One gentleman, whom Mr. Davey met at a séance, spoke very disparagingly of the performances of an amateur conjurer known as Mr. A., and remarked that Mrs. Sedgwick's attempt to explain 'psychography' by such powers were totally inadequate: after the performance, he declared that what he had just seen through 'Mr. Clifford' was more conclusive of the existence of supernatural powers than the evidences furnished by a distinguished medium. The joke of the story is that the amateur conjurer Mr. A., 'Mr. Clifford,' and Mr. Davey are all one and the same person.

None of the 'sitters' were able to explain how the thing was done, though one gentleman ventured the information that he was sure it was *not* done in such and such a way. Had he omitted the 'not,' he would have been nearer right than any. Some observed a few points correctly, but most had simply to record what they saw. On reading these reports, many a reader will imagine that *he* would certainly not commit such an error in description; this is assuredly an illusion. Some of the reports are exceptionally good. To describe accurately is a rare gift. It means scientific success. It is possible only after repeatedly witnessing the same performance. This mal-observation is natural; its absence is the exception.

It is time to turn to Mr. Hodgson's analysis of the kinds of error which these reports show. There are four convenient groups of such errors. First, are errors of 'interpolation'; something is inserted as having happened which really did not happen: the subject declares he examined slates when really he did no such thing. Second, errors of 'substitution'; the subject declares he examined the slate in every detail, when really he only glanced at it. Third, errors of 'transposition,' in which the event is correctly described, but is described as happening later or earlier than it really did (many a reputation has been made by skilfully utilizing this tendency). Last, errors of 'omission,' in which events apparently trifling are not noticed at all. These it is the object of the medium to induce by distracting the attention in one way or another; and it is just through exaggerations and misrepresentations, which these erroneous tendencies bring about, that the simple doings of the mediums become marvels in the mouths of enthusiastic narrators. It is all a question of attitude: what is utterly unimportant to observe, if the medium is believed to be acting under the control of spirits, becomes the most important, if he is regarded as a trickster. It has been a stumbling-block to many minds to understand how mediums could acquire such great reputations as wonder-workers, if they really did nothing more than these simple tricks. The mystery of this falls away if we remember that the power of accurate description is a rarity, and that, as is here experimentally proven, the amount and kind of distortion which mal-observation and errors of memory produce is perfectly sufficient to make a spiritualistic marvel of a conjurer's trick.