created as they are needed, that we have the opportunity of witnessing the phenomena of perennial growth."

Tuesday evening, a well-attended public meeting was held in the chapel of the University, when Prof. J. H. Wright, the Secretary, read President Merriam's address on a 'Review of the Greek Inscriptions Published During the Past Year.' It is to the monuments, which the soil of Greece has preserved in such large numbers, that we have to look for an increase of our knowledge of Greek history and civilization, and for a solution of the many problems still unsolved. Already the results of the explorations, which have been going on busily for some time, are beginning to make themselves felt, and it is not too much to say that Greek history will yet have to be rewritten in the new light shed upon events by the testimony of the stones. The past year has been, on the whole, an important and fruitful one. Greek inscriptions of particular value have been found in Naukratis, under the auspices of the Egypt exploration fund, at Sigle in Crete, at Epidauros, and near the Peiræus, the harbor of Athens. It is within the domain of the history of the Greek alphabet that the most valuable results of the last year's work are to be sought. The rest of the address was devoted to an elucidation of these results.

At the session on Wednesday morning, Prof. F. A. March read a paper — that may in many respects be called remarkable — on 'Standard English.' He claimed, in opposition to the 'new phonetists,' that there is such a thing as standard English, defining it as the 'heir of all ages recorded in grammars and dictionaries.' Standard English, meaning by that both the proper use of words and their proper pronunciation, is an authoritative institution,— a stronghold of the unity and power of the Anglo-Saxon race. While it is true that speech in its simplest form is without reflective purpose, yet, when a higher state of civilization is reached, its growth proceeds under the guidance of reason. The development which the English language has taken since the days of Milton and Shakspeare is a proof of this. We are, therefore, not only justified in guarding jealously our standard English from contamination through impure influences, but it becomes, also, the duty of scholars and cultured people in general to superintend its growth. Students of language have it as their specialty to preserve and perfect the records of the language. The paper, which was thoroughly suggestive throughout, gave rise to a long, and at times animated, discussion, in which a large number of the members participated.

Professor Seymour of Yale College gave a report of the doings and needs of the American School at Athens. It will be remembered that some months ago the permanent Directorship of the school was offered to Dr. Charles Waldstein, who accepted the same, subject to the condition that an endowment fund of $100,000 be raised in order to place the institution on a sound financial basis. Up to date, $10,000 of this sum have been subscribed, — which, it must be confessed, is not a very encouraging showing. Still, there is a fair prospect that before the expiration of the time assigned by Dr. Waldstein, — October, 1888, — the remaining ninety thousand will be forthcoming. With the aid and encouragement which the school has received from the Greek government, such as the recent gift of a suitable site for a building, — which, it is pleasant to record, is in process of erection, — it would be indeed lamentable to see so important and valuable an undertaking maimed by our own indifference to its fortunes.

Prof. W. F. Allen had an interesting paper on 'The Monetary Crisis at Rome in 33, A.D.' The crisis in this year, which was so severe that it required the intervention of the Emperor Tiberius to restore credit by advancing, from the Treasury, a sum equivalent to four million dollars, in the form of loans without interest, was the necessary outcome of the conditions prevailing in ancient Rome, which made money-lending a curse and the money-lender an evil. At the present time, the legitimate business of bankers consists in advancing funds to be employed for productive purposes: the banker is therefore a highly useful intermediary between those who have money which they do not understand how to use productively, and those who are engaged in industrial occupations in which they can use to advantage more capital than they themselves possess. But there was no such thing as productive industry, on a large scale, in Rome. When money was borrowed, it was merely for purposes of future consumption, or to pay for past consumption. Money was borrowed in order to pay a debt incurred, and therefore carried with it the incurrence of a new debt. The consequence of this state of things was, that a large body was growing deeper and deeper into debt, while a few — the money-lenders — reaped benefits out of all proportion to the services rendered by them. Already in Cæsar's time the attempt was made to counteract this threatening evil by the passage of a law for the regulation of loans and of debts. It aimed, as far as we are able to trace it, on the one hand, to prevent a scarcity in the money-market, by limiting the amount of cash an individual could have on hand, and obliging him to invest what he had above this sum in real-estate, and, on the other hand, made provision for the payment of outstanding debts, by an extension of time and by compelling creditors to take real-estate as payment. The law, however, remained a dead-letter until the days of Tiberius, who made an attempt to revive it. The attempt failed, and the much-feared crisis broke out. But it is a testimony to the wisdom of Tiberius that he foresaw its coming, and endeavored to prevent it by all means in his power. In order to relieve the debtors of their embarrassment, he issued the loans as above set forth, which was of course only a temporary relief, not a remedy for the evil.

Professor Greenough of Harvard University had some suggestive Latin etymologies to offer, among others, that of *elementum*. He favored the explanation, common in former days, but latterly superseded by other views, according to which it was an artificially coined word composed of the three letters *l, m, n*. The *t* was due to the force of analogy, so as to make the word conform with such forms as *rudimentum, alimentum*. Dr. H. Weir Smyth of Johns Hopkins University had an elaborate treatise on the Arcado-Cyprian dialect, which endeavored to cover the entire field of the famous Cypriote inscriptions, of which the Metropolitan Museum in New York has such a rich collection, and, by a minute examination, to make clear the relation in which the Cyprian stood to the other Greek dialects. Professor Hale of Cornell had two papers, one proposing a new terminology for the Latin tenses, the other on the '*Cum*-constructions in Latin; Their History and their Functions.' Dr. Cyrus Adler of Johns Hopkins, in a review of the article 'Semitic Languages,' in the 'Encyclopedia Britannica,' took grounds against the writer, Professor Nöldeke of Strassburg, for the subordinate rank which he assigns to the Assyrian among the Semitic languages. Dr. Adler claimed, that, in consequence of this, the article was not up to the mark of our present science. Professors Jastrow and Hall made some remarks in reply. Other papers were as follows: 'Conditional Sentences in Æschylus,' by Professor Clapp of Illinois College; 'Long-Vowels in Old Germanic,' by Dr. Wells of Providence, R. I.; 'Delitzsch's Assyrian Dictionary, Part i,' by Prof. Morris Jastrow, Jun., of the University of Pennsylvania.

On Wednesday evening the Association was entertained by Dr. and Mrs. Sears, and on Thursday, after the closing meeting, an excursion was taken to the Au Sable Chasm.

Before adjourning, the following officers were elected: President, I. H. Hall of the Metropolitan Museum, N. Y.; Vice-Presidents, Professors Seymour of Yale and Lanman of Harvard; Secretary and Treasurer, Prof. J. H. Wright of Harvard; Executive Committee, Professors Whitney, Gildersleeve, Perrin, and March. The next meeting of the Association will take place at Amherst in the second week of July, 1888.

IS CONSUMPTION CURABLE?

The discovery by Koch in 1882, of the tubercle bacillus, gave a new impetus to the treatment of consumption. The investigations of Toussaint and others had made it more than probable that tuberculosis was an infectious disease, but the discovery of the actual germ which caused the disease seemed to open up to the victims of phthisis a means of escape from a fate which up to that time had seemed inevitable. That the hope thus aroused has not yet been realized is not due to any lack of enthusiasm on the part of the medical profession; for, ever since the nature of tuberculosis was established, search has been made for some means by which its germs or their products might be destroyed, and thus the disease arrested.

We have recently had occasion to mention two methods of treat-

ment from which much advantage was promised and expected, — those of Kremianski and Bergeon. The former, which was based on the fatal effect of the most dilute solution of aniline on the bacillus, has had but a brief existence, and, so far as we can learn, has been abandoned as being not only of no practical benefit, but as being actually dangerous to life.

The Bergeon method, on the other hand, seems to promise very much, and, as it is now being extensively employed, its value will doubtless soon be determined. This consists in the introduction into the body of sulphuretted hydrogen and carbonic-acid gas. Lecturing on the subject of tuberculosis at the Hôpital de la Pitié, Paris, M. Debove, in 1883, said the ideal end toward which physicians should always strive when in the presence of a parasitic disease, such as phthisis, is to find a parasiticide acting in the interior in the same manner as external remedies act which are employed for the cure of itch. It is necessary to find a substance which, without injuring the system, will be destructive to the parasite. Dr. Bergeon, senior deputy-professor at the School of Medicine at Lyons, suggested the use of hydrogen sulphide, carbon disulphide, and other antiseptic substances, associated with pure carbonic-acid gas, — agents which comply with the requirements of Debove.

A pamphlet by Dr. V. Morel, published by James W. Queen & Co., Philadelphia, entitled 'New Treatment of the Affections of the Respiratory Organs and of Blood Poison by Rectal Injections of Gases after the Method of Dr. Bergeon,' contains the experimental evidence on which this method is based, together with a description of the apparatus by which it is to be applied.

The agents by which the bacilli were to be destroyed having been determined, the next step was to devise means for introducing them into the human body without injury. Two methods of introduction presented themselves: the one, by inhalation; and the other, by introduction into the digestive tube of the same substances in such manner as to be eliminated by the lungs. Dr. Morel states that many inconveniences, grave dangers even, oppose the adoption of the method by inhalation. These antiseptic substances are endowed with great toxic power when they penetrate the arterial system, either directly or by way of the lungs, and Claude Bernard has demonstrated that the agents introduced by this method act almost immediately. In addition, they possess a very great local irritation, and this action, exercised on an organ already diseased, cannot but augment the pre-existing lesions. This is, doubtless, the reason that there has been so little success gained in inhalations in the treatment of phthisis, and the disagreeable odor of these substances has contributed to their being refused by the sufferers.

The introduction of antiseptics by the digestive tube does not offer the same dangers. Bernard has demonstrated that when toxic matter is introduced into an organ removed from the arterial system, — in the digestive tube, for example, — it does not enter into the arterial system, as it is eliminated before penetrating so far. It has then to traverse the portal veins, the liver, the hepatic veins, and the pulmonary tissue. Now, in this course it can be eliminated in the liver by the bile, and in the lungs by exhalation if it is volatile. Claude Bernard, after experimentation, stated that hydrogen sulphide can be introduced with impunity into the digestive tube, or into the veins, if care be taken not to give too great quantities at a time.

The next question to be decided was whether the antiseptic substances should be introduced by the mouth or by the rectum. Inasmuch as they reach the lungs through the same channels by whichever way they are introduced, it would seem to be a matter of indifference which of these two entrances was selected. From a case in which a fatal result followed the introduction by the mouth, Morel thinks that this may indicate that the essential action of the medicament is not the same in both cases. In addition to this, it is important in the adoption of a method of treatment that preference should be given, other things being equal, to that one which is most agreeable to the patient; and, inasmuch as both the odor and the taste of these antiseptics is very disagreeable, the rectal method is to be selected. By introducing the remedies by the mouth and stomach, we are also in danger of interfering with digestion and alimentation, which are especially important in the class of invalids under consideration. For these reasons, Dr. Bergeon has abandoned the method of injection into the stomach.

Having adopted the method of rectal injection, it was next necessary to find a medicament which would be exhaled by the lungs, and which while in those organs would destroy the tubercles bacilli.

The first experiments of Dr. Bergeon were made on animals, with chlorine, turpentine, ether, ammonia, and bromine; but these substances provoked an immediate and violent inflammation of the rectum, and even caused mortification of parts of the mucous membrane, and were therefore abandoned. A mixture of carbonic acid and hydrogen sulphide was perfectly tolerable when the two gases were pure and completely deprived of atmospheric air. In their union the carbon dioxide plays in some degree the part of an inert body, attenuating in all cases the irritating properties of the sulphuretted hydrogen. We know that sulphur possesses germ-destroying properties, and nothing is more logical than to apply it to the treatment of pulmonary tuberculosis. The sulphuretted hydrogen is taken up by the venous system and eliminated by the lungs, — thus this gas seems to fulfil all the requirements.

The apparatus by means of which these gases are prepared and injected is the invention, or adaptation, of Dr. Morel. It is constructed on the principle that a current of carbon dioxide passing through, or over, certain gaseous, or volatile, substances will carry with it a certain quantity of these substances: it produces a disassociation of the gaseous elements which they hold, and these elements, being liberated, are carried with the current of carbonic-acid gas. It is necessary, first, to produce very pure carbonic-acid gas, and, second, to pass this gas through a liquid medicated with these volatile substances, and to cause it to penetrate the rectum, and to prevent its return to the receptacle for the carbonic acid. The carbonic acid is produced by the action of sulphuric acid on bicarbonate of soda. Hydrochloric acid has been used, but a little always escapes with the carbonic-acid gas, and produces an irritation of the intestine. The carbonic-acid gas as it escapes from the generative flask is collected in a rubber bag. In order to avoid colic, the gas must not contain any atmospheric air. The injection-apparatus consists of the rubber bag filled with carbonic-acid gas; of a rubber bulb with a valve at each end, to which are adapted rubber tubes, one of which is red and the other black, so as to distinguish the valves; a metallic T-tube, the vertical branch of which, with a valve at each end, is plunged in the bottle containing the medicated liquid; and, last, a rubber tube with a pipe on the end for insertion into the rectum. These parts are attached in such manner that the carbonic acid is drawn into the bulb, then forced into the medicated solution in the bottle, taking up the sulphuretted hydrogen, and together these gases are forced into the intestine.

After describing the apparatus and the method of its use, Dr. Morel calls attention to certain precautions which are to be taken in making the injection. These include the attitude of the patient, the necessity of proceeding with caution, and, at first, its administration by the physician himself, the time occupied in giving the injection, and the amount of gas injected.

The natural mineral-waters which contain natural sulphuretted hydrogen or sulphides of sodium or calcium have, as a usual thing, been employed by Drs. Bergeon and Morel, being preferred to the artificial waters. The principal springs which contain a sufficient quantity of sulphuretted hydrogen gas or of sulphides for rectal injection are Allevard, Aix en Savoie, Eaux-Bonnes, and some fifteen others. To obtain permanent results, the treatment must be continued for months, in order to place the bacilli in a local bath of antiseptic vapors, which at length will destroy their virulence and power of reproduction.

The results obtained by Dr. Bergeon in the treatment of consumption by his method of rectal injections were communicated to the French Academy of Science in July, 1886, and to the Congress of the French Association for the Advancement of Science, at Nancy, in August of the same year; and in October the distinguished Professor Cornil made a communication to the Academy of Medicine on the subject. These results of Dr. Bergeon have been confirmed by physicians of Lyons, Paris, Geneva, and Marseilles. These physicians have observed the rapid disappearance of the symptoms of pulmonary suppuration in consumptives, and a progress toward a state of health, which has all the characteristics of a complete cure. Dr. Bergeon says that those whom he considers cured do not ex-

pectorate, or offer to auscultation any stethoscopic signs but those of dryness due to the presence of cavities which have cicatrized, or are in process of cicatrization, or to cicatricial bands consecutive to old lesions. Some of these patients have been obliged to take up again a very laborious existence. Mounting a great many stairs many times in the course of the day, nevertheless, their respiratory organs have resisted all these fatigues, and the improvement gained has been steadily maintained. In most of the patients, in two or three days, there is a marked diminution of the cough, the expectoration, the night-sweats, and the difficulty in respiration, which accompany pulmonary phthisis; in time, the patients gain a feeling of health and an increase in strength. Little by little the favorable symptoms gain the advantage, and the patients cease to lose flesh, and commence to gain it.

Dr. Morel notes the remarkable fact, that, even in patients who are apparently restored to health, the tubercle bacilli are still present in the sputum, and says that it remains to be ascertained if the bacilli which persist in the sputum, notwithstanding the return of health, still possess their functional activity, that is, the property of developing to any great extent, to infiltrate anew the pulmonary tissue, and there produce lesions similar to those which have been cured by the administrations of medicated gaseous rectal-injections. The constant presence of the bacilli in the sputum, after health has been restored, indicates two things; first, that their hurtful action is neutralized for a long time by the medication, and, second, that as long as they remain in the sputum, a return of the malady is to be feared, and on this account the injections should not be abandoned, even though it appears that the cure is complete. Many persons who have been so improved after several weeks of treatment as to consider themselves cured, have discontinued the injections, and have suffered a relapse.

Dr. Morel states that it is not the bacilli which are to be feared in phthisis, but the septicæmia caused by their presence in the pulmonary cavities, this being due to the absorption of the infectious products of the bacilli. The elimination of the medical principle in the gaseous injections by the alveolar and bronchial surfaces of the lung combats victoriously this septicæmia. While this elimination is taking place, these infectious products are neutralized, or better, are not absorbed. When the pulmonary lesions are completely healed the injections must be discontinued, because, the bacilli being no longer in contact with a diseased surface, there is no fear of septicæmia. But if the injections are stopped before the walls of the cavities are entirely cicatrized, or if the cicatrization is not rendered permanent by prolonged treatment, the cicatrized part will ulcerate anew, and by the contact of the bacilli the septicæmia is renewed. It is then necessary, in order to prevent the return of the malady, to take the injection time after time, even when the state of the health is satisfactory, and, with still greater reason, if the old symptoms, cough, expectoration, fever, and emaciation reappear.

It has also been noted that the improvement is not confined to the lung-lesions. When tubercular ulcerations of the larynx and pharynx exist, these are also cured without any further applications, solely by the contact of the gases as they are exhaled from the lungs.

Dr. Chantemesse, chief of the laboratory of bacteriology of the faculty of medicine, Paris, and physician of the hospitals, reports nine patients in his practice who had presented both the local and general symptoms of pulmonary tuberculosis, with the presence of bacilli in the expectorations, as having undergone great improvement under Bergeon's treatment; the increase in weight was rapid, sometimes a kilogram a week, while the cough and the expectoration were considerably diminished. The bacilli remained constant in the sputum. Professor Cornil is now engaged in experimenting upon tuberculous animals. He says that the rectal injection of carbonic-acid gas and of sulphuretted hydrogen constitutes an excellent therapeutic method in phthisis, and should gain more favor, in view of the fact that therapeutics are powerless in the face of phthisis. In this disease the only agents which till now have been found useful are foods and those remedies which aid nutrition. Dr. Morel claims that this method of treatment is not confined to tuberculosis. He claims much benefit from it in whooping-cough, bronchitis, and in the infectious diseases, such as typhoid-fever, the eruptive fevers, and septicæmia, in which blood poisoning results from the introduction into the blood of infectious products of microbes. The infectious elements, spread throughout the blood, come in contact with the medicated gas, not only in the lungs, as in tuberculosis, but also in the right heart at the moment when the blood of the two venae cavae is united, and in all its course through the branches of the pulmonary artery. The venous blood, thus purified, frees itself of the excremental products on its arrival at the pulmonary cells, and re-enters, disinfected, the branches of the pulmonary veins. Thus is explained the diminution of fever and the amelioration of the disease which occur in the cases where gaseous injections are employed.

Drs. Spillman and Parisat have made experiments to determine to what height intestinal distension reaches after injecting eight pints of gas, and find that in the cadaver the large intestines only are distended. They find it impracticable to use a larger amount in the living subject on account of cramps and the danger of producing paralysis of the intestines. They conclude, from their experiments, that the method of Dr. Bergeon is powerless in averting tuberculous exacerbations; much less is it capable of arresting the development of phthisis, The night-sweats do not seem to have been influenced by the medication, and the temperature was not permanently lowered. The appetite was not disturbed, but there was temporary intestinal uneasiness, with distension of the abdomen, rendering confinement to the bed necessary. The weight remained the same; sleep was quiet and restful, due solely to the carbonic-acid gas. According to these writers, rectal gaseous-medication is palliative, not curative.

In England, the method has been employed by Dr. Bennett, and by Dr. Heron at the Victoria Park Chest Hospital. The London *Lancet*, in commenting on the method, says that the evidence is forthcoming that the treatment has been followed by many signs of improvement in at least some of the patients, and urges a more extended trial. The writer in that journal does not think it necessary to suppose that the gas must act after the fashion of a true germicide or antiseptic, but it may be that the value of the treatment, supposing it to have any, consists in improving the nutritive powers of the tissues, in increasing their vitality, thereby rendering them more able to cope with deleterious influences, or with the germs, by affording an unsuitable soil for the activity of the latter.

In our own country, much has already been done in testing this new plan of treatment. Dr. Crane of Chicago has used it in four cases, two of phthisis, one of intussusception of the bowel, and one of spasmodic croup. With the latter cases it acted like a charm, overcoming both almost instantly. In the case of croup, carbon bisulphide was used instead of sulphuretted hydrogen. One of the phthisis cases was a man, aged twenty-six years, whose two sisters and brother had died from that disease, and who had been under treatment for three years, during which time he had been twice to Colorado. Under the sulphuretted hydrogen he improved very fast, in one week his temperature becoming normal, the night-sweats almost stopped, and the expectoration became less. In the latter part of the second week of treatment he ventured out on a rainy March day, took cold, and died in two days. The second case was that of a widow, aged twenty-four years, whose mother and sister died from phthisis. She was suffering from incipient phthisis. She made seven visits to Dr. Crane, and then pronounced herself cured. The doctor thinks that she will probably have a return of her symptoms upon the slightest provocation. He has tried the mineral waters of Lafayette, Ind., Blue Lick, Ky., and Ypsilanti, Mich., and considers the last best adapted for the purpose. It is so strongly impregnated with gas that he is able to use it a second time. He has devised an apparatus for the manufacture and injection of the gas, differing from Morel's in no important particular, save in the expense of manufacture, which is reduced about one-half.

Dr. M. M. Johnson, of Hartford, Conn., has been using Bergeon's method in the Hartford dispensary for two months. The patients are mostly those in advanced stages of phthisis. The night-sweats have ceased, the cough has become loose and expectoration easy, the patients sleep well and have increased in weight, the circulation is quickened, and the cold, clammy extremities have become warm.

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 parasiticidal 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 mattter 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 unusal 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, — 'psycography' s the technical word, — and in these he has achieved great success, his performance having been declared superior to Englinton'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 'psycography' 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.