being dissolved from the positive plate; and this is changed into sulphate of lead, and afterwards by the current into peroxide of lead. In a few hours the plate is covered with a layer of crystalline peroxide of lead. During the formation, air is forced through the cell, or the plates are lifted from the liquid at intervals. In the absence of data as to the performance of plates formed in this way, it is impossible to compare them with the ordinary 'grid' plates, pasted with red lead by the Faure process. The disadvantages of this last form have been pointed out in a previous number. The type of cell under which that of M. Dujardin comes — the 'Planté' form — generally offers the advantage of quicker discharge rate, and freedom from 'buckling,' as against the greater storage-capacity of the Faure type. How far M. Dujardin has remedied the difficulties of the type outside of the time necessary for formation, remains to be seen.

DISCUSSION OF ALTERNATING-CURRENT TRANSFORMERS. — The papers of Messrs. Kapp and Mackenzie before the English Society of Telegraph Engineers and Electricians have excited a great deal of interest and discussion on the subject of alternating currents. A number of people, many of them directly interested in electric lighting, have spoken on the matter. The majority of the speakers seemed in favor of the system, although it was attacked by Messrs. Gordon and Crompton, who prefer using storage-batteries for distribution. Arguments in favor of the alternating-current system were drawn from the experience of the Westinghouse Company in the States, that would be more weighty on this side of the ocean, if they were known to have been carefully verified. Some results of tests of the efficiency of transformers were given by Professor Ayrton, — the method of testing having been borrowed from our side of the water, — and values of 96 per cent were obtained under the most favorable conditions. As has been pointed out, however, in a former number of this journal, the transformers only work at the maximum efficiency for a short time during the day, so that the average efficiency will not probably be above 80 per cent. Various speakers favored different systems of distribution, but there were very few who had no experience to give; and the discussion was an interesting and instructive one.

BOOK-REVIEWS.

Transactions of the Association of American Physicians. Second session, held at Washington, D.C., June 2 and 3, 1887. Philadelphia, Assoc. Amer. Phys.

THE Transactions of the Association of American Physicians at their second annual meeting in Washington has been published. This association is without doubt the most representative body of the medical profession of the United States, having on its roll of membership the most prominent physicians of the country. The papers which are contained in this volume are of a very high order, and the discussions are exceedingly pointed and valuable.

The treatment of consumption by Bergeon's method, that is, by gaseous enemata, was the subject of three of the seventeen papers, the authors being Edward T. Bruen, M.D.; F. C. Shattuck, M.D., and Henry Jackson, M.D.; and William Pepper, M.D., LL.D., and J. P. C. Griffith, M.D.

Dr. Bruen sums up his views in these words: "I incline to think that suitable climatic environment is an all-important adjunct to the proper settlement of the value of Bergeon's treatment. But it is certainly an important addition to our therapeutic equipment to have an agent capable of influencing very markedly bronchial catarrh in so many cases, especially the 'stay-at-homes.' In a word, Bergeon's method, so far as I have used it, is chiefly valuable in those cases of pulmonary disease attended with bronchial catarrh. But I fear the trouble and detail necessary to its successful use will prevent many from employing the method, and I can easily see that the limitation of the power of Bergeon's method will cause it often to be set aside for other plans of treatment."

Drs. Shattuck and Jackson say, "This method is in no sense a specific for phthisis. If useful, it is only as auxiliary to older and generally accepted methods. The only benefit which we saw in our cases that can fairly be attributed to the enemata was diminution in the amount of the expectoration. The good effects which have unquestionably followed the treatment on this side of the water, as well as in France, are perhaps largely attributable to the stimulus afforded by a novel method of treatment, which is of such a nature that the patient cannot but feel that not only something, but much, is being done for him."

Drs. Pepper and Griffith conclude as follows: "Our conclusions, so far as they can be formulated in a preliminary report of comparatively few cases, are, that the treatment of phthisis by gaseous enemata has had very undue value attributed to it; that it is seldom of any real benefit, but that it may prove serviceable in occasional cases."

Dr. Henry Hun presented a paper on sewer-gas poisoning, with a history of twenty-nine cases. He concludes that it is probable that the following conditions may result from poisoning by sewer-gas: 1. Vomiting and purging, either separately or combined; 2. A form of nephritis; 3. General debility, in some cases of which the heart is especially involved; 4. Fever, which is frequently accompanied by chills; 5. Sore throat, which is frequently of a diphtheritic character; 6. Neuralgia; 7. Perhaps also myelitis of the anterior horns; 8. Zymotic diseases, such as typhoid-fever, pneumonia, diphtheria, cholera, dysentery, cerebro-spinal meningitis, erysipelas, and scarlet-fever (in these cases, undoubtedly, the sewer-gas merely acts as a vehicle for the specific germs); 9. A condition of asphyxia, which in its severe form is characterized by coma, convulsions, and collapse; 10. Puerperal fever; 11. Abscesses; 12. Lymphadenitis; 13. Acute aural catarrh (?).

The only other paper read at the meeting, which was of general interest, was one on methods of research in medical literature, by John S. Billings, M.D., U.S.A. This paper contains a good deal of excellent advice to physicians who desire to read up on any particular subject for the preparation of articles for publication or presentation to medical societies. Dr. Billings thinks that one of the most useful pieces of work which could now be undertaken for the benefit of medical writers and investigators would be the preparation of a dictionary of critical bibliography of medical bibliography, in which should be indicated for each subject, in alphabetical order, a reference to where the best bibliography relating to that subject can be found. This could only be well done by a co-operation of a number of writers, each taking a special field. This useful paper of Dr. Billings closes with a list of forty of the most useful reference-books, commencing with Albertus Haller's 'Bibliotheca Botanica' (1751), and ending with Richard Neale's 'First Appendix to the Medical Digest' (1886).

The other papers which were presented to the association were purely medical, and of little general interest.

Sewage Treatment, Purification and Utilization. A Practical Manual for the Use of Corporations, Local Boards, Medical Officers of Health, Inspectors of Nuisances, Chemists, Manufacturers, Riparian Owners, Engineers, and Rate-Payers. By J. W. SLATER, F.E.S. New York, Van Nostrand. 8°.

THIS octavo of 271 pages is one of the Specialists' Series, of which a number of treatises have already been issued, and of which several more are now in preparation. The title of the book before us is, we think, a little misleading. The reader expects from such a comprehensive title a good deal more than he actually finds when he reads the book. Still, the subjects which the author treats are handled in a very interesting and decidedly original manner, and, when the book has been read through, the reader is surprised that so much has been put into so small a space. Its perusal impresses one with the idea that Mr. Slater is a practical man, and that he writes of that which he knows from personal experience and observation, and not from a closet study of the books of others.

In his preface he refers to the unsettled state of the sewage question. Freezing and heating, concentration and dilution, electrization and magnetizing, the addition of oxidizers and deoxidizers, of ferments and preventives of fermentation recommended, if not actually tried, show the want of any distinct and generally recognized principle. This is still more forcibly illustrated by the fact that since 1846 there have been no less than 454 patents issued for the chemical treatment of sewage. In the space at our disposal it will be impossible to follow the author in detail; but there are some points