

Dr. Rideal's contribution on the subject would be widely appreciated. The work is essentially practical and a guide alike to the chemist and to the engineer. The student will learn from its pages the *rationale* of modern methods for the disposal of sewage, he will realise what an important rôle micro-organisms play in these methods, he will also understand the relations existing between non-pathogenic and pathogenic organisms, and lastly he may acquire a knowledge of those practical chemical and bacteriological methods of analysis the results of which enable us to judge whether a given process is or is not working efficiently. From time to time the Royal Commission on Sewage Disposal has issued valuable interim reports but its final report which, it may be anticipated, will settle many questions of great importance to local authorities has not yet been issued. Dr. Rideal has taken advantage in the third edition of his book of the further experience which has been gained in regard to the bacterial methods of sewage purification during recent years, and this experience obviously includes the important conclusions of the Royal Commission so far as they have been published. This alone is a valuable feature of the book. It is to be hoped that every facility will soon be afforded to local authorities to enable them to develop methods of sewage disposal along the scientific lines indicated by recent developments. Dr. Rideal may be thanked for keeping his readers in touch with these developments and for the share which he has taken in helping to bring about a desirable consummation.

JOURNALS AND MAGAZINES.

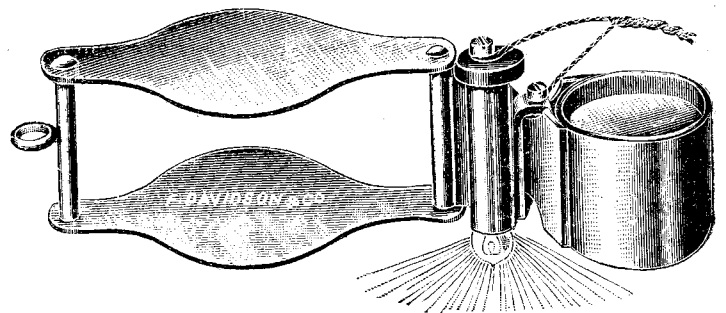
The Journal of Nervous and Mental Diseases (April and May).—These numbers contain amongst other matter an interesting article on the Diagnostic Value of Lumbar Puncture in Psychiatry by Dr. J. L. Pomeroy, of Ward's Island, New York City. In making his investigation the method of technique described by Widal and Ravant was followed as closely as possible. In addition to this examination for lymphocytosis Dr. Pomeroy also advises that the albumin test should be made, as a case may show a positive albumin content even before lymphocytosis is discovered. He goes on to say that the usual presence of a large albumin content in general paralysis is of value and he advises caution in interpreting small augmentation of cells without previously examining the amount of albumin. He points out the diagnostic value of lumbar puncture in cases of congenital syphilis in which there is arrested development. On the other hand, he considers that a negative finding in a case with a syphilitic history is almost certain evidence that there is no involvement of the central nervous tissue, and in cases where syphilis of the brain is clinically to be diagnosed a persistent negative lumbar puncture should make the observer look for some other etiological factor. The figures that he gives of the results of spinal puncture in cases of paresis are as follows: in 30 undoubtedly clear cases (clinically), in every instance positive results were obtained and the albumin content showed a marked opalescence in every examination. In all cases the pressure was quite marked, the fluid spurting from the canal. Dr. Pomeroy considers that lymphocytosis is one of the earliest and most constant signs of paresis, and, according to Jaffroy, Marie, and Duflos, it appears before amnesic, ophthalmic, or ataxic symptoms. Further, the importance of repeated puncture is emphasised by Archard who records a case in which the first two punctures were negative, a third showed slight cellular increase, and finally a fourth gave a large number of lymphocytes. In this case an interval of ten days was allowed between each puncture. Dr. Pomeroy also alludes to the value of lumbar puncture in assisting the diagnosis in those difficult cases of chronic alcoholism in which there has been a previous history of syphilis. The article is concluded

in the May number of the journal and after giving several more instances of the value of lumbar puncture from the diagnostic standpoint Dr. Pomeroy sums up his results as follows: 1. Lumbar puncture should not be resorted to unless the patient can be put to bed. 2. To be of definite value the procedure must be repeated two or more times at an interval of at least ten days. 3. A constant negative finding is of more value than a positive one, for it rules out the presence of syphilis of the brain and parasymphilitic conditions. 4. In general paralysis the lymphocytosis is a constant and early sign and is usually associated with a heightened albumin content. The same may be said of tabes dorsalis. 5. Lymphocytosis may occur in secondary and tertiary syphilis without clinical evidences of involvement of the nervous system. As a rule the cellular increase in such cases is far less than that observed in paresis and there is very little increase of albumin. 6. In arterio-sclerotic insanity a positive finding points to a syphilitic process, such as softened foci following specific arterial disease. 7. Epilepsy shows negative findings. 8. Alcoholism in all its varieties gives negative results—that is, when apart from syphilitic lesions. 9. A differential diagnosis is to be made between abscess of the brain and meningitis by the presence in the latter of increased cellular material. 10. It cannot be enough emphasised that the lymphocytosis is merely a symptom, and that only after consideration of all other symptoms of the disease should it be used to construe the case.

New Inventions.

AN ACHROMATIC ILLUMINATOR.

THE achromatic lens is often indispensable for examining the cornea, corneal surface, and iris, but the difficulty is that both hands are required to be employed in so doing, one in holding the lens and the other in supporting a focussing lens for condensing the light from a lamp. With the assistance of Mr. Davidson, optician, of 29, Great Portland-street, W., I have been enabled to overcome this difficulty by the introduction of an electric light attachment to the achromatic lens, by which one hand is left free to carry out the necessary manipulations of the lids while the examination is being conducted. The little appliance I have found a pleasure to use. The apparatus consists of an achromatic lens of about half an inch focus fixed in a metal clip, attached to which is the lamp-holder.



The current is controlled by means of a spring, by the pressure of which the light comes into use. The object of this arrangement is to prevent the waste of current when the lamp is not required. The lamp is of four volts and is screwed into the holder; it can therefore be easily replaced when either broken or fused. A dry battery is supplied which will probably last with intermittent use upwards of six months. The appliances can also be fitted with eight and 12-volt lamps for use with various accumulators and even with the ordinary house current by means of special adaptors which Mr. Davidson has designed and introduced. The whole appliance is contained in a small leather-covered box at a moderate cost. PERCY DUNN, F.R.C.S. Eng.