

to solid substances. Great humidity of the soil and an accumulation of ground-water in its superficial layers are believed to be important breeding factors of the cholera germ. The conditions for the development and diffusion of cholera are a favorable medium for the multiplication of the germ, sufficient contact with the human organism, and personal susceptibility. Climatic conditions doubtless have a modifying influence on the spread of epidemics. The idea that cholera epidemics pursue a definite course from east to west has been for the most part abandoned, and it is now the current belief that the disease is spread by human agency, by the lines of traffic, through cases attacked, whose effects, emanations, stools, carry the morbid agent and transport the disease, particularly when the conditions of the ground-water, drinking-water, and their contact with human beings favor the development and action of the germs.

The theory that cholera is autochthonous, and may arise under epidemic influence independently of a germ, cannot be sustained by the evidence at hand. Very little importance need be attached to the theory that cholera is spread to great distances under certain conditions of the atmosphere and with the winds.

Dr. Lawson's book is well worthy of perusal. It contains an imposing collection of facts which have an important bearing on the spread of epidemics, with such generalizations as the evidence at hand have permitted him to make.

His views upon the epidemiological aspects of yellow fever and cholera, especially the latter, should be read in connection with the works of recent investigators, whose opinions in some important particulars are at variance with those which he advocates.

W. H. F.

THE ELECTRIC ILLUMINATION OF THE BLADDER AS A MEANS OF DIAGNOSIS OF OBFUSCATE VESICO-URETHRAL DISEASES. By E. HURRY FENWICK, F.R.C.S., Surgeon (Out-patient) to St. Peter's Hospital for Stone and other Urinary Diseases; Assistant Surgeon to the London Hospital; Examiner in Elementary Physiology in the Conjoint Board in England of the Royal Colleges of Physicians and Surgeons; Assistant to the Lecturer on Physiology at the London Hospital Medical College. With thirty illustrations. 8vo. pp. 176. London: J. & A. Churchill, 1888.

THE appearance of this excellent and praiseworthy monograph is very opportune. Heretofore, there has been no demand or want for such a work as this, which is destined to create that want, simply because the general profession, or even specialists, have scarcely yet had time to become aware of the marvellous capabilities and practical advantages of the beautiful cystoscopes and urethroscopes which have recently been brought to such great perfection by Nitze, of Berlin, and Leiter, of Vienna. We had the pleasure of witnessing the accurate workings of these two instruments, shortly after their introduction at Berlin, a year since, and it is a matter of great regret that the use of such valuable adjuncts to diagnostic research are not yet in general use.

The work is cleverly written in a clear, attractive style, and the

author's enthusiasm is kept rigorously in check by the confines of fact, and he has had a very large experience in the use of these instruments and with disorders of the vesico-urinary system. It will undoubtedly add to the reputation of the author and demonstrate to the profession that they have now within their reach one of the most valuable additions to our armamentarium of instruments for the purposes of diagnosis and direction of accurate treatment that have been introduced since the ophthalmoscope and laryngoscope.

Bearing in mind the acrimonious dispute between Nitze and his instrument maker, Leiter, Mr. Fenwick has been careful not to enter into the merits of that dispute further than to quote from the actual literature of the subject and to avoid all invidious distinctions, save that he considers the ideas of these two men as so closely interwoven in the development of the perfected instruments, that the name of either variety should be "Nitze-Leiter;" placing Nitze first, as it was he who first conceived the idea of illuminating the bladder; whilst to Leiter certainly belongs very great credit for its ingenious working out.

Chapters I., II., III. are devoted to an exceedingly interesting history of the evolution of endoscopy, from the first introduction of the method of visual exploration of the cavities of the human body by Nitze in 1879, through the period of the incandescent platinum loop and cooling apparatus, to the beautiful Nitze-Leiter electric-light cystoscope of 1887. He regards the far-famed but discarded cystoscope of 1879 as having the same relation to that of 1887, as has the "Puffing Billy" of Stephenson to a modern locomotive, yet he does not believe that the instrument is even now perfect, but that its working has come to such a practical point as to make it an indispensable factor in the diagnosis of diseases of the urinary tract.

The following twenty-five pages clearly and minutely describe the method of using the cystoscope, give several series of rules for the same purpose, enumerate the various physical and other requirements for successful exploration of the bladder, and end with a beautiful description of the picture which can so easily be had of the normal bladder through the electric cystoscope. Then succeed fifty pages of equally readable and instructive matter describing the appearances of the bladder pathologically changed by inflammation, tumors or when harboring foreign bodies; and scattered through the text are the histories and cystoscopic pictures of many cases in which marvellously accurate diagnoses have been made by means of the cystoscope: most of them having been positively and exactly confirmed by subsequent operative relief. In one of these cases, a pia was seen sticking in the bladder wall. The cystoscope was withdrawn, and the foreign body cleverly caught and removed by a lithotrite. In another, an encysted calculus, which had escaped observation during lithotomy, was most easily discovered by the visual examination afforded by the electric apparatus, and in yet another case, the true nature of an obstinate cystitis was by its means discovered to be due to an ovariotomy suture coming partly through the bladder, and the patient was quickly relieved of her distress.

But most especially perhaps has the cystoscope been found useful in the case of bladder tumors and morbid conditions of its wall, and the chapter which describes the appearances of disease of this class will be found to be one of the most interesting and important in the book. The early diagnosis of malignant trouble has been so positively made out

by the author as to lead him to desist from any cutting operation for purposes of either further diagnosis or relief. It is truly astonishing to find that so great accuracy has been attained during the brief time which has elapsed since the introduction of this instrument, and it would be a rash man who would at this time attempt to prophesy its limitations. The author concludes the first section of his book with the statement that cystoscopy "will become an important atom in the molecule of the diagnosis and treatment of obscure vesical disease, for it procures for us a visual examination of the bladder without a cutting operation. It will, therefore, rank immediately before, and in some cases supersede the operation of boutonnière, or Sir H. Thompson's digital exploration of the bladder."

The second division of the volume relates to a description of the Nitzsch-Leiter *urethroscope*, an account of the author's experience with it, its methods of use, capabilities, and the physiological and pathological appearances of the urethra, which, by its employment, are brought to sight. This instrument is also very valuable perfect and simply working one, but, of course, its utility will always be superseded by that of the cystoscope.

Two appendices and a bibliography of recent literature occupy the balance of the book, and bring to an end one of the most useful and excellent monographs which have recently made their appearance. In the first appendix, very appropriately is given the history of the incandescent electric lights of Edison and Swan, and in the second are recorded an additional series of illustrative cases which have been subjected to cystoscopic examination and diagnosis.

T. S. K. M.