

THE SURGICAL COMPLICATIONS AND SEQUELS OF TYPHOID FEVER.
 By William W. Keen, M.D., LL.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; Vice-President of the College of Physicians of Philadelphia; Membre Correspondant Etranger de la Société de Chirurgie de Paris; Membre Honorarie de la Société Belge de Chirurgie. Based upon tables of 1,700 cases, compiled by the author and by Thompson S. Westcott, M.D., Instructor in Diseases of Children, University of Pennsylvania; Visiting Physician to the Methodist Episcopal Hospital, Philadelphia; with a chapter on the Ocular Complications of Typhoid Fever, by George E. deSchweinitz, A.M., M.D., Professor of Ophthalmology, Jefferson Medical College; Professor of Diseases of the Eye, Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia and other Othopedic Hospitals; and as an appendix the Toner Lecture No. V. Philadelphia: W. B. Saunders, 925 Walnut street, 1898.

A monograph of nearly 400 pages on such an important subject to the profession generally as the surgery of typhoid fever and by so distinguished a member of the profession as William W. Keen always arrests our attention. The subject is not a new one to Dr. Keen. In 1876 he delivered the Toner Lecture No. V., at Washington, on the Surgical Complications and Sequels of the Continued Fevers. Inclusive of the cases made use of in that lecture, he has now 1700 cases which are tabulated most fully, and which "practically include nearly all the cases recorded in the last fifty years."

How large a role the complications and sequels of typhoid play is well shown by the statement of Holscher, that of 2,000 fatal cases tabulated by him only 24 per cent. died as the result of the typhoid infection *per se*, and 76 per cent. from the various medical and surgical complications and sequels.

Chapter III. is devoted to gangrene, a subject which the author declares that neither physicians nor surgeons have given the attention which its importance merits. "One would suppose *a priori* that gangrene would only follow severe attacks, but so large a number of cases have been reported, after relatively mild attacks, that we must conclude the possibility of gangrene in mild cases as well as severe ones. Hence the watchfulness of the physician should never relax by reason of the fact that the case is running a mild course, and that gangrene is an infrequent result of typhoid." The commonest time for this complication is to appear in the second and third weeks.

Chapter IV. takes up the affections of the joints, and Chapter V. those of the bones. Excepting the laryngeal complications and sequels the most frequent are those connected with the bones. In his Toner lecture Dr. Keen had gathered 69 cases. In the twenty years since then he has collected 168 additional cases. One remarkable feature of these bone cases is the viability of the bacilli at such very long periods after the original attack of typhoid. One case is reported where a pure culture was obtained after a lapse of seven years. The tibiae and the ribs appear to be the bones most frequently affected. Though the larynx and