the channels patent is deposited in a certain circumscribed area. It is probable that the fluid is filtered in the thickened pia, and that as it reaches the larger cisterns it is so slightly loaded as to pass freely into the wide space in the spinal canal." The predominance of these appearances in the area of distribution of the middle cerebral artery suggests the query, "Is it that the demand for blood by the active part of the organ leaves after it the signs of work and the evidence of waste of tissue?"

In a further consideration of the trophic interrelation of different portions of the brain, especially the relations between the frontal and Rolandic regions, he is led to express the conviction that "in the brain interruption of connection is brought about by Wallerian degeneration of fibres, processes, and collaterals, the result of structural implication of cells produced by over-stimulation and maintained and aggravated by the effects of poisonous exudates."

In the fourth lecture the author takes up the consideration of the symptomatology and etiology of over-exertion of the brain, and in the fifth and last dwells at some length upon the treatment. The latter consists essentially of prolonged rest, with the use of few or no drugs. Especially does he insist upon securing sleep by simple means, such as counter-irritation to the back of the neck, warmth to the feet and neck or over the abdomen, or by gentle shampooing or massage applied to the head or neck. The kidneys also should be stimulated. "As a rule, the patient begins to sleep by snatches, and, as the case goes on, in more continuous periods. No doubt steady sleep for five or six hours, or even longer, is what we hope for; but if a patient, who for days or weeks previously has hardly slept at all, and then only probably by the use of alcohol or opiates, gets five or six hours in the twenty-four by an hour or two hours at a time, he does fairly well."

When medicines are required Dr. Tuke makes free use of antipyrine, giving as much as fifteen grains every two hours, and he tells us that "it very generally soothes and produces sleep, and the general condition improves;" and to this he adds the statement that he has "frequently given antipyrine to the amount of 60 to 100 grains per diem for a fortnight at a time," and that he has "never noticed any of the ill-effects ascribed to it, except occasionally nausea and vomiting. It may be that patients in the condition we are speaking of may be more tolerant of the poison than those in whom temperature runs high. As in all nervous cases, the dosage is not first a matter of experiment; but it is quite safe to begin with the dose above indicated, raising it somewhat, and administering it more frequently, according as the patient's condition improves."

If forced to use other remedies, he prefers paraldehyde, administered in two to three drachm doses per rectum.

In closing he regrets the fact that general hospitals are closed to cases presenting mental symptoms unless these are produced by alcohol. He says: "I have no hesitation in saying that were wards set aside in each of our general hospitals for the treatment of early cases of insanity by the ordinary physicians a vast amount of misery would be relieved, and, what appeals to a large section of the public, the yearly increasing expenditures on asylums would in no slight measure be obviated."

In the prefatory notes to these lectures he tells us that since their original publication in the *Edinburgh Medical Journal* important inves-

tigations have been made hearing on certain opinions and theories advanced in them, and that though he does not deem it advisable to anticipate the fuller publications of these investigations he feels justified in saying that they throw much light upon the nature of cell-changes, upon the rapidity of subsequent deterioration of the connective apparatus, and on the absolute necessity of rest for recuperation, and that they will thus aid us to arrive at a rational treatment of the insanities.

It is to be regretted that among the various names of men to whom he gives credit that of Weir Mitchell does not occur, especially as the treatment proposed by Dr. Tuke for the incipient insanities of over-exertion is essentially the rest-cure method as introduced by this distinguished American.

F. X. D.

ASEPTIC SURGICAL TECHNIQUE, WITH ESPECIAL REFERENCE TO GYNECOLOGICAL OPERATIONS, TOGETHER WITH NOTES ON THE TECHNIQUE EMPLOYED IN CERTAIN SUPPLEMENTARY PROCEDURES. By HUNTER ROBB, M.D., Associate in Gynecology, Johns Hopkins University; Professor of Gynecology, Western Reserve University, Cleveland, Ohio. Illustrated. Pp. xvi., 264. Philadelphia: J. B. Lippincott Company, 1894.

FROM our knowledge of the excellent experimental and practical work which the author has been doing for several years in connection with the perfecting of surgical technique, we are prepared at the outset to accept without hesitation the concluding statement in Dr. Kelly's introduction, that he is "eminently qualified to speak and command our interested attention in relation to the subjects treated in the book before us."

The introductory chapter will be especially valuable to the general reader, who will learn from it the practical value of laboratory investigations. Many successful operators who pride themselves on being purely "practical" will not admit the debt which they owe to the patient toilers at the microscope, who have done so much to remove the element of empiricism from modern surgery. The author rightly insists upon "the necessity of the harmonious working together of the surgeon and clinician with the bacteriologist, believing that each and all will in this way gain new facts and new points of view."

The chapter on sterilization and chemical disinfection is concise but thorough. We note with satisfaction a lucid exposition of the point so commonly overlooked by the profession, that the indiscriminate use of strong antiseptic solutions during an operation is *not* asepsis.

Chapter III., on the practical application of the principles of sterilization to operating-suits and the preparation of the surgeon and his assistants, may seem unnecessarily refined to one who is not accustomed to the exact methods of modern hospitals; but we can assure the critic that the precautions described *pay*. It may not be possible or desirable for many to adopt exactly the technique recommended, but the principles involved must be mastered by every surgeon who essays to rise above mediocrity. "Any good work," we read, "necessarily involves a great deal of drudgery, and in the technique of the newer surgery the lazy man has no place."

The description of the preparation of the field of operation is clear and precise. The chapter on instruments is exhaustive, and is rendered especially helpful to the general reader by the numerous illustrations. We are interested in noting, under the head of sutures, the statement that catgut, however carefully it may be prepared, cannot yet be regarded as a perfect suture-material from a bacteriological standpoint. In view of the contrariety of existing opinions on this subject, the author's dictum must have considerable weight. With some of the statements regarding drainage-tubes we are not entirely in accord, being inclined to think that the natural deduction from the quoted objections of Dr. Welch would be to dispense with them entirely. We believe that the time will come when it will seem incredible that drainage through the abdominal wound should ever have been regarded as the ideal method. The remarks on the inadvisability of irrigation of the cavity, except under rare conditions, will now meet with the approval of most coeliotomists.

Chapter XI, on the operating-room and its furnishings, is handsomely illustrated, and though one may not feel disposed to copy for his own use all the appliances described, they certainly combine the important qualities of cleanliness and simplicity.

In the excellent chapter on the aseptic operation we note that the author finds the Trendelenburg posture "inconvenient and in the majority of cases unnecessary." While, of course, this is a question of individual preference, we are not prepared to admit the force of his objections thus briefly stated. The testimony of scores of successful operators who have adopted it cannot be lightly dismissed. Neither does the criticism that the elevated posture favors "the spreading about among the intestines of any fluids that may be present in the pelvis" strike us as being an unanswerable one, since it is assumed that the operator has thoroughly protected the intestines from contact with such fluids before beginning his manipulations within the pelvis.

The chapter on post-operative care supplements admirably the one which precedes it, and is quite a model of its kind. The same comment applies to the succeeding one on private operations.

The chapter on examinations, though good, belongs more properly to a regular text-book on gynecology, while the one on catheterization of the ureter interests the expert more than the general reader. The transposition of Chapters XVI. and XVII. would render the sequence more natural one.

The chapters on bacteriological and pathological examinations are thoroughly practical. We entirely agree with the writer when he deplores the sad waste of valuable anatomical material in this country. But, unfortunately, few institutions possess the facilities for pathological work of the Johns Hopkins Hospital, even if the surgeons and their assistants were imbued with the same scientific ardor, and fewer busy operators have the time or inclination for personal investigations.

We have merely outlined the contents of this attractive little volume, which deserves, and ought to secure, a wide circulation. It is written in a clear, straightforward manner, and impresses one as a record of personal observations and results. Although the criticism may be made that its tone is somewhat dogmatic, this element is quite allowable in an author who is entitled to speak *ex cathedra*. It is thoroughly in accord with the spirit of modern surgery, and is an admirable exponent of the

teachings of an institution the high aim of which is to keep before the profession the fact that medicine is a progressive science as well as an art. It may be that many experts who glance at this modest work will think that they do not need the minute instructions in the details of aseptic technique, but we are sure that the general reader will derive from its perusal a clearer idea of the factors which lead to success in gynecological surgery than he has ever had before. After all, the best tests of the value of any method are its *results*, and judged by this criterion the author and the hospital in which he received his thorough training may be regarded as above any superficial criticism.

H. C. C.

MATERIA MEDICA, PHARMACOLOGY, AND THERAPEUTICS; INORGANIC SUBSTANCES. By CHARLES D. F. PHILLIPS, M.D., LL.D., F.R.S. (Edin.), Late Lecturer on Materia Medica and Therapeutics at the Westminster Hospital Medical School; Late Examiner in the University of Edinburgh, etc. Second edition. Pp. xiv., 898. London: J. & A. Churchill, 1894.

THIS work follows the same plan as did the first edition, which was published twelve years ago. Many sections have been extended, and others have been added, notably those treating of oxygen, hydrogen sulphide, iodoform, mineral waters, chromic, hydrochromic and lactic acids. The remedies are not classified, nor indeed is an alphabetical order followed. Each chemical is defined, its preparations stated, its character and tests, the method of absorption and elimination, its physiological action, both external and internal, and its external and internal therapeutical action, the various pathological conditions and diseases being taken up *seriatim*; finally the preparations and doses are briefly presented. Both pharmacopœial and non-official preparations are discussed. Covering only the smaller inorganic division of materia medica, a bulky volume should contain but few omissions. A careful reading shows that the current literature has been thoroughly studied, and in general the best has been presented, British in the greater part, American to some extent, and the Continental to a less degree being laid under contribution. Omissions of important methods are not very common, yet the advantages of the syrup of hydriodic acid over the alkaline iodides in ease of administration and effectiveness, the use of digestive ferments with the iodides, as popularized by Delavan, should have been mentioned. In the treatment of typhoid fever we expected to have found stated the great value of chlorine as an intestinal disinfectant and a full account of its literature, of which, by the way, the best is of British origin. In references to the United States Pharmacopœia the author is by no means accurate; for instance, (p. 533) *liquor barii chloridi* is not official in that work, nor, as a matter of fact, is any preparation of barium chloride. An occasional unusual expression is found; we willingly admit that the taste of bromine, even when well diluted, is unpleasant, but we scarcely believe that it is "truly horrid" (p. 137). The physiological action of remedies is carefully presented. Some sections, for instance that upon water, are well rounded out and eminently satisfactory. The strongest feature of the book is the thera-