bro-spinal fluid and of its variations in disease. As a summary of our knowledge it forms a desirable volume for the neurologist, the pathologist and the laboratory worker. It deals not only with the fluid obtained by spinal puncture but with that drawn off from the cisterna magna and the lateral ventricles of the brain. Many of the observations made are based upon the records of examinations at the National Hospital for the Paralyzed and Epileptic. The book is arranged in three parts. The first deals with the nature and composition of the spinal fluid in health and disease, the second with its characteristics in certain special diseases, while the third part treats of the technique of examination of the fluid. The anatomy of the spaces in which the fluid is found together with the physiology of its secretion, absorption and circulation are considered in the early part of the work.

J. H. ELLIOTT

Pathology. General and Special. J. Martin Beattie, M.A., M.D., M.R.C.S., L.R.C.P. and W. E. Carnegie Dickson, M.D., B.Sc., F.R.C.P. 1103 pages, 499 illustrations and 17 coloured plates. Third edition. Price 42/ net. Wm. Heinemann Ltd., 20 Bedford St., London, W.C.2, 1925.

This work is divided into the two great divisions —general and special—each requiring about one half of the volume.

The general pathology is taken up in a sensible, logical manner, and one is gradually led up to the fundamental phase of inflammation. Inflammation is considered very comprehensively and yet is not laborious to the reader. Tumours are concisely and intelligently reviewed. The portion on "Animal Parasites" is rather extensive. Immunity is carefully considered, while anaphylaxis is only casually mentioned.

The special pathology occupies the latter half of the volume and that portion on "Diseases of the blood and blood forming organs" is particularly interesting. The pathology of the nervous system is well written and fairly comprehensive.

The book is well printed on good paper, well bound and indexed conveniently; in all, a very interesting and valuable addition to one's library.

R. B. MALCOLM

Health and Environment. By Leonard Hill, M.B., F.R.S., Director Department of Applied Physiology, National Institute of Medical Research and Argyll Campbell, M.D., D.Sc., Member of Research Staff, National Institute for Medical Research. Cloth, 201 Pages, 7 plates, 20 charts and diagrams. Price 12/6 net. Edward Arnold & Co., London, 1925.

The authors of this volume have secured their material from reports of the Medical Research Council embodied in series Nos. 32, 52 and 73; these deal with "The science of ventilation and open air treatment" and "The kata-thermometer in studies of body heat and efficiency." The purpose is to present to the educated public the substance of these valuable reports in a more concise and simple form and to bring before the people some of the conditions that are apparently opposing improvement of the nation's health.

Many of the environmental conditions that influence health are dealt with and presented in commendable form. Much stress is laid on impurities of the atmosphere and ventilation and heating. One chapter deals fully with the kata-thermometer and explains clearly the function of this instrument in ventilation by measuring the cooling and evaporative powers of the atmosphere which depend upon air movements.

The volume cannot be considered a textbook but it will convey to the interested public an outline of the problems of sanitation which confront us and which have such an important bearing on national health.

F. W. LUNEY

Chronic Disease. A Working Hypothesis. Edward Bach, M.B., B.S., D.P.H. and C. E. Wheeler, M.D., B.S., B.Sc. VIII+153 pages. Price 7/6 net. H. K. Lewis & Co. Ltd., London, 1925.

This book is an attempt to establish on bacteriological and clinical bases the following thesis: "The ordinary diet of civilized life predisposes to chronic bacterial infections of the intestinal tract. These infections vary in their virulence, but the essential factor which makes them dangerous is their chronicity. Single doses of their toxins by tests on animals may appear but slightly virulent, if at all, but the cumulative effect of them, absorbed day in and day out, year after year, is a potent cause of many varieties of chronic disease." The authors believe that our ordinary diet is entirely wrong and that the proper dietary should be of "food as largely as possible uncooked" and proceed to show how a diet so constituted alters the appearance of the fæces and their bacteriological constituents. However, it is frankly admitted that such a dietary seldom, if ever, succeeds in freeing the intestinal tract of the bacteria that they believe are causative of "many varieties of chronic disease." To control these, vaccines are required in addition and an explanation is given of the methods of examination and culture needed to secure the mother cultures for these and prepare vaccines. A chapter is then devoted to the clinical results and a summary given of the application of their methods in 500 cases (under twenty-nine disease headings.)

The book is a rather interesting one, especially to those who have to deal with chronic gastro-intestinal diseases, but the evidence presented to maintain the thesis seems to the reviewer to be slim indeed, in fact not sufficient even to justify the verdict of "not proven".

W. T. CONNELL

Statistical Methods For Research Workers. By R. A. Fisher, M.A. 239 pages, with charts. Price 15/ net. Oliver and Boyd, Tweedale Court, Edinburgh, 1925.

Research students in all departments of science recognize that many problems arise, the solution of which cannot be regarded as satisfactory without a statistical consideration of the numerical data. Tacit appreciation of this fact is shown by the repetition of experiments. To those with limited mathematical training, attempts at solution of problems by reference to standard works on statistics only strengthen the prevalent idea of their prohibitive nature. One of the reasons is that simple principles are usually clouded with rigid arguments from which they are deduced. The general impression left is that the subject of statistics is hermetically sealed under forbidding terms and equations.

Statistical methods will only be made use of by the majority of workers directly proportional to the simplicity with which this science is presented. The author of "Statistical Methods for Research Workers" appreciates this. He has selected the salient principles and has systematically constructed in small space a work which makes it easy for the reader to get a clear conception of the methods of applying statistical tests to numerical data.

The chapter on time, correlation and frequency diagrams is brief and to the point. It gives the reader the kernel of the subject. The chapters on distributions and on means are clear and good. They show the simplicity with which it is possible to present this branch of the subject. Of particular value are the examples chosen to clarify the different processes. By presenting the subject in such a manner one can more readily ascertain the application of any process to any particular problem.

The book is meant to be read methodically as a connected treatise. Should one, however, wish to use it as a laboratory reference, it is necessary, as the

author warned, to take the pains to work through the appropriate example, in all numerical detail, in order to thoroughly appreciate the meaning to be attached to the process, and to recognize whether the data to be tested are appropriate for parallel treatment.

The publication of this work should prove successful. I. M. RABINOWITCH

Simplified Nursing. Florence Dakin, R. N. 497 pages, 77 illustrations. Price $3.00. J. B. Lippincott Co., 201 Unity Bldg., Montreal, 1925.

This book gives simple but definite instruction in general nursing. It is conveniently arranged in thirty-eight lessons with adequate index and glossary. While it is a valuable text-book for the nurse in training, it should be of especial assistance to the trained attendant or the home nurse of the family. It gives in detail the little practical points of general nursing and first aid, and also, clear, common sense instructions regarding disinfection, sterilization, the preparation of food, and the carrying out of treatment. There is sufficient physiology and bacteriology given to instil interest in the technical instruction, and enough of the ordinary symptoms of disease outlined to make the student or attendant conversant with the general condition of the patient.

A. H. MACCORDICK

Physical Diagnosis of Diseases of the Chest. Joseph H. Pratt, A.M., M.D. and George E. Bushnell Ph.D., M.D. 522 pages, 166 illustrations Cloth $5.00 net. W. B. Saunders Co., Philadelphia and London, 1925.

This work is the result of the experience of the writers in the classes of instruction in physical diagnosis as carried out in the Medical Reserve Officers' Camps, U.S.A., during the war. It was found that many physicians who had paid no especial attention to physical diagnosis, became interested in the subject and developed a previously unsuspected facility. Colonel Bushnell was in charge of the Division of Internal Medicine under the Surgeon General. He devoted all his time to tuberculosis, and to standardize the examinations for tuberculosis, he issued *Circular No. 20* which became a classic and has stood well the test of time. Within a year of entering the war he had 450 especially trained tuberculosis examiners at work to weed out all cases of active tuberculosis from the army. Bushnell is responsible for the section of the book dealing with respiratory diseases. Dealing only with diagnosis, he restricts his writing almost entirely to a discussion of physical signs. There is only passing reference to radiology under pneumothorax and tuberculosis. Even the value of history and symptoms in such conditions as pulmonary abscess receive little notice. Hence the work is not a complete presentation of the subject of diagnosis. His chapters on diagnostic procedures as applied to diseases of the lung, and on physics and physiology in relation to physical diagnosis are splendid. The practitioner who reads these chapters can not but receive much help. Bushnell did not live to see his book in print. His death occurred while the book was in press.

Pratt's section of the book on diseases of the heart is based in part on anatomy, but chiefly on normal and pathological physiology. The fundamentals of the newer physiology of the heart and circulation have been included. The subject of diagnosis is dealt with from the point of view of bedside and office examination. Emphasis is placed on the simpler methods of diagnosis. The reader is reminded that the observant eye, the trained finger and the educated ear are of more value than all the instrumental means of diagnosis. Throughout the work there is an attempt to teach how to estimate the impairment of heart function rather than to deal with anatomical diagnosis alone. Pratt is to be congratulated upon his presentation of the subject.

J. H. ELLIOTT

Diabetes and Its Treatment by Insulin and Diet. Orlando H. Petty, M.D., and William H. Stoner, M.D. 133 pages, illustrated. Price $1.50 net. F. A. Davis Co., Philadelphia, 1925.

This volume presents a clear, concise and up-to-date synopsis of the present treatment of diabetes, both as to diet and the use of insulin; intelligible to the patient and valuable as a ready reference to the physician. There are extensive tables giving the caloric value, the vitamin content, the protein fat and carbohydrate composition of foods. Other tables give salt free and acid and base forming diets. A chapter on cooking recipes should be of especial value to those who prepare the diabetics' food, outside the hospital. A. H. MACCORDICK

Arsenic Poisoning.—Twenty-eight cases of arsenic poisoning are reported by G. B. Lawson, W. P. Jackson and G. S. Cattanach, Roanoke, Va. Large quantities of arsenic were demonstrated to be present in cider which had been served at the noon meal. It was later learned that the barrel had contained an arsenic compound used for spraying trees. Thirteen of these patients died, the first death occurring in six hours, and the thirteenth on the thirteenth day after the taking of the poison. Ten of these deaths occurred in the acute stage, and the other three during the subacute stage, into which the patients had passed with a cessation of the acute symptoms on the second day. Immediately following the onset, vigorous supportive and symptomatic treatment was given; and nine patients, all of whom survived, repeatedly lavaged their own stomachs with warm water. After the Marsh test had demonstrated an abundance of arsenic, it was decided to use sodium thiosulphate with the hope of inactivating the remaining arsenic by the production of its nontoxic, insoluble sulphid. No immediate improvement was observed following the use of sodium thiosulphate. To be of possible value in acute poisoning, it should be given at once and in maximum doses. Analysis of samples taken at the time of the poisoning showed the presence of 3.38 grains of arsenic (As_2O_3) per fluid ounce. Most of the patients drank several glasses of the cider, but because of the vomiting and diarrhœa it was impossible to determine the amount retained.—*Jour. A. M. A.*, July 4, 1925.