following requirements: They should contain but very little suspended organic matter (certainly below 5 parts per hundred thousand); they should possess no sewage odour and should furnish no physical evidence of putrefaction when they are incubated for three days in a closed vessel at 27°C."

Part III gives a brief and clear account of soil examination. The fifty-three pages devoted to air analysis are excellent, as also is Part V on food examination, milk, butter, cheese, lard, bread, meat, alcoholic beverages, vinegar, lime juice, tea, coffee, arsenic in food and in wall paper, tinned foods, etc. As regards tea, this is now but little adulterated, owing to its cheapness. The remarks on antiseptics and colouring matters in preserved food are good and the regulations of the Local Government Board in 1906 are quoted, and an excellent account is given of *harmful* colouring agents as lead, arsenic, copper, mercury, iron, picric acid and, of the *harmless* colouring agents, as cochineal, madder, beetroot, annatto, turmeric, saffron, and a few of the anilines (fuchsine, magenta, orange). Annatto is a much used colouring matter and is obtained from the seed of a plant called *Bixa orellana*.

Part VI deals with disinfectants, and it is pointed out that many carbolic preparations have too little carbolic or cresylic acids to make them valuable. Dr. Savage's chapters on the bacteriological examination of water are excellent and well illustrated, as are also those on food, soil and air. The bacteriology of cholera, plague and anthrax is also described.

The whole book is a good one and admirably adapted to the needs of the public health student for use as a Laboratory manual. It is excellently illustrated.

The production of Alkali in Liquid Media by the Bacillus Pestis.—By Lieutenant-Colonel W. B. BANNERMAN, M.D., B.SC., I.M.S. Scientific Memoris, 1908, No. 33 (new series).

LIEUTENANT-COLONEL BANNERMAN, I.M.S., the Director of the Bombay Bacteriological Laboratory, publishes a highly technical note on an explanation of the fact that plague microbes cease to grow abundantly in liquid media after a month or six weeks. This fact has hitherto been explained by the supposed consumption of all the available nutriment. In the Bombay Laboratory it was found that the medium in old sterile flasks had become alkaline (2 to 2·5 per cent. of normal alkali), and this has been proved to be the case by the series of experiments reported in this monograph.

The Golden Rules of Venereal Disease—By C. F. MARSHALL, M.D., F.R.C.S., "Golden Rules" series, No. XVII. Bristol: J. Wright & Co.

THIS little booklet, of the size of a pocket note book, is a wonderful epitome of all that it is essential to know on venereal diseases. The author, Dr. C. F. Marshall, is well known as the author of a standard work entitled "Syphilology and Venereal Disease."

In such small space "Waistcoat Pocket Size" and price 1s., it is simply marvellous how much is contained. It is eminently practical and most of the leading facts are compressed into this small space. For the busy medical officer such a booklet will prove useful in refreshing his memory.

Keen's Surgery, Vol. 2. W. B. Saunders and Co.

THE surgery of the bones, joints, muscles, lymphatics and nerves is the subject-matter of this heavy bulky volume which, like its predecessor, consists of a series of condensed monographs by well-known authorities in the States. As is inevitable in such composite work, the different parts are of very unequal merit. Professor Keen might have been more fortunate in his choice of a writer on the lymphatics who feels equal to disposing in two lines of Ludwig's theory of lymph flow, equal also to writing authoritatively on elephantiasis when his practice is in the province of Maine.

Professor Nicholl of Harvard is responsible for two lucid pathological papers which bear evidence of the quality of the teacher and the critic. Might we suggest that he is hypercritical when he refuses a place to Acute Periostitis which he would class as a superficial osteomyelitis. It would be equally justifiable to abolish dermatitis because it is always accompanied with some subjacent inflammatory trouble.

We can strongly commend the two articles on fractures and dislocations contributed by Dr. Eisendrath of Chicago. They are models of clear exposition and are abundantly and beautifully illustrated, as is indeed the entire volume. Probably no recent writer has so fully yet concisely dealt with these subjects, and we would draw special attention to the extensive use made of radiograms and also to the detailed description given of the various modes of treatment. All Eisendrath's recommendations are imbued with a wise conservatism, and it is much to be regretted that it is for many reasons impossible in this country to follow some of the methods he advises. In this connection it is worth noticing that the Lorenz bloodless operation seems now to stand condemned in the States after having been put to the test for some years.

Dr. Lovett of Harvard contributes an excellent article on the joints, but his still more valuable contribution to this volume is the article on orthopædics, a subject for which his experience at the Boston Children's Hospital eminently qualifies him. The publishers are to be thanked for having made possible the extensive use of illustrations with which this article is enriched.

Professor Spiller's article on the Pathology of the chief surgical disorders of the nervous system is an excellent prologue to Dr. Woolsey's articles on the surgery of the nervous system and the spine.

An exceedingly good article on Neurasthenia and allied troubles is the last valuable contribution to the volume.

Every article is enriched with an excellent bibliography. The catholicity of the knowledge and reading which have gone to the making of this volume may be estimated by the fact that even the work of the Calcutta Medical College Hospital comes under reference in the shape of a case reported by the Hon'ble Colonel R. D. Murray which, we believe, was illustrated originally in this Gazette.

The publishers have done their duty generously, too generously we should say, for the wants of this country. A beautiful print and splendid illustrations appeal to us, but it is hopeless to expect an extensive sale in this country for books that it is a burden to handle. For the Indian market it was surely possible to produce these volumes printed on a light India paper.

The Bacteriology of Diphtheria, including Sections on the History, Epidemiology and Pathology of the Disease; the Mortality Caused by it; the Toxins and Antitoxins and the Serum Disease.—Edited by G. H. F. NUTTALL and G. S. GRAHAM-SMITH. Cambridge University Press, 1908. 25*s*. net.

THIS fine volume of 700 pages contains a full account of this difficult subject by authoritative writers, and sums up the present knowledge in an admirable manner. It is intended for bacteriologists and health officers, and will save them much labour in searching the immense literature on diphtheria for special points. It includes articles by Loeffler on the history; A. Newsholme on the epidemiology; Mallory on the pathology; Graham-Smith on the bacteriology, a very full and well illustrated account, which occupies about half the entire volume; Dean on immunity and toxins and antitoxins, a well-written account of an extremely difficult subject; and Park and Boldau on the mortality and serum sickness. A full bibliography is appended as well as a good index. The marked reduction in the case mortality of the disease since the antitoxine came into general use is well brought out in the opening section. The vexed question of the relationship of Hoffmann's pseudo-diphtheria bacillus to the true organism is fully discussed, and the teaching of the most recent investigations to the effect that they are quite distinct organisms is endorsed. This book may confidently be recommended to those for whom it is intended, and we hope that the promise of similar works on other diseases, if the present meets with a favourable reception, will soon be fulfilled.

Principles and Practice of Modern Otology.—By JOHN F. BARNHILL, M.D.; and ERNEST DE WOLFF WALES, B.S., M D. Pp. 575. Illustrations 305. Publishers: W. B. Saunders and Co.

THE first 62 pages are taken up with the anatomy of the ear. It is a curious omission that no connected description of the tympanic cavity is attempted, though every other part of the ear is so described. A short chapter on the physiology of the ear is followed by others on its bacteriology and on the causation of its diseases. The diseases themselves are the subject of the rest of the volume. Malformations, diseases and injuries of the external ear are the first subjects to be taken up and their consideration occupies 80 pages. In taking up that of the methods of physical examination, difficulties which may be met with and the ways of overcoming these are a useful feature of a useful chapter. After describing the examination of the function of the ear, considerable emphasis is laid on the influence of nasal and nasopharyngeal diseases upon affections of the ear, and full details of the diagnosis and treatment of adenoids are included, in view of the detrimental effects of their presence on the hearing. The next object for discussion is the tympanic membrane, and after that the diseases of the middle ear. The acute inflammations are divided into three grades; acute tubo-tympanic catarrh, acute catarrhal otitis media, and acute suppurative otitis media. A very emphatic position is given to acute mastoiditis and its treatment. In chronic purulent otitis media the author favours thorough cleansing and the institution of "dry treatment" as being the line which usually is successful, though he recognises that in certain cases ear drops are more useful. It is, of course, on chronic mastoiditis and its sequelæ that the greatest attention is concentrated; these chapters are very good; and if one part of them had to be put in front of another, it would be the operative procedure, by reason of its lucidity. The extension of an otitis media to the labyrinth is also pressed on the attention; and other labyrinthine diseases are suitably dealt with. A chapter on deaf-mutism ends a useful book. The illustrations and printing are very good.

ANNUAL REPORTS.

THE KING INSTITUTE, GUINDY.

DURING the year 1907 Captain S. R. Christophers, I.M.S., the Superintendent of the King Institute, Madras, was on special duty in connection with the blackwater fever investigation in the Duars, and Captain W. S. Patton, I.M.S., acted as Superintendent.

During the year 1893 specimens were examined; among these were a number of plague specimens, tumours, parasites, water samples, etc. We quote the following interesting note on malaria:—

"Two hundred and sixty-six specimens of blood for the detection of the malaria parasites were received and reported on. In last year's report the necessity of the estimation of the endemic index of different localities was pointed out by Captain Christophers, and during this year in only one instance from Maymyo, Burma, was it possible to work out the endemic index which was 71 per cent. In Volume I of the special studies connected with this report will be found a paper (No. IV) by Assistant-Surgeon T. Seethapathy Iyer, L.M.S., and Assistant-Surgeon K. Srinivasa Raghava Iyengar, L.M.S., which gives an account of some investigations into the malarial fever prevalent in the villages along the Buckingham canal. This district has long been notorious for a very virulent form of malaria which dates back to the years 1902—1904 when the present railway was constructed. Large numbers of coolies from Cuddapah were employed in this work and presumably they were infected with the form of