

the effect of disinfecting agents. To measure pollution the oxygen consumed test, the B.O.D. value or the chlorine number can be used; but for very slowly flowing waters the total bacterial count is the most sensitive test for determination of local pollution or for the checking of self-purification. In testing for soil pollution it is always more important to make local sanitary surveys than to depend on a single laboratory test. Only a series of laboratory tests made on samples taken under different weather conditions can improve on local inspection. A total count is mostly without significance in water from dug wells, and for many hygienic considerations only the test for coliform organisms is of value. In artificial sand filters we get a true picture of the efficiency of the filter only when it is operated uniformly. Any interruption or forcing of its action causes an increase in the total count. The numerical result of the total count is generally not as important as are changes in its value. The limiting allowable number of 100 bacteria per millilitre should not be taken rigidly but should be considered more as meaning a number with two ciphers. Many other practices in bacteriological testing are followed too much according to schedule without consideration of the scope of the test and the possibility of variation. Many times field observations are of more value. Tests for *Esch. coli* or biological examinations should often be made instead of total counts.

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Reviews.

FRACTURES AND OTHER BONE AND JOINT INJURIES. By R. Watson-Jones, B.Sc., M.Ch.(Orth.), F.R.C.S. Edinburgh: E. and S. Livingstone. 1940. Pp. xii + 723. Illustrations 1,040 (many coloured). Price 50s.

Mr. Watson-Jones, of the Liverpool School, has just published not only one of the best illustrated and annotated volumes we have read for some time, but a book which we feel sure will be regarded as the most authoritative work of purely British origin on this subject.

To describe a book based on the careful notes and follow-up of over 40,000 cases as "no more than a brief review of the whole subject," will not conceal the immense amount of work entailed in assembling and condensing the text. The author and the publishers are to be congratulated.

Part I deals with principles of fracture treatment and the theories on such subjects as ossification, repair, various influences affecting bone structure, etc. This section is alone worth careful study. The author's clear reasoning and lucid style brings out even old-established facts in such a way that they appear in a new and vivid light.

The remaining five sections cover the whole field of fracture work, and

indicate that Mr. Watson-Jones holds strong views on methods of treatment of many types of injury, and these views and methods are presented in a manner which leaves no room for doubt. The many excellent reproductions of photographs and line drawings naturally assist him enormously in accentuating and bringing out his points.

To those who may be engaged at any moment on the surgery of war wounds this book should make a special appeal.

Once more we are reminded that the key-note of fracture treatment after reduction is immobilization (rest), prolonged and complete, while, at the same time, all related muscles are permitted and encouraged in active movement, always provided that such voluntary action will produce no movement (rotation or shearing strain) at the fracture site. The medium employed, in the vast majority of cases, to obtain this essential combination of rest and active movement, is the moulded unpadded plaster of Paris splint.

The book is printed on excellent paper, well indexed, and in general is a credit to the author, his collaborators, and the publishers.

D. C. M.

THE SANITARY INSPECTOR'S HANDBOOK (4TH EDITION). By Henry H. Clay, F.R.San.I., F.I.S.E. London: H. K. Lewis and Co., Ltd. 1939. Pp. xxii + 514. Price 17s. 6d.

The demand for this valuable handbook, coupled with the recent changes in public health legislation, has necessitated the bringing out of yet another edition—the fourth in a little over six years.

It coincides with the coming into operation of the Foods and Drugs Act, 1938, and is an up-to-date compendium for all whose lot it is to study public health or who are concerned in public health administration.

No effort has been spared by the author to ensure that the book includes details of all recent legislation, and full revision in other ways has been carried out.

The author must again be congratulated on the clarity of the illustrations with which the book is profusely endowed and which are of the greatest assistance to readers of the subject matter. He is to be particularly complimented also on the new diagram illustrative of the legal differences between drains and public and private sewers, which appears on page 193. It is a masterpiece of ingenuity.

The author introduces his readers to the latest method of filtration of water by the principles embodied in the meta-filter—an apparatus suitable for domestic and field use—and gives an excellent diagram illustrative of this type of filter.

If is difficult to find any material points for criticism, but perhaps it is regrettable that more stress should not have been laid on the chemical treatment of water by superchlorination followed by dechlorination with sodium thiosulphate, a method which is coming into much more extended use than formerly.

Also, perhaps, apropos of the disposal of dry refuse, a little space might have been devoted to the "Hyganic" process, with which such excellent results are being achieved.

These criticisms are, however, of minor importance, and are mere drops in the ocean of praise which the book deserves. It forms an essential volume for all interested in public health, and can be most confidently recommended to them.

MEDICAL ORGANIZATION AND SURGICAL PRACTICE IN AIR RAIDS. By Colonel P. H. Mitchiner, C.B.E., K.H.S., F.R.C.S., and Colonel E. M. Cowell, D.S.O., T.D., F.R.C.S. London: J. and A. Churchill, Ltd. 1939. Pp. viii + 247. Price 10s. 6d.

Owing to an unfortunate misunderstanding, the notice which this publication deserves appears only now in the *Journal* which should have been among the first to draw attention to its merits. For both editors are not only distinguished medical officers of the now incorporated Territorial Army who served with distinction in the last war, but the Foreword is written by Sir Cuthbert Wallace, whose work with the B.E.F. in France and Belgium, as consulting surgeon is a byword with all of us. Published early in the year, when the political skies in Europe indicated the approaching storm and accounts from Spain suggested what might be expected, this useful book came just at the right time. By pointing out the lessons learned in the last war and some of the later experiences in the Spanish fighting, it provided just the information required and sought for by all without previous experience of war surgery, as well as indicating what might be expected in air raids. The value of the book was obvious and its popularity and utility assured. Further observations would be superfluous, but one cannot help feeling that when the authors and the publishers could turn out this book of nearly 500 pages for the modest sum of 10s. 6d. they were prompted more by patriotism than the prospect of personal gain. D. C. M.

ARTIFICIAL LIMBS IN THEIR RELATION TO AMPUTATIONS. Published by H. M. Stationery Office. Price 3s.

From the good old days of the peg leg as worn by that prince of pirates, Long John Silver, of "Treasure Island," or the makeshift arm of Captain Hook, immortalized by Barry, up to the almost dressy prosthesis of the present day is—well—goodness knows how long! The wearing of such rudely fashioned limb substitutes by these bold and bloody buccaneers even enhanced their villainous appearances. The stumping, half-hopping gait of Long John, with his jerkily circumducting contraption, was indeed part of his general make-up, as was the primitively prehensile and menacing hook of the other sinister ruffian.

By comparison, modern prostheses are so nearly perfect, both mechanically and in appearance, that it is often quite difficult to realize that the wearer

has had the misfortune to lose a limb. As far as comfort and utility go, there is literally no comparison.

Most of the credit for such advances must go to the Ministry of Pensions and its surgical and orthopædic advisers. Shortly after the Great War, experienced surgeons appreciated the difficulties connected with fitting such cases with suitable artificial limbs, and considered that certain types of amputation were hopeless. Consequently many erstwhile reputable amputation methods have been relegated to the museum or surgical scrap-heap. The Ministry was not slow to appreciate the situation and all pensioned amputation cases were soon under their control, or segregated at Queen Mary's Hospital (for the limbless) at Roehampton. Ideas soon began to crystallize. Advice on how, when, and where, to amputate was broadcast to the profession, while the limb-makers improved their mechanical contrivances. To-day at Queen Mary's Hospital there is an expert staff and a limb factory, unique in the world, which supplies limbs not only for this country, but to most of the British Colonies and Dominions.

Officers who have attended courses at the Royal Army Medical College will remember the intensely interesting lectures delivered by Dr. Kelham and Captain Maxwell, and the surprising demonstrations given by many willing patients. After such an afternoon, one could not help wondering whether the fate of Ben Battle, the hero of that pathetic ballad, "Faithless Nelly Gray," might not have reacted to-day, and especially as we find ourselves involved in yet another war, in a different way. You may remember that Hood states that he

". . . was a soldier bold,
And used to war's alarms,
But a cannon-ball took off his legs,
So he laid down his arms!"

One likes to imagine that to-day he would surely have snatched up his arms again, together with a pair of "central knee-controlled lower limbs (with roller cords, guide loops and suspenders)," to join the new brigade, determined to have another crack at this foe who dares to dictate to Great Britain!

Thanks to the Ministry of Pensions, and to Dr. Kelham and his colleagues and the Staff of Queen Mary's Hospital, the valuable experience gained at that unique institution has been made available to the public in the form of a well-illustrated book.

D. C. M.

SURGICAL DIAGNOSIS. By Stephen Power, M.S., F.R.C.S. Bristol: John Wright and Sons, Ltd. 1939. Pp. 228. Illustrations 51, Plates 15. Price 12s. 6d.

This is essentially a brief, but pre-eminently practical review of the diagnosis of most of the conditions of a surgical nature commonly met with in everyday surgical practice.

The text is illustrated by many useful and intriguing line drawings, and the 15 X-ray films are clearly reproduced.

A most useful ready reference, avoiding the more abstruse differential diagnostic points, and written in a clear and practical way, this is another example of excellent publication.

D. C. M.

Correspondence.

CHARTERHOUSE RHEUMATISM CLINIC.

TO THE EDITOR OF THE "JOURNAL OF THE ROYAL ARMY MEDICAL CORPS."

SIR,—It is probable that many cases of fibrositis and muscular rheumatism will develop amongst the soldiers, for which provision of adequate physiotherapy might be difficult. At the Charterhouse Rheumatism Clinic it has been found that such cases respond very readily to a few injections of stock vaccine. The necessity for physiotherapy is thus avoided.

I am writing to you to say that I have offered, on behalf of the Charterhouse Rheumatism Clinic, to provide vaccine free of charge to any officer of the R.A.M.C. who might wish to treat rheumatic cases on these lines.

Officers desiring to take advantage of this should write to the Secretary of the Charterhouse Rheumatism Clinic, 56-60, Weymouth Street, London, W.1, stating at the same time what experience they have had, if any, in the vaccine technique of this Clinic. If none, full particulars will be sent so as to enable the vaccine to be administered with the success which should attend this form of therapy in early cases.

56-60, *Weymouth Street,*

W.1.

December 1, 1939.

I am, etc.,

H. WARREN CROWE,

Senior Physician.

Notices.

"TABLOID" "THEOBA."

A USEFUL combined diuretic and sedative for conditions associated with high blood-pressure is available in "Tabloid" "Theoba," a Burroughs Wellcome and Co. product containing theobromine, 5 grains, and phenobarbitone, $\frac{1}{2}$ grain. Its action is said to dilate the coronary arteries with the relaxation of diseased arteries and this commends it for use in hypersensitive heart disease, angina pectoris and other conditions arising from high blood-pressure. It may also be used to relieve intermittent claudication.