Reviews.

HYGIÈNE MILITAIRE (vol. ix. of TRAITÉ D'HYGIÈNE, edited by Professor Brouardel and Dr. Mosny). By Dr. J. Rouget and Dr. C. Dopter. Paris: Baillière et Fils, 1907.

ACCORDING to popular conception, military hygiene is merely the application of the principles of general hygiene to the life of the soldier; the able treatises that have been written by successive professors of the subject in our own Army Medical School encourage that view. Yet Edmund Parkes, the first Professor of Hygiene in this or in any country, was a professor, not of general, but of military hygiene. It was in the camps and barracks of the soldier, in field service, and in tropical and unhealthy climates, that the lessons of disease prevention were first learned, and it may be truly said that the science of hygiene would not have attained the important position which it now holds in relation to the private and public life of the people, without the opportunities which the conditions of military service in all parts of the world afforded for studying the origin and spread of disease and the efficiency of the measures taken to prevent it. In Germany, for example, it is freely acknowledged to-day, that national military service has been the chief factor in raising the standard of sanitation throughout the country.

We may go further and say that the great discoveries of recent times in connection with the etiology of disease have been due to the work of military hygienists. We have pre-eminent examples of this in the discovery of facts that have altered the whole science of disease prevention, in the case of malarial fevers, yellow fever, Mediterranean fever, and sleeping sickness, diseases which affect a very large proportion of the human race. We look, therefore, in a work on military hygiene, not only for instruction in the application of general principles to the special conditions of the soldier's life, but also for recognition of the historical facts upon which many of these principles are based, and by which their special application must be governed.

The subject has excited a considerable amount of interest in recent years, chiefly on account of the outbreaks of disease in the American camps in 1898, and amongst the British troops in South Africa, as well as by the widespread reports of the absence of such outbreaks in the recent campaign in Manchuria. Several volumes on military hygiene have consequently appeared within the last year or two. Munson's bulky volume was the first to arrive. It has been followed by publications in England, Germany and France. The volume under review is the latest. It bears on its title-page the year 1907 as the year of publication.

It is the ninth of a series of twenty volumes of the "Traité d'Hygiène," which was commenced this year under the direction of Professor Brouardel and Dr. Mosny, and which has been continued, after Professor Brouardel's lamented death, by Professor Chantemesse and Dr. Mosny. Volumes v., vi., and vii. have not yet appeared, but the first four and the eighth and tenth have, so that this is the seventh issued during the current year. Both authors are army medical officers and assistant professors at the

Val-de-Grâce. They are also the authors of the volume on "Hygiène d'Alimentation," which is the fourth of the series, and they may, therefore, be accepted as writers who have special experience of their subject.

From the historical point of view their treatment of it does not come up to our expectations. The lessons of history must be impressed in the case of military hygiene ten times more forcibly than in the case of the hygiene of civil life. War strips life of its artificial conditions and makes it approach more nearly to the natural, and it is under natural conditions that history repeats itself. No work on military hygiene, therefore, should omit to emphasise the experiences of the past, the causes that led up to them, and the results of efforts to control them. Otherwise the military hygienist is apt to forget the dangers that lie in front of him, and to be unprepared for them when they come. Yet in this respect the authors' crop of references is meagre, although the field is vast and fertile. They have not gathered as much as they might from the sowings of their own country, and when they go further afield, they are not always careful as to what they glean. For example, in dealing with the results of recruiting, and in illustrating the wise and suggestive remark that "l'armée sera ce que la fera le recrutement," they state that during the South African War we had to take men where we could get them. This may be true, but they add that, in consequence, the admissions and deaths from disease were never so high amongst British troops. No doubt that was the impression which most people had at the time, but it is not true. In fact, it is very far from the truth, and one may express a feeling of regret that in recent years the tendency has been to accept, in matters connected with the lessons of war, evidence which in other scientific investigations would have been unhesitatingly rejected or received with extreme caution. Drs. Rouget and Dopter are not the only members of a scientific profession who have been falling recently into the error of not going more closely into their sources of information.

On the other hand, one is very favourably impressed with the manner in which they have dealt with military hygiene as a distinctive subject. It has become highly specialised in their hands, and there is scarcely a sentence in the 350 pages of their work which will be found in volumes on general hygiene. In this respect the volume is the best of its kind. It is full of detail, and no one who peruses it can fail to be impressed with the fact that a very special knowledge and training are necessary for the hygienist who is called upon to undertake the duties of preventing sickness among soldiers and of maintaining an army in the highest condition of fitness and of power to resist disease.

The volume commences with some suggestive pages on military pathology, in which the circumstances of military life, such as age, agglomeration and herding of individuals together, diet and work, marching, camp life and military operations are discussed with a view to establishing the fact that the soldier is exposed in a very special manner to morbific influences. This is followed by sections dealing with physical standards, tests and examination of recruits; with the soldier's ration in all its aspect, his clothing, equipment and training; with personal hygiene; with the hygiene and construction of barracks, their water supplies and accessory buildings, such as latrines, kitchens, baths, recreation rooms, stables, guard-rooms, regimental sick-rooms, and so on; with the hygiene of camps, cantonments and bivouacs; with military hospitals in peace,

in war and in the colonies; and finally, with the prophylactic measures for the prevention of disease in armies, including methods of investigating, notifying and isolating epidemic disease, immunisation, disinfection, cleansing of battlefields and destruction of refuse. In doing so, the authors have given us an instructive and valuable account of the views held in the French army on these subjects, of the regulations in force and of the manner in which they have been modified in recent years. It is perhaps a defect that the practice in other countries is not more closely followed. Occasionally, too, by taking a restricted view, they are led into making statements that might put the student off his guard. For example, the influence of scurvy as a disease of armies is minimised. At the present time, they say, it seems to be of much less importance than formerly, for, since the Crimean War, when the admissions were considerable, it has ceased to occur ("on ne l'a pas vu survenir"). In reality, scurvy was one of the chief causes that led to the capitulation of Port Arthur in the beginning of 1905.

Apart, however, from historical defects such as these, the volume is full of significant remarks, practical details, descriptions of apparatus and explanations of regulations, which make it especially valuable as a work of reference. The military hygienist who studies its pages, will be led to take a wider view of his subject than if he confines his attention entirely to the practice and experience of his own country. In many respects the French practice differs from ours. For example, in the physical examination of recruits, standards and equivalents are used only as a guide. The examining medical officer is left to exercise his own judgment in regard to them and does not reject a recruit who fails to come up to the equivalents of height, weight and chest measurement unless other facts give them significance. The authors discuss this question very fully, and there are some other differences between the French practice and ours which are well worth studying.

Unfortunately the volume has no index and the sections are not separated into distinctive chapters. This detracts somewhat from the value of a work which has many points in its favour and which can be thoroughly recommended as a practical guide.

W. G. M.

THE USES OF THE RÖNTGEN RAYS IN GENERAL PRACTICE. By R. Higham Cooper. London: Baillière, Tindall and Cox, 1906. 2s. 6d. net.

The author in the preface to this manual states that his intention is to give the general practitioner some idea of the help he may get in his practice from the use of X-rays. In this he has succeeded clearly and briefly. Many of the books published on this subject contain too much extraneous matter, rendering it a task of no mean magnitude when perusing their contents to get instruction on any given point. Mr. Cooper's manual stands out in bold contradistinction, and constitutes a handy and easily understood little book on the subject. Naturally, in so small a book, the actual physics are, as he states, reduced to a minimum, but, in our opinion, sufficient is given for all practical purposes. Chapter iv. is particularly interesting and useful, and must prove of great assistance to the general practitioner who may decide on doing his own X-ray work.

We can confidently recommend Mr. Cooper's manual as a real assistance, not alone to the beginner, but also to the average worker.

F. BRUCE.

HIGH FREQUENCY CURRENTS. By H. Evelyn Crook. London : Baillière, Tindall and Cox, 1906. 7s. 6d. net.

The use of high frequency currents in the treatment of disease has of late years increased so enormously, that the methods of application have become an important study for the medical man who may desire to make use of them in his practice. This branch of electrical science is essentially medical work for obvious reasons, and ought never to be delegated to the non-professional further than the working of the instruments. The medical adviser who may have to requisition the use of apparatus belonging to a non-professional should be present during the administration of the treatment and see that the patient receives the correct amount of dosage. Heretofore, the means of becoming acquainted with the procedure were difficult to acquire, hence quacks did lucrative business. Now there is no excuse for this want of knowledge, for Mr. Crook has compiled a treatise which may be read and understood by any one. His description and uses of the component parts of the apparatus leave nothing to be desired, and interested medical men may now know that the halo of mystery which seemed to surround a high frequency apparatus has been cleared away by Mr. Crook.

We anticipate that this work will be classed as a text-book on the subject of high frequency currents, hence Mr. Crook is to be congratulated on so admirably supplying a long-felt want by adding to the literature appertaining to this branch of electrical treatment.

F. BRUCE.

Current Literature.

Notes on New Materials for Sanitation.—This interesting and useful paper, contributed to the *Royal Engineers' Journal* for November, 1906, by Lieutenant P. O. G. Usborne, R.E., is intended to describe "a few of the most modern and useful devices for ensuring cleanliness and ornamentation." The remarks on "Terrazzo" are particularly useful, as the superstition that this flooring material can only be laid by experts has prevented its being used in many cases in which it would have been most useful.

Lieutenant Usborne omits one device for preventing cracks in "Terrazzo," and that is to lay it in comparatively small squares, say two to three yards, divided by bands of marble a few inches wide. For halls and broad passages this expedient has the extra advantage of being extremely ornamental.

The various tiles and paints referred to are of interest, especially as showing the great advances made in late years in the provision of wall and floor surfaces of an impervious and yet not too expensive nature.

Anti-cholera Inoculations in India.—In the *Bulletin de l'Institut Pasteur* for September 15th and 30th, 1906, Professor W. M. Haffkine gives the results of his protective vaccinations against cholera, extending over many years. He first describes Dr. James Ferran's discovery of an