

The rest-house at Sasput stands high above the village, with a grove of poplar and apricot trees in front; the servants' quarters were below and our rooms upstairs. From the verandah there was a fine view over the trees and near fields to the hills on the far side of the river. Heavy dark clouds were hanging about when we arrived, but it cleared up in the afternoon. We wondered what sort of weather they were having in Srinagar, and if it was snowing again in the Zoji La.

R. went off to bed early, but I sat and wrote the diary until after 8 o'clock, while the wind howled in the poplars outside like a November night in Scotland. There was a grand big wood fire and a stuffed armchair, and that was the first chimney we had met that didn't smoke.

(To be continued.)

Current Literature.

WULFF, F. Om mononucleosis infectiosa. [Concerning Mononucleosis Infectiosa.] *Ugeskr f. Laeger.* 1933, v. 95, 131-5.

Mononucleosis infectiosa was first demonstrated in Denmark in 1927. But it would seem to be quite prevalent to judge by the following observations. For twelve months, from August 1, 1931, Wulff examined the blood of all the 258 patients admitted to a fever hospital in Copenhagen as likely to be suffering from diphtheria. A blood-smear was made immediately on admission, but the staining and differential counting was deferred till the following day. The May-Grünwald method of staining was employed. In as many as twenty cases mononucleosis infectiosa was diagnosed. In none of these could diphtheria bacilli be found, although they were sought repeatedly. All the twenty patients recovered—an issue putting out of court the diagnosis of lymphatic leukæmia. The clinical picture was in many cases extraordinarily like that of diphtheria, even severe diphtheria. Thus, in some cases the false membrane covered and extended far beyond the tonsils. A blood-stained purulent discharge from the nose and fœtor also were suggestive of severe diphtheria. Several patients were given serum before the true nature of their disease was recognized: but they were at least saved from the discomforts of subsequent injections.

With regard to the systematic combing out of these cases in the future from material admitted to hospital with the diagnosis or query of diphtheria, Wulff points out that though enlargement of the spleen and of the lymphatic glands in parts other than the neck is suggestive of mononucleosis infectiosa rather than of diphtheria, the only really reliable test on which to base a differential diagnosis is the blood-count. And he means in the future always to examine the blood before giving serum to a suspect case of diphtheria.

C. LILLINGSTON.

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Tuberculosis in the Tropics.

C. Wilcocks gives, in his recent paper (*The Problem of Tuberculosis in East Africa*, *East African Medical Journal*, 1932, v. 9, 88-98), an excellent account of his investigations in Tanganyika Territory during the last two years. He notes the fact that the earlier African explorers reported an absence of tuberculosis in Central Africa and that Peiper, in 1910, declared that the disease was unknown in Tanganyika until introduced by the Goanese and Hindoos; a statement which does not indicate any very precise date though the Indian penetration of the interior is probably quite recent. Wilcocks points, however, to the difficulties which must have been encountered in exact diagnosis by these earlier explorers and claims that recent advances in this respect have placed the recognition of tuberculosis on an entirely different footing. While this may help to explain the marked increase of cases within the last few years, he adds, wisely, that "it should not be overlooked that the observers of long ago were no more lacking in clinical acumen than we who have so many more advantages." As to the widespread existence of tuberculosis amongst the Tanganyika natives at the present time there can be no doubt. The incidence rates for the Moshi District, worked out on the findings of Wilcocks and Wilson as well as on the Hospital and Dispensary records of Dr. G. A. Davies, were, for the year 1931, as follows:—

Uru, 7.8 per 1,000; Old Moshi, 10.4 per 1,000; Kilema, 7 per 1,000. For the town of Moshi itself, the incidence worked out at the figure of 51 per 1,000; but here there may have been an error through the inclusion of some who had entered the town to seek treatment and had given a local address for registration. The figure, high as it is, can, however, be paralleled by the findings in certain closed communities, such as the Police Detachment of 162 persons, with an incidence of 18 proved cases or 111 per 1,000; and a school for 152 boys with 12 cases or 78.9 per 1,000. These figures appear alarming when one recalls that the death-rate is about 1 per 1,000 for England and Wales; but it has to be admitted that we have no guide to the incidence in this country, since the notification records are quite unreliable. If an intensive examination were made in some of our industrial groups, as was done by Wilcocks in Moshi, the results might be surprising. In a recent investigation of old and retired coal miners in South Wales, Dr. Enid Williams found no less than 6 per cent. to have a positive sputum, a figure which exceeds the incidence for Moshi town and approaches the figure for the boys' school. Here, of course, there was the possibility of the operation of a special industrial risk and the figures are probably higher than might be found in a similar age-group in some less trying industry; but Dr. Williams' findings invite us to be cautious in assuming that the Tanganyika statistics indicate a much wider distribution of disease than in this country. Certain points, however, in Wilcocks' cases seem to differentiate them clearly from those in Europe and strongly suggest to the reviewer that the disease is either of compara-

tively recent introduction, or that the habits of the population have undergone such a change as to make the epidemiological environment a new one. Of the first 725 cases of definite pulmonary tuberculosis diagnosed by Wilcocks in Moshi, 227 presented no physical signs which could be detected, yet, in nearly all of them, the sputum contained tubercle bacilli. This almost entire absence of physical signs co-existing with a positive sputum is a remarkable phenomenon and marks out this African population from corresponding groups in this country where symptoms and signs are usually present by the time that the bacilli appear in the expectoration. This larval state of tuberculous infection recalls that which has been recently observed amongst the populations residing in the Native Territories in South Africa. It may be assumed that these Tanganyika natives, if suddenly transferred to work in a gold mine, might easily escape detection at the physical examination and yet would soon break down into a severe generalized tuberculosis under the stress of work in a new and trying industry. Another interesting point of difference between the Tanganyika tuberculosis and that of European countries emerges in the observation that of 940 X-ray films of native chests, 205 only gave evidence of lesions confined to the upper or upper and middle lung zones, whereas 227 showed lesions confined to the lower or lower and middle zones. The remainder were either unaffected or had lesions in all zones or in the middle zone only. This relative absence of selective localization at the apices and the tendency to distribution of lesions anywhere throughout the lungs is reminiscent of the findings of Opie in childhood infections and suggests that these lung lesions result from the persistence of primary foci of lung infection into later life. In other words, it looks as if the well-known tendency for primary foci to heal by calcification or fibrosis, so constantly noted in this country, were absent or uncommon in these African natives. In the establishment of a diagnosis of the tuberculous nature of enlarged cervical glands, Wilcocks found that puncture of the gland with a wide bore needle fitted to a five-cubic centimetre syringe and aspiration of glandular material for bacteriological examination often gave positive results. He says that: "this method is of peculiar value and that in the native a greater proportion of positive results is found than in the European." Here again is evidence of a liability to larval lesions in which the tubercle bacilli remain numerous and capable of generalization. The valuable observations of Wilcocks throw much light on the problem of tuberculosis in Africans and suggest that, in Tanganyika Territory at least, it still retains many of the characteristics of the childhood tuberculosis of Europe and the United States. F. Toullec and Jolly (*Bull. Soc. Path. Exot.* 1932, v. 25, 679-80) compare their tuberculin tests carried out on 285 recruits from the Ivory Coast disembarking at Marseilles with the tuberculin findings of Mathis and Durieux on recruits from various colonies of French West Africa, published in April, 1930, in the *Bull. Soc. Méd de l'Ouest Africain*. Whereas Mathis and Durieux found 46 positives in their

investigations, Toullec and Jolly find 34 per cent positives in the Ivory Coast recruits. While these figures might be taken to suggest a rapid progression of tuberculosis in the recruiting areas if compared with the 8 per cent reported by Sorel and by Arlo during Calmette's inquiry of 1912, the authors point out that no true comparison can be made unless the tests are applied widely over all age-groups in the actual bush villages themselves. Figures based on young male adults selected by physical examination cannot be regarded as conclusive of the whole territory. M. Fournials (*Bull. Soc. Path. Exot.* 1932, v. 25, 657-8; 658-62) contributes two short papers on the tuberculosis seen at the Chief Hospital of Dakar in 1930 and 1931. A large proportion of the cases were in European and African sailors of the merchant service or in Senegalese sailors transported to Dakar by sea. There were other cases of European origin which had either been recognized as tuberculous or whose true condition might have been detected by a more thorough medical examination. The author advocates a serious consideration of the question by the maritime medical authorities as well as the military health services. L. Lambert (*ibid.* 662-3) reports on the cases of tuberculosis admitted to the Native Hospital at Dakar during 1931. These cases were 96 in number out of a total of 2,504 admissions for all causes or 3.97 per cent. They produced, however, 12.8 per cent of the total deaths and gave a case mortality of 60.42 per cent. It is clear, therefore, that they were of severe type; and the author thinks that many of those discharged at the instance of their relatives or through inadequate accommodation, die within a few hours or days of leaving the hospital. He states, too, that, in his opinion, many patients dying of acute diseases such as pneumonia are in reality cases of more or less chronic tuberculosis in which an acute secondary infection masks the underlying condition. Mesdames Debeuf and Moyné reporting to the same séance of the West African Medical Society (*ibid.* 663-4) give a brief résumé of the out-patient tuberculosis at Dakar from which it appears that the disease is widespread in all the native quarters of that town and of Medina, constituting, in some places, family centres of infection. In the crowded centres of Dakar and Medina Abattoirs, the incidence and mortality are high and are augmented by the fact that many come from other areas already ill and seeking treatment for the disease.

Toullec (*La tuberculose des Sénégalais. Ann. de Méd. et de Pharm. Colon.* 1931, v. 29, 635-52) gives an excellent account of the present position of the tuberculosis problem in Senegalese soldiers serving in France. His paper forms a valuable supplement to the classical report of Borrel and Kerandel of their observations on African troops brought to Europe during the War. He describes the glandular stage with its characteristic features, wasting, loss of skin-gloss, depigmentation of the chest, muscular flaccidity, passing on to or accompanied by myo-œdema, and the development of Borrel's subclavicular gland; this last not an invariable occurrence but, when present, denoting the grave tuberculo-

caseous adenitis found so often in the tracheo-bronchial and mediastinal glands. The author is not in agreement with Armand-Delille as to the difficulty or impossibility of diagnosing this intrathoracic adenitis by such findings as d'Espine's sign, Oelsnitz's sign and Smith's sign. On the contrary, he finds in those Africans with vast enlargement and caseation of the glands around and behind the trachea and between the main bronchi below the bifurcation, that the presence of this solid material occupying the posterior mediastinum conveys sound so readily that the stethoscopic signs along the dorsal spines are clearly audible and characteristic. He notes that the miliary type of hæmatogenous spread and the caseous pneumonia, while often seen and quite characteristic, are not so common as generally supposed. An interesting point on which he lays much stress is the frequency of polyseritic phenomena; pleural effusion followed by pericardial and often peritoneal effusions as well. This polyserositis of the Hutinel type he regards as especially characteristic of the tuberculosis of Africans when the latter are brought for the first time into contact with infection. He discusses the epidemiological side of the question and as to whether tuberculosis is or is not actually spreading in the French African Colonies. On the whole, he considers that the disease is spreading and that it may yet become a formidable problem, but he finds that there is some tendency to exaggerate the diffusion of infection at the present time. One of the factors which operates against extensive spread is the rapidly fatal course of tuberculosis in the African native. It is owing to this speedy disposal of potential sources of infectivity that the diffusion of the disease through the repatriation of ex-soldiers is minimal. The fact is that very few survive to become sources of danger in their villages. The risk from civilian natives returning after a period of exposure to risk in the large coastal towns is much greater and the evidence of tuberculin tests indicates that a gradual spread is taking place. The fact remains, however, that medical men practising in the interior still regard the disease as extremely rare. As one reads this article, shortly after the perusal of that of Wilcocks already referred to, one cannot fail to ask oneself whether it may not be possible that the infection may be spreading more extensively than is generally realized in these French African possessions. If, as seems to be the case in Tanganyika, the native is capable, under his normal home conditions, of contracting a type of tuberculosis so larval and insidious that it is unaccompanied by physical signs, it is at least possible that many cases may escape detection. Toullec discusses on general lines the question of prophylaxis and makes an interesting reference to the success which is attending the use of B.C.G. vaccine in the diminution of infantile and childhood tuberculosis mortality in and around Dakar, where the death-rate of vaccinated children has been halved since the start of B.C.G. immunization. He adds that the difficulties incident to the keeping and distribution of a living vaccine to places remote from organized and efficient laboratories have now been overcome by the introduction of a system of packing the sealed

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and 587. *British Journal of Anæsthesia*, April and July, 1930, and
January, 1931. *Proceedings of the Royal Society of Medicine*, May, 1930,
pp. 919-28. *British Journal of Urology*, June, 1930, pp. 129, 130, and
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This method, if found satisfactory, should render possible an extensive trial of B.C.G. in Africa. The vast extension of B.C.G. vaccination in Indo-China is described by Gaide and Bodet (*Ann. de Méd. et de Pharm. Colon.* 1932, v. 30, 461-78) as a part of a paper dealing with Maternity and Tuberculosis in that country. A total of 161,707 infants have been thus vaccinated up to January, 1931, and the authors are more than satisfied with the results. The rapidly fatal military tuberculosis so common in infants and children in Indo-China is alleged to be much reduced in the vaccinated groups. From the text, however, the impression is gained that there is much difficulty in following up the cases. Still the authors are optimistic. "*Il est en tous cas permis d'affirmer que pendant les deux semaines qui suivent son ingestion aucun accident qui ait pu lui être attribué n'a jamais été observé.*"

S. L. CUMMINS.

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Reviews.

WORKMEN'S COMPENSATION: ITS MEDICAL ASPECT. By Sir John Collie, C.M.G., D.L., J.P. London: Edward Arnold and Co. 1933. Pp. vii + 160. Price 7s. 6d.

To achieve a comprehensive and lucid exposition of the medical aspect of workmen's compensation in a book of 160 pages is no mean feat; to succeed in making such a book eminently readable and interesting we regard as little short of a triumph. Sir John Collie hopes that this book "will enable medical practitioners to acquire a working knowledge of the legal rights of those who have sustained injury at work."

It is very unlikely that the framers of the first Act in 1897 had any idea of how far the doors of compensation would eventually be opened. Did they visualize a workman drawing compensation for an injury continuing to do so after he had been sent to prison for a crime, or after he had been admitted to a mental institution for insanity? Could they imagine that a workman would receive compensation for an injury caused by his own serious and wilful misconduct, if such injury should result in death or serious and permanent disablement? Compensation now forms a large part of the working expenses of industry, and it is an arresting thought that in 1930 the amount paid in compensation to miners was £3 4s. 3d. per miner employed, or a charge of 2½d. on each ton of coal raised.

In none of the Workmen's Compensation Acts is the term "by accident" defined. Until 1903 it was accepted that accident meant something