

EDITORIAL.

RED Cross Work. Until recently Red Cross Work was little known or thought of, and by Nurses perhaps rather despised. Now it is one of the wonders of the age. The combined labors of the various Red Cross Societies cost more than £ 1,000,000 during the first year of the present European War. At the beginning of the war, wounded men were collected and conveyed from the field of battle in the old horse ambulance which is now almost a thing of the past. Motor wagons were also used for this purpose when not needed for carrying stores. The agony of being jolted and bumped along over rough ground in such conveyances must have been awful, and no doubt increased the death rate. Over 1,100 motor ambulances have been equipped and sent out by the Red Cross Society to France alone. The duties of these ambulances are to collect men from field hospitals and take them to hospital trains—from trains to hospitals and from hospitals to ships when necessary. The Red Cross Society has presented several hospital trains to the army; and still supply the nurses and doctors for them although the trains are under the management of Government. Each train can carry 400 to 500 men who are picked up just behind the firing line and conveyed to the coast. Prompt medical attention is given on board the train, operations are performed in the train theatre. There is a kitchen and a dispensary. The Red Cross Society has also fitted and presented hospitals to the army. There are 13 in France. The work carried on by the V. A. D. ladies is also under the Red Cross Society. They tend and feed men passing through railway stations on their way to and from the front. They also reinforce hospital staffs when required and do useful work in the lighter branches of nursing.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS

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PART II

THE very great importance attached by practical workers to constitutional disturbance is illustrated by Dr. A. C. Inman's classification which practically ignores anatomical conditions.

He groups his cases thus :—

Class I : Resting Febrile. (Cases with fever at rest in bed.)

Class II : Ambulant Febrile; resting afebrile.

Class III : Ambulant Afebrile. (Cases without fever in spite of exercise or work).

Let us begin at the bottom for the sake of simplicity. Class III includes both 'open' and 'closed' cases. Cases with limited and cases with extensive lesions. Cases that can only stand a moderate amount of exercise.

without a rise of temperature and cases that can do strenuous manual work. It offers the best prospects under treatment. Class II must be kept at rest and their temperature reduced before treating with tuberculin. Small doses of TR or BE will often put them into C III. Class I includes a wide range of cases from those with active commencing tubercle to those with extensive advanced disease. They are among the worst cases to deal with.

Before leaving the subject of anatomical diagnosis it cannot be too strongly insisted on or too frequently repeated that the early diagnosis of pulmonary tuberculosis (i.e. The diagnosis at a stage which offers the best prospects under treatment) by ordinary clinical methods is usually impossible.

Let us now turn to the laboratory. Researches in blood pathology on the lines worked out by Wright and Wassermann and Bruck have not as yet placed in our hands any practicable method of diagnosis. X-rays have failed to reveal anything before physical signs can give a definite answer. We have still left the bacteriological diagnosis and tuberculin; and the greatest of these is tuberculin. The detection of tubercle bacilli in the sputum is an extremely important sign. It is pathognomonic, but it may fail, and usually does fail, when it is most needed. To begin with there are certain difficulties in the way of detection. As a rule when present in any quantity they are easy to demonstrate but none but an experienced observer, and then only one who is prepared to devote a considerable time to searching, can give a definite statement in the negative. It is true that certain new processes with anti-formin help the demonstration when the bacilli are scarce. The tubercular bacilli may not be present in the sputum for weeks or even months after physical signs and symptoms have settled the question; that they may be even absent in the fully developed disease as late as the second or third stage; and, above all things, that they are absent in 90% of early cases where they are most needed. The fact is they do not appear until the closed become an open lesion, i.e. when the disease has taken the first step from the tractable to the intractable. An examination of the sputum should be made as a routine in every case. A positive find settles the diagnosis and demonstrates the necessity for treatment and for steps to prevent the spread of infection. A negative result does not settle the question. Fortunately we have at our disposal a weapon that will. If .001 cc of Koch's old Tuberculin (a glycerine extract of tubercle bacilli evaporated down to one-tenth its original bulk) be injected subcutaneously into a tuberculous patient it will, except in very advanced cases produce a definite reaction characterised, (1) by a rise in temperature and other general symptoms (general reaction), (2) by infiltration, oedema, and redness about the site of injection and a raised, red, and perhaps vesiculated, patch about the point of puncture (local reaction), and (3) by definite signs in the diseased part. Lupus tissue swells and becomes red, and nodules, hitherto invisible, manifest themselves; a tuberculous joint becomes painful; a tuberculous patch in the lungs shows signs of congestion, cough is increased and so are local physical signs (local reaction). An appropriate dose of old tuberculin will produce a definite reaction in every case of tuberculosis except those

suffering with very advanced disease. No one will contradict this statement. It is supported by thousands of cases both in human and veterinary practice. It is well known that a certain variable percentage of apparently healthy persons will react, and that, in a systematic investigation of widely different diseases, the results hold. Pleurisy has already been alluded to. It is rapidly taking an important place as a first sign in pulmonary tuberculosis. Bronchitis has also proved, as one might expect, to be an early sign of lung trouble. Careful microscopic examinations have demonstrated the presence of tubercle bacilli in a large percentage of adenoids. Experience has demonstrated the fact that chlorosis is very frequently a name for early pulmonary tuberculosis. Cases of gastritis and gastric ulcer have been recorded which were cured by a course of tuberculin when all other methods had failed to give relief; and all we know how the symptoms of 'Dyspepsia' will overshadow, or entirely mask, the early stages of lung disease. The fact that appendicitis is frequently tubercular, especially in women, is a matter of common pathological knowledge. Pulmonary tuberculosis is acknowledged by all clinicians to be a very strong predisposing factor of influenza and the latter is very liable to light up a latent tubercular focus or to accelerate early lung trouble that has perhaps been overlooked. Figures in connection with erysipelas are interesting. Over 50% of facial cases gave reaction while only 7 out of 25 of other than facial cases responded to the test. Now facial erysipelas is frequently secondary to septic conditions in and about the nose and these conditions are known to be often traceable to a tubercular origin. Actinomycosis, Syphilis, Leprosy and Cancer respond to the injections. Camac Wilkinson's reply to this is that no case reacts unless it has got a focus of living tubercle bacilli somewhere. The response in Syphilis, Gonorrhea, Leprosy and other diseases is merely an indication that these people are tubercular. Everyone will admit that a dose, *such as is used in practical work*, has not the smallest effect, one way or the other on a healthy man. The fear centres around the possibility of stimulating the local disease and of generalisation. Accidents did occur in the early days when the dosage was imperfectly defined and the circumstances under which administration was undesirable were imperfectly understood but we have now the evidence of an ever increasing field of works, that it is perfectly safe when properly used. More than this. It is maintained that it actually prevents 'mobilisation' of the organism and starts the process of cure.

The technique of the subcutaneous test is the same as that of administering Tuberculin for Therapeutic purposes. Koch's old tuberculin (T. A.) is used and the initial dose is .001 cc (1. mg). If no reaction follows within 48 hours the dose is doubled i. e., .002 cc is injected. If even a slight rise of temperature is produced the same dose is repeated in 48 hours. If the rise is more marked the diagnosis is settled. If no reaction is obtained the quantity should be increased to .005 and then to .01 cc before making a definite statement. These latter doses have not the slightest effect on a healthy man.

It is understood that only cases in which the diagnosis cannot be settled in any other way i. e., chiefly, though not entirely, early cases, are subjected to

the test. To begin with a careful physical examination of the chest is made and the sputum examined. If this settles the question well and good. If not T. A. is resorted to. Fever is an absolute contraindication. Acute cases, and cases of acute dry pleurisy (until after the temperature has come down to and kept normal for several days) are therefore not suitable for the test. A recent attack of haemoptysis is also a bar.

A JUNE HOLIDAY IN NORWAY

I was turning over the pages of an illustrated paper—it was Bombay in April, sticky and hot—when suddenly my eyes caught sight of the picture of a snow scene. The contrast riveted my attention. Outside the bright, hot sunshine, in the picture broad fields of snow. Underneath was written “Finse in June, Norway.”

I had not seen snow for eight years, always having to take my leave at midsummer, but this year I was determined I would see it—and at Finse. I was going home in May, I would spend June and part of July in Norway.

My resolution was made up on the spot. The end of May saw me in London and a few days later I had purchased a return ticket to Norway, which enabled me to sail from Hull to Christiania and to return *via* Bergen. Finse, I had discovered was the highest point on the railway connecting Christiania with Bergen.

I meant to stay a few days at each of these places just to say that I had seen something of Norway and to spend the rest of my time amidst the snow fields of Finse.

Luckily I had been able to induce an old school friend to go with me and we left London for Hull by the special boat train which starts at 2 p. m. This went straight down to the docks and almost beside the R. M. S. “Esquimo” on which we were to travel.

We found everything on board beautifully clean and comfortable. The cabins, which only had lower berths were all painted in white with pretty chintz curtains, and this though we were second class passengers. The boat sailed absolutely to the minute, at 6-30 p. m., and as soon as it was well under weigh, we were given a substantial ‘high tea’ instead of dinner, one of the few differences between first and second class passengers.

The next day passed pleasantly enough and in spite of the fact that we were crossing the North Sea the water was smooth and calm. Next day, about noon, we sighted the coast of Norway and an hour or two afterwards began threading our way through the Fjords and Sounds which lead to Christiania.

These Fjords are deep, narrow arms of the sea which wind inland for many miles, sometimes between great over-hanging cliffs and masses of rock, sometimes between green pasture lands sloping gently to the waters edge, sometimes between forest clad hills.