EDITORIAL.

NOW that so many lives from all over the world are being sacrificed in the worldwide war, it is but right that we should redouble our efforts for the protection of child life for in these days children are more precious than ever they were before. To begin with we must take greater care of the expectant mother, and every possible care must be given that she be placed under suitable conditions and that great ante natal care shall be lavished upon the coming child. In Europe people are starting various associations called Mothers' Welcomes, Baby Clinics, etc., to help the children of the future to be "well born." Also care must be taken that children are not made to work too young. At the age of eleven many a child is a wage earner; but the work it is put to should be very light. Surely payment for a child would be better given in the form of food and clothing than in the form of money. The rebuilding of the Nation lies in the hands of the children to come. Let us all look to it that they are made fit in every way to carry out so great and important a charge. This is the least we owe to the brave dead who have fallen to procure us peace and their lives will have been given in vain if we fail to rear a hardy and capable generation to gather in the fruits of that Peace which they have died to win.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

By Colonel Evans, I. M. S.

PART I.

THE early diagnosis of Pulmonary tuberculosis is a question of the utmost importance to successful treatment. It is a question which is the heart and core of every organised system for arresting the spread of the disease in the community. Physical signs and even tubercle bacilli in the sputum cannot be relied upon to lead one to recognise the disease before serious or even fatal damage has been done. Tuberculin is the only weapon and fortunately, as has been demonstrated by Koch, Carnac Wilkinson, and others, can be implicitly relied upon to do its duty.

The point in the history of a case that is of the most diagnostic importance is a history of exposure to infection. The family history and the popular notion of heredity have assumed a new significance in the light of modern research. Tuberculosis is not inherited. Nor is a tendency to tuberculosis inherited. On the contrary a tuberculous ancestry seems to confer some degree of immunity, for the prognosis under treatment is better

Let us exclude all those cases of pleurisy that occur at the apex of the lung and elsewhere associated with manifest signs of lung tubercle, that are associated with acute specific diseases such as pneumonia, typhoid and influenza, that are of pyogenic origin or associated with hydatids or abscess of the liver. We have a group left of "primary idiopathic" pleurisies, acute, subacute and chronic, dry and with effusion, which are always tubercular. The percentage has steadily grown.

All are agreed that an attack of pleurisy may be the earliest manifestation of consumption and that the diagnosis has hitherto been obscured by the fact that, after a few days or weeks in bed, the patient may "recover" and a long interval, it may be years, elapse before the primary disease asserts itself and proceeds to claim its victim.

The manifestations of pulmonary tuberculosis upon which the physician bases his diagnosis are local and general. The local physical signs follow the anatomical lesions.

The disease occasionally begins as an interstitial miliary tuberculosis, but usually, as a bronchial tuberculosis in the area of distribution of the bronchus apicalis posterior, which serves the posterior half of the apex and that part of the lung immediately overlying it.

Swelling of the mucous membrane results in narrowing and obliteration, followed by collapse of the air passages beyond the lesion, producing sinking above and below the clavicle and other well known physical signs. Caseation, softening and ulceration with vomica formation follow. As soon as the closed lesion becomes an open one infected material is scattered in all directions by the aspirating action of the chest, especially during coughing, and the same process is repeated in other parts of the lung of the same and opposite side.

The general symptoms, cough, wasting, sweating, fever &c. are well known. The systemic infection has an important bearing upon prognosis and treatment. For the local lesions may be extensive and the systemic infection so slight as to render the prognosis, under treatment by tuberculin or otherwise, hopeful, while, on the other hand, the local extent may be limited and yet the general toxaemia so severe as to class the case as practically hopeless. The constitutional disturbance is the important factor. Tuberculosis dispensaries make use of it in prognosis and treatment. Sanatoria use it to decide who they should not admit. And Carnac Wilkinson (Tuberculin Dispensaries) who does not acknowledge its uses depends on the systemic disturbance, as indicated chiefly by the temperature, to decide when he should or should not administer tuberculin.

(To be continued.)

in the children of consumptive parents than in those new to infection. It is virulently infectious, from man to man, from one case of pulmonary tuberculosis to another, and the idea of inheritance is the result of this character obscured by a frequent prolonged latent period during which the general symptoms which induce patients to seek advice are usually absent. The significance of these remarks is apparent. It is far more important to ascertain that a near relative, or even a stranger, living in close association with the patient, has been afflicted with the disease than that an uncle and his family living in some distant place were attacked by consumption. It is this fact in the history too that has inspired the systematic way in which Tuberculosis Dispensaries in Great Britain search out and examine all contacts and the persistence with which they keep those apparently healthy under observation. A history of contact or propinquity especially in the ill-ventilated, badly lighted houses of the poor is strong presumptive evidence of pulmonary tuberculosis.

The conditions which often bring the tuberculous patient to the doctor for the first time and which are often misrepresented are anaemia, chlorosis, dyspepsia, gastritis, gastric ulcer, marked nervous symptoms of various kinds, amenorrhoea, and insidious loss of weight and strength. Pulmonary tuberculosis may begin with symptoms indistinguishable from bronchial catarrh, or repeated attacks of bronchial catarrh leading to bronchitis and emphysema, or influenza, and there are cases in which asthma is the leading clinical feature. Four points require special mention—Tachycardia, Temperature, Haemoptysis and Pleurisy—and the greatest of these is Pleurisy.

A persistently rapid pulse (tachycardia) is associated with a low arterial tension. It is a serious symptom.

The temperature must be taken frequently to be of any diagnostic value. Carnac Wilkinson insists on every two hours and though hospital authorities are content with a less frequent record the supreme importance of the state of the temperature (up or down) and the character of the chart are such as to make the extra trouble trivial. Wilkinson maintains that unless the temperature is taken every two hours a rise is very apt to be overlooked. A temperature not rising above the normal limit but showing marked subnormal morning depressions is very suggestive of pulmonary tuberculosis and so is an unstable temperature showing rises after meals, after slight exertion, or from other slight causes. It is well known for instance that consumptive women will often show a rise of temperature for as much as a fortnight preceding menstruation. Pyrexia, and even fairly high pyrexia, may be due to pure tuberculosis, but as a rule fever in pulmonary tuberculosis means mixed infection. Hæmoptysis may be entirely absent. When it does occur, its diagnostic value is obscured by the possibility of many fallacies, but, provided it can be shown that the blood comes from the lung, the certainty with which it points to pulmonary tuberculosis is all but absolute. It is an indication that a closed has become an open lesion and is very apt to be accompanied or followed by a rise in temperature indicating a mixed infection.