Tuberculosis: A General Account of the Disease; Its Forms, Treatment, and Prevention. By Dr. A. J. Jex-Blake. Pp. viii+231. (London: G. Bell and Sons, Ltd., 1915.) Price 2*s.* 6*d.* net.

AN excellent account of the subject of tuberculosis is given in this book, free from technicalities, so that it should be easily intelligible to those who possess no special education in medical or scientific matters.

The opening chapter deals briefly with the historical side of the subject, and then the tubercle bacillus is discussed. The different types of the bacillus are deseribed—their occurrence and relationship to the disease in man—and a summary is given of the vexed question of the infection of man from bovine sources, in which both sides of the controversy are placed before the reader.

Predisposition and immunity, the paths of infection, and the statistics of tuberculosis are next dealt with, after which a general account is given of the disease as it attacks various parts of the body.

The subjects of prognosis and general treatment are discussed, and the book ends with descriptions of tuberculin and sanatorium treatment and suggestions for the prevention of the disease. The author throughout avoids extremes, and when there is a difference of opinion both aspects of the question are stated. The book contains a large amount of up-to-date information, and is a very useful summary; it should appeal to a wide public. R. T. H.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

The West Indian Firefly.

THE writer is not in any sense an entomologist, but for this very reason his notes regarding this insect may have a certain interest as being from a different point of view from that usually taken. The beetle is much brighter than those with which we are familiar in the States and in England, and is always a source of interest to travellers. They first appear in Jamaica about the middle of February, and by the middle of June are found in great numbers, so that the fields as seen from a slight elevation sometimes appear strewn with wandering stars, much brighter than those in the heavens above. They are particularly numerous on damp or foggy evenings when there is no moon. Their light is constantly fluctuating, and the fluctuations occur more or less in unison over a considerable area, which makes their appearance much more striking. An individual light is readily seen at a distance of a quarter of a mile. They have powerful jaws, but nevertheless fall a ready prey to spiders, who consume them in large numbers.

The insect varies somewhat in size, but on the average measures 30 mm. (one and a fifth inches) in length, by 9 mm. in breadth, and is of a dark brown colour. Its system of lights is peculiar, and quite unlike the northern species. It carries a green light on either shoulder, and a much brighter orange light beneath the abdomen. This latter, however, is never shown except in flight, and at the very moment of leaving the ground. One often sees them flying along the side of a house, illuminating the eaves or clap-boarding with this bright orange light, much as a man might do it with a dark lantern, evidently looking for food.

When attacked by a spider their light glows intensely and continuously under the influence of the poison. If crushed, the light continues to glow long after the creature is dead, but it can be shut off at will. If held in the hand while the light is turned on, the insect gives out a perceptible warmth, and on enclosing one in a wine-glass with a thermometer bulb, the mercury was found to rise 1° F. the first minute. It rose another degree the second minute, and 0·6° in three minutes more. After this it slowly fell, although the light was still shining. Later, after the light had been extinguished, the thermometer returned to its original temperature, usually between 70° and 75°. Some fireflies are much more vigorous than others. With a weakly one the thermometer may not rise even as much as 1° in all. Two seem to be no more efficient in this respect than one.

The writer would like to have kept one a prisoner for twenty-four hours, weighing it at intervals, its loss of weight indicating the amount of its normal food consumption. Since its bulk, however, is but 0·7 of a cubic centimetre, its weight is about 0·7 of a gram, and its food consumption would be so small that it would require a delicate chemical balance to determine it with any accuracy. Such an instrument is not available here, so this investigation must be left to someone else. Presumably, however, it eats about as much as other beetles of the same size.

On account of its only showing its brightest light when in flight, its candle-power is rather difficult to determine. This was accomplished indirectly, however. A great number of them fly along a neighbouring road, and their position can be determined by their illumination of the enclosing stone walls. Their brightness was found to equal that of the star Canopus, which was just over the road, and at rather a low altitude. Its brightness was at that time equal to α Orionis, the altitude of which was 40°. It was a very clear evening, as is generally the case here, so that we may take the brightness of the latter as of 1·0 magnitude. The distance of the road was 175 ft., or 53 metres. A zero magnitude star is equal to one candle-power at 526 metres. If of zero magnitude the light of the firefly would therefore have been just 0·01 of a candle-power. Being of first magnitude, its light was 0·004 c.p. This result is probably correct within half a magnitude, or 50 per cent., and considering the apparent brilliancy of the insect is smaller than one would have expected. The writer is not aware of any previous measures of this quantity.

WILLIAM H. PICKERING.
Harvard Astronomical Station, Mandeville, Jamaica, B.W.I., March 22.

"Optical Glass" and Fluorite: An Ethical Note.

MR. F. J. CHESHIRE's letter in NATURE of March 30 recalls the most exceptional character of the publication by Prof. Abbe and the firm of Zeiss of that discovery of apochromatism for which all must still be grateful. For the details I refer to the Journal of the Royal Microscopical Society, ser. 2, vols. vi., vii., 1886–7. An article in vol. vi., p. 315f, "The New Objectives," is evidently based on the letter of Prof. Abbe of March 4 (cited by Mr. Cheshire), for it contains precisely the same window-dressing statement that optical glasses hitherto in use only contain six chemical elements, while the new objective contains not fewer than fourteen. This article throughout conveys the impression that it has been alone the utilisa-