l'ordinaire, quelques unes d'entre elles présentaient comme un bourgeon latéral branché presque à angle droit sur le bacille principal et terminé quelquefois par un renflement à son extrémité."² I am quite aware of Dr. Klein's remarks and of Mr. Pringle's photographs in the Nineteenth Annual Report of the Local Government Board, 1889-1890 (Plate XXVII.) but for the sake of historical accuracy I should be glad if Dr. Kanthack would either publish in your columns the date of any researches prior to those made by my friends MM. Nocard and Roux in 1886-87, or on the other hand verify my statement. I may add that I confirmed Nocard and Roux's observations in cultures obtained direct from human tuberculous sputum.³

I am, Sirs, yours faithfully,

EDGAR M. CROOKSHANK.

Saint Hill, East Grinstead, Jan. 9th, 1897.

"THE TRAINING OF NURSES IN RELATION TO REGISTRATION."

To the Editors of THE LANCET.

SIRS,—Permit me briefly to reply to Dr. Biernacki. I have done so at some length on a previous occasion and only a few words are necessary now. It is to do away with the very grievance Dr. Biernacki complains of (to prevent anyone posing as a nurse without sufficient training) that the proposal to register properly trained and qualified mental nurses has been brought forward, and thus to carry out one of the most important objects for which the Royal British Nurses Association was formed—viz., that it should act as a protection both for the public and the nurse. With regard to the paragraph in the *Hospital* he will find it fully dealt with in admirable letters by Dr. Ernest White and Miss East, late lady superintendent to the National Hospital for the Paralyzed and Epileptic, Queen-square, W.C., in this week's issue of that paper. I maintain that it is the duty of the Royal British Nurses Association to register these mental nurses as such; I hold that the charter of the association is dead against any such narrow policy as Dr. Biernacki has been led to believe was either the letter or the spirit of that Royal Charter. I thoroughly agree with his concluding paragraph as to "what this confusion between incompletely and fully trained nurses means to the medical profession and the public one has only to look round to realise," and it is after looking round and realising that the medical profession is being convinced it has a right to demand that all nurses employed by the public who are qualified either by asylum or by hospital training shall be registered. We who have to deal largely with nervous and mental diseases know the value of mental nurses, and we ask, and the public has a right to ask, that the Royal British Nurses Association shall act up to its charter and, under certain conditions, place them upon its register. I can assure Dr. Biernacki nothing will be done to unduly force this matter on, time and calm deliberation will prove the value of the proposal I advocate, and from what I know of his fairness and courtesy I have every confidence that ere long he will think as I do.

I am, Sirs, yours faithfully,

T. OUTTERSON WOOD, M.D. Durh.,

Member of the Executive Committee and of the Registration Board of the Royal British Nurses Association.

Margaret-street, Cavendish-square, W., Jan. 11th, 1897.

"THE PARASITE OF MALARIA."

To the Editors of THE LANCET.

SIRS,—The following notes of my observations of the blood in malarial fever in West Central Africa may perhaps interest some of your readers. I commenced this work in September, 1895, and from that time until I left my station on furlough on June 30th, 1896, I examined the blood for parasites over forty times. Excluding my first two examinations in every case of fever, both in European and natives, I succeeded in discovering parasites. Once or twice I succeeded in finding the parasite when headache was the only symptom, but twice when I suspected such symptoms as diarrhoea

were due to malaria I failed to find it. My examinations were all with a $\frac{1}{4}$ -th-inch lens and an ordinary eye-piece, with Beck's student's microscope tube pulled out to its furthest limit. I fully carried out instructions as to examination of fresh specimens, and was very much disappointed in finding no pigmented bodies like those described by Dr. Laveran, Dr. Marchiafava, and others. On my third investigation my attention was directed to some of the red corpuscles manifesting slight oscillatory movements and occasionally rolling over. As they lay flat hardly any difference was noticeable in their outline, but in profile an irregularity in outline was at once detected, one side being straight and on the other side it was convex.

In February a fellow missionary fell ill of malaria, a severe form associated with hæmoglobinuria, which proved fatal. In this case I made daily observations and fully expected to find some different form of parasite. I only found the bodies of the same character, but they were very numerous. The case was fatal in five days. The blood corpuscles before death became exceedingly scarce and the plasma distinctly coloured with hæmoglobin. With my microscope I could not discern the spore when first it attacked the corpuscle; it was apparently too small for my object-glass. I could only suspect it by the suspicious movement of the corpuscle above mentioned. When mature and sporulated the parasite was nearly as large as a red corpuscle. The absence of pigment in these parasites is to me very interesting, as in the part of West Central Africa where I have been stationed for over seven years I have seen no case of melanæmia. Not having, however, had opportunities of making necropsies, I have unfortunately not been able to examine the organs of the body. The splenic enlargement often reaches the umbilicus and is always soft to palpation. The fevers show no regular form, varying in length from a few hours to several days, and a daily variation may or may not be present. Jaundice is sometimes present without hæmoglobinuria, but hæmoglobinuria is always accompanied by jaundice, which is no doubt secondary to the immense amount of free hæmoglobin floating in the plasma.

I am, Sirs, yours faithfully,

WALTER FISHER, M.R.C.S. Eng., L.R.C.P. Lond.
Kavungu Lovale Country, near Upper Zambesi, W. Central Africa.

THE VENTILATION OF HOUSE DRAINS.

To the Editors of THE LANCET.

SIRS,—At a meeting of the urban district council to which I am medical officer of health I suggested this addition to the by-laws—viz., "that the owner of each new house should construct a ventilating intercepting trap to disconnect the house drains from the sewer," but one of the council stated that the district was too flat and the fall for drainage not enough to permit such a course. The district is a flat one and I do not think any of the drains are disconnected. There are no ventilators in the centre of the streets and the only ventilation is by a few soil-pipes carried up here and there and by a 6-in. pipe at the pumping station carried up 20 ft. high; the sewage is pumped to the sewage farm one mile away. Will you kindly say if these conditions are a bar to the employment of intercepting traps, and, if not, should I be doing my duty by bringing forward the subject again and quoting your opinion? I may mention that I have only been recently appointed or should have brought this matter to the fore sooner.

I am, Sirs, yours truly,

BAYNHAM.

Jan. 6th, 1897.

** Without a knowledge of the depth and size of the sewer in the road and the probable distance from the same to the highest point of the house drains it is impossible to give a definite reply to our correspondent's question, but the following particulars may be of service. For a disconnecting trap to act efficiently it should have a fall into it from the drain of six inches, either as a direct cascade or as described on p. 47 of the reprint of THE LANCET Special Commission to inquire into the Relative Cost and Efficiency of Plumbers' Work. The house drains should have a fall of at least 1 in 60. It is certainly desirable, with a sluggish and ill-ventilated sewer such as is described, that something should be done to relieve the pressure of drain

² Sur la culture du Bacille de la Tuberculose. Annales de l'Institut Pasteur, Janvier, 1887.

³ Transactions of the Pathological Society, 1891.