for no one would hesitate to send a note where a "paper" might be considered superfluous.

I am, Sirs, yours faithfully,
W. BLAIR BELL, M.B. Lond., &c.

Wallasey, Oct. 10th, 1899.

"A MODIFICATION OF THE ARONSON AND PHILLIPS STAINING METHOD AND ITS APPLICATION IN THE CASE OF MALARIAL BLOOD."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 30th, p. 889, Mr. Edward G. Horder has written a short clinical note upon the staining of malarial blood. In connexion with this subject he puts his remarks under three headings—the preparation of the cover, the heating, and the staining. Under the first of these headings he introduces what he appears to think a novelty—that is, the application of Manson's smearing method to cover-slips. May I be allowed to point out that this same application was described in a paper by Dr. R. Howard and myself in the *Journal of Tropical Medicine* for February, 1899? Under his second and third headings he makes statements with which we cannot agree. The methods of fixing and staining which he describes may be enough for pigmented parasites—which by-the-bye, can be seen without staining—but they are no, satisfactory for the purposes of research.

In our paper we give an account of the various methods we have employed, and as a matter of fact we have tried both his method of fixing and that of staining and we discarded them as useless because of their coarseness. We have laid it down, as others have done before us, that it is impossible to be too accurate in staining blood films which may contain a few young parasites, and we are quite convinced that with the rough-and-ready methods which Mr. Horder describes for fixing and staining it would be impossible to find one or two young quartan parasites. If I might be allowed to say so, his methods are no improvement upon those described by Dr. Gerrard in THE LANCET of June 3rd, 1899, p. 1490.

I am, Sirs, yours faithfully,
Guy's Hospital, Oct. 7th, 1899. WALTER C. C. PAKES.

"THE MEDICAL REGISTER."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of July 1st, recently to hand, your correspondent "Col., R.A.M.C." points out with surprise that the name of Sir Samuel Rowe, who has been dead for a number of years, still appears on the Medical Register. Some time ago, on looking over the Register for 1896, I discovered that my name had been omitted and thereupon I wrote to the General Medical Council asking why and that it might be reinstated. In reply the reason assigned was that a communication had been sent to my former address in Ireland and no answer thereto having been received by the Council the name was left out, but upon forwarding a fee of 5s. it would be re-inserted. I wonder why the same reason does not apply to the case of Sir S. Rowe? As I have been resident in New South Wales for the last ten years it is of no consequence to me that my name should appear in the British Medical Register and therefore I did not forward the required fee. Had I their permission or were it worth while I could point to the names of several practitioners who had lived in this colony for years prior to 1896, whose address was still in the United Kingdom according to the copy of the Register for that year, which is the latest I have seen.

I am, Sirs, yours faithfully,
R. D. GIVIN, M.D. Brux., L.R.C.P., L.R.C.S. Ed.
Sydney, New South Wales, August 4th, 1899.

A GENEROUS GIFT: IN MEMORIAM.—Lord Rookwood has handed over the Cottage Hospital, Broad Oak, Essex, as a gift to the parish in memory of the late Lady Rookwood, who took an active interest in the institution. In addition to this gift upwards of £400 have been subscribed among her ladyship's personal friends to be appropriated as an endowment fund.

THE MALARIA EXPEDITION TO WEST AFRICA.

(FROM A CORRESPONDENT.)

IN spite of several attempts by the members of the expedition to find the breeding-places of anopheles at Wilberforce, the station of the 3rd West India Regiment, the search has been in vain. But there has been no increase in the number of mosquitoes at the barracks. The failure is probably accounted for by the following circumstances. The nature of the surface is such that water runs away very quickly down the hill and can only collect in a few small holes in the surface of the rocks. These are continually scoured out during heavy rain and quickly dry up during sunshine. Only during a period of four or five days' gentle rain, not too heavy to scour out these puddles, could they serve as breeding-places for mosquitoes. Such conditions naturally occur but rarely and, as already mentioned, have chanced apparently only once during the seven weeks' stay of the expedition at Sierra Leone. The experience of the expedition at Wilberforce has been exceedingly instructive and affords very strong evidence of the truth of the mosquito theory. Here but one genus of mosquito—anopheles—and but one species of that genus, lodged in the barracks of the regiment. Of over a hundred of these mosquitoes caught at various times during the period of seven weeks, 26 per cent. proved to be infected, some showing a few zygotes only, others many and containing numerous "germinal rods" or "zygotoblasts" in their salivary glands. Simultaneously fresh cases of fever came daily to hospital, with tertian, quartan, or æstivo-autumnal parasites in the blood of the patients. Further, mosquitoes allowed to feed on these patients proved on dissection two or three days later to be infected. Thus the complete history was easy to trace at Wilberforce and proved a good guide for work in other districts.

It may be mentioned that the bodies discovered by Ross and described by other authors and usually called "black spores" were never met with in any of the numerous mosquitoes found here. This tends to disprove their connexion with malaria. It is a very common idea that mangrove swamps are good breeding-grounds for mosquitoes and that they also play a prominent part in the production of malaria. During the search at Wilberforce for breeding-places, in order to test every possibility, two swamps in the neighbourhood were explored. One is an ordinary swampy tract forming a kind of terrace half way down the hill on which Wilberforce stands, the other is a mangrove swamp at the base of the hill. In neither could any spot likely to form a breeding-place for anopheles be found.

The whole experience of the expedition at Sierra Leone tends to prove very strikingly that mosquitoes of the genus anopheles cannot travel far. The whole of Freetown has been explored for anopheles larvæ puddles and their positions have been carefully indicated in a plan of the town. The distribution of these puddles is limited very strictly to the immediate vicinity of human habitations. In no place has a puddle containing larvæ been found more than 40 yards from a native hut.

Similarly, again, the distribution of the mosquitoes themselves. Tower Hill barracks, where the 1st West India regiment is stationed, is an admirable example. The hill is about 250 feet high; a ring about half a mile wide immediately around the barracks is clear of native huts. Just beyond that distance puddles containing the larvæ of anopheles have been discovered; on two sides, in the parts known as Soldier Town and Bambare Town, they were particularly numerous. But although several times the whole of the barracks were searched, never was anopheles discovered. Mosquitoes of the genus culex were common—disused tubs, mortars, and other vessels in the immediate vicinity of the barracks were their breeding-places. Cases of fever did occur among the men at these barracks, but, compared to the number at Wilberforce, they were very few, mostly relapse cases; while from "first attack" cases it was easy to get the history that a week or fortnight previously the patients had slept in a native hut in the town.

The puddles containing anopheles larvæ may be described as follows: 1. Rock puddles occurring in shallow hollows on the surface of the bare hard rock. These are often only from a few inches to one or two feet across and many of the smaller ones swarm with larvæ. 2. Street-side puddles. These occur in the course of the rough