as the latest fad. We have had ante-partum and post-partum douching with various antiseptics; advice to finish every first case with forceps; condemnation of forceps in nearly every case; and so on. We have been advised to conduct every confinement as if it were a major operation. Major operations in hospital never become septic; but of two Caesarean sections which were done for me in hospital, one returned home with a suppurating abdominal wound! The infection in this case was not introduced by the examining finger, for no examination was made by me for two months previously.

The only two things we know about puerperal fever are, first, that we—experts included—know nothing about it, and secondly, that whenever it occurs the practitioner will be blamed for it. First he was blamed for carrying the infection on his clothes or on his hands, and probably in some cases he was rightly blamed. But when cases occur sporadically he is still blamed, but in a different way: he now introduces the infection from one part of the patient to another. The idea that the patient might introduce it in the same way by scratching the vulva, or that it might have been introduced by coitus previously, or conveyed on an insanitary sanitary towel, is, of course, preposterous.

What about the cases, sometimes fatal, which we all have, when no examination has been made by midwife or doctor? When these have been explained it will be time to put the blame on the general practitioner.

I have attended about five thousand confinements with one fatal case of puerperal fever. In this case I found that the woman's attendant was desquamating from scarlet fever. I mentioned the case to an expert, and can still remember the shrug of his shoulders which meant, "A very nice excuse." Until the experts get rid of the obsession that the practitioner is the person responsible for the continued prevalence of puerperal fever they will not go far towards finding the true cause.—I am, etc.,

Birmingham, Nov. 23rd. ROBERT ANDERSON, M.D.

SIR,—In Professor McIlroy's letter she refers to the midwife as a highly trained specialist. May I suggest that some at least of this training is obtained at the expense of the medical student?

The C.M.B. regulation insisting on personal conduct of twenty cases is carried out scrupulously by hospital staffs, and it is common for candidates to have done thirty to forty cases before coming to examination.

In the case of medical students there is no such regulation binding on all medical schools and universities; the result is the prevailing idea, in hospitals where both students and nurses are trained, that the training of the student is secondary to that of the midwife.

I have ventured to draw attention to this point as I think the extent to which it operates is probably not realized by the seniors of the profession; among students it is much discussed and somewhat resented.—I am, etc.,

DOROTHY DOUGLAS, M.B., Ch.B.

Cupar, Fife, Nov. 23rd.

PUERPERAL SEPSIS.

SIR,—In the course of the correspondence upon puerperal sepsis I observe that Dr. Leonard Mackey (November 22nd, p. 974) suggests that a vaccine might be of some use. May I say that I have so used a vaccine for over two years?

The method of preparation and the dosage were described in this JOURNAL in 1922. The vaccine is a stock one, and the dosage differs fundamentally from that of the ordinary vaccine: as a result there is no risk of undesirable "reaction" effects on the patient.

The results have been as good as one has any right to expect. The vaccine is suitable for the gravest of cases. So far between forty and fifty cases have been treated, and as far as my information goes only one case has been unsuccessful. There may be others, but if so I have not heard of them.

I agree with Dr. Mackey on the importance of early recognition of the condition, and would add that, as in every other form of treatment, the sooner the vaccine is administered the more certain are the results.—I am, etc.,

C. E. JENKINS,

Manchester, Nov. 22nd. Pathologist to Salford Royal Hospital.

SIR,—Dr. Mackey expresses the opinion that in the vast majority of cases of puerperal sepsis we have to deal with a specific streptococcal infection. I beg to lend strong support to this view, since during the past twenty-four months as bacteriologist to the Birmingham and Midland Women's Hospital I have, in the course of examination of 120 swabs taken from the septic puerperal uterus, found a streptococcus with the same definite cultural characters in 63 instances. In a smaller number of cases of puerperal infection I have been able to isolate the same organism from the blood stream.

That I have found this streptococcus in a smaller percentage of cases than Dr. Mackey found may be explained very largely by the fact that in many instances the swabs in my series were taken in the wards by various resident officers, who at first failed to realize the importance of avoiding vaginal contamination in taking swabs from the uterus.

Dr. Mackey's description of the streptococcus appeared in Mr. J. Furneaux Jordan's Ingleby Lecture on puerperal sepsis, published in the BRITISH MEDICAL JOURNAL, July 6th, 1912, so I will only remark that it differs from the *S. faecalis* group in being haemolytic and in failing to ferment mannite, and from the *S. pyogenes* group in the appearance of its growth in broth, and especially in the large size and opacity of its colonies on agar. This appears to discredit two current views as to its causation: (1) that the uterus is infected from the rectum or faeces by common faecal streptococci, (2) that it is a dirt disease like wound infection in general.

It is true that the bacteriologist has as yet failed to construct a thoroughly satisfactory classification embracing all known varieties of streptococci, but I beg to claim, in virtue of the accumulating evidence, that a case has been made out for searching for a streptococcus of this particular type in pregnant women.—I am, etc.,

Birmingham, Nov. 24th. REGINALD G. ABRAHAMS.

SIR,—Dr. Gordon Ward writes that "of factors predisposing to it [that is, puerperal fever], nothing is certainly known except that there are such factors." In *Folia Gynaecologica*, vol. iv, Fasc. 1, p. 29, 1909, there is given a detailed report of an investigation by Dr. G. L. Basso into the bacteriological findings resulting from observation made on the vaginal bacteria present in 150 pregnant (not parturient) women in hospital. The number of cases in which streptococci were present in this investigation should receive full consideration before the doctor or midwife in attendance be blamed. If Dr. Mackey's suggestions could be carried out more would be done to reduce maternal mortality than any amount of municipal expenditure in providing consultants for cases of so-called puerperal fever, and far less expenditure would be needed.—I am, etc.,

Colwall, Malvern, Nov. 23rd. MARY WILLIAMS.

ENCEPHALITIS LETHARGICA.

SIR,—I note that Dr. Farquhar Buzzard, in his interesting paper published in your current issue (p. 937), speaks of the importance of detecting the early stages (otherwise called "ambulatory forms") of this disease. He has observed that conditions indistinguishable from influenza or even ordinary catarrh are sometimes followed by pronounced encephalitis. Does this, however, necessarily mean that they have been "early stages" of that affection?

May it not well be that any condition of an influenzal nature may eventually (in certain circumstances) *become* the serious condition which we call encephalitis lethargica, and that at the present day (owing largely, no doubt, to the general devitalization produced by the war) there is a greater tendency in that direction than there used to be? In other words, is not Dr. Farquhar Buzzard assuming too