one. The three semi-confluent cases had respectively 3, 5, and 3 scars, the one with 5 scars being most severe. The nine discrete cases had 2, 3, 3, 4, 4, 1, 2, 1, and 4 scars respectively. The most severe case of the nine had 2 scars measuring $\frac{3}{4}$ inch each, and the three mildest 4, 1, and 1 scars respectively, and $\frac{1}{2}$ inch, $\frac{1}{4}$ inch, and $\frac{1}{4}$ inch respectively of superficial area. Space forbids my proceeding farther, but we may consider the above to be strong evidence in favour of the simple and rational view that a single effective inoculation with cow-pox is quite as great a protection against small-pox as an indefinite number of simultaneous inoculations.

The severity of systemic diseases, such as small-pox, cow-pox, syphilis, or other inoculable diseases, may perhaps be influenced by the dose administered, but can scarcely be affected by any variation in the number of places by which the infective matter enters the body.—I am, etc.,

Highgate. HUGH WOODS.

SIR,—I have read with interest the various letters which have appeared, and share the general regret that there is so little uniformity in deciding what is and what is not to be considered successful vaccination. Such a classification is of the most important significance in the compilation of statistics upon this *quæstio vexata*, and the absence of a common measure of what is to be regarded as successful vaccination is unfortunate, and furnishes a weapon to partisan writers. The labours of the Royal Commission on Vaccination now sitting would not be entirely thrown away if they were to bring about a statutory definition of successful vaccination. At present the nature of the lymphs employed is as various as the number of insertions and the modes of operating. I have noted the opinions of a few authorities in the matter of number of insertions, and while I find Dr. Drysdale relies upon one, Dr. Adam objects to more than two, Dr. Meade considers "three well-marked scars as good as a dozen," and while most official vaccinators make four, Dr. Cory prefers five, and Curschmann is not content with less than from four to six on each arm.

Then, again, I am anxious to know for statistical purposes how we are to interpret the success or failure of revaccination. Are we to regard a successful revaccination as indicating that the individual has reacquired susceptibility to small-pox, as I find Dr. Wynter Blyth states in his *Manual of Public Health*, and, in the case of such success, should the operation be repeated, or are we to regard failure of revaccination as indicating complete insusceptibility to small-pox, and rest satisfied with such result?

I am also anxious to learn what precise significance is to be attached to the foveation of vaccine cicatrices or their smoothness. I note that Dr. Cory, in the important evidence he gave before the Royal Commission, stated that scars vary immensely in quality even with good lymph and in careful hands, and that even he could not ensure a foveated scar.

Hoping that those engaged in the daily practice of vaccination may be able to enlighten me on some of the above points, I am, etc., A PERPLEXED STATISTICIAN.

SIR,—Having read in the BRITISH MEDICAL JOURNAL the various opinions expressed with regard to efficient vaccination, I have thought it might be interesting to the profession to know the proportion of well vaccinated, imperfectly vaccinated, and unvaccinated amongst the cases of small-pox admitted to the Leeds Small-pox Hospital during the present small-pox epidemic.

Up to date 43 cases of small-pox have been admitted to hospital, of which 24 were well vaccinated, 15 imperfectly vaccinated, 2 said to have been vaccinated but no visible sign, and 5 unvaccinated. Of the 24 well vaccinated 19 had a "mild discrete" attack, 4 a "medium discrete," and one the "coherent" form, the papules of which, however, underwent resolution, there being no secondary suppurative fever. Of the 15 imperfectly vaccinated, 1 had a "mild discrete," 5 a "medium discrete," 1 a "semi-confluent" (with resolution), and 5 a "confluent" attack; 1 of the last had no secondary fever, the rash resolving. The 2 who were said to have been vaccinated, but who had no cicatrix visible, both had the "semi-confluent" form. The 5 who had not been vaccinated had bad "confluent" attacks; 1 of them, a young child, died from septic pneumonia. Of the 43 cases, 3 (or 6.9 per cent.) had four marks, 8 (18.6 per cent.) had three marks, 19 (44.1 per cent.) had two marks, 6 (13.9 per cent.) had one mark, and 7 (16.3 per cent.) had no marks visible. A large proportion of these cicatrices were very small and indefinite.

Touching the question as to whether one or more cicatrices affords most protection from small-pox, the experience of our present epidemic, and, I believe, of previous epidemics in Leeds, goes to show that those vaccinated in three or four places have much milder attacks of small-pox than those who have a less number of vaccination cicatrices.

During this epidemic, of the adult portion of those attacked only 1, I think, had undergone secondary vaccination, except those who were revaccinated whilst in quarantine, and who subsequently developed small-pox, being apparently in the incubation stage when revaccinated. To make vaccination really efficient and protective, I consider that not only should vaccination be performed efficiently in infancy by vaccinating in not less than three places, but, as a matter of routine, revaccination should be performed at the age of puberty. This epidemic, confined to small proportions by the strict isolation measures adopted by the medical officer of health (Dr. Spottiswoode Cameron), would have been even less had these adult patients been revaccinated at puberty.

I consider the suggestions laid down by Mr. Libbey in his letter to be eminently valuable, but I think if the operation were left entirely in the hands of public vaccinators we should have even more efficient vaccination.—I am, etc.,

A. E. PEARSON,
Resident Medical Officer Leeds Borough Fever and Small-pox Hospitals.

THE COMING ELECTION OF DIRECT REPRESENTATIVES TO THE GENERAL MEDICAL COUNCIL.

SIR,—As the quinquennial election of our direct representatives begins on November 23rd, would it not be well if we medical practitioners—the electors—obtain definite promises from those whom we elect to represent us and our aims on those matters which require urgent attention? I think individual voters and medical societies should at once address the following questions to our present five direct representatives, namely, Drs. Wheelhouse, Glover, Foster, Bruce, and Kidd, and that if their replies be in the affirmative we give them our heartiest support and thanks:—

1. Will you urge the Council to recommend to the examining bodies that the earliest age at which registrable qualifications be granted to students be raised from the 21st to the 24th year of age?
2. Will you urge that the preliminary or entrance examination be raised to a much higher standard?
3. Will you urge that the number of direct representatives be increased from five to eight, as provided for by the Medical Act; and will you, in default of the Council refusing to act in this respect, petition the Privy Council to grant this request?
4. Will you urge the Council to recommend that each of the examining bodies granting registrable qualifications charge a uniform rate of fee for such qualification?
5. Will you urge the Council to recommend that the examining bodies in each of the three divisions of the United Kingdom combine to form one examining body in each of the three divisions, thus putting into operation the suggestion of some of the Royal Commissioners on the Medical Act (1882)?
6. Will you urge the Council to recommend that Poor-law infirmaries, county infirmaries, and municipal free hospitals be opened for the clinical instruction of students; and that attendance at these be recognised by the examining bodies?
7. Will you urge the Council to recommend a partial return to the system of apprenticeship?
8. Will you urge that more effectual measures be taken by the Council to prevent unqualified persons from practising medicine?
9. Will you urge the Council to recommend that the education of medical students in midwifery and diseases of infants be greatly improved, so that the maternal and infantile death-rates may be greatly lowered; and also that the examining bodies do not accept certificates from students in midwifery when they have attended their cases under the direction of a midwife or other unqualified person?