Lawrie's burlesque account of the facts only weakens his other unsubstantiated statements. His statistics (?) are as remarkable as the question he asks, "What is the use of calculating the ratio of deaths to population and not to the operations in which the various anæsthetics were administered?" when it is preceded by a statement that the deaths among his own dental chloroform administrations were *nil* in 15 years. Perhaps it might be permissible to inquire whether he has administered chloroform in dentistry at all, as the absence of a number of administrations might conceivably result in an absence of mortality.

"Hyderabad methods" of inducing chloroform narcosis seem to have undergone a radical change since March 20th, 1899, when, according to Lieutenant-Colonel Lawrie's book on Chloroform, a death took place during the struggling stage of anæsthesia and he laid down the law "never to give chloroform while there is struggling and irregular breathing." "Formerly"—i.e., previously to this date—he says, "there was always an element of chance, and, consequently, of risk in the administration." "Hyderabad methods," then, were not so perfect from 1892 to 1899—in fact, for those seven years it would almost have been as safe to have inhaled chloroform at the hands of a London anæsthetist—but we can hardly expect Lieutenant-Colonel Lawrie to admit anything involving so little prejudice.—I am, Sirs, yours faithfully,

H. BELLAMY GARDNER, M.R.C.S. Eng.,

L.R.C.P. Lond.,

Anæsthetist to Charing Cross Hospital; Assistant Anæsthetist to the Dental Hospital of London.

Beaumont-street, W., April 9th, 1901.

To the Editors of THE LANCET.

SIRS,—Lieutenant-Colonel E. Lawrie makes the statement that in London "there is no practical teaching in anæsthetics worthy of the name." He adds his idea of what the teaching consists and again tells us how he teaches in Hyderabad. It is perhaps a pity that before making such a sweeping statement Lieutenant-Colonel Lawrie should not have ascertained what is really taught in London. At University College Hospital the students have actual control of, and responsibility concerning, the patient from the induction to the end of narcosis, being only supervised by the authorised instructor. Careful and comprehensive notes are taken before, during, and after narcosis. I have little doubt a similar course is adopted elsewhere. The period of chloroformist clerkship is one month, which, as Lieutenant-Colonel Lawrie thinks, is more than sufficient for the average student. I am, Sirs, yours faithfully,

Mortimer-street, W.

DUDLEY W. BUXTON.

"THE STATISTICS OF GASTRIC ULCER, WITH SPECIAL REFERENCE TO GASTRIC HÆMORRHAGE, ITS FREQUENCY AND FATALITY."

To the Editors of THE LANCET.

SIRS,—I fully agree with Dr. Byrom Bramwell that the questions in discussion between us are of the greatest practical importance to the profession and I feel sure that Dr. Bramwell's criticisms are advanced with the view of arriving at the real facts, which aim I also have only in view. If, however, Welch's figures, based on observations on 32,052 necropsies, cannot be allowed as a basis on which to support arguments with regard to the frequency of gastric ulcer it is useless giving any further authority, for so far as I am aware no one has made observations on anything like such a series of cases, and we can only wait for Dr. Bramwell's figures, which we shall hail with gratitude if they are based on post-mortem evidence. As to the death-rate in gastric ulcer I have not used the 50 per cent. mortality suggested by some of the authorities named, but have halved that figure, which is considerably under the mean of the extremes, and I do not think that it is an exaggerated estimate to say that 1.25 per cent. of the population die directly or indirectly as the result of gastric ulcer.

I would once and for all point out that in my paper I never said that Leeds had a population of 500,000 or referred to Leeds itself except in the following words: "Its importance will be better grasped if these figures are applied to the population of a city like Leeds, which for convenience

I will take at 500,000"—taking the figure of 500,000 merely for convenience in working out the sums and referring to Leeds merely because its population nearly approached the number named and gave to the mind's eye a city of approximate size to the one referred to. I am quite aware that the authorities I have referred to differ in their mode of calculation as to percentages of deaths from hæmorrhage, some referring to the percentage of deaths in all ulcers and others to the percentage of deaths in those ulcers that bleed; but my own views are not indefinitely stated, as the figures quoted by Dr. Bramwell from my address show. I said: "7 per cent. of deaths in cases of gastrorrhagia from ulcer will not be far from the truth. If this is worked out in the 500,000 population of a city like Leeds it means that of the 25,000 persons who have or who have had ulcer, 12,500 suffer from hæmatemesis, and of these 7 per cent., or 875, die." Yet after making this quotation correctly Dr. Bramwell deliberately adopts other figures in the very next paragraph of his letter, doubling the percentage of deaths from hæmatemesis, and he then proceeds to criticise the figures which he himself is responsible for.

In order that it may be quite clear both to Dr. Bramwell and to those who are interested in the discussion I will put my figures succinctly. I argued (1) that 5 per cent. of the population suffer or have suffered from gastric ulcer, which therefore gives 25,000 in a population of 500,000; (2) that 25 per cent. of those suffering from gastric ulcer die directly or indirectly from the disease, which gives 6250 in a population of 500,000, or 1.25 per cent. of the population; (3) that 50 per cent. of cases of gastric ulcers bleed, which gives 12,500 in a population of 500,000; and (4) that 7 per cent. of cases of hæmatemesis from ulcer, or 3½ per cent. of all persons suffering from ulcer, die as the result of the bleeding, which gives 875 in a population of 500,000, or 0.175 per cent. of the whole population. So far as hæmorrhage is concerned, if these figures are worked out for a year on the basis suggested by Dr. Bramwell, that 20.05 per 1000 of the population of Leeds die annually from all causes, which means spreading the stated number of deaths over 49.87 years, or for convenience I would say 50 years, it means that in a population of 500,000 (875 ÷ 50) 17.5 patients die each year from hæmorrhage due directly or indirectly to ulcer of the stomach.

The following are the references which Dr. Bramwell asks for: Müller, quoted by Savariaud (*Thèse de Paris*, p. 51): "Of 127 ulcers, 37 hæmorrhages noted, of which 14 were fatal, which gives the great mortality of 11 per cent." Welch: "Pepper's System of Medicine," vol. ii. Brinton: "Treatise on Ulcer of the Stomach and Diseases of the Stomach." Debove and Rémond: "Traité des Maladies de l'Estomac, Paris." "Ulcère de l'Estomac." Also quoted by Einhorn. Steiner: "Virchow and Hirsch's Jahresbericht, 1868," p. 125. Quoted by Leube in Ziemssen's *Handbuch* and referred to in Savariaud's Thesis: "In 110 cases there were seven fatal hæmorrhages, which gives 6.36 per cent." Lebert, quoted by Dreschfeld: "252 cases observed, 3 per cent. fatal from hæmorrhage." Dreschfeld: "Clifford Allbutt's System of Medicine," vol. iii., p. 541. Rodman, *Philadelphia Medical Journal*, June 9th, 1900, p. 1303: "Hæmatemesis occurs in at least 50 per cent. of all cases of gastric ulcer, and many authorities estimate it as present in 80 per cent. It is, too, fatal in 8 per cent. of the cases in which it occurs, according to the conservative estimate of Leube (*Archiv für Klinische Chirurgie*, 1897), and we cannot question that it is indirectly fatal in a much greater number of cases by anæmia and its remote consequences."

Until Dr. Bramwell can furnish the profession with figures that will distinctly prove or disprove these statements I cannot see that any advantage can be derived by prolonging this discussion, for my belief in the probable accuracy of the estimates given in my original address remains quite unshaken by any of the arguments that Dr. Bramwell has advanced.

I am, Sirs, yours faithfully,

Park-square, Leeds, April 6th, 1900.

A. W. MAYO ROBSON.

THE INDIAN MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—I was more than surprised to see in a late issue an unjust attack by your correspondent on the natives of India. I regret that he should have been so short-sighted as to state that "the feeling in the service is that there are too

many natives in it already, and that any further concession in their interest would be undoubtedly unpopular." As a matter of fact, it is a very high average if two Indians get in perhaps in a total of between 14 and 20. At each competition the Government do their best to exclude them by holding examinations in London. Notwithstanding this Indians risk the perils of the deep, leave their hearth and home, and everything that is near and dear to them, to spend a number of years in an inhospitable climate, and spend a large sum of money on the off-chance of succeeding in a proverbially uncertain competition, and that, too, in a foreign language. Yet they are grudging the few places which they now hold. Imagine the Chinese filling most of the hospital and service appointments in Great Britain. How would the people here like to be told that the few Englishmen who wrested some appointments from the Celestials had done something which was unpopular and that "any further concession in their interest would be unpopular"? No, Sirs; the boot is on the other leg. If we are to make any complaint (which I do not make so long as a fair competitive examination is held in England and India) it is that there are too many Englishmen in the Indian Services. Your correspondent further says that the Indian degrees are "not to be compared to the British ones." Whose fault is it? No one has ever dared to say that the Indian intellect is a whit inferior to that of other nations. Therefore the fault must rest with those who mould that intellect. We want in India teachers to be recruited from all quarters, not, as is the present custom, to take them simply from the Indian Medical Service which thus enjoys a close monopoly. This system excludes some of the most brilliant amongst our profession who have no desire to go through an army medical examination. We can only appeal to fair-minded Englishmen to preserve the legitimate interest of an Englishman without robbing their Indian fellow citizens of their inalienable rights as judged by the chivalrous sense of British justice.

I am, Sirs, yours faithfully,

SARAT K. MULLICK.

New Cavendish-street, Cavendish-square, W.,
April 6th, 1901.

"THE ELIMINATION OF ARSENIC THROUGH THE HAIR."

To the Editors of THE LANCET.

SIRS,—You published in THE LANCET of April 6th, p. 1044, a letter from Dr. A. Dupré which refers to the possibility of arsenic obtaining entry into the hair through the medium of the perspiration emanating from the scalp. The fact that the experiments referred to in our article in THE LANCET of March 23rd, p. 854, were all made with recent hair, and the knowledge that our beer patients had ceased taking in arsenic for some little time previously to the samples being obtained, should be sufficient to show the unlikelihood of the hair being contaminated in this way. We may further point out, however, that the hair of all the arsenical patients was regularly washed, and that particularly in the case of the patient taking the drug medicinally this occurred every day.

Dr. George Pernet, whose letter you publish in the same issue, does not, we fear, thoroughly grasp the scope of our article. We were very careful to point out that the affinity of arsenic for the skin and its appendages is common knowledge, and we certainly made no claim to have discovered the "fact that arsenic is stored up in the hair and nails." We confirm previous observations and go a step further. We clearly show that arsenic can not only be detected in the hair of people taking the drug, but that the quantity in any given sample can be estimated with perfect accuracy by the method indicated in our paper, and further demonstrate the use which this knowledge can be put to as an aid to the diagnosis of arsenical poisoning. It is necessary that Dr. Pernet should discriminate between the value for scientific purposes of an accurate estimation of the quantity of arsenic to be found in a weighed sample of hair and the mere detection of the drug in this appendage.

We are, Sirs, yours faithfully,

E. KNECHT.

W. F. DEARDEN

Manchester, April 8th.

"THE ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—I am surprised that the secretary—who as an official of the hospital should, I think I am justified in saying, be publicly neutral—has obtruded himself into this matter. I am, however, glad because it enables me to acknowledge an error of information of which I might otherwise not have been aware, as I asked at the railway station for a copy of THE LANCET and could not get one. The secretary and the assistant secretary will tell you that I have always desired to be most accurate in this question of site, but unfortunately, I presume, through having read the letter without glasses, I overlooked a nought—a very important thing in figures, I admit. I have just re-read the letter and the word "sale" is not used, so I concluded that the offer was £1200 a year for leasing the Hanover-square part, as we have had several offers for leases. I readily apologise to you and all whom it may concern for that which everyone must see was a purely unintentional oversight. Obviously no one would desire to prejudice a good cause by purposely making incorrect statements. But this oversight in no way affects the real points at issue which are: (1) that £37,700 is considerably below the present value of the site; (2) that there is not the slightest necessity to part with our valuable property, which is increasing in value yearly as testified by experts; (3) that we are living rent free; (4) that partially building on our present site, even if we borrowed the money to do so, would increase the hospital's income £500 a year; and (5) that if it were necessary to do so we could rebuild the entire hospital on its present position, a magnificent one, for some £12,000, according to a letter which I read at the annual meeting in February last from a well-known firm of architects who have built another hospital. All these great advantages it is proposed to sacrifice for no sufficient reason which has yet been furnished in order to enter on a career of very uncertain future and full of grave and totally unnecessary risks. In my judgment and that of other members of the committee and several governors this is not the cautious policy which should govern so very serious a matter as the moving of a long-established hospital and the selling of its only property.

About two years ago Sir J. W. Ellis valued the site at £36,000; about a year ago two experts valued its leasehold price at £1500 a year; and at the annual meeting last year I read a letter from a well known firm of valuers stating the then value of the site to be £42,000. Since that time the value of the site has enormously increased and will increase, as proved by the fact that two years ago only £28,000 were offered and now an offer of about £10,000 more is made and accepted so far as the majority of the committee is concerned. Some two years ago the adjoining property, which is only two feet wider, sold for between £56,000 to £60,000, and shortly before that the property extending from Hanover-square to Oxford-street, facing that which is now being built on, fetched, I am informed, some £65,000 to £70,000. In view of the enormous increase in value of property in this position I think anyone caring to inquire will find that the market value of our site is from £45,000 to £50,000, and to let some £2000 a year, and its real value much greater. But as there is not the slightest compulsion to sell, as £2000 have been spent in putting the hospital into thorough sanitary condition, as from the point of view of further enhancing the value of the hospital's property we should remain where we are and for several other important reasons, we have nothing to do with market value or the highest offer. Our duty clearly is to hold our piece of land and to increase our income by rebuilding the Oxford-street portion, or to leave well alone. I should add that though the choice of a proper site for a hospital is obviously a professional matter the views of the medical staff have been ignored, and though I have repeatedly given the committee credit for doing what they think to be best—though many believe them to be grievously mistaken—they have never even hinted that I and those who agree with me have the best interests of the hospital at heart. I have been and am fighting a very difficult battle against rich men and as a consequence have made many enemies, but I am conscious that I am doing that which can be shown to be best for the hospital. I have had valuable advice from experts in accounts and in building operations and valuations, and until the arguments which I have adduced can be controverted—and hitherto