made a mistake over an appointment. This service is so good that I now gladly comply with their administrative requests.

Delinquents are naturally the worst of all hospital appointment-keepers, but I find it no more tedious to wait for them when I expect to be paid (some bureaucrat at the North-West Regional Board having so far held up my proper contract) than when I was not paid. There is always something to read or write to fill in the odd half-hour.—I am, etc.,

London, N.W.1.

J. F. COOPER.

SIR,—In your issue of Feb. 5 a letter signed by Melitta Schmideberg appears (p. 243) under the above heading. This letter refers to the Portman Clinic (I.S.T.D.), which is the new name under the National Health Service of the clinic formerly administered by the Institute for the Scientific Treatment of Delinquency.

The letter was discussed at the next routine professional staff meeting of this clinic on Feb. 7, which was very fully attended. At this meeting it was unanimously decided that we should write to you and state that the professional staff of the clinic wished to dissociate themselves entirely from both the spirit and the content of the letter. In particular they deprecate strongly the criticism of the clerical staff, whom they expressly stated they had found to be courteous, helpful, efficient, and obliging, and singularly free from the faults attributed to them in that letter.—We are, etc.,

DENIS CARROLL,
J. D. W. PEARCE,
Medical Co-Directors.

Portman Clinic (I.S.T.D.),
London, W.1.

Heat and Blood Flow

SIR,—The annotation on heat and blood flow (Feb. 5, p. 230) is certain to disconcert many who use thermal agents to therapeutic ends. The news that more recent investigations carried out by Siems, Kosman, and Osborne support the well-established assumption that a temperature rise increases blood flow may therefore come as a relief to those who felt that the observations of Kemp and his co-workers were at variance with everyday experience.

A well-conceived "Comparative Study of Short Wave and Microwave Diathermy on Blood Flow" has led Siems and his co-workers¹ to conclusions which they summarize as follows:

- (1) Short wave and microwave diathermy are equally effective in increasing local blood flow in the hind extremity of the normal dog.
- (2) Loss of motor or sensory innervation to the part does not affect the essential nature of the vascular response to heating.
- (3) Evidence is presented suggesting that the integrity of the sympathetic outflow in the dog is necessary for the typical vascular response to local heating.
- (4) There is no evidence that any known method of heating possesses properties which have specific effect on blood flow.

—I am, etc.,

London, S.E.1.

P. BAUWENS.

REFERENCE

- ¹ *Arch. phys. Med.*, 1948, **29**, 759.

Oral Reactions to Penicillin

SIR,—As a mycologist I was interested in the review and investigations by Dr. W. G. Cross (Jan. 29, p. 171) under the title "Oral Reactions to Penicillin." The striking similarity between it and the mycotic infection *lingua nigra pilosa* suggests the same aetiology. In support of this the following points, common to both conditions, are presented: (1) The oral erythema as seen about the third day. It constitutes the initial reaction to the irritation by the invading organism. (2) The discoloration of the tongue. This is due to the presence of the infecting fungus, the colour varying according to species. (3) The common site of the lesion; the hypertrophy of the fungiform papillae as well as the denuded patches on the tongue. The latter lesions are later reactions to the infection.

The micro-organisms found in the course of the investigation are normal inhabitants of the mouth, and the cells diagnosed as *Monilia albicans* represent a variety of yeasts which are not determinable except after detailed culture study. At the same time the failure to demonstrate mycelium in the scrapings is

hardly an indication of their absence, as prolonged and patient search by a mycologist is necessary before a case is pronounced negative. Even then culture will often reveal their presence.

In conclusion, the oral reaction to penicillin may be explained on the basis of symbiosis. Penicillin, being a metabolic by-product of a fungus, will furnish in the mouth an ideally favourable environment for other species of saprophytic fungi—which occur in abundance and are both ingested and inhaled at some time or other—to thrive as facultative parasites. In the circumstances, apart from withdrawal of the penicillin lozenges, gum, or spray, which in any case are replaceable by other bactericides, fungicidal treatment should be instituted in the form of mouth-washes of Lugol's iodine and alkalis.—I am, etc.,

Wembley Park, Middlesex.

N. GOHAR.

Cancrum Oris

SIR,—May I add to Dr. Donald Mackay's observation (Feb. 5, p. 223) on cancrum oris? I have seen this condition not infrequently in the Tropics and sub-tropics, and can certainly confirm that penicillin is effective in arresting the local progress of the disease almost immediately. This, however, is only part of the treatment, as cancrum oris is a manifestation of debilitating disease, which in tropical conditions may be due to any combination of tropical anaemia, sprue, chronic malaria, kala azar, and worm infestation. A precipitating factor appears to be an infectious fever.

My first experience of this condition was in an Indian auxiliary in Assam. The patient had a spreading gangrene of the upper lip. Penicillin was given, and the spread was arrested immediately, a sharp line of demarcation forming. Then the gangrenous tissue sloughed without haemorrhage, but the patient died later of kala azar. I saw further cases of the disease in Mosul, Iraq, where, judging by the frequency of the admissions to hospital, the condition must be not uncommon. I have no records of the numbers of patients treated, but they were considerable, and the value of penicillin had been well recognized.

The gangrenous areas became remarkably sharply demarcated after no more than 24 hours' penicillin treatment, and after separation a characteristic punched-out area was left. The gangrene was frequently extensive and deep, affecting bony structures—most frequently the adjacent alveolar margin—and often the whole of the superior maxilla bone would become bare, the teeth fall out, and finally a sequestrum separated. Fatality was rare, but the residual deformities in severe cases were hideous and the despair of the plastic surgeon.

One fatal case of which I have a record is that of a young woman who was admitted with a gangrene affecting the whole of the left face from forehead to mandible and excavating posteriorly to include the palate, leaving the globe unaffected, rendering the appearance revolting beyond description. Even in this case penicillin stopped the spread of the gangrene, but the patient died, perhaps not unmercifully, of inanition.

I can confirm an occasional spontaneous cure of cancrum oris, having operated on a patient in Mosul—a young Kurdish woman—for a typical punched-out defect of the upper lip with loss of adjacent alveolar margin; the lesion was acquired in childhood following a febrile illness, when a piece of tissue fell away.

Regarding Dr. Mackay's suggestion that the disease is infectious, I found no evidence of this in Mosul, where healthy children were admitted to hospital with the mother and affected child. I would suggest that in the case recorded there was a common predisposing factor—malnutrition, infestation, or malaria—and both children acquired some infectious disease precipitating the onset.

Perhaps in conclusion it may be of interest to record that in the one case of genital phagedaena under my care in Iraq penicillin was as effective as in cases of cancrum oris.—I am, etc.,

Swansea.

B. BRENDAN HICKEY.

Amethocaine Hydrochloride

SIR,—It is fair that I should confirm Dr. P. E. Thompson Hancock's letter (Feb. 5, p. 236) on the subject of amethocaine anaesthetic fatalities, as one of the cases reported by him was one of mine. This case had been gastroscopied previously with no ill effects, but on the second occasion received a considerable overdose. At that time (1937) the drug was not scheduled as dangerous, and in trying to improve on the technique which

Dr. Hancock had taught me I was experimenting with a Schindler's anaesthetic tube. There was in this case no idiosyncrasy, as symptoms developed on the second occasion only.

Shortly afterwards it was my misfortune, though not through any responsibility of mine, to see a patient die in cocaine convulsions, again from overdose. The symptoms were identical—respiratory spasm, apnoea, cyanosis, and generalized convulsions following rapidly on each other. It seemed that there was not likely to be more than a few seconds for successful treatment of the established condition, and I should doubt if it would be feasible. Prevention is certainly the defence to rely on, and by the use of pastilles, supplemented by gargling, anaesthesia should be obtained with at the most 0.05 g. It is probably safer, if the throat remains irritable, to supplement local anaesthesia by general sedation, and on the advice of Dr. Avery Jones I have found intravenous injection—e.g., morphine—very helpful, and have had no anxiety from it.—I am, etc.,

Hove, Sussex.

W. A. BOURNE.

SIR,—We read with interest the article on amethocaine sensitivity by Mr. C. A. Jackson (Jan. 15, p. 99), for on the day of publication we experienced a similar near-catastrophe in which the picture was almost identical with that described.

Our case was a woman aged 71 admitted for gastric investigation. A gastroscopy was planned, and the fauces were painted with a total of 5 ml. 2% amethocaine solution. It is our practice to carry out this procedure with the patient seated facing the spot lamp and immediately to transfer the patient to the table, but in this case before the transfer could be effected she became distressed, made grunting noises, and became unconscious within 30 seconds of the completion of painting. She was lifted on to the adjacent table. Twitching of the facial muscles which rapidly progressed to general clonic spasm occurred, and pulse and respiration failed equally rapidly.

Resuscitation was commenced immediately, a steep Trendelenburg position being adopted, and inflation with oxygen by compression of the bag of a Boyle's apparatus was begun by one of us, while the other administered intravenous "pentothal" (1.5 ml. of 5% solution) and the surgeon scrubbed up for cardiac massage should it become necessary. The clonus ceased within one minute of the administration of pentothal, and intubation was now performed to facilitate inflation. The pulse became imperceptible at the wrist, and 10 mg. "methedrine" was injected intravenously. The pulse became perceptible, but with this improvement the clonus returned. Pentothal (1 ml.) controlled this, but the pulse failed again. A further 5 mg. of intravenous methedrine was given, and the pulse improved. The surgeon was now ready for cardiac massage and the abdomen prepared, but the pulse continued to improve and the respiratory movements began.

Within ten minutes in all of the onset of symptoms breathing needed no further aiding. A B.L.B. oral-nasal mask was applied, and the table gradually levelled. The patient was reacting to supra-orbital pressure within 30 minutes of the onset, and was returned to the ward after a further half-hour. She was drowsy all that day, but was her normal self the following morning. We had hoped to observe the effect of intradermal injection of 1 minim (0.06 ml.) of the amethocaine solution, but she refused all tests.

We feel that this case serves further to emphasize the possible danger of amethocaine sensitivity so admirably described in Mr. Jackson's paper, the existence of which as an entity has not in the past been universally appreciated.—We are, etc.,

G. J. REES.

J. H. WAKELY.

Liverpool.

SIR,—It is not surprising to me that Dr. M. McMinn (Feb. 5, p. 236) reports that a patient became unconscious after the injection of 4 ml. of a 2% solution of amethocaine hydrochloride. I have knowledge of a case where death occurred in a young adult after the injection of about 6 ml. of a 2% solution. This is a satisfactory concentration for surface anaesthesia, but is in my view forty times too strong for local infiltration anaesthesia.

My own experiences with amethocaine hydrochloride have been happy. I have used it over 5,000 times for gastroscopy (as a 25 mg. tablet or up to 5 ml. of a 2% solution) and well over 800 times as a field block for abdominal operations (350–400 ml. of a 0.05% solution with adrenaline), and in no cases were any toxic effects exhibited.—I am, etc.,

London, S.W.16.

NORMAN C. TANNER.

Specialization

SIR,—Specialization in medicine is a direct result of the inability of any one mind to assimilate the discoveries of many minds. It has phases of enthusiasm and growth, alternating with phases of disquietude and retrenchment. Specialization in every branch of medicine—e.g., neurology, psychiatry, paediatrics, and cardiology—has been resisted, and from time to time there are attempts to put the clock back in spite of the intellectual and practical fruits of such specialization. More recent specialties, such as endocrinology, in which I am particularly interested, have still to make appreciable headway against an understandable resistance.

Apart from innate conservatism, the causes of such resistance may be grouped under certain headings: (A) Too many specialists results in too few general physicians. (B) One cannot be a good specialist unless one has a sound general knowledge of medicine. (C) General medicine is too greatly impoverished and too severely drained by the specialists. All these are valid. The solutions to A and B are obvious; that to C less so, and C is therefore the greatest obstacle. In my opinion it can be solved in two ways. The general physician must be acknowledged to have an indisputable right to retain a sufficient number of "specialist" cases under his care throughout, so that his practice and teaching will be representative of all aspects of medicine: the specialist will still have, in most big centres, a sufficient number of cases for the advancement of his own specialty. A specialist should always be available to give an opinion on a case under the care of a general physician colleague if so requested, but should never "claim" such a case for his own department, directly or by implication, or by common practice. This solution involves the spirit of humility and team practice, which, if accepted, will open up still further, as it has already done in some centres, the road to progress in the erudite and complex field of modern medicine.—I am, etc.,

London, W.1.

S. LEONARD SIMPSON.

Millilitres Correct

SIR,—Mr. N. A. Herdman (Feb. 5, p. 243) deplores the alteration of the abbreviation mil to ml. in the *British Pharmacopoeia*, 1948, and he gives reasons for his preference for mil. He could have added to these the fact that the Weights and Measures Regulations, 1907, give mil as the abbreviation of millilitre, and he thus has statutory authority on his side. Yet in spite of this I think that on balance ml. is to be preferred to mil, and perhaps the considerations below may incline Mr. Herdman to shift his sympathies in favour of ml.

There is a curious inconsistency in the Weights and Measures Regulations; the abbreviations for decilitre and centilitre are given as dl. and cl. respectively, and in conformity with this ml. might well have been expected for millilitre instead of mil. To be consistent the regulations should be amended so as to substitute ml. for mil. Mr. Herdman supports the use of mil on the ground that it cannot be confused with any other measure. Actually, however, the term mil is also used as a linear measure representing one-thousandth of an inch. But perhaps the most important of all considerations from the practical standpoint is that scientific workers invariably use the abbreviation ml. and not mil, and the *British Pharmacopoeia* in adopting ml. has done nothing more than bring itself into line with modern scientific usage.—I am, etc.,

London, W.14.

J. M. HAMILL.

Marxist Genetics

SIR,—To surround anything, however monstrous or ridiculous, with an air of mystery, is to invest it with a secret charm and power of attraction which to the crowd is irresistible. False priests, false prophets, false doctors, false patriots, false prodigies of every kind, veiling their proceedings in mystery, have always addressed themselves at an immense advantage to the popular credulity, and have been, perhaps, more indebted to that resource in gaining and keeping for a time the upper hand of Truth and Common Sense, than to any half-dozen items in the whole catalogue of imposture. Curiosity is, and has been from the creation of the world, a master-passion. To awaken it, to gratify it by slight degrees, and yet leave some-