his students to psychometric tests, personality tests, such as the Rorschach, and questionnaires designed to show abnormal traits, or did he just rely on his psychiatric intuition?—I am, etc.,

Sheffield.

F. J. KELLEHER.

The Problem of Chilblains

SIR,—I am grateful to Dr. William P. McKeever (March 6, p. 475) for drawing attention to a terminological error in my paper (Feb. 21, p. 336). As a result of experiments on the effect of cold on cellular metabolism it was found that cyanosis did not develop in a hand that was immersed in cold water for as long as six minutes when the venous return was stopped by a tourniquet, but rapidly developed on transferring the hand to hot water. The failure to develop cyanosis in the first place was no doubt due to impaired cellular activity, and the development of cyanosis in the second place was due, most probably, to the accumulation of the waste products of cellular metabolism and the consequent increase of reduced haemoglobin.

When the hand was returned to the cold water, with the tourniquet still in position, the cyanosis slowly disappeared and at the end of six minutes had been replaced by a bright red colour. I suggested that the reason for this must have been a dissociation of the carbon-dioxide-haemoglobin relationship (I used the term carboxyhaemoglobin in error).

I am aware that it is stated that cyanosis only appears when 40% of a normal haemoglobin content exists as reduced haemoglobin. (*Price's Textbook of the Practice of Medicine*, 1942 p. 339), but on this basis I found it difficult to explain the disappearance of the cyanosis on exposure to cold. It is hard to imagine why cold should decrease the percentage of reduced haemoglobin present, assuming the venous circulation to be stagnant in the area under consideration. That cyanosis may develop from other causes is evident from the fact that sulphonamide medication may cause it; in this case the cyanosis may be due to either methaemoglobin or sulphaemoglobin (*ibid.*, p. 16).

In my paper I tried to avoid being dogmatic regarding the nature of the products of cellular metabolism which cause the inflammatory reaction found in chilblains. I prefer to leave the elucidation of this point to colleagues who have a greater knowledge of biochemistry than I possess.—I am, etc.,

Ilkley, Yorks.

R. JOHN GOURLAY.

The Design of Bed-pans

SIR,—Although the practice of getting patients out of bed soon after operation will to some extent solve the problem of that nerve-shattering act the use of the bed-pan, nevertheless there will still be many patients who are condemned to use it. The writer did at one time design a bedstead in which the bed-pan was placed below the bed and moved into position by a lever rather like the breech-block of a gun. This, however, required a special mattress and draw sheet and was considered by the nursing profession to be too elaborate. It is essential therefore to redesign the bed-pan itself, which should be deeper and more stable. This is an unpleasant subject to discuss in print, but the comfort of our patients must always be our first thought and justifies calling attention to the matter.—I am etc.,

London, W.1.

MALCOLM DONALDSON.

Medical Photography

SIR,—In the concluding section of "Where are we Going?" Dr. Ffrangcon Roberts (March 13, p. 485) says that economics is a dismal science. But surely he is being a little too dismal. He is particularly unfortunate in his choice of clinical [*sic*] photography as a scapegoat. The present growth of medical photographic departments (the term "clinical" is too restricted to cover their work) has been brought about mainly by a widening realization of the value of visual methods in education.

We in this country, with a few noted exceptions, had been lagging behind the United States in our use of visual methods of instruction, but during the late war we were compelled to increase the efficiency of our technique for the simple reason that the need for more rapid training was paramount. It was

shown time and again that the great majority learn better and faster by using their eyes than by using their ears. There is now a widespread desire among teachers to apply this wealth of experience to medical teaching in general, and I feel sure that Dr. Roberts would be the first to support anything which can lighten the almost intolerable burden of the present curriculum. Agreed that the facilities must be intelligently employed, but it is quite certain that the demands of teachers for the products of the department are wellnigh overwhelming, in spite of expansion.

Dr. Roberts does not give the sources of his quotations, but I can recognize them with the exception of the reference to radiology. The first article was widely felt at the time to be "castles in the air" and likely to frighten people away, and several writers said so. I can safely assure him that it does not represent the opinion of the majority of those connected with departments of medical photography. The statement that the staff will need a long and complete training needs no support. If the new qualification set up by the Institute of British Photographers, the examining board for, which includes qualified medical men, is to mean anything, its standards must be high. And I have yet to find evidence that an expert in any branch of photography, or for that matter in anything else, can be made overnight. The quotation concerning cramped quarters is torn from its context, and does not suffice to convey the author's meaning. Would Pasteur, Thomson, and Hopkins have been any the worse for good accommodation? Surely this is merely a passion for what the Services used to call "doing it the hard way"?

Finally, I would suggest that the present increase in medical photographic departments in our teaching hospitals does not indicate an urge for expansion; the teaching staff are not all suffering from delusions of grandeur. It indicates only a very reasonable desire for high quality in recorded and instructional material, and a determination that those who provide it shall work under reasonable conditions. There is also every chance that it will lead incidentally to a much-needed improvement in the standard of pictorial and line work submitted to the journals for publication.—I am, etc.,

Manchester, 13.

ROBERT G. W. OLIVERENSHAW.

Bone Conduction in Otosclerosis

SIR,—What is most urgently needed to-day in regard to the over-publicized fenestration operation for otosclerosis is a careful, sober, and dispassionate estimation of end-results. After Simson Hall had performed 200 operations he reviewed 118 of them only as suitable for analysis (*Journal*, 1946, 2, 647); as long ago as January, 1945, Lempert, of New York, published a series of 1,000 fenestration cases, and Shambaugh, of Chicago, recorded 930 cases in 1946. And here is Mr. Magauran reporting a case in the *Journal* (March 20, p. 569) six weeks after he had left hospital and only 12 weeks after his first (of two) fenestration operations, and apparently the patient's hearing was never examined with an audiometer before or after operation.

Otologists in general agree that two years (some optimists one year) is the period after which the hearing result from fenestration may be regarded as permanent. Suggit found in 1938 that there was an average fluctuation of 10 decibels in a group of stationary cases of otosclerosis when examined methodically with the audiometer. Psychological deafness is well recognized nowadays, though not many otologists have found as many cases as Canfield (1947) did in his war veteran patients, and there is undoubtedly a marked psychological element in many otosclerotics. As for bone conduction in otosclerosis, most otologists would, I think, agree with Tumarkin (1947) that the myth of increased bone conduction has long been exploded.—I am, etc.,

London, W.1.

R. SCOTT STEVENSON.

Brodie's Abscess

SIR,—In the interests of accuracy it seems desirable to add to the article by Messrs. Stanley Scott and Frank S. Preston (Feb. 14, p. 296) and to Mr. St. J. D. Buxton's letter on this subject (March 6, p. 472). The latter rightly points out that although Brodie saw the first of his cases for the first time in 1824 he did not actually publish anything on the subject in

that year. However, he continues, "I find no record of him reporting this case prior to 1832." In fact, Brodie published this case and one other in a paper, "On Trephining the Tibia," in 1828 (*Lond. med. Gaz.*, 2, 70). These were described more fully, with a third case, in his paper of 1832; all three were repeated, with a further three, in the famous lecture of Nov. 19, 1845, together with a few miscellaneous cases not of this type of abscess.

As for the question of what is and what is not a Brodie's abscess, it seems reasonable to define it as a "chronic circumscribed pyogenic intramedullary abscess of bone." In fact Brodie's cases were all of the tibia, but it seems not unreasonable to use the term for a similar lesion occurring infrequently in other bones. Incidentally, although, of course, he gave no suggestion as to the aetiology, it is almost certain from his descriptions that these were pyogenic abscesses and not tuberculous disease of the bone as is sometimes stated.

It is a pity that Messrs. Scott and Preston give no references whatever to the authorities they quote, not even Brodie himself, whose papers they do not appear to have consulted. (The second and third of these are reprinted in full in *Medical Classics*, 1937-8, 2, 900 and 907). As Mr. Buxton states, it is important to know exactly what an eponymous authority actually said, and this not only to avoid the confusion to which uncertainty leads but also for the intrinsic merit of classical writings, in this case considerable.

I would add that this is not to detract from the clinical part of their paper, which I have no wish to criticize.—I am, etc.,

The London Hospital, E.1.

A. P. WATERSON.

Relief of Pain in Midwifery

SIR,—Dr. Anne M. Toms (March 6, p. 475) maintains that stretching of the perineum in the second stage of labour cannot be painless, her argument being that stretching of the skin of any other part of the body is painful and that the perineum is no less sensitive. She does not take into account the softening of the perineum that occurs during pregnancy and labour.

Stretching of the perineum in the non-pregnant woman is certainly very painful. The perineum is painful and tender for days following the stretching necessary, for example, before a dilatation and curettage is performed. I have had a dilatation and curettage.

I have also, however, had a normal, relaxed labour, after antenatal preparation as advocated by Dr. Grantly Dick Read. I had no drugs, but during the second stage I had absolutely no pain; and at no time then or in the puerperium was the perineum at all tender or painful.—I am, etc.,

Prestbury, Cheshire.

FLORENCE H. AUCLAND.

National Hearing-aid

SIR,—The Government hearing-aid scheme seems to have been engendered in an emotional fervour on behalf of the deaf and to have swept on to its present state without adequate thought as to the objectives and the most efficacious way of achieving them. It has got entirely out of control and must fail to achieve its objective unless correctives are applied.

It presupposes that there are 400,000 deaf people in this country waiting anxiously for hearing-aids. Three-quarters of them have never seen a hearing-aid and would shrink from using one. Most of those who have inquired will refuse to use the Government aid when they see how bulky and complicated it is. The education of a deaf person to the point where he will use a valve hearing-aid takes a long time, and when knowledgeable he will demand and need only the best, with the right kind of personal attention.

The aid itself will give good results, though not as good as laboratory tests, due to the difficulties of maintaining high standards in mass production. It suffers from the handicap of its conception—a standard aid for all deaf people. There is no standard aid that is satisfactory for all. Success depends on a number of factors of very real importance to individual patients. The Report admits the unreliability of the crystal receiver which will be used with most patients. The alternative disk earphone with headband is ugly and inconvenient. No provision whatsoever is made for bone conduction. This is a striking omission.

The proposed method of supply through hospitals is unsuitable. A deaf person should be freed from the feeling that he is a hospital case. No hospital scheme can give the efficient service and thoughtful attention required to ensure success. The United States Veterans Administration, with long experience of hearing-aid supply, regards the after-fitting attention as more important than the instrument itself.

The New Zealand Government has given our own a lead in the provision they should make. As an alternative to a standard aid a grant of £15 is made towards the purchase of a commercial instrument. Our own Government should do no less. In order to avoid what they call "commercial exploitation" they have evolved a scheme which is costly and valueless. Surely the objective is that the deaf shall be helped to the utmost; as it is, they will be fobbed off with a utility instrument and a totally inadequate service. They will have freedom from payment, but they will lose freedom of choice and freedom of criticism, and they will not get good hearing.—I am, etc.,

London, W.1.

A. EDWIN STEVENS,
Governing Director, Amplivox Ltd.

SIR,—According to the Medical Research Acoustic Committee's Report No. 261, "Hearing Aids and Audiometers," prototypes of the national hearing-aid now being manufactured were tested by 27 deafened persons, and Lord Walkden tells us in the House of Lords that these tests were each of three hours' duration. The following facts should be taken into account when considering the results of the Medical Research Council's tests.

(1) Post-war models of British commercial hearing-aids were not included in the Medical Research Council Acoustic Committee tests.

(2) Reputable British hearing-aid manufacturers are prepared to allow any of the deafened public a full week's unrestricted trial of their products under ordinary conditions of use before purchase need be considered, and during the trial the instrument can be compared with any other British or American aid available. The results of these tests will be different from those of three hours.

(3) Production models of British commercial post-war hearing-aids will without doubt compare favourably in efficiency, compactness, and appearance with production models of the national aid when available.

(4) The deafened public are not likely to remain satisfied for long with the Government free aid which has been made obsolete by British commercial hearing-aid manufacturers' latest models.

—I am, etc.,

London, W.C.2.

H. C. GEE,
Secretary, the H.A.M.A. and
Society of Aural Technicians.

Calories and Appetite

SIR,—The many controversial statements which have recently been made both in the medical press and Parliament have, to my surprise, considered the nutritional value of food solely in terms of calories (and occasionally vitamins). No mention is ever made of the quality of the food eaten.

Statistics completely ignore this aspect and naturally pay no attention whatever to whether the food is appetizing or not—it usually is not! Consequently much of the food statistically consumed is never eaten at all. It is ludicrous to make no distinction between good fresh food, well cooked, and stale unappetizing meals badly cooked. They may weigh the same (and calories are based entirely on weight), but they are not of the same use to us.

There is plenty of food in Britain, but mostly of inferior quality and far from tempting. That we survive is a tribute to our digestion.—I am, etc.,

London, W.2.

A. M. GREEN.

Westmoreland Lodge

SIR,—Your readers will remember that in the *Journal* of Jan. 18, 1947 (p. 101), you kindly gave an account of a new venture of the Royal Medical Benevolent Fund—namely, the provision of a house for a number of our old ladies. I shall be grateful if you will now allow me to report the opening of Westmoreland Lodge.

In spite of the usual difficulties with licences, supply of builders' materials, and labour this charming house standing in its own grounds near Wimbledon Common has been completely renovated and adapted to the needs of twelve of our beneficiaries. Each lady has her own bed-sitting room equipped