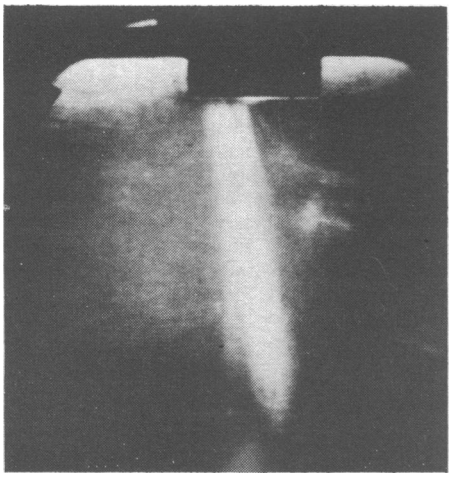

rather columnated, but it diverges rather rapidly once leaving the crystal.

Thus, when we manufacturers discuss focal point, we unknowingly lead people to the wrong interpretation because the way the instrument is constructed there is no such thing. I believe that the differences between Mr. Macintosh's study and the investigations of others are best explained by the in vitro environment—that is, the size of the container. The smaller the container the greater the sheer forces that are going to be created from the walls of that container, so that it makes it very difficult to separate ultrasonic effect from sheer force effect. In contrast, I refer you to Bernstine's work, in which he insonated human tissue cultures in a tank constructed to compare favourably to the products of conception.[1] Eighteen hours of exposure to ultrasonic energy at diagnostic levels turned up no observable effects.—I am, etc.,

THOMAS G. DAVIS
Vice-president, Research,
Smith Kline Instruments, Inc
Palo Alto,
California, U.S.A.

[1] Bernstine, R. L., *Obstetrics and Gynecology*, 1969, **34**, 707.

Persistent Phenothiazine Dyskinesia and Tetrabenazine

SIR,—I read with interest Drs. R. B. Godwin-Austen and T. Clark's report (2 October, p. 25). I have used tetrabenazine in the treatment of a number of involuntary movement disorders, including Huntington's chorea and unilateral choreo-athetoid movements secondary to cerebrovascular disease. There is little doubt that the involuntary movements are reduced by tetrabenazine, but this reduction is to a degree a function of the duration of administration and dosage. In many patients demonstrable reduction in movements may not occur before a week or 10 days of treatment has elapsed. With regard to dosage, although improvement in movements may be seen with doses as low as 50 to 70 mg per day it is often necessary to use 150 mg per day or more of tetrabenazine.

Can I suggest, therefore, that the apparent lack of superiority of tetrabenazine in the above double blind trial is a function of the duration and magnitude of tetrabenazine dosage. It should be noted that depression and/or severe agitation as well as Parkinsonism may limit the therapeutic usefulness of tetrabenazine.

The use of tetrabenazine in combination with levodopa, as might be expected, produces converse effects in Parkinsonism and Huntington's chorea in that in the former the beneficial effects of levodopa and akinesia and rigidity are completely cancelled out, whereas in the latter condition the levodopa overrides the effect of tetrabenazine and produces a gross increase in choreo-athetoid movements.—I am, etc.,

R. C. HUGHES
Department of Neurology,
New Cross Hospital,
Wolverhampton

Air Embolism during Haemodialysis

SIR,—We read with interest the paper on "Air Embolism during Haemodialysis" by Dr. M. K. Ward and others (10 July, p. 74). In order to diminish the risk of air embolism we never give infusions or injections into the arterial line between the patient and the blood pump. During unattended night dialysis using arteriovenous fistula, however, there is always a risk of the patient accidentally disconnecting his arterial line while sleeping—for example, if the fistula needle slips out of the arm. We have tried photoelectric devices applied on the bubble trap and agree with the criticism made of these by Dr. Ward and collaborators.

For the past six months we have been testing an air detector which measures the capacitance of the bubble trap. The bubble trap is placed in a holder which contains two capacitor plates (Fig. 1). A signal which reads the blood level in the bubble trap is transmitted between the plates through the trap. Any abnormal quantities of air collecting in the bubble trap are detected by the capacitor, resulting in the automatic clamping of the blood circulation by the blood clamp, switching off the blood pump, and triggering an alarm (Fig. 2).

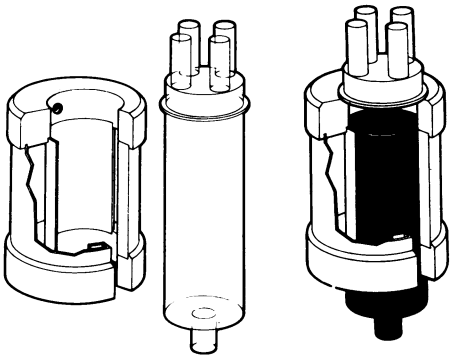

FIG. 1—Air detector for haemodialysis bubble trap.

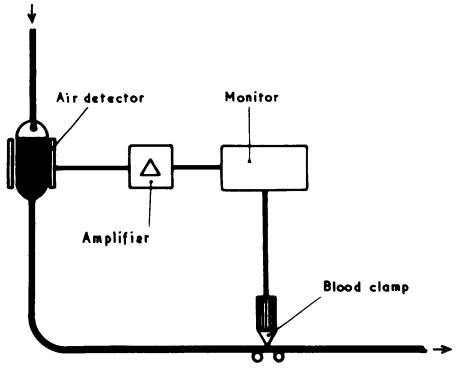

FIG. 2—Diagram of the air detector circuit.

The sensitivity of the device can be changed in the amplifier. We have used an alarm limit of 22 ml air in the bubble trap with a total volume of 44 ml. Illumination in the holder's upper edge also facilitates visual monitoring of the blood level in the bubble trap. We have found the equipment quite safe in use; it also allows the possibility of flushing the blood in the dialyser back to the patient with saline or air. This equipment is now commercially available.—We are, etc.,

TORE LINDHOLM
Medical Department B (Renal Clinic),
University of Lund, Lund, Sweden

LARS-AKE LARSSON
AB Gambro, Lund, Sweden

Misadventure

SIR,—Your comment (18 September, p. 658) on the decrease in deaths from lightning, from 12·4 per annum in the decade 1901-10 to 3·6 per annum in 1961-7 is interesting, as is your suggestion that this cannot be wholly due to the fact that people congregate out of doors less frequently than formerly.

Surely the real cause of this decline lies in the now widespread use of rubber-soled footwear, which effectively prevents fatal electric discharge through the body to earth.—I am, etc.,

JOHN PEEL
Department of Sociology,
University of York

Screening of Elderly Patients

SIR,—Screening of the over 65s for undiagnosed disabilities has been described on several occasions.[1] We felt justified on the evidence to offer it as a routine practice service. Screening must be done within existing resources if our present patients are to benefit. We wanted continuous screening rather than a short intensive campaign, and a system that was simple to operate.

The notes of the over 65s are filed separately by the Buckinghamshire Executive Council who kindly supplied the names and addresses of 176 patients. This represents 6·3% of my list, the county average being 10·9%. The district nurse and health visitor were briefed to visit one person each per week. Almost all patients were appreciative and gave a social history and brief financial details. Specific symptoms are sought and sight and hearing checked. Diet, dentition, and feet are looked at, and simple urine and where appropriate simple blood tests are performed. Nurse and health visitor refer suitable cases to each other, and the doctor is shown the record so any necessary action can be taken.

The inadvertent omission of significant information is being reduced by the introduction of the Stokoe card[2] in place of the less formal note-taking which we had evolved by trial and error. The card takes 10-15 minutes to complete, and covers medical, social, and psychiatric problems.

Of our first 63 patients, only 58% had consulted a doctor during the previous year. Four patients had major medical problems: disabling Parkinson's disease, congestive cardiac failure responding well to diuretics, and severe high blood pressure. Two further hypertensives were found who had defaulted on their treatment, and problems of sight,

hearing, dentition, and painful feet were common.

By seeing one patient per week per worker we will be able to cover the elderly patients of this group practice systematically in about three years. High risk patients can be identified, and the work load is not greatly increased. The interviews take about 20-30 minutes, and greeting and leaving patients may take more time than the actual screening. Sometimes there is a request for further regular calls which are not medically necessary, and these may be hard to refuse. As the scheme stands, it can be applied immediately, and because of the comparatively small resources that are needed we are prepared to proceed without a planned evaluation of the benefits that acrue.—We are, etc.,

G. C. RIVETT
R. G. BROOKE
S. A. COZENS
D. E. LAWSON
R. KERR

Bletchley,
Bucks

1 Williamson, J., *et. al.*, *Lancet*, 1964, **1**, 1117.
2 Stokoe, I. H., *Update*, 1971, 1, **9**, 677.

Vasodilators in Menière's Syndrome

SIR,—I was most interested to observe a dramatic improvement in auditory function in a 60-year-old woman treated with betahistine hydrochloride for symptoms suggesting Menière's syndrome.

The patient's records, extending over more than ten years, showed a progressive deafness, associated with recurrent otorrhoea. She consulted me for the first time in November 1970, following an isolated fainting attack. Blood pressure was 160/100, and there were no abnormal neurological signs. She complained of tinnitus, worse on lying down. There was no evidence of any middle ear infection or of nystagmus. She was reassured that nothing serious was wrong, and after mild sedation there was no further complaint.

Six months later she had a similar attack, but the symptoms were much more severe showing the typical clinical pattern associated with a Menière's syndrome. Vertigo was severe with associated vomiting, and her tinnitus was exaggerated. She was treated with betahistine hydrochloride (Serc) 8 mg three times daily, and within 24 hours nausea and vomiting had lessened, and it was decided to continue with this treatment.

She had, over the years, been in the habit of switching on her radio for the morning time signal, but although the "time pips" were audible, voices and music were distorted. On the sixth day after her attack, she switched on the radio in the usual way, and to her astonishment she heard voices and music with perfect clarity. Later on, she spoke to me excitedly of hearing the tap dripping and the kettle boiling. The improvement in her hearing was maintained for four weeks, but deteriorated slightly after an upper respiratory infection with middle ear involvement. Betahistine hydrochloride was increased to 8 mg four times daily without any noticeable side effects. Though her hearing is not perfect, distortion of sound and tinnitus no longer worry her, and there have been no further acute attacks of vertigo.

Experimental studies suggest that Menière's syndrome may be associated with vasospasm of microcirculation of capillaries supplying the inner ear. Histamine by injection has been shown to increase this circulation.[1-3] Betahistine hydrochloride has a similar effect to histamine, but is effective orally.[4]—I am, etc.,

N. M. PIERCY

Montrose,
Angus

1 Schayer, R. W., *Progress in Allergy*, 1963, **7**, 187.
2 Williams, H. L., *Lancet*, 1964, **84**, 344.
3 Maggio, F., *Microhemocirculation*, Springfield Illinois, Thomas, 1965.
4 Wolfson, R. J., Myers, D., and Schlosser, W. D., *Eye, Ear, Nose and Throat Monthly*, 1967, **46**, 891.

Destruction of Case Records

SIR,—Dr. E. C. O. Jewesbury's remarks (25 September, p. 769) are of the greatest importance. As storage space for records becomes exhausted the question of what to keep and for how long has to be answered.

This problem was the main reason for carrying out a research programme in Glasgow during the years 1965-8.[1] As a result, a new system of storing medical records was introduced in Glasgow Western Infirmary, which, so far, seems to have conserved storage space without the loss of vital clinical information.[2]

What worries me now is the growing inability of house officers, particularly British graduates, to write good English; spelling and punctuation are deteriorating to an alarming extent. This is, of course, a general trend throughout commerce and industry, and is a measure of the quality of our present State education.—I am, etc.,

J. H. MITCHELL

Raigmore Hospital,
Inverness

1 Mitchell, J. H., *A New Look at Hospital Case Records*. London, H. K. Lewis, 1969.
2 Lennox, B., and White, K. J. C., *Lancet*, 1971, **1**, 489.

Community Medicine

SIR,—Community medicine has been described as being concerned with the study and application of the principles of epidemiology, social and preventive medicine, organization of medical care, and administration of health services. It would appear that medical officers of health and the royal colleges are jockeying for positions, and family doctors cannot ignore the establishment of departments of community medicine based on universities.

It cannot escape your readers that the hospital services are obtaining the cream of doctors qualifying in Britain, thus greatly increasing their numbers, while those in general practice have remained static until recently. As a family doctor, I ask what is the future for general practice if there is fear of a take-over bid of part of our work?

It is hoped that in the discussions that will ensue in the coming months concerning the reorganization of the Health Service that a new type of medical officer of health will emerge who will act as a community physician and work rather with the family doctor service rather than with the hospital services.—I am, etc.,

M. MACLEOD

Wallasey, Ches

SIR,—While the announcement of a new faculty of community medicine of the Royal Colleges of Physicians is much to be welcomed (9 October, p. 117) it highlights a current problem that deserves consideration: what is the most appropriate training for a practitioner who wishes to enter the field?

The traditional method was that of apprenticeship in a unit under an acknowledged research worker. But others have gained experience in depth or breadth in various aspects of medicine, public health, and administration, before extending their expertise into a different field. Recently, established is the London School of Hygiene M.Sc. course, but the limited numbers cannot at present provide workers for the considerable range of research and practice envisaged.

Advice on this subject may be expected to be forthcoming from the new faculty. But while there is an opportunity, would it not be valuable to engage in open discussion beforehand with those who hope to be trained: to establish the value of other higher diplomas and degrees or work in other fields: and carefully to consider the desirability of a (?competitive) examination, in the light of current cogent criticism of the new M.R.C. Psych. proposals?[1]—I am, etc.,

M. J. MCCARTHY

Tooting Bec Hospital,
London S.W.17

1 *World Medicine*, 28 July, 1971, p. 5.

Medical Illustrators

SIR,—I was pleased to read reference to our report *Medical Illustration in the National Health Service* (25 September, p. 779).

However, I was surprised that you mentioned only medical artists when, in fact, the report deals also with the careers of medical photographers.

I have for some time now been concerned that the title "medical illustration" is usually regarded as meaning medical art and graphics, and is not being used as we intend as the generic term to cover photography, art, and all the more modern techniques of audiovisual communication.

This report has been prepared by our institute as the first attempt to provide a proper career structure for all these personnel and it would be unfortunate if its failure to do so was, in fact, due to the very two first words on the cover.—I am, etc.,

LESLIE BOWCOCK

Past Chairman,
Institute of Medical and Biological Illustration
Newcastle, Staffs

Staffing Accident and Emergency Departments

SIR,—Incidents recently reported in the press and other media have drawn widespread attention to the difficulties experienced by hospitals in the provision of accident and emergency services. Unfortunately, individual doctors and hospitals have been subjected to criticism which should be directed elsewhere.

Salford Hospital Management Committee, in common with many others, is extremely concerned with the problems of staffing