specialist should attract a higher fee, but that this treatment should be limited to short simple procedures. Other cases definitely needing general anaesthesia should be admitted to an oral surgical unit and the work done under the best conditions possible. Persistence in the enlightenment of the authorities will produce sufficient oral surgical beds.—I am, etc.,

F. G. HARDMAN.

Royal Alexandra Hospital,

REFERENCE

Bourne, J. G., Nitrous Oxide in Dentistry: Its Danger and Alternatives, 1960. Lloyd-Luke, London.

Detection of Glaucoma

SIR,-In his letter Dr. C. N. Smyth (June 15, p. 1608) has drawn attention to the electronic tonometer. This instrument was first described by Mackay and Marg¹ and is illustrated in data sheet 11-4 which contains 13 references and is obtainable from Biotronics Inc., Financial Centre Building, Oakland 12, California. In view of the high cost of this instrument I suggested in my letter (February 9, p. 396) that we should mass-produce electronic tonometers at reasonable cost. This is feasible, as Bedwell2 has developed a tonometer consisting essentially of a specially designed transducer head and associated compact transistorized circuitry operating from readily available dry batteries. The head is designed for use on the indentation principle and can be used in the usual manner for tonometry and tonography in the supine patient. He is also working on an applanation head which will make it possible to determine the tension in the upright patient, an essential development if we are to take the unique opportunity (March 9, p. 624) and apply it on the scale envisaged by Mr. Gayer Morgan (December 22, 1962, p. 1680). The routine use of such an instrument would be more appropriate to the modern world than the tactus eruditus and inspired suspicion (October 21, 1961, p. 1074) of our professional grandparents and would enable many patients to avoid the consequences of established glaucoma, but only when glaucoma clinics have been considerably augmented in this country.

In 1958 it was suggested in this journal (April 12, 1958, p. 881) that ophthalmic medical practitioners and out-patient officers in hospital might profitably add tonometry to their tests if not overwhelmed by routine work. Such a solution to the problem of detecting half a million glaucoma patients does not now seem realistic; furthermore, as there are less than 1,000 ophthalmologists and over 6,000 ophthalmic opticians, and the latter do 82% of the annual 5½ million sight tests in the Supplementary Ophthalmic Service, and many of them are trained in the use of topical anaesthetics and tonometers, the solution to the problem and the answer to the query in the last paragraph of Dr. Smyth's letter may be found

in the words of a senior ophthalmic surgeon: "Collaboration of all concerned with visual welfare is essential."—I am,

Tonbridge, Kent. P. RICHARD DAY.

REFERENCES

 Mackay, R. S., and Marg, E., Acta ophthal. (Kbh.), 1959, 37, 495.
 Bedwell, C. H., The Ophthalmic Optician, 1963, 3, 297.

Cardiac Resuscitation

SIR,—I read with interest the excellent article by Dr. R. W. Portal and his colleagues on cardiac resuscitation (March 9, p. 636) and in principle agree with all the measures advocated therein. However, with respect to the authors, I would like to make two additions to the techniques prescribed. I am certain that it will not be contested that increasing the venous return to the heart will enhance the chances of successful cardiac resuscitation. To achieve this end the elevation of both arms and legs may prove helpful and can be carried out without impeding the other measures described. I personally would advocate the rapid and simultaneous elevation of all four extremities as the initial step in any case of cardiac arrest, for this simple manœuvre may in itself prove successful in initiating sinus rhythm.

As the authors note, procainamide is a valuable drug in cases of ventricular fibrillation, but no mention is made of the use of intravenous quinidine sulphate. The uses of quinidine compounds in cardiac arrhythmias are timehonoured and lucidly described in the well-known monograph by H. Gold.1 Although procainamide has undoubtedly a greater safety margin than quinidine I have found the judicious use of intravenous quinidine sulphate to be invaluable in cases where the former drug has failed and would most certainly recommend the more frequent use of this now seemingly much-neglected therapeutic agent.—I am, etc.,

ANTHONY H. STEARNS. Newcastle-under-Lyme, Staffs.

REFERENCE

Gold, H., Quinidine in Disorders of the Heart, 1950. Cornell Conferences on Therapy, Hoeber, New York.

Treatment of Scorpion Sting

SIR,—I should like to comment on Dr. T. Poon-King's letter (April 13, p. 1016). The local injection of emetine to abolish the agony of scorpion sting was well-known in Nigeria long before 1957 (vide McSorley and Perry'). Dr. Charles Hollins made me acquainted with its use for this purpose in 1944. As far as Northern Nigeria is concerned, the discovery of this action of emetine is attributed to a dispensary attendant of the Sleeping Sickness Service who possessed a licence permitting him to inject certain drugs for specified diseases,

including emetine hydrochloride amoebic dysentery. On being presented with a patient who had been stung by a scorpion, and feeling powerless in the face of the victim's suffering, he decided to effect a semblance of therapeutic intervention and, quite by chance, resorted to an emetine injection. In view of the dramatic success which followed, the attendant carried on this practice at his dispensary for some years without making his discovery known, because, strictly speaking, he was not following his therapeutic terms of reference. The first medical officer to be informed about it was, I believe, Dr. R. L. J. Le Clezio. As far as I know, the dispensary attendant's discovery was made in the late 1930s and has since been confirmed on countless occasions by many observers, including myself. It is also of interest that emetine has a similar action in alleviating the pain of stonefish envenomation, an observation first recorded in the New Hebrides by Dr. W. Armstrong.²

I cannot agree with Dr. Poon-King that this simple and effective remedy should be withheld on the grounds that emetine may poison an already damaged heart. The required dose is seldom more than half a grain (32 mg.), and the almost instant relief of the agony quickly leads to an improvement in the patient's shocked condition. During a wide experience in Nigeria I have never known death to result from scorpion sting, whether the patient has been treated with emetine or not, but even in parts of the world where fatalities are recorded I feel that Dr. Poon-King's arguments hardly justify withholding a form of treatment with such immediate and beneficial action.-I am, etc.,

ANTONY DUGGAN.
Wellcome Museum of Medical Science,
London N.W.1.

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 McSorley, J. G. A., and Perry, W. L. M., Lancet, 1949, 1, 889.
 Wiener, S., Med. J. Aust., 1958, 2, 218.

Bridging the Gap

SIR,-The address of Sir Arthur Thomson, a former chairman of Birmingham Regional Hospital Board, delivered in Eastbourne to the Royal Society of Health, pinpoints the main problems concerning general practitioners in England to-day: (1) the impossibility of their keeping in touch with many aspects of medical progress; (2) their inability to practise without enlisting the help of many specialists and technicians; (3) the fatigue and discouragement engendered by their time being taken up with routine matters, especially signing sick certificates, and the failure of group practice or health centres to solve these problems.

Sir Arthur is reported further as saying:
"There is no doubt that the scope of
medical practice in the home has been
severely eroded."... "Statistical analysis
in 1958 showed that on the average
patients encounter their family doctors