Cardiac Monitors

SIR,—May I support the letter published in your issue of December 8, p. 1545, advocating the use of circulatory monitors in anaesthetic practice? As I believe I originated the clinical pulse monitors now in common use in the United States and to a lesser extent in Britain and have used one for over a dozen years in routine anaesthesia I would like to make comments on their use.¹ Instruments do not relieve the pilot of an aircraft or an anaesthetist from the necessity for constant watchfulness. In both professions accidents are rare but the time available to take corrective action is limited to minutes or even seconds. Any simple method which can extend this time should surely be welcomed. It is true that when circulatory monitors are first used they can be distracting, especially if sound indicators are used, but with familiarity they become no more distracting than the instruments of a car. Routine use has convinced me that circulatory arrest is much commoner than is usually supposed, though its duration seldom exceeds 20 seconds and thus it is not noticeable to even the most careful anaesthetist. Marked bradycardia followed by a short period of circulatory arrest commonly follows succinylcholine injections in many children and some adults. Only last night I noticed gross cardiac arrhythmias, with a few seconds' arrest, after the use of 25 mg. of succinylcholine in a burned adult. A similar type of circulatory disturbance follows traction on the external ocular muscles during squint operations in children. Gross cardiac arrhythmias are readily seen after the use of adrenaline combined with a local anaesthetic in patients under cyclopropane, trichlorethylene, or halothane anaesthesia. Again, the short duration of the disturbance has led many to deny the association of this drug combination with cardiac arrhythmias.

But the criticism by Drs. R. E. Rawstron and B. R. Hutchinson of the design of many pulse monitors is justified. Several use the electrical activity of the heart as signal generators, giving a grossly misleading indication of the efficiency of the circulation; some use electronic amplifiers, which besides being unnecessary may oscillate and give a false signal, while one could detonate cyclopropane.

The type of apparatus which uses a transducer operated by pulsation of the finger or toe pulp offers the simplest, cheapest, and most reliable pulse monitor and has the advantage that electronic amplifiers are not necessary to produce a useful signal.

Those who commonly anaesthetize coloured patients and those who use hypotension find them essential.—I am, etc.,

St. Charles' Hospital,
London W.10.

V. J. KEATING.

REFERENCE

- ¹ Keating, V. J., *Brit. med. J.*, 1952, 1, 1188.

Mechanical and Electronic Apparatus

SIR,—I have just seen the letter from Dr. D. E. Pegg and Mr. R. E. Trotman (November 17, p. 1329). They refer to the difficulties of publishing detailed technical descriptions of medical equipment, and suggest that the establishment of a specialized journal would be a possible solution.

This solution is in sight, in the form of the new official organ of the International Federation for Medical Electronics—*Medical Electronics and Biological Engin-*

earing. One of the avowed purposes of this journal is to provide complete technical descriptions of apparatus and methods, which might otherwise receive a mere mention in a predominantly clinical journal.

The first issue of this journal, which is to be published by Pergamon Press, will appear in a few weeks' time.

May I also draw the attention of Dr. Pegg and Mr. Trotman to the Biological Engineering Society, which was formed some two years ago to promote the exchange of information and ideas between the medical and biological sciences on the one hand and the physical and engineering sciences on the other. The membership is drawn from industry as well as from hospitals and research institutes. The present secretary is W. J. Perkins, National Institute for Medical Research, Mill Hill, London N.W.7.—I am, etc.,

St. Thomas's Hospital,
London S.E.1.

A. NIGHTINGALE.

Jet Injection

SIR,—I have recently been interested in the use of a "hypo-spray" jet injector for the administration of vaccines, particularly to children. My authority is very interested in this method of administering vaccines, but we are anxious to obtain first-hand information from doctors who have used the jet-injection technique.

Before purchasing this equipment for use in clinics in the county, I would be grateful for information from doctors who have had experience of jet injection for the administration of vaccines and for their comments on the method, particularly in the administration of vaccines to infants and children of school age.

I would also like to see the equipment in use, and I presume that persons using the equipment would raise no objection to this if mutual arrangements could be made.—I am, etc.,

County Health Offices,
Mold, Flintshire.

G. W. ROBERTS.

Nursing-home for Nurses

SIR,—I am surprised at the difficulty I have had recently in finding a suitable home for a matron who, after a distinguished nursing career, now herself needs nursing care.

I am told that there is only one home for nurses who have become complete or partial invalids, and where they can obtain nursing care. Otherwise, as their financial position is normally restricted, they must be cared for in the chronic ward of a general hospital, or in a home for the chronic sick run by the local authority.

It is astonishing to me that our nurses should have no priority in this matter. Why cannot suitable nursing-homes be provided specially for nurses? Is the Government prepared to give financial support? Is this a sphere in which the Royal College of Nursing could help?

Surely this is an easy and practical field in which we can help our nurses. Those who have spent their lives helping others are entitled to adequate care and attention when they themselves become sick and infirm.—I am, etc.,

Oxted, Surrey.

J. H. LANKESTER.

Eosinophilic Lung Abscess

SIR,—In reading our article "Eosinophilic Lung Abscess—a New Entity" (June 30, p. 1810), it appears that Dr. Ghander (September 15, p. 737) unfortunately missed the evidence we put forward against the diagnosis