later, that it had a colour, athletic or political. Looking back on that year my recollection is of a generously multi-hued enthusiasm.—I am, etc.,

London, N.W.6.

IVAN R. CLOUT.

Sudden Death after Intravenous Injection of Mercurial Diuretic

SIR,—A. G. Oettlé's case of sudden death after intravenous "neptal" (Oct. 4, p. 530) prompts me to a few remarks. Such disasters cannot always be avoided—e.g., if they happen after the first injection to a patient, where there is no reason to expect untoward reactions. Such cases, fortunately, are extremely rare. More often, faulty choice of the case and an overdose are the cause of toxic reactions.

The following rules should help to restrict fatal or toxic reactions. Mercury administration must never be given in excess of the excretory power of the kidneys. Low concentrating power and poor response to a previous injection are warning signals. The minimal injection-free interval should be three days, except in acute emergencies. Digitalis, strophanthin, urea, and ammonium chloride help to make this possible. The dose of ammonium chloride must be adapted to the needs of the case; 15 gr. (1 g.) t.i.d.—the usual dose with many practitioners—is insufficient for most cases. 15 gr. four to six times daily two days before the injection, plus an additional dose of 30 gr. (2 g.) on the day of injection, is needed in most cases. Ambulatory patients should be asked about unpleasant reactions to the previous injection. Warning signals are quite common and most important. Fever is one of them. Patients should rest for half to one hour after the injection before leaving.

Nobody has yet found out why some people tolerate intramuscular mercurials invariably well, while others don't, in spite of local analgesics. Research should be directed towards finding a uniformly well-tolerated mercurial diuretic.—I am, etc.,

Trutnov, Czechoslovakia.

M. WINTERNITZ.

"Unjustified" Use of d-Tubocurarine Chloride

SIR,—Dr. A. H. Galley's letter (Nov. 22, p. 840) does call for comment, and perhaps the more so because of its title "Unjustified Use of d-Tubocurarine Chloride." Technical details apart, the account of how even one of the great may be incommoded by the annoyances that beset lesser men is quite gratifying. In most operations the choice and management of the anaesthesia is left entirely to one's anaesthetic colleague: in a caesarean section the technical procedures of the obstetrician have to be closely adapted to the type of anaesthesia being used, and this is my excuse for intruding upon an anaesthetist's argument. Surely Dr. Galley has missed the main point stressed by those who advocate the use of d-tubocurarine chloride for this operation. Its value is that the section can be done with the minimal amount of general anaesthesia and yet with complete control of the patient. If properly administered the patient should regain consciousness as soon as the last stitch is tied. Thereby the special menace of general anaesthesia for this operation is averted. If of course the drug is not used with this object then its use might certainly be termed "unjustified."

The point about the dynamic effects of curare as opposed to thiopentone may be left for further inquiry; myself, I have no doubt in the matter, but Dr. Galley's remarks about relaxation of the abdominal muscles should not go uncontested. To say that anaesthetic muscular relaxation is unnecessary in a caesarean section because the muscles have been well stretched by the pregnancy is surely wrong. Some relaxation must be obtained for a lower-segment operation, and particularly when any general anaesthetic is being given as well; sometimes indeed when the bleeding occurs from torn sinuses on the surface of the lower flap a quiet abdomen becomes an urgent need. The whole discussion certainly is profitable if it serves to emphasize my earlier point, that d-tubocurarine chloride as an adjunct to general anaesthesia in caesarean section can only give its admirable results if both the anaesthetist and the obstetrician know what they want from its use.—I am, etc.,

Liverpool.

PERCY MALPAS.

Dicoumarol

SIR,—Dr. M. J. Pivawer (Dec. 6, p. 928) complains of anomalous results from prothrombin estimations by Quick's method and states he had to substitute (for prothrombin estimation) clotting time by the method of Lee and White. Prothrombin estimations are the safest guide; and the method of Quick has passed through many hands (and heads) with great benefit. The method we use is only partly modified here, but is very reliable. Important points are (i) use fresh plasma, (ii) conduct the operation at 40° C., (iii) vary the concentration of calcium chloride, (iv) use perfectly fresh viper venom of (if possible) guaranteed potency, (v) perform at least six estimations on every sample of plasma, varying the calcium chloride, and report the test giving the shortest time. It may be necessary to do twelve tests on one specimen of plasma, but usually six tests are enough. It is necessary to have a very bright light concentrated on the vessel in which the estimation is being performed, so that the earliest indications of the reaction can be observed. The normal time is 11 to 12 seconds; it is unsafe to allow the time to exceed 30 to 35 seconds.

It is necessary to remember that dicoumarol takes at least 48 hours to act; many failures have been reported because the process of embolism or thrombosis continued unabated after dicoumarol had been given. For immediate effect heparin is unrivalled. Heparin 100 mg. intravenously every four hours for two days is a good introduction for dicoumarol given simultaneously with the first dose. After 36–48 hours the heparin is stopped and the dicoumarol continues the anticoagulant effect. The effect of heparin, though powerful, is transient.—I am, etc.,

Epping, Essex.

FRANK MARSH.

Case of Camphor Poisoning

SIR,—At 1.25 a.m. on a Wednesday in March, 1945, I was called to see a child 2½ years old who was delirious. On crossing the threshold I noticed the whole house smelt of camphor, and the bedroom where slept parents and child smelt strongest.

CASE REPORT

The child was sitting up in bed frightened; it obviously saw things which it referred to as "quack-quacks." It was flushed, with a scarlet rash all over the body, limbs, and face, least red on the extremities. The pupils were widely dilated but contracted to the light of a torch. Temperature, 100.2° F. (37.9° C.); pulse and respirations normal; chest clear. Its chest and night clothes were well soaked in camphorated oil. Its bowels had recently opened and it had passed urine.

I was told that the child started with a cold on Saturday evening, and to protect its chest the parents had soaked it in camphorated oil ever since—i.e., for about 80 hours. Diagnosis: Camphor poisoning.

Treatment: There being no better diaphoretic available I ordered hot water with sugar to taste and a very hot bath, which was easily obtainable. While Pater was going to see to this, Mater was to collect the child's night clothes, day clothes, some of its bedclothes, its towel, and everything that smelt of camphor and remove them to the furthest corner of the scullery; open windows and doors, and clear the house of the smell of camphor; then warm up bedroom and provide clean warm bed and night clothes. This treatment was completely successful.

I understand that in 1945 camphorated oil consisted of 1 part camphor and 4 parts arachis oil by weight. Hence 1 oz. (30 g.) of camphorated oil would contain 96 gr. (6.4 g.) of camphor, which, if completely absorbed, would be more than three times the fatal dose for such a child. More than 1 oz. of oil had been used.—I am, etc.,

Lincoln.

G. D. SUMMERS.

Battle Neurosis Treated with Leucotomy

SIR,—Is reluctance to advocate leucotomy in neurotic conditions really due to "misinformed opinion or theoretical prejudice," as Drs. William Sargant and C. M. Stewart (Nov. 29, p. 866) suggest? In the huge neurosis centres which had been set up in Germany in 1918 when discipline had begun to crack "active treatment" was organized on a large scale with the aim to cure neurotics, if possible, in one session, discharge them home, and employ them in factories serving the war industries.