Discharge of Certified Mental Patients

SIR,—I much enjoyed the two excellent articles by Professor Alexander Kennedy on "The Psychiatric Case and the Law" (April 5, p. 754, and April 12, p. 810). There is, however, a statement in the penultimate paragraph of his second article which, as it stands, is incomplete. Under the heading "Discharge at Request of Relatives" he states, "If the patient has been detained under a reception order on petition the relative who signed the petition may, if he has become convinced that the patient should no longer be retained, ask for him to be discharged (Lunacy Act, Section 72)." This Section (72(1) of the 1890 Act) applied originally only to private patients detained on petition, but, by the National Health Service Act (1946), was extended to include Health Service patients. But the 1946 Act did not stop there. In Section 72(3) it states that in *any other case*—i.e., of patients other than private patients detained under an urgency order or a summary reception order—discharge may be effected by the appropriate relative. The appropriate relative means the nearest relative—that is, husband or wife if there is one; if not, then father; or, if there is no father, mother, and so on. The medical superintendent of the hospital may bar the discharge only in the following terms, that "the patient is dangerous and unfit to be at large."

I think that this Section 72(3) deserves mention, because it is widely used and has created an entirely new situation. It makes nonsense of the complicated machinery of certification, because the certified one can be whisked out of hospital at any time the nearest relative so desires. Much time has to be spent by the medical staff in dissuasion. The barring certificate is no real safeguard, because very few patients, once in hospital, remain for long (and the Act is worded in the present tense) dangerous and unfit to be at large, even if one includes "dangerous to themselves"—i.e., suicidal. In point of fact, in three and a half years I have been unable to issue a single barring certificate, although I have seen patients go out who would have been better inside. The fact is, of course, that potential danger may become actual when the patient returns once more to an environment which activated his disorder in the first place.

Section 72(3), in fact, ignores several important considerations. It does not take into account the "nuisance value" of the mentally afflicted, just one of whom can cause any amount of trouble and misery in a household, block of flats, or among the neighbours. Secondly, it is well known—and also perfectly natural—that the motives which impel the nearest relative to seek the discharge of the patient are frequently not based on an objective appraisal of his state of mind or inspired by unselfish devotion, but on such factors as emotional bias, sensitiveness to stigma, possessiveness, pangs of conscience, and pressure from the patient or other relations. The chief sufferer is apt to be the patient himself, who is removed before he has had time to recover or become stabilized, and whose symptoms in consequence often return in full force when he gets home. Although I know that some hospitals have found in Section 72(3) a useful expedient to relieve their overcrowding and dispose of cases which do not respond to special methods of treatment, I myself hold the view that the mental hospital still has and will continue to have an important twofold custodial function: to protect the mentally weaker members of society and to protect society from them.

The legal side of mental illness has now become so complicated that to scrap the lot and begin again with something very simple but effective, such as exists in Northern Ireland, might well be the best solution. In particular, it is unsatisfactory to continue to allow "the nearest relative" to be the arbiter of the patient's destiny.—I am, etc.,

Southall, Middlesex.

C. R. BIRNIE.

Physiology of Sleep

SIR,—In their paper on "Studies on the Physiology of Awareness: Anoxia and the Levels of Sleep" (March 1, p. 449), Drs. J. W. Lovett Doust and Robert A. Schneider devoted considerable space to the enumeration of other concomitants of sleep and the discussion of some of them,

but failed to mention those that have a direct bearing on their own findings: the marked hypoventilation of the lungs, and the resulting increase in the CO_2 content of the alveolar air and in the CO_2 tension of the blood, as well as a decrease of the pH of the blood. The hyposaturation of the haemoglobin of the blood fits in well with these older observations, as indices of a decreased irritability of the central nervous system, including the respiratory centre. Indeed, like Lovett Doust and Schneider with respect to the percentage of oxyhaemoglobin, the earlier workers (Bass and Herr; Endres) suggested that the increase in the CO_2 level of alveolar air be used as a measure of the depth of sleep.

Concerning the degree of anoxia reported, it is well known that a much greater hyposaturation of the oxyhaemoglobin of the blood (usually 68–75% oxyhaemoglobin, or an altitude of 17–18,000 ft.) is required to produce unconsciousness. The lowest levels of oxyhaemoglobin saturation found in deep sleep, 87–88%, will hardly produce a decrease in performance on the pursuit meter, much less an observable effect on "awareness."

With reference to Howell's vasomotor fatigue theory of sleep, the authors stated that "this theory has been criticized, but it still remains a practical possibility, for differential anoxia on a vascular basis could exist with no overall change in cerebral blood flow." Aside from the fact that the data reported by them do not point to the possible existence of a differential anoxia on a vascular basis, Howell's theory has been shown to be untenable by several investigators, most recently by Kety and his co-workers, who found that the cerebral blood flow was slightly augmented and, what is more important, there was no decrease in cerebral oxygen consumption during sleep.

It appears, then, that the reported hyposaturation of oxyhaemoglobin does not constitute a contribution to our knowledge of the "physiology of awareness" or of the cause of sleep, but simply complements the previously found concomitants of sleep which point to a depression of the respiratory centre in that state.—I am, etc.,

University of Chicago, Illinois.

NATHANIEL KLEITMAN.

Prolonged Respiratory Paralysis after Succinylcholine

SIR,—The report of a case by Dr. J. Kennedy Harper (April 19, p. 866) will be read with interest by all those who are making use of this valuable drug. I cannot agree with the conclusions he reaches in the final paragraph.

A similar case was reported by S. H. S. Love (*Anaesthesia*, 1952, 7, 113), but "prostigmin" was not given and recovery occurred in one hour. It is at least arguable that, but for the treatment given, Dr. Kennedy Harper's case would have recovered in the same time, only 15 minutes after the end of operation.

Cases of prolonged respiratory paralysis following the use of D-tubocurarine have been described, and some authorities advocate the use of a test dose. For short cases it may be that a similar test dose is advisable with succinylcholine. Longer cases can be handled with a continuous drip, or repeated small injections of succinylcholine chloride, giving the anaesthetist a measure of control of relaxation that it is not easy to achieve with other drugs.—I am, etc.,

Hove.

REX BINNING.

SIR,—In view of the fact that succinylcholine is described as an ultra-short-acting relaxant, the following case history seems worthy of record to add to the many cases now published showing its unpredictable effects (see also April 19, p. 866).

The patient was a muscular farm labourer aged 23 who was to undergo a bilateral Caldwell-Luc antrostomy. Apart from sinus infection, he appeared normal and was given as premedication "omnopon" (‡ gr. or 21 mg.) and scopolamine 1/150 gr. 40 minutes before operation. Intravenous thiopentone was given, the sleep dose being 0.4 g. Inhalation of nitrous oxide, oxygen, and "trilene" was then started, and after about two minutes it was becoming obvious that a marked excitement stage was about to occur. At this point 60 mg. of succinylcholine chloride

was given intravenously. After the usual muscular twitching complete relaxation occurred within a minute, and a full-sized cuffed Magill's tube was passed with the greatest ease. The cuff was then inflated, and, as natural respiration had ceased, intermittent positive pressure was given, using 80% nitrous oxide and 20% oxygen with no adjuvant.

The operation proceeded uneventfully, and 42 minutes later, just as the surgeon finished, the patient took his first spontaneous breath, and within a minute was moving his head and trying to expel the tube. The cuff was accordingly deflated, the tube removed, and the patient then immediately sat up and started talking rationally. He was returned to bed and suffered no ill effects.

The salient features of this case are that premedication was light, and that he had a minimal dose of thiopentone and pure nitrous oxide and oxygen after a minute amount of preliminary trileone.

It therefore seems certain that the prolonged apnoea was due to succinylcholine. I have no suggestions to make on the reason for this, but in the present state of our knowledge it must be confessed that the length of time during which this relaxant acts appears to be quite uncertain, and it is interesting to speculate on what would have happened if a succinylcholine drip had been given with the intention of maintaining a constant depth of relaxation, or if the dose recommended by the makers for a "large adult" had been used, which is 200 mg.—I am, etc.,

London, E.C.1.

C. LANGTON HEWER.

Mental Disease a Symptom of Physical Defect

SIR,—Much stress has been laid of late on what is called, erroneously, I think, psychosomatic medicine, and also on the psychogenic causation of not only mental disease but also of many frank physical diseases, and it has given to many a false idea of the prominence of the mental state in the aetiology of disease.

I do not believe there is any such thing as mental disease *per se*, but that it is the symptom of a physical disease, defect, or dysfunction. The psychogenists and psychoanalysts, I know, will not agree with this view, but surely to work on the premise that one of the most obvious manifestations of a disease is the disease is similar to considering Addison's disease or jaundice from the dermatological aspect alone. To what, I wonder, would they have ascribed the cause of dementia paralytica before Noguchi demonstrated its specific cause in 1913? Would the third stage with its lalling speech have been considered to be due to an infantile fixation? I cannot follow the reasoning that it is possible to have a disease of an abstract quantity. One does not have a disease of any of the senses but rather of the organ of the particular sense, and the disease is manifest by a defect of function just as an encephalopathy or an endocrine dysfunction may cause a mental abnormality. Heredity as a cause of mental disease is universally accepted; as an abstract quality cannot be inherited of itself, surely this denotes a physical basis for mental disease?

Lest the rather fatuous criticism be levelled at me again that I am ignoring the existence of a mind, let me say that I believe the mind to be something more beautiful than the cesspool which some would have us believe it with its Oedipus and Electra complexes and the very suggestion that even the infant psyche is driven by a desire for incest and murder.

In conclusion, Sir, may I say that I agree with your leading article (November 10, 1951, p. 1136) in which you declare "psychosomatic" to be "an unnecessary term and the sooner it is dropped from the current medical literature the better"? If, however, some term be necessary in its stead, I would suggest "somatopsychic" as being more logical.—I am, etc.,

Cork,

MICHAEL J. KENNEFICK.

Explosion during Anaesthesia

SIR,—I was interested to see Dr. G. M. Wyant (April 19, p. 870) raise the question, "What was the explosive?" in the case reported in the *Journal* of January 19 (p. 168). He suggests an explosive residue in the machine powerful

enough to cause a violent explosion, occurring in this case in the patient's gullet and stomach. I submit that there is another source for the explosive—namely, the patient's bowel. I have personally witnessed the ignition of *downward* flatus by a subject (not myself) who held a lighted match close to his anus (a thin pair of cloth shorts intervening) and was able to produce flatus which ignited and burnt with a momentary blue flame, presumably the product of intestinal fermentation. I have been unable to demonstrate that such inflammable gas can be found in the stomach, but this is clearly a theoretical possibility. It is even possible that such a gas might be spontaneously combustible, as marsh gas causes the will-o'-the-wisp, and that such an occurrence might explain the recent explosion and others.

Until this matter is clarified, I think it unwise to give oxygen under pressure to relaxed patients unless through a cuffed endotracheal tube. The safe and easy method of artificial respiration by thoracic compression will suffice to carry a patient through the early stages of a modern anaesthetic without the machine being connected at all until the tube is in position.—I am, etc.,

Paignton, Devon.

J. F. BURDON.

Sponge-rubber Collar for Cervical Disk Lesions

SIR,—It is generally agreed that operative measures have little place in the treatment of intervertebral disk lesions in the cervical spine. Conservative measures, however, whose aim is to provide rest and protection to the affected joints, present special difficulties in this region. The hard and unyielding nature of cervical collars made of leather or "perspex" tends to produce discomfort or pain over bony prominences. As a result, the wearers will tend to hold themselves away from contact with the collar. Thus, although the collar will prevent movements, it will often fail to give the necessary rest and support. In fact many patients will not tolerate such an appliance.

For the last few years I have been using a collar cut from sponge-rubber sheeting, $\frac{1}{2}$ in. (1.25 cm.) thick. The accompanying sketch shows the shape and size of the piece required for the average case. The collar is wrapped round the neck, the ends overlapping in front, a notch being cut out of the underlap, as shown, to accommodate the thyroid cartilage and prevent discomfort in swallowing. It is held in place by a crêpe bandage or fitted with some form of buckle.

AVERAGE LENGTH 24"
DEPTH AT BACK 6"

This type of collar has been found to be effective in practice and to have the following merits:

- (1) There need be no delay in instituting treatment while awaiting the manufacture of a surgical appliance.
- (2) It is cheap.
- (3) In these days of red tape it avoids the delays involved before a general practitioner can get any surgical appliance ordered for one of his patients. He can make and fit such a collar in his own surgery in a few minutes—at least as a first-aid measure while awaiting a specialist opinion.
- (4) Although it does not provide such efficient immobilization, it gives better rest and protection than a surgical appliance, for the patient can relax into it without discomfort.
- (5) It is more easily tolerated for use at night.

—I am, etc.,

London, S.E.1.

T. T. STAMM.

Effect of Sulphonamides on Mortality

SIR,—I was very interested to read a letter entitled "Cost of Treatment" by Dr. R. McL. Todd (March 8, p. 546). During the early part of the war I was deputy medical superintendent at Alder Hey Children's Hospital, Liverpool, prior to the formation of the Liverpool University Department of Child Health, and at that time I prepared statistics