clearly expounded also by Sir Heneage Ogilvie (*Journal*, January 15, 1955, p. 159), makes greater, not less, demand upon the skill of the first-aiders to combat shock by the control of haemorrhage and the relief of pain. If the latter understands that in every serious injury, of body or of limb, there is concealed haemorrhage, whether blood is visible or not, then the required treatment falls into place: support in the most comfortable position; as little movement as possible; dry sterile dressing over any wound; firm bandaging over cotton-wool, whether the skin is broken or not; immobilization of the broken limb; elevation; gentle, firm lift on to the stretcher; steady loading into the ambulance without any jerk or jar; nothing by the mouth; no hot-water bottles; the casualty taken to hospital as soon as possible and kept cool, quiet, comfortable, and comforted on the journey.

(2) "When a patient is to be transported a short distance and will reach hospital within half an hour of injury, it is not justified to take 20 minutes to apply a Thomas splint when tying the legs together will do just as much good" (p. 724). This says, in effect, that severe recurring pain and continuing haemorrhage are unimportant for a period of half an hour. Not only half an hour, however, for the casualty is not magically relieved as he enters the hospital door. He must await the mobilization of the hospital resources, he must be handled, x-rayed, lifted perhaps to a trolley and to bed. A well-applied Thomas splint will be retained during this period—which may run into hours—in safety. I submit that tying the legs together, with one thigh broken, will never "do just as much good." A casualty hates having his legs tied together. Every movement of the sound leg, the pull of the muscles on the broken bone, the pull of gravity with every jolt of the vehicle augmented by the weight of the sound limb, will cause intense pain and is liable to increase or restart haemorrhage from the damaged blood vessels.

If, as Mr. Ruscoe Clarke has stated, one-third of all cases of severe injury coming to the Birmingham Accident Hospital are dead on arrival, is it not just possible that some might have been saved by competent first aid given before the "traumatizing experience" of the ambulance journey?—I am, etc.,

London, W.C.1.

M. A. DOBBIN CRAWFORD.

Analgesia with Opiate-antagonist Mixtures

SIR,—The paper by Drs. A. Herxheimer and C. Sanger (*Journal*, October 5, p. 802) interests me, as it confirms one of my own clinical findings in this field. My experience extends over four years and covers thousands of injections. It has been mostly with mixtures of pethidine and nalorphine, but levallorphan and other opiates have been used.

The possibility of mixing nalorphine with morphine or pethidine to antagonize respiratory depression occurred to me soon after I first received the drug. I found that a satisfactory ratio was nalorphine 5 mg. to pethidine 100 mg. This mixture was thoroughly tried in anaesthetic practice as a preliminary to its use in obstetrics, which seemed to me to be one of the most important clinical applications of the principle. The mixture was found to be safe and effective. Two years ago I independently introduced the use of this mixture into obstetrics at the maternity department of the Dartford group of hospitals with the co-operation of the obstetric staff. As far as I am aware, I was the first to do this. To date over 2,000 injections have been given to over 1,000 mothers, with excellent results. Careful records have been kept on specially prepared forms. The data from the first 300 cases were collected by my registrar, read as a paper in 1956, and published this year.¹ A further report is in preparation.

In obstetrics an injection of pethidine 100 mg. mixed with nalorphine 5 mg. causes as good as or better pain relief than pethidine 100 mg. alone. There is more sedation and amnesia, but co-operation is as good. Injections of this dosage can be safely and satisfactorily given from the time labour is well established right up to delivery, without

adverse effects on the baby. Our practice is to repeat the injections at hourly intervals as required, gas-air or trichloroethylene-air inhalation being allowed as necessary. During a long labour over 1,000 mg. pethidine has been thus given without causing neonatal asphyxia. Many mothers find the analgesia from the injections superior to that obtained from gas-air. The incidence of prolonged labour, operative interference, and post-partum haemorrhage is not increased. Similar results to the above have been obtained using a mixture of pethidine 100 mg. and levallorphan 2 mg.; it may be that less levallorphan would suffice.

In anaesthesia, paediatrics, and general medicine the same mixture has been extensively used for premedication, post-medication, as a supplement to nitrous oxide anaesthesia, as an analgesic for children, and in pulmonary diseases where depression of respiration or cough is to be avoided, with the expected results. My observations lead me to believe that the following side-effects of opiates are in varying degree antagonized by the addition of nalorphine (or levallorphan): depression of respiration and the cough reflexes, contraction of the pupil, euphoria, and dilatation of the skin vessels. It has also been shown that the rise in C.S.F. pressure is antagonized, and I believe venous pressure is also reduced in anaesthesia. The incidence of nausea and vomiting is not notably reduced.

The possibility that the addictive properties of opiates are reduced by the addition of antagonists is being explored. If this can be established there will be a very strong case for premixing antagonists with opiates for general use, since addiction to pethidine in particular is, I believe, a real problem among doctors and nurses, quite apart from the problem in patients with chronic pain.—I am, etc.,

Chislehurst, Kent.

JOHN BULLOUGH.

REFERENCE

- ¹ Baker, F. J., *Anaesthesia*, 1957, 12, 282.

Achalasia of the Crico-pharynx

SIR,—Dr. A. Gordon Beckett and Mr. A. G. Ellerker (*Journal*, October 12, p. 865) record an unusual case of complete obstruction to liquids at the entrance to the oesophagus associated with a large nodular benign retrosternal goitre, other urgent symptoms including inspiratory and expiratory stridor, but with an unobstructed trachea as ascertained by tracheoscopy. The laryngeal obstruction was completely relieved (after aspiration of the lower air passages by bronchoscopy) by intubation with an indwelling endotracheal tube.

Achalasia of the crico-pharynx^{1,2} will produce some degree of obstruction to swallowing at the pharyngo-oesophageal opening. It is usually only apparent on swallowing liquids rather than solids, and invariably accompanies a bilateral recurrent laryngeal nerve paralysis, which I have encountered with a large plunging benign goitre. Both vocal cords are paralysed and fixed in the paramedian position.

At a clinical meeting outside London some years ago, there were gathered together eight cases of post-operative bilateral recurrent laryngeal nerve paralysis after thyroidectomy. In six out of the eight, some obstruction to the swallowing of fluids could be demonstrated clinically by making the patient swallow half a tumbler of water. On stopping, after a perceptible interval, a bout of coughing followed. This is due to the retention of the swallowed contents in the hypo-pharynx and the spill-over into the larynx. The achalasia of the crico-pharynx can be confirmed radiologically by a lateral pharyngogram and repeated after three to five minutes. This will demonstrate the hold-up of fluid in the hypo-pharynx and pyriform fossa: the overflow fills the valleculae visible in the antero-posterior view with a horizontal fluid level. It may take up to five minutes to empty completely.

The severest form of achalasia of the crico-pharynx produces complete obstruction to the swallowing of fluids at the mouth of the oesophagus. This may result from a bilateral paralysis of the recurrent laryngeal nerves, especially if the onset is sudden—e.g., post-operative, or anterior

poliomyelitis.* Any attempt at swallowing fluids merely results in a spill-over into the glottis (already almost completely obstructed by the immobile abducted vocal cords), followed by paroxysms of coughing, extreme dyspnoea, and even cyanosis. The following case under my care in 1951 is an example of complete achalasia of the crico-pharyngeus. The patient was unable to swallow any liquid at all, any attempts resulting in the fluid overflowing immediately into the air passage.

A male, aged 65, with a loss of voice following a "cold" some weeks previously, developed inspiratory stridor. He noticed that, while he could swallow solids easily, liquids produced coughing—"it went the wrong way." There was loss of weight and some secondary anaemia. On mirror laryngoscopy he was observed to have a bilateral recurrent laryngeal nerve paralysis. A pharyngogram revealed achalasia of the crico-pharyngeus. Clinical and radiological examination (repeated) showed no chest physical signs. There were no neurological signs other than the bilateral recurrent nerve paralysis. Bronchoscopy and oesophagoscopy proved negative. The sputum was negative. Radiology revealed a complete achalasia of the crico-pharyngeus, with a spill-over into the glottis. All swallowed liquids by this time precipitated distressing bouts of coughing, increased the laryngeal obstruction, and produced cyanosis. An emergency tracheotomy was performed. After this, swallowed liquids or accumulation of saliva, etc., continued to be passed into the larynx and was coughed out through the tracheotomy tube. As he was in danger of developing an inhalation pneumonia the air passage was separated surgically from the food passage. Twelve weeks later he succumbed: the cause of death (apparent a few weeks before) was a carcinoma of the left upper lobe bronchus. In this case, the complete obstruction to swallowing liquids at the entrance to the oesophagus was caused by a complete achalasia of the crico-pharyngeus, a complication of bilateral recurrent laryngeal nerve paralysis.

It must be taken as established that a bilateral recurrent laryngeal nerve paralysis can produce at the same time an achalasia of the crico-pharyngeus. This manifests its presence by a partial or (as in the case of Dr. Beckett and Mr. Ellerker and in my case) a complete obstruction at the mouth of the oesophagus, especially for fluids.—I am, etc.,

London, W.1.

N. ASHERSON.

REFERENCES

- ¹ Asherson, N., *Trans. med. Soc. Lond.*, 1950, 66, 398.
- ² ———, *J. Laryng.*, 1950, 64, 747.
- ³ ———, *J. int. Coll. Surg.*, 1953, 20, 531.

Compulsory Powers over Mental Patients

SIR,—I fear that Dr. C. R. Birnie (*Journal*, October 5, p. 825) cannot have made himself familiar with the contents of the Royal Commission's report, or he would not have spoken of the guilty psychiatrist being haled before the review tribunal to account for his action in giving one of the recommendations for admission. Paragraph 445 makes it quite clear that review tribunals will have nothing to do with passing judgment on the admission proceedings, but will be solely concerned with the patient's condition at the time of the review. Dr. Birnie may have been thinking of the discharged patient's right to bring an action in an ordinary court of law. I dealt with this bogey in my original letter (*Journal*, August 24, p. 467); I might add here that his purely theoretical predictions are not supported by the practical experience of the last nine years in Northern Ireland, where the magistrate's order has been eliminated except for the few cases remaining in hospital after two years. No actions at all have been brought there since the 1948 Act came into force.

There are other parts of the report which Dr. Birnie cannot have read; for the conception of the "effective consensus of opinion" and the description of the magistrate as "an authority whose main function is the punishment of crime" are the Commission's own; I did not invent them in order to "defend" its recommendations. Without the consensus, the magistrate cannot act; after his action the consensus is the continuing cause of the patient's detention. But Dr. Birnie has put his finger on the very point that makes the abolition of the magistrate so desirable, for it is certainly the magistrate's order which inflicts "cer-

tified status" on the patient. He is quite right in thinking that the Commission has it in mind to alleviate the stigma; but this particular reform (for which I am sorry to see he uses the degrading word "tampering") is of course only one of many designed to that end.

Dr. Birnie must indeed be living in a different world from his colleagues if his patients never approach him with a request for discharge and if he never has to make a decision to recommend discharge or withhold it. If he does do these things he shares with the rest of us an inescapable responsibility. This responsibility is at present conferred on us in respect of each patient separately by an authority whose intervention has been judged to be inappropriate and harmful; the proposal is that in future our responsibility should derive directly from the terms of the law. I think we should welcome the change.—I am, etc.,

Coulsdon, Surrey.

ALEXANDER WALK.

The Mismamed Stethoscope

SIR,—The integrity of our speech, as we speak of the stethoscope, is immaculate. The best classical Greek authors use the second half of that word in the abstract sense of examining a problem. That is apt. On the other hand, 'phone is almost entirely restricted to the description of the articulated voice. If Dr. F. R. Langmaid (*Journal*, October 19, p. 943) fancies a change, he would be correct, and I dare say alone, in championing the use of the word stethacousticon.—I am, etc.,

Emsworth, Hants.

A. S. HARRIS

Cancellous Strip Grafting

SIR,—I was interested to read your annotation (*Journal*, September 28, p. 759) on cancellous strip grafting. As this procedure was used at the maxillo-facial units at both Hill End and East Grinstead from 1939 onwards, I would like to pay tribute to Rainsford Mowlem for his pioneer work in this field. He carried out many experiments in grafting bone to mandibles and demonstrated a perfected technique in 1940 which was used throughout the maxillo-facial units. His technique was described in our textbook,¹ and a colour film was made of this technique at East Grinstead. This film is now held by the British Council. Mowlem's technique must have saved many months of hospitalization for hundreds of patients during the war period.—I am, etc.,

Birmingham, Alabama, U.S.A.

GILBERT J. PARFITT.

REFERENCE

- ¹ Fry, W. K., Parfitt, G. J., McLeod, A. C., and Shepherd, P. R., *The Dental Treatment of Maxillo-facial Injuries*, 1942. Oxford.

Complications of Influenza

SIR,—In your leading article on the pulmonary complications of influenza (*Journal*, October 12, p. 872) you state that it is important that regular information about the progress and nature of the epidemic should be given as quickly as possible to the medical profession. The available methods of treatment of the complications of virus influenza have been vastly extended since the last pandemic occurred, and nowadays, more than ever before, up-to-date epidemiological information can be of real practical value to the doctor who has to treat the cases.

Yours is the most widely read medical journal in the country. During the past few weeks you have given us, apart from the weekly statistical summary, a handful of scientific and leading articles and of letters on certain aspects of the epidemic, and these, as far as they go, have been of great interest and real value. But is this really the only useful information about the epidemic which could be given to the medical profession? You tell us that the epidemic will be with us for several months. If so, it will certainly cause much dislocation of economic and social life, a number of serious illnesses and fatalities, and a great deal of work for doctors. Would it not be appropriate, while the epidemic lasts, to devote a few columns each week to an intelligence summary of its progress? The possible sources of information for this must be numerous if they