stressed by the fact that open ether cannot now be condemned as presenting to the patient a cold vapour for inhalation (vide "General Anaesthesia and the Temperature of Inhaled Gases," Journal, Nov. 10, p. 646). What, then, are its objectionable features? The toxicity of ether is stressed as one of these, but this is not peculiar to the open method of administration. The Anaesthetics Subcommittee, however, offers excellent facilities for that constant and accurate observation of the patient which is so essential if he is to receive the minimum dose of the toxin. The ocular reflexes afford an accurate guide to the depth of the anaesthesia. Close-fitting face-pieces with various types of harness, modified gas-masks, and many other contraptions now in use effectually deprive the administrator of these facilities. The Anaesthetics Subcommittee recognized the danger of disturbance of the intraocular tension. Drs. Ina and J. G. C. Brittain (March 31, p. 442) describe thirteen cases of unilateral hypertony following anaesthesia in a series of three hundred cases, the aetiological factor being the pressure exerted by the rim of a badly adjusted face-mask. The danger of causing harm to the cornea in eliciting this reflex is mentioned in every textbook. I have tested the sensitivity of the cornea and demonstrated the method of doing so many thousands of times and have not once heard of harm resulting therefrom. A light uniform open-ether anaesthesia with a sensitive cornea suffices for practically all operations on the extremities. When abdominal muscular relaxation is required the corneal reflex is lost and the open method, therefore, becomes preferable in some cases. The use of premedication interferes with the paralytic dilatation of the pupil associated with a profound and dangerous depth of anaesthesia.

Open ether interferes less than any other method with the normal composition of the gases in the pulmonary alveoli. When indicated, extra oxygen and/or carbon dioxide, picking up a little ether vapour from an ether bottle, can be easily delivered into the mixture of air-and-ether vapour inhaled by the patient. The anaesthesia can be lightened or deepened easily and quickly and immediate advantage taken of periods free from surgical stimuli.

If nitrous oxide is administered with more than 20% oxygen it has no anaesthetic effect. Why use it as a vehicle for the ether vapour when the patient's condition is demanding more oxygen? If gas, oxygen, and ether vapour are being administered and the resulting anaesthesia is without cyanosis and yet deep enough to obtain abdominal relaxation, let the administrator shut off the gas and turn on the corresponding extra litres of oxygen. Anaesthesia of this method, I am sure, can be made ideal. The closed-circuit method leads to a definite change in the composition of the alveolar gases, and we do not know that this is free from harm. I am quite willing to breathe for an hour through a mask such as is used for open ether. Would the advocate of the closed-circuit method as readily submit himself to a similar experiment? So far as I know this has never been done, but the experience might be of some value. The surgeon appreciates the reduction in amplitude of the respiratory excursions when the closed circuit is used. Shock, however, is associated with a falling-off of the venous return to the right side of the heart, and an efficient venous return is dependent upon the movements of respiration. The Anaesthetics Subcommittee had no easy task in formulating their recommendations regarding anaesthesia for the shocked patient. One agrees with them that “almost equally good results are obtained by experts using widely different agents and methods,” but I am not alone in regretting their condemnation of open ether. As for chloroform, the majority in this field have realized that whereas it may be definitely not agree with the committee's opinion that “in the hands of an expert chloroform may be satisfactory.”—I am, etc.,

Arthur Mills.

Spinal Analgesia in Operative Obstetrics

Sir,—Dr. Louis Resnick’s article (Nov. 24, p. 722) prompts me to add a little of our experience at University College Hospital. A very small series of Caesarean sections has been carried out under epidural or extradural analgesia in selected cases. This method produces operative conditions similar to those given by a spinal, with less risk to mother and child, but it is undoubtedly more time-consuming and requires a careful technique. The solution used is 40 to 45 c.c.m. of 1 in 600 nupercaine in half-normal saline, and this is slowly injected between L 2 and L 3 into the epidural space, with rigid adherence to all technical precautions. It takes 20 minutes to produce analgesia to D 10. Many patients showed no fall in B.P., and in those who did it was readily controlled by ephedrine 1/2 gr. IV. and 1/2 gr. I.M., since the fall is not as rapid or precipitous as with a spinal.

There are fewer unpleasant post-operative sequelæ with epidural analgesia as compared with spinal; in fact we have had none except vomiting, which has been almost negligible. The main advantages of epidural analgesia over spinal are: (1) Fall in B.P. is not so great or so sudden; though this occasional drop occurs. (2) No loss of motor power occurs, so that the patients can immediately move about in bed. There is no intercostal paralysis. (3) Prolonged freedom from pain post-operatively, lasting up to 12 hours, diminishes the amount of drugs required. (4) The subarachnoid space is not entered, thereby excluding the liability to headache and damage to the cord. Since the epidural space ends at the foramen magnum the higher centres cannot be reached by the analgesic solution.

However, our experience has indicated that patients with extreme hyper- or hypo-tension and acute cardiac disease did in some instances show rather severe falls in B.P., and though these usually proved controllable we feel it is taking too great a risk in such cases to employ this form of anaesthesia. However, it has, however, provided an idea in other conditions where general anaesthesia is contraindicated.

A paper describing this method in detail is to be published in the January number of the British Journal of Anaesthetics.—I am, etc.,

University College Hospital, W.C.1.

Doreen M. E. Cranch.

Sir,—While spinal analgesia in obstetrics has some theoretical disadvantages expressed by some of your correspondents, its use in fact leads one to think that the dangers have been exaggerated. There are, on the other hand, some definite practical advantages of this method.

I have now used a low spinal analgesia in 50 cases of vaginal manipulation, chiefly for forceps delivery. The solution used is “planocaine” 0.75 g. accompanied by ephedrine 0.05 g. Seat analgesia only is the aim, and the patient can often assist to put her feet in the lithotomy straps. In two cases, both of highly excitable women, the analgesia (or rather sedation) was not sufficient and was supplemented by gas-and-oxygen and by a few drops of chloroform respectively. In one case only was the woman complained of a headache badly enough to have it reported to me. In one there was transient paresis of the left external rectus muscle attributed to the analgesic. Otherwise the series has been without incident so far as the analgesic was concerned. In no case has the post-partum loss exceeded 200 ml.

Many women have expressed their appreciation of being, so to speak, present at the birth of their children. It seems an important point not to deprive a woman of her due physiological experience more than is necessary for her comfort. There are several small theoretical advantages to the operator; for instance, the question of whether to repair the perineum before delivering the placenta for the sake of not prolonging the anaesthetic does not arise. Also the nursing staff appear to appreciate the speed and lack of fuss of the proceeding. The greatest disadvantage of the method seems to be its unsuitability for domiciliary midwifery.

I should like to express my thanks to Dr. Resnick for giving a lead in this interesting and, I am sure, valuable procedure.—I am, etc.,

Herrford.

B. J. Clymo.

 Sulphonamide Therapy by the Midwife

Sir,—I believe it is becoming a common practice when suturing a perineum to apply sulphanilamide powder. To omit to do so would be to leave room for self-reproach in the odd case which becomes complicated by sepsis, so that I, for one, always use it. I find that if I apply the powder immediately before the operation the field tends to be obscured, while to apply it after the operation savours of black magic. Being unable to answer immediately a recent call to a torn perineum, I sent some powder for the midwife to apply, and when I came to do the repair