

is reached; then sweep that downwards and inwards across the child's body, and so bring the arm down.—I am, etc.,

Glasgow, Sept. 1st.

JAMES COOK, M.D.

#### THE CAUSE OF TORTICOLLIS

SIR,—Mr. G. F. Gibberd, in his admirable remarks on breech presentation in the *Journal* of August 29th, while referring to one matter of orthopaedic interest—namely, the origin of Little's disease—omits all mention of an equally interesting one, the origin of "sterno-mastoid tumour" and wry-neck.

I do not wish to take up your valuable space unnecessarily, but I should like to place on record the fact that eight out of ten cases of non-spasmodic torticollis met with in my clinic at the Miller Hospital have occurred in children born breech first. This proportion is far too high for it to be a mere coincidence. Has Mr. Gibberd any theory to offer which will explain the connexion between the two? The usual one given is that the chin catches on the pelvic brim, and the strain tears through the sterno-mastoid muscle. But this does not account for cases which occur where the birth has been normal. My own view is that the "sterno-mastoid tumour" is due to a tear, not of a normal muscle, but of a previously contracted one. May it not be possible that the same cause, whatever it is, may produce the breech presentation and the shortened muscle?

An added reason for thinking that the child with the ruptured sterno-mastoid muscle is not normal is that when the condition is recognized within a few days of birth one notices that the asymmetry of the face—one of the clinical signs of torticollis—is also present.—I am, etc.,

London, W.1, Aug. 28th.

PAUL BERNARD ROTH.

#### CONVULSIONS DURING ETHER ANAESTHESIA

SIR,—Dr. Haworth's description, in the *Journal* of August 29th, is typical. There was no cyanosis, but oxygen was given from the commencement. Oxygen seems to be the crux of the whole situation; why is it given, and what is the effect? Oxygen is given to relieve cyanosis. What is the cause of the cyanosis? If the airway is free, and there is no other interference with respiration, it is due to deep anaesthesia. If the dose of ether is reduced and, if necessary, more air given, the cyanosis improves. Again, does oxygen assist in the elimination of CO<sub>2</sub> which is causing cyanosis in the deeply anaesthetized subject? The colour will improve, but does the tension of CO<sub>2</sub> in the venous blood become less?

Convulsions appear to resemble the second stage of asphyxia. While oxygen is being given to a deeply anaesthetized subject, is the patient being asphyxiated? The hyperpnoea of asphyxia is indicated by the rapid, shallow respiration; in the same stage the pulse rate increases enormously. This is also noticed in the first stage of convulsions. If the same dose of ether and oxygen is continued, convulsions commence. In the former case we are dealing with an occluded airway and responsive muscles; in the latter, with a deeply anaesthetized subject with a free airway but a semi-paralysed respiratory centre and muscles. In each case convulsions are being caused by an excess of CO<sub>2</sub>, and not by lack of oxygen. Toxaemia evidently lessens the resistance of the respiratory centre, and, consequently, convulsions are most common in this type.

In conclusion, I would like to stress the following points. 1. Always attempt to rectify cyanosis without oxygen, which is not harmful, but masks cyanosis. Given

from the commencement, there is no cyanosis and the anaesthetist is on false ground. (2) Should the effort of using bellows on the Shipway be too tiring, use compressed air and not the oxygen cylinder. (3) Convulsions are probably due to careless anaesthesia and can be avoided.—I am, etc.,

C. J. BASHALL, M.R.C.S., L.R.C.P.

Burbage, Aug. 31st.

#### A SIMPLE METHOD OF EMBALMING

SIR,—Noticing in the *British Medical Journal* of August 22nd (p. 358) an article suggesting that ship surgeons might be called on to embalm bodies on board ship, and knowing how frequently it has to be performed by men practising abroad, I thought the following notes might be helpful.

First of all, plug lightly the pharynx and each nostril with cotton-wool. Push the plugs fairly far back into the nostrils. Then heat some paraffin wax in a small enamelled jug (the wax requires to be fairly hot so that it does not harden too quickly). If necessary, open the mouth with a gag, then take a small funnel and pour the paraffin through it into the pharynx, putting in about one and a half ounces. Next pour a small quantity down each nostril. In a few minutes the wax sets and completely seals the nasopharynx. It is essential to do this as otherwise the formalin, when injected under pressure, always escapes through the mouth and nose. Next expose one of the femoral arteries and tie a metal or glass cannula firmly into it, then attach about seven or eight feet of rubber tubing to it and a metal or glass douche can to the other end. Raise the douche can to a height of about five feet and fill with full-strength formalin, allowing it to run slowly, and filling up as necessary. Half to one gallon is run in, allowing four or five hours for this if possible. I generally opened a superficial vein in the arm to prove that the formalin had circulated. When the required amount has run in, tie off the femoral artery above the cannula and stitch up the wound.

I was able to prove the efficacy of this method, as two bodies I had treated were left in a mortuary chapel for six weeks during the heat of the summer in Southern Italy, pending the arrival of relatives. I went and inspected the bodies at the end of that time, and found them both looking as fresh as the day the injection was done.—I am, etc.,

F. B. EYKYN, O.B.E., M.B.

Dulwich, S.E.22, Aug. 22nd.

#### HUNGER PAIN AND PRESERVATIVES

SIR,—In a recent leading article on duodenal ulcer and pyloric gastritis reference was made to the acidity of the stomach contents. About five years ago, in your correspondence columns, I recorded a form of indigestion that, after much endeavour, was finally tracked down to preservatives in food. During war service I experienced symptoms simulating a duodenal ulcer. The usual tests were made, and, while surgeons recommended a short circuit, I accepted the advice of physicians, relying upon medicinal and dietary measures. Almost no improvement resulted until food containing preservatives was excluded; then the attacks ceased. So long as the food is pure the trouble does not return, but anything containing preservatives occasions the old symptoms. They are always identical, and consist in a tenderness in the epigastrium with pain in the stomach, relieved by food, constipation being also a feature. To no article of diet is my stomach sensitive, and I can eat the most indigestible of things without any after-effects, but my susceptibility to preservatives still remains. On innumerable occasions during the