once more to swayback, I have ascertained that the soil in the Peak district where swayback is prevalent is heavily charged with lead. Is it possible that the present outbreak of infantile paralysis has a copper displacement factor in its aetiology? One mineral has been used to an extraordinary extent during the war years and since. I refer to tin. Aluminium cooking vessels were difficult to get during the war years, but since the shops have been flooded with them. Might I suggest that in each case of infantile paralysis the urine should be tested for traces of tin and aluminium?—I am, etc.,

Kenwood, Chesterfield.

J. A. GOODFELLOW.

Miliary Appearances in the Lungs in Mitral Stenosis

SIR,—I was most interested to read Dr. T. E. Gumpert's article (Sept. 27, p. 488) on "Miliary Appearances in the Lungs in Mitral Stenosis." In the past year I have noted three such cases. Two of these cases had had mitral stenosis of long standing. The miliary appearances in the lungs were seen shortly before death from congestive cardiac failure.

The third case was rather different. The patient, a woman aged 36 years, was admitted to hospital in an extremely collapsed condition with cyanosis, orthopnoea, marked tachycardia, pyrexia, venous distension in the neck, and widespread adventitious sounds in the lungs. She had a previous history of rheumatic fever. X-ray examination of the chest showed widespread miliary appearances very similar to those seen in miliary tuberculosis. Her pyrexia was intermittent in type and proved resistant to penicillin and sulphathiazole in full doses. She had no sputum.

After four days she was put on full doses of salicylate. Her temperature subsided rapidly and her tachycardia became less marked. As it did, a well-marked mitral stenosis was discovered. She remained apyrexial though the tachycardia tended to persist. X-ray examination of her chest 14 days after the first film showed the lung fields almost clear. Although she remained apyrexial her convalescence was protracted, with marked tachycardia on the least exertion. She had no peripheral manifestations of rheumatic fever.

I should very much like to hear Dr. Gumpert's views on this case.—I am, etc.,

Dublin.

HALDANE G. NELSON.

SIR,—I read Dr. T. E. Gumpert's interesting article (Sept. 27, p. 488) on "Miliary Appearances in the Lungs in Mitral Stenosis," but do not agree with the pathological interpretation or the radiological findings. The haemosiderin-laden histiocytes from the alveoli are motile and travel to the intralobular collections of lymphoid tissue. Here fibrous tissue reaction results in the formation of pseudo-tubercles, at first microscopic, but later increase in the amount and maturity of the fibrous tissue gives the appearances of nodulations apparent in the photograph. The rosette-like appearance he describes in the magnified photograph I should interpret as hyaline degeneration in the centre of the fibrous nodule, which is more opaque to the x rays than the young fibrous tissue at its periphery. The pathology is in fact extra-acinar. The diffuse haziness in the later photograph suggests interstitial fibrosis—i.e., in the inter-alveolar and interlobular lymphatics—seen in Whitehaven in the lungs of haematite miners from Egremont. I think if a photograph were taken now of this patient it would show the same pattern as that seen in 1946.—I am, etc.,

Belfast.

MURIEL O'DOHERTY.

Early Diagnosis of Tuberculous Meningitis

SIR,—Dr. M. C. Wilkinson's call to the profession (Sept. 27, p. 507) for early diagnosis of hitherto incurable tuberculous conditions will be welcomed by all tuberculosis workers. While there is little one could add to Dr. Wilkinson's observations, I would like to call attention to a recent work which had purely academic significance at the time of its publication, namely, that by biopsy typical miliary tubercles may be demonstrated in the bone marrow in some cases, without any changes in the C.S.F. and before radiological evidence of pulmonary invasion.—I am, etc.,

Colchester.

FRANCIS KELLERMAN.

Fungus Poisoning

SIR,—The article by Mr. J. Ramsbottom (Aug. 23, p. 304), the annotation (p. 302), and the letters by Dr. C. Allan Birch (Aug. 30, p. 348) and Dr. A. T. Todd (Sept. 6, p. 395) deal with mushroom poisoning, making reference to *Amanita phalloides*. I have had occasion to observe two families poisoned by this mushroom, the full details of which I published in the *Revista Clinica Española* (1945, 17, 211). Pathologically the most striking things to be found were: intense fatty degeneration in the liver with bands of total necrosis and haemorrhagic infiltration; in the suprarenal capsules turbid degeneration in the cellules of the second and third zones of the cortex.

In diagnosis the late onset of the symptoms, almost without exception ten to twelve hours after ingestion, is of great value. The treatment of Limousin (fresh rabbit's stomach and brains) broke down in my cases, as did the intravenous glucose in large doses of Binet, and the draughts of a saturated salt solution of Le Calve, and likewise all the cardiac tonics. I was not able to give the "antiphalloid" serum treatment of Dujarric de la Rivière. My impression is that many of the cases reported as successful through various treatments are caused by other mushrooms, different from the *Amanita phalloides*, the intoxication of which I consider to be almost always fatal. I think transfusions of plasma ought to be tried.

Of the nine individuals under my observation eight died; the only survivor was a woman who had been pregnant for five months, and whose pregnancy went on successfully to its conclusion. This I believe was due to the fact that vomiting began before the others (in shortly under eight hours). In any case it would be interesting to investigate whether pregnancy embraces a state refractory to the amanita toxin, and why.—I am, etc.,

Soria, Spain.

J. CALVO MELENDRO.

Treatment of Injuries following Insertion of Gastroscope

SIR,—Drs. C. M. Fletcher and F. Avery Jones (Sept. 29, 1945, p. 421) discussed the risks involved in using the flexible gastro-scope. This article brings to my mind the treatment of oesophageal injuries from the gastro-scope practised by me as well as the treatment of inflammatory lesions in the neck region. From 1931 until the beginning of the war I have done many gastroscopies. My results have been very good in the diagnosis of diseases of the stomach. Naturally it is necessary to make an x-ray examination beforehand to be certain there are no pathological changes in the oesophagus, stomach, or neighbouring organs. Marked kypho-scoliosis, a displaced vertebra, or marked aortic sclerosis may make an examination through the oesophagus very dangerous or impossible. One must also bear in mind that the oesophagus of older people is less elastic and more vulnerable to injury. Areas in which generally are found diverticula have a thinner pile of muscles and are easily injured. Introduction of the gastro-scope must be done without pressure. Even so, injuries to the oesophagus and hypopharynx have occurred by experienced physicians, as borne out in the report by Fletcher and Jones.

In the treatment of such accidents and as well as dangerous anginal septic states—e.g., post-tonsillectomy and so on—the following method used by me has given excellent results. According to the old surgical principle of putting at rest inflamed areas—as, for example, suppuration in the extremity—I apply a padded wire splint to the patient extending over the head, neck, and back, securing it with bandages at the thorax and head and the latter about the forehead, thus preventing any side-to-side or forward-and-backward motion. In this manner all the muscles of the neck and upper parts of the oesophagus will be put at rest. Forbidding the patient from speaking and giving him only liquid food, one has produced the best conditions for localizing the inflammation and its healing. In all my cases within a few days the temperature fell, the inflammation disappeared, and the patients recovered.

This treatment is not only suitable for injuries following the gastro-scope introduction but excellent results by me have also been obtained for all other inflammations in the neck region. The following case was very characteristic: A tonsillectomy performed by a specialist was followed by a septic state lasting five weeks, with fever between 38° and 39.5°C. (100.4° and 103.2° F.), greatly swollen glands of the neck, and a bad general state of

health. The splint was applied over the head, neck, and back and at the same time the patient was forbidden to speak. In three days the temperature was normal and the swollen glands disappeared. To-day sulphonamides or penicillin may be employed. At any rate fixation of the head and neck by means of a splint is an excellent treatment of inflammations in the neck region as well as injuries of the hypopharynx and upper parts of the oesophagus.—I am, etc.,

Wrocław, Poland.

STANISŁAW TUSZEWSKI.

Manifestations of Malnutrition

SIR,—Reference Lieut.-Col. John Huston's letter (Sept. 20, p. 470), I feel he has not grasped the significance of the remarks of Dr. R. G. S. Whitfield and myself as regards epileptiform seizures. These epileptiform seizures were in relatively fit men, both in my case and in three-quarters of Dr. Whitfield's. The varying symptoms, signs, and seizures of the dying emaciated P.O.W. are tragically only too well remembered by most of us. I personally was not referring to these.—I am, etc.,

York.

LENOX MACFARLANE.

Treatment of Varicose Veins

SIR,—I was interested to read Prof. A. M. Boyd and Mr. D. J. Robertson's paper on varicose veins (Sept. 20, p. 452). Ligature of the great saphenous vein and all its tributaries is well recognized, but sometimes supplementary ligature of the small saphenous vein should be undertaken at the same time. I remember one case recently when varicosities had developed from both these veins, with apparently no pathological communication. Both showed impulses on coughing, and ligature of the great saphenous alone would not have sufficed to cure the condition. There is no doubt that multiple ligatures as suggested by Prof. Boyd should be more frequently performed than is at present the rule.

The danger of deep thrombosis following injection of sclerosing fluids at the time of operation has always struck me as being very real, and I abandoned this practice some years ago. The extensive thrombosis produced by this method I found truly terrifying, and I am grateful to Prof. Boyd for showing that my fear was more than theoretical. I find that, after satisfactory ligature or ligatures as the case may require, injections may be unnecessary altogether, or at the most one or two may be done when the patient is again ambulant; injection is then much safer. I often think that the minor complaints of humanity are overlooked by research workers, but I think their satisfactory treatment is as important as more spectacular diseases.—I am, etc.,

Newcastle-upon-Tyne.

F. DENIS HINDMARSH.

Causalgia of the Face

SIR,—Mr. C. H. Cullen (Sept. 13, p. 433) draws attention to what he suggests may be a possible fallacy in the reasoning which led me to conclude that in at least some cases of causalgia pain there is a pain pathway by way of the sympathetic chain. He says the stimulus I applied (pressure on, and squeezing of, the superior cervical ganglion) may not have produced sufficient efferent sympathetic impulses to give rise to pain. Mr. Cullen must therefore consider that sympathetic impulses concerned in the maintenance of normal sympathetic tone are greater in number than those produced by such stimulation, as in his view causalgic pain is produced by these normal sympathetic impulses acting on afferent nerve fibres at the site of nerve injury. It seems to me, however, that stimulation such as I carried out would produce a much greater number of nerve impulses than those normally present. Certainly pinching motor fibres produced a greater flow of nerve impulses than are concerned in the maintenance of normal muscle tone. This is so whether the nerve trunk central to the point of stimulation has been blocked with procaine or not.

Mr. Cullen concludes his letter by describing two cases in which he stimulated with a faradic current the peripheral end of a sectioned sympathetic chain without reproducing the causalgic pain that had been present. This is valuable confirmation of my own finding, the only difference between Mr. Cullen's experiment and my own being the nature of the stimulus employed. It is difficult to accept the view that stimu-

lation with a faradic current was not sufficient to produce at least as great a discharge of nerve impulse as is required to maintain normal sympathetic tone. Surely a more reasonable conclusion from these observations is the one I drew—that sectioning the sympathetic chain had divided the pain pathway. If there should be any doubt whether such stimulation is adequate it should prove possible by means of electrical recording of action potentials to compare the number of nerve impulses maintaining normal tone with the number produced by such a stimulus.—I am, etc.,

Belfast.

J. A. W. BINGHAM.

Spontaneous Haemopneumothorax

SIR,—The two cases of spontaneous haemopneumothorax reported by Dr. J. K. McMyn (Sept. 13, p. 419) are good illustrations of the usual three phases (pain, improvement, signs of internal haemorrhage) in the sequence of events first described by Koral, E. (*Amer. Rev. Tuberc.*, 1936, **33**, 185), when intrapleural bleeding complicates spontaneous pneumothorax. I think, however, that it is not sufficiently realized that the interval between the onset of pneumothorax and the occurrence of clear evidence of serious haemorrhage may be as short as a few hours.

The chief danger facing the patient who has sustained a spontaneous pneumothorax is generally stated to be a further escape of air and a valve-like action of a kinked bronchus causing a pneumothorax *suffocans*. Internal haemorrhage is a rare but equally dangerous and sometimes hardly less dramatic emergency which should be watched for in every patient who suffers a pleuro-pulmonary perforation.—I am, etc.,

Enfield, Middlesex.

C. ALLAN BIRCH.

Hypoglycaemia following Partial Gastrectomy

SIR,—Dr. R. D. Lawrence's letter (Sept. 20, p. 470) calls attention to the fact that in the paper by Prof. Dunlop and myself on hypoglycaemia following partial gastrectomy (Aug. 30, p. 330) no reference is made to his previous article in the *Journal* (1936, **1**, 526). In it he describes several of the features of the post-operative blood sugar curves which we have since confirmed. His paper was entirely concerned with the hyperglycaemic phase in such curves, whereas we were particularly interested in the subsequent reactionary hypoglycaemia. Thus, in looking up the literature on hypoglycaemia we failed to note his paper on "Glycosuria of the 'Lag Storage' Type—an Explanation" (oxyhyperglycaemia), which was actually, however, very germane to our subject. We therefore owe him an apology for our oversight.—I am, etc.,

Edinburgh.

J. A. L. GILBERT.

The Lazy Eye

SIR,—One sympathizes with Dr. William Moodie's concern (Aug. 23, p. 310) that the treatment of an amblyopic eye by occlusion of its fellow may result in educational backwardness and even initiate a neurosis. It is true that this treatment must inevitably subject the child to a certain amount of nerve strain and restrict its normal activities, but a grave disservice would be done to children with amblyopia if adverse criticisms of a valuable method of treatment were allowed to pass without further comment.

Dr. Moodie's suggestion that the rational treatment for amblyopia should be "optical" as it is an optical condition cannot be accepted. The essential lesion of true amblyopia lies in the psychological phase of the visual arc, a view that is confirmed by the mode of development by histological studies of amblyopic eyes, and by its response to treatment. There is ample clinical evidence that vision in these eyes will frequently improve, even late in life, under the psychological stimulus of the loss of the fellow functioning eye or following treatment by suggestion.

The statement that treatment by occlusion results in educational backwardness and may initiate neurosis requires qualification. As a group, children with squint show a high incidence of left-handedness and emotional instability, but occlusion cannot be blamed for a state of affairs which exists before the treatment is commenced. Children usually enjoy orthoptic training, and the exceptional case which does not tolerate the psychological strain of occlusion must have the treatment