dealing with an environmental process in which three factors, retained fermentable carbohydrates, acidogenic bacteria, and the enamel surface play the leading roles."

It is true that certain writers, notably Prof. Gottlieb, believe that proteolysis is of major importance in the initiation of dental caries, but it is my experience that these men find few sympathizers among the research workers in the U.S.A.

Dr. Pincus's interesting and valuable contribution in your same issue throws further light on the role of proteolysis in the progressive increase of a cavity when once formed. As one interested in the prevention of dental disease, the question as to whether the primary breach in the enamel of the tooth is due to proteolytic or acid-forming organisms is of far more than academic interest.—I am, etc.,

London, S.E.1.

GILBERT J. PARFITT.

Aluminium Pneumoconiosis

SIR,—In the annotation (March 13, p. 506) you have a comment on aluminium pneumoconiosis. This write-up is very interesting. I would like, however, to correct a rather doubtful statement made therein. The article states, "The Canadian investigators think that the disease may be a form of silicosis caused by vaporized silica." Just what your authority for this statement is, is difficult to see. We have always been conscious that, in the presence of so much silica, silica as a possible cause or contributing cause of the condition found in the abrasive workers could not be overlooked. We do not, however, feel that this is modified silicosis. We incline to the opinion that the disease is produced by the extremely heavy exposure to alumina. It is realized that as yet we have not complete evidence that this opinion is correct. Some experimental work is being done which may resolve the problem.

It would be interesting if you canvass the situation in regard to an aluminium plant in Sweden. Dr. Sven Forssman, Professor of Industrial Hygiene, State Institute of Public Health, Tomtebodavägen (near Stockholm), Sweden, showed me two lantern slides from films prepared on men who had been employed in the plant concerned. The lung changes exhibited by these slides were very similar to those found in our abrasive workers.—I am, etc.,

Division of Industrial Health,
Department of Health,
Toronto, Ontario.

A. R. RIDDELL.

Medicine and the Arts

SIR,—Prof. Geoffrey Jefferson is too sweeping. In the course of a reply (April 10, p. 705) to a scientific correspondent he makes a brief excursion into the arts, and in half-a-dozen lines disposes of Elizabethan prose and the writers of long poems. He writes, "The art of tight and lucid compression of thinking was unknown in Bacon's day." Surely Bacon, on the contrary, was the earliest English exponent of the aphorism, the essence of which is conciseness. In his *Advancement of Learning* he distinguishes two methods of writing, by formal discourse or by aphorism. One method or the other was to be adopted—they could hardly be combined—and therefore he practised both. The difficulty of reconciling comprehensiveness with brevity is an old one.

From prose to poetry, and the professor's faith in Baudelaire's dictum, "Long poems were written by those who had not the talent to compose short ones." This can hardly be dismissed with a smile as an exaggeration, because it is not the exaggeration of a truth. Rather is it a Gallic *bon mot*, not to be taken too literally; perhaps Baudelaire was a better poet than critic. Be that as it may, the English Muse refutes him wherever the pages are turned, even in Lancashire. One example will serve to counter Baudelaire's thrust and display our poets' mastery of both forms, the long and the short—that superb short poem "The Poppy" with its opening stanza,

"Summer set lip to Earth's bosom bare,
And left the flush'd print in a poppy there;
Like a yawn of fire from the grass it came,
And the fanning wind puff'd it to flapping flame."

The poet was Francis Thompson, one-time student of the Manchester Medical School (1877–83), who was capable, too, of sustained inspiration in his long poem, "The Hound of Heaven."—I am, etc.,

Ashton-under-Lyne.

F. G. RALPHS.

Bone Conduction in Otosclerosis

SIR,—It is interesting to note the contradictory opinions expressed by the commentators on my letter printed in the *Journal* of March 20 (p. 569). Mr. R. Scott Stevenson (March 27, p. 618), quoting the work of Tumarkin, refers to "the myth of increased bone conduction" in otosclerosis. Mr. R. R. Woods (April 17, p. 754), while referring to the genuine improvement of bone conduction which occurs in the operated ear (after the fenestration operation), goes on to say that he has never seen the hearing of the unoperated ear altered in any way, either for air or bone conduction; indeed, he says it is inconceivable that an operation on one ear could affect the working of the opposite one. Mr. E. R. Garnett Passe (April 17, p. 754) writes, "It has been known for some time now that improvement to hearing by both air and bone conduction occurs in the unoperated ear in a certain number of cases, but this improvement is never permanent."

The case I referred to illustrated the fact that increase in air and bone conduction can occur in the unoperated ear, and I made no claim whatsoever to a permanent result for this case. In February, 1947, Mr. Passe published in the *Lancet* the results of one hundred fenestration operations done by the Lempert technique since August, 1945. With an equal operative experience to this number over the last two years, and with an operative technique which the results substantiate, I hope I can give equally well what he and Mr. Scott Stevenson call a "careful, sober, and dispassionate estimation of end-results."—I am, etc.,

London, W.1.

W. H. B. MAGAURAN.

Transfusion Reactions

SIR,—Dr. John Wallace and Mr. R. D. Richards in their article (April 3, p. 640) on transfusion reactions describe cases in which venous spasm interfered with infusion of red cells. I have seen a reaction to infusion closely resembling the case described in detail in the article, where venous spasm also seemed to be the cause. Other evidence, however, suggests a different explanation. The recipient was a healthy nurse belonging to Group A. She was given 500 ml. of Group O blood in order to estimate survival of the donor's red cells in a normal person. Venipuncture was performed apparently satisfactorily, and the infusion ran quite freely. Some thirty minutes after the transfusion began the recipient complained of a little aching in the arm, and when nearly 400 ml. had run in the pain became more severe. It was now noticed that there was acute tenderness and swelling localized to the biceps. The infusion, however, was still running quite freely, but was stopped in view of the discomfort.

In estimating the survival of the Group O blood, using the method described by Ashby in 1919, as modified by Dacie and Mollison in 1943, it was found that no increase in the number of inagglutinable cells (Group O cells) had occurred after the transfusion was stopped. From this it was inferred that none of the infused cells had reached the general circulation. Swelling of the biceps was followed by discoloration of the skin of the lower arm and upper forearm. Full recovery of function in the arm and subsidence of the swelling took place in about ten days.

From these observations it seems likely that the blood was infused into the intramuscular spaces in the biceps due to the intravenous needle passing through the vein into the muscle, and that venous spasm was not the true explanation of the reaction.—I am, etc.,

Manchester.

W. K. STEVENSON MOORE.

A Case of White Asphyxia

SIR,—It is still no exaggeration to say that many theatres in the country are not equipped for this emergency and, what is more, there is much scepticism regarding the efficacy of cardiac massage. Various claims have been made as to the period of cardiac arrest from which recovery has taken place, but the average time limit is five minutes. The central nervous system can tolerate total arrest for three minutes ten seconds, and, even then there is some permanent alteration in psychic behaviour.

On Dec. 18, 1944, a man aged 68 underwent partial cystectomy under light spinal "nupercaine" and light general anaesthesia. While the abdominal wound was being closed the anaesthetist reported that the patient had stopped breathing. On examination his was a typical case of white asphyxia. By the time cardiac massage was started through an upper abdominal incision three to four minutes must have elapsed. He was given nikethamide, and artificial respiration was commenced at the same time. Cardiac massage had been carried out for about two minutes when the heart started beating again. Some adrenaline was injected into the heart muscle. The patient was returned to the ward, and by slow drip one pint (568 ml.) of blood was given, along with an intramuscular injection of suprarenal cortex extract. The patient was still in deep coma at 9 p.m. The night nurse reported: "Patient seems to be semi-conscious, but is very dazed." In the morning to my great surprise he was semi-conscious and irrational. He was restless for a few days, and from Jan. 1, 1945, his condition improved. On Jan. 3 he was fully conscious, but on the 4th he again became restless, and was not able to pass urine. Two stitches were removed from the suprapubic wound and a large blood clot taken away. Next day, as he did not improve, the suprapubic wound was reopened under local analgesia and intravenous "pentothal," a blood clot removed, the bladder washed out, and a suprapubic drain put in. Progress was satisfactory until Jan. 12, when the upper abdominal wound burst open, with protrusion of omentum. Under local and regional analgesia the abdominal wall was resutured. Progress was uneventful, and he was discharged fit, passing urine normally. He was sent to see Dr. F. M. R. Walshe and Dr. Parkinson. Both reported no organic changes as a result of the asphyxia. When last seen he was fit and active.

The unusual features of this case are that the patient was able to stand two further surgical manipulations under pentothal and local analgesia so soon after his recovery. Though I have seen further examples of cardiac arrest which have not turned out so favourably I have become a firm believer in this life-saving measure. My own view is that for the measure to be more uniformly successful one must start the massage as promptly as feasible and in perfect confidence.

I wish to thank Mr. Harold Dodd for permission to publish this case.—I am, etc.,

Swansea General and Eye Hospital.

SUNDRAM PILLAI.

POINTS FROM LETTERS

Prickly Heat

Colonel T. C. RUSSELL ARCHER, late R.A.M.C., writes: Correspondence on the treatment of prickly heat has prompted me to forward the undermentioned formula for my colleagues in tropical practice: Salicylic acid, 3 parts; perchloride of mercury, 0.1 part; industrial methylated spirit to 100 parts. This formula was used by me with considerable success when serving with the West African Expeditionary Force in the Far East, but on reflection I feel it would be much improved by the addition of 70% alcohol in place of methylated spirits.

The Design of Bed-pans

"Professional Victim" writes: Having recently undergone a major operation I was much interested in Mr. Malcolm Donaldson's letter (March 27, p. 618) on the above subject. A doctor who had been wounded wrote to the *British Medical Journal* about it during the war. He pointed out that the bed-pan hinders defaecation by pressing the buttocks together. The lavatory seat, on the other hand, helps it by separating them and putting the anus on the stretch. . . . A bed-pan of a shape approximating to the lavatory seat might be clumsy for the nurses, but I believe it would reduce the discomfort of our patients enough to be worth the extra trouble involved.

Herpes Zoster and Chicken-pox

Dr. ERNEST SOYSA (Colombo, Ceylon) writes: The following cases may be of interest in reference to Dr. C. C. H. Chavasse's observations (Feb. 14, p. 318) on the association of herpes zoster and chicken-pox. On Jan. 19, 1948, a mother aged 40 took her daughter aged 13 to a doctor in whose household there had been several cases of chicken-pox during the preceding three months. On Jan. 28 the mother complained of pain in the right eye and supra-orbital region. The next day a few small vesicles appeared above the right eyebrow. By Feb. 1 a severe herpetic rash had spread over the right supra-orbital region, with acute frontal neuralgia, swelling, itching, lacrimation, and vomiting. The condition began to improve after a week. The pain subsided gradually, and the herpes cleared up leaving severe scarring of the right side of the forehead. On Feb. 14

the patient's daughter developed an attack of chicken-pox which was mild and subsided within ten days, leaving little scarring. On March 1 a maidservant who had looked after the last two patients also fell ill with chicken-pox and made an uneventful recovery.

Clothing Coupons for Colostomy

Mr. J. C. GOLIGHER (London, W.1) writes: It is not perhaps generally appreciated in the medical profession that additional clothing coupons may be claimed by patients with colostomies or ileostomies in order to cover the purchase of a suitable belt and the extra underwear, bed linen, etc., made necessary by their condition. . . . Patients should write to the Board of Trade (Invalid and Medical Section), 91, Victoria Street, S.W.1, and ask for Form P.C.128, on which the application should be made. A supporting medical certificate from the doctor or surgeon is also necessary. In completing the form it is important to state that the application is made in respect of both an appliance and extra clothing, otherwise only three coupons, just sufficient to buy a belt, will be sent. If the need for additional clothing is also mentioned, the allowance granted is 30 coupons. This is, of course, a yearly allocation and a fresh application should be made annually.

Sweet Urine Containers

Dr. P. E. FITZPATRICK (Belfast) writes: Dr. W. E. McCulloch's point (March 27, p. 620) interested me greatly, for it shows how a doctor can be completely taken in. About a year ago I had a patient who had been complaining of various nervous symptoms—paraesthesia, polyuria, etc.—and on clinical examination I could find no signs of any organic disease. As is my custom I asked for a specimen of morning urine, and I was extremely surprised to find it was full of glucose. Accordingly I referred my patient to a specialist for a blood-sugar estimation, etc., and imagine my surprise when I was informed that the blood sugar was normal and the urine was free from sugar. I did a further test and this time the urine was sugar-free. Accordingly I made a successful search for the bottle which contained the original sample (three days later), and examined it again. It showed glucose ++++. Fortunately the label of the chemist was on the bottle with the code marking. I inquired of the chemist what had been in the bottle and he was able to inform me "glycerine and honey." Fortunately I had not informed my patient about the glycosuria, and she is now completely well, with no symptoms. The moral, I think, is obvious.

Asthma and the Inhaler

Dr. DENIS DOOLEY (London, W.C.2) writes: May I endorse the remarks of Dr. A. W. Paterson (March 20, p. 573)? For a long time I have prescribed a bronchovydryn type of inhalant for patients with asthma and am highly satisfied with the results. I suggest that the damage to the cilia as mentioned by Dr. Clement Francis (Jan. 10, p. 76) is caused by the acid in some of these inhalants. The preparation I prescribe is practically neutral, and the results in some cases are quite remarkable. . . .

p-Aminobenzoic Acid for Prurigo

Dr. DAVID S. CLARK (Yeovil, Som.) writes: I feel that the following case might be of some interest. I have a patient, a male aged 40, who has suffered every summer for the last eight or ten years from a form of prurigo aestivalis that has manifested itself as an itchy maculo-papular rash on any part of his body that has been exposed to the summer sun. The size and persistence of the spots vary with the intensity and length of the exposure, but half an hour's insolation has always been enough to produce the rash. By protecting the affected part from further sunlight and the use of local soothing remedies the rash has usually cleared in two or three weeks. On my advice he has been in the habit of avoiding sunlight as completely as possible, but at Easter this year his hands were exposed to the sun for over an hour. This provoked the usual rash. On this occasion I gave him no local treatment, but as a trial prescribed 200 mg. of p-aminobenzoic acid daily. For the first time in his memory the rash cleared within 48 hours. He has been taking this preparation regularly since and is now able to spend considerable periods in direct sunlight without suffering any ill effects.

Ante-partum Haemorrhage

Dr. TIM BOLAND (Sheffield) writes: In your report (April 17, p. 748) of the Edinburgh Obstetrical Society's meeting, Dr. R. de Soldenhoff advocated "the vaginal pack for certain emergency cases of ante-partum haemorrhage." Surely all obstetricians of repute are by now agreed that the vaginal pack has no place in the treatment of cases of ante-partum haemorrhage, whether emergencies or not. Any attempt to revive this shock-causing and septic procedure must be condemned.