the child's nostrils (the amyl floating on the mucilage) on the least sign of a fit. The child had only one convulsion in the course of the first twenty-four hours of this treatment, and during the three remaining days of the child's life I had no difficulty in keeping those symptoms under control, though I found it necessary to increase, by about one-third, the dose every twenty-four hours.

Case 2 (tubercular meningitis in a boy of six) had been ill for rather more than a fortnight, and for two or three days had been in almost constant convulsion. To alleviate this state, three grains each of the bromide and iodide of potassium had been regularly administered every three hours for forty-eight hours, but without much apparent effect. The nitrite of amyl was ordered to be administered in the same way as in Case 1, and its use was followed by very marked improvement; the twitchings almost entirely ceased, and the child had some hours of sleep. The drug was discontinued on the fourth day, as the larger doses necessary to subdue the fits caused much panting, and the parents, knowing the disease to be almost certainly fatal under any treatment, relaxed their efforts.

Cases 3 and 4 were similar. Both were in very young children, respectively five and nine months old. The convulsions in both cases were traceable to dentition, and in both cases the inhalation of the nitrite of amyl quelled successive fits. The older of the two also took occasionally one-fourth of a drop dissolved in spirit, and given on sugar, according to Dr. Ringer's plan. The treatment succeeded.

Case 5 was brought to me as one of rheumatism. The child was one year old. It was a very typical case of spastic rigidity, and the history pointed strongly to dentition as the cause. It occurred to me to give an inhalation of nitrite of amyl. The effect of this was to loosen, as if by magic, the rigid flexion of the fingers and toes, though the friends subsequently informed me that the symptoms returned again later in the day. The child not being sufficiently under observation, I gave the bromide of ammonium internally, but without effect, in place of nitrite of amyl.

I have had several other successful cases similar to the first four that I have given, but which, for the sake of brevity, I omit.

It is strange that since Dr. Lauder Brunton's experiment (*Centralblatt für Med. Wissenschaft*, 1873), by which it was shown that the convulsions of a frog tetanised by strychnia may be arrested by plunging it into the vapour of nitrite of amyl, so little trial should have been made of this drug in the treatment of tetanus and allied conditions. This is no doubt to be traced to the prevalent belief that nitrite of amyl is a highly dangerous drug, and that its effects are too transitory to be of any real service. Dr. Ringer has, however, shown that, according to his experience, it may be given with safety for months, and that its effects are sufficiently abiding to have a marked influence for good in some cases of epilepsy and in many of the derangements incidental to the change of life in women. In the convulsions of children this drug seems to me to combine in itself the temporary usefulness of chloroform inhalation and the more lasting effect of such sedatives as the bromides. Its administration as an inhalant may further be left in the hands of people of ordinary intelligence, and its smell is agreeable. Of course, so far it can only be regarded as an adjunct in the cure of convulsions to the rational treatment of the morbid state of which the convulsions are mere symptoms—symptoms which, however, are occasionally the direct cause of death by producing asphyxia, and which, more than any other, wring the maternal heart.—Your obedient servant,

A. E. BRIDGER, M.D. Edin., B.Sc. Paris.

Walterton Road, W.

"PAYING MEDICAL BILLS OUT OF AN ESTATE."

To the Editor of THE LANCET.

SIR,—It is not my wish to drag this case again before my professional brethren, but a letter appears in your columns, signed "Audi Alteram Partem," which says that Mr. G. H. Jackson swore in court that he offered to pay us the money, and I swore in court that he never did so. I can only look for the solution of this contradiction in what the defendant admitted in the witness-box, that "his memory was very treacherous."

I am, Sir, yours obediently,

Tottenham, April, 1882.

W. H. PLAISTER.

SURGICAL EMPHYSEMA.

To the Editor of THE LANCET.

SIR,—Mr. Morgan, in his report of Surgical Emphysema, seems to think it improbable that the cough would be sufficient to produce such a state of affairs, and seems to lean more to mechanical agents as a cause of the emphysema; such, for instance, as the passage of an instrument or the penetration of a spicula of bone; although in his case he says, "the swelling was previous to all surgical interference."

I would suggest that nothing is more probable than for surgical emphysema to occur when a large bolus of meat is sticking in the throat, and at the upper or posterior region of the larynx, from the violent expiratory efforts which take place in order that the foreign body may be got rid of. In proof of this theory I would point out that I have seen surgical or general emphysema occur where there could be no suspicion of surgical interference, nor any spicula of bone to account for this condition. 1st. From sneezing alone, after taking a three-grain dose of iodide of potassium. This occurred in the case of a powerful muscular Irishman. 2nd. From coughing where sneezing was absent, as in the violent expiratory (?) efforts of whooping-cough. 3rd. From the violent expiratory efforts of parturition, where neither coughing nor sneezing was present. In all of the foregoing cases I have seen the emphysema involve the whole of the head, face, eyelids, and neck, as low as the clavicles in front and the scapula behind.

In my experience examples of general emphysema during parturition are not at all uncommon; and the swollen face, so common in whooping-cough, is in my opinion very largely due to emphysema, although congested vessels no doubt play a part. I am, Sir, very truly yours,

ALBERT S. MORTON, M.R.C.S. Eng.

Kennington-park-road, S.E., April, 1882.

To the Editor of THE LANCET.

SIR,—I would demur to Mr. Wyatt's explanation. Emphysema of the neck occurs in children somewhat as he describes; but then they invariably die. Besides, in attributing the rupture of the lesser air-tubes to expiratory efforts he assumes a direct relationship between these efforts and tension of the walls of the air-cells and bronchi. High authorities are agreed with him in so assuming; but I would respectfully suggest that they, like Mr. Wyatt, confound pressure with tension. Mr. Wyatt says: "It seems to me much more probable that the thinner bronchus would give way before the stouter trachea, the pressure on both sides being the same." The pressure is no doubt the same, but the tension is not; and this confusion of ideas, rather than any physical fact or law, is, I believe, the true basis of the so-called expiratory theory of the production of pulmonary emphysema. That the relationship in question is one of antagonism, the following experiment will show:—Take a cylinder and piston and, through a small opening into the chamber, pass a portion of a flaccid tube, hermetically sealed, containing air. An expiratory movement of the piston will compress the air in this tube and cause increased pressure on its inner wall, equally distributed throughout, according to the law of fluid pressure; but the part of the tube within the cylinder will nevertheless collapse, and that without the cylinder being put on the stretch. An inspiratory movement will reverse all this.

A minute opening in the trachea, only permeable to air or visible during distension, and such as would quite escape notice when looking for an "apparent rent," would account for the emphysema in Mr. Morgan's case, and in Mr. Wyatt's too; for it is to be noted that he makes no mention of having traced the air-blown tissue from the neck to the root of either lung. This was a marked feature in two cases I recently examined post mortem. An infant of eleven months, prostrate with diarrhoea, suddenly developed bronchial râles with feeble cough. Next day the neck was inflated, and continued so till death, two days later. A child of three years, which had always been the type of health, was seized with diphtheria, and died in three days. Thirty-six hours before death tracheotomy was performed and afforded complete relief to the respiration, which however continued

hurried. In twenty-four hours the neck was distended with air, and continued so till death. In both cases the right lung was highly emphysematous. Bubbles of cellular tissue covered the root, filled the mediastina, completely hiding the pericardium, and extended up into the neck. A considerable portion of each affected lung was in a state of collapse. In the infant there was pneumothorax of the same side. In neither case was the cough severe, and the second was remarkable for the development at least of the cervical emphysema after patency of the windpipe had been secured.

I have twice seen this complication precede death from whooping-cough, but only after broncho-pneumonia and general deterioration of tissue had afforded the conditions for the vicarious production of pulmonary emphysema by inspiratory effort, as explained by Gairdner.

I agree with Mr. Morgan in regarding the rupture as tracheal, but cannot see that the rarity of the accident affects the probability of the explanation. About seven years ago there was narrated in THE LANCET an exaggerated instance of its occurrence during labour, and followed by recovery. I cannot give the reference, but the case seems worth collating with those of your correspondents.

I am, Sir, yours truly,

WM. MCLAURIN, M.B., C.M. Glas.

London, April 16th, 1882.

"BLOOD-POISONING AT BRIGHTON."

To the Editor of THE LANCET.

SIR,—The Medical Officer of Health for Hove has in his letter suggested that the case of blood-poisoning may have been suppressed small-pox. Considering he had not seen the case, this is a rather bold assertion. I may say there was no doubt that death was produced by blood-poisoning caused by the state of the drains opposite the house. In reply to a question from the coroner, one witness said the deceased told her she was sickened by the smell from the drain. The deceased also told me the smell from the drain made her ill.

If your representative will avail himself of the invitation of the engineer, and walk along some of the streets in West Brighton, especially when the wind is southerly, he will then find the smell from the street ventilators most disgusting. If such smells are not prejudicial to health I fear the teaching of our sanitarians is grievously at fault. That the drains must be ventilated everyone will admit, but why not adopt some plan by which the foul gas may escape at the chimney tops?

I remain, Sir, your obedient servant,

West Brighton, April 18th, 1882. JOHN F. BOYES, M.B.

To the Editor of THE LANCET.

SIR,—In spite of the remarks in your last week's impression touching "rejoinders," I cannot refrain from commenting on a statement in Dr. Kebbell's letter. "Other cases [typhoid fever] arose from defects in the house drains, over which the authorities have no satisfactory control." By this avowal he discloses the feeble sanitary administration of the local authorities. Why have they no control over private drains and private connexions with main sewers? Because they have been so lethargic in these matters, and have not taken the trouble to frame a proper code of sanitary by-laws—such by-laws, for instance, as are advised by the Local Government Board; a copy of these can always be obtained by application to the department. If it be necessary to compel the pig-jobber to carry his "wash" in a covered receptacle through the streets before a certain hour; and the odd man or the maid-of-all-work to squirt the window at a certain time of the day, surely it is even more necessary that stringent by-laws should be enacted to compel the ventilation of private drains, often more foul than the public sewer, and to insist upon the disconnexion of all pipes which empty themselves immediately into the sewer. Mr. E. Clarke, in his letter, spoke of a defective sewer belonging to a private individual. He also said: "The present system of ventilation by gratings is, in my judgment, the best known practical means of effecting this object." Is there not a portion of a long street in Brighton where the open gratings (save one as an inlet) so loudly complained of

have been closed, and a large shaft connected with the main drain and surmounted by a cowl has been erected; and has not this system, so well known but hitherto so little adopted, overcome the difficulties, removing all unpleasant emanations from the level of the road?

I am, Sir, yours faithfully,

Brighton, April 16th, 1882.

SANITAS.

MILITIA SURGEONS: A HARD CASE.

To the Editor of THE LANCET.

SIR,—As I am confident that your journal is always willing to open its columns to any case of real grievance, where it can be shown that injustice and hardship are inflicted on members of the public services, civil, military, or naval, I will ask you to publish this letter, and so bring before the public the case of the militia surgeons of the United Kingdom, who, I am sure, after reading the following facts, you will admit are being treated with unheard-of, and hitherto unknown, injustice, from no fault or incapacity on their own part, but in consequence of the so-called exigencies and for the presumed benefits of the service. When we were appointed by the Lord Lieutenants of their respective counties (who formerly had the right of appointment of officers in the militia), such appointment was virtually to endure for life, or until we were incapacitated by age or infirmity, and then we were, after a certain number of years' service, to be entitled to a pension of 6s. per day. This state of things existed till 1875, when by the Act 38 & 39 Vic., cap. 69, it was enacted, that "all officers in the militia should be appointed by, and hold commissions from, Her Majesty." A Royal Warrant, dated July 19th, 1876, fixed the rank and rate of pay of surgeons in the militia, and stated further, that "nothing contained in that warrant should be held as giving to any medical officer of the militia a claim to any pension or retiring allowance granted to medical officers of Her Majesty's forces." There was nothing, however, said, or even implied, that militia surgeons were to forfeit any claims or rights they previously had under former Acts of Parliament; on the contrary, several militia surgeons having written to the War Office, asking whether, if they accepted service under the warrant, they forfeited their previous rights, received replies stating that by so doing they did not forfeit any claims or rights they previously had.

In January, 1881, a War Office circular was issued which contains the following clause:—"68a. No medical officer will be allowed to remain on the militia departmental list after he shall have attained the age of sixty-five years." In pursuance of such circular, the War Office have been calling upon and compelling militia medical officers to retire, when they reached the age of sixty-five years, and they refuse to grant them any pension or allowance whatsoever.

Two applications have been made by the Parliamentary Committee of the British Medical Association to the present Secretary of State for War, on behalf of the militia surgeons, for an interview to lay their just claims for compensation before him. No attention has been paid to these applications, and we are therefore compelled to bring our case before the public and the House of Commons by petition. I may confidently say we are the only known instance of any public servants, civil, military, or naval, being forced to retire, and without any compensation; and many of us are thus deprived of the sole means of support, and simply because we have reached the age of sixty-five years, at which time of life it is impossible for us to obtain any other appointments, or to begin practice in civil life. This rule, no doubt, may be right and applicable to the army and naval surgeons, who, when retired, have a very liberal pension to live upon; but certainly is not applicable to militia surgeons, who, at the very utmost, under the Acts of Parliament at the time they joined the service could never expect to receive more than 6s. a day; but even of this it is now sought to arbitrarily deprive us. In every case where offices have been abolished or taken over by the Crown, the officials connected therewith have been always compensated or pensioned when services were no longer required.

I remain, Sir, your obedient servant,

A SURGEON MAJOR IN THE MILITIA OF
TWENTY-EIGHT YEARS' SERVICE.

April, 1882.