

spin got to approximate to that which is absolutely correct in order to keep it steady and point foremost during its flight as well in the air as in other media such as the body. This explains the much greater frequency with which the pointed bullet is found to have turned over and thus produced lacerated wounds, than was the case with the old round-nosed bullet.

I am, Sir, yours faithfully,

FRANCIS H. KELLY, M.B., B.S.,
June 1st, 1915. Resident Medical Officer, King George Hospital.

THE TREATMENT OF GAS POISONING.

To the Editor of THE LANCET.

SIR,—When the effects of asphyxiating gas on our soldiers were first reported I suggested to an eminent surgeon at the front the use of oxygen by subcutaneous injection for those with much obstruction in the respiratory passages. He was so good as to send a reply as follows: "We have tried oxygen subcutaneously in several cases as you propose. It has seemed to be useful and we shall continue to try it, for it is right to try everything one possibly can."

As we may, from bomb-dropping, have to deal with similar conditions in this country, I hope the method may be borne in mind. It has been used for some years in France and Canada¹ in many forms of dyspnoea, including those in which inhalation is impeded mechanically. The technique is simple, all that is needed being a cylinder of oxygen, a piece of rubber tubing, and a hypodermic or small aspirating needle. If the tube is not clean a little wool or gauze might be put as a filter into the end near the needle. The disconnected needle is inserted anywhere into loose subcutaneous tissue—e.g., in the flank. If it have entered a vein, as shown by blood issuing, it should be taken out and inserted elsewhere. Oxygen is turned on at low pressure and the cylinder joined up to the needle. When a swelling such as would be produced by 300 c.c. (10 fl. oz.) of normal saline has slowly appeared the proceeding is repeated in another place, the first swelling being gently massaged to aid diffusion. 1.5 litre (say 54 oz.) has been injected altogether and repeated twice in the same day. It is, however, not necessary to measure the amount. No ill-effects have been recorded, nor even inconvenience, whilst in many cases immediate and considerable relief is stated to have occurred.

I am, Sir, yours faithfully,

J. D. MORTIMER, M.B., F.R.C.S.,
Anaesthetist, Royal Waterloo Hospital, &c.
St. John's Wood, N.W., June 3rd, 1915.

MILITARY HONOURS.

To the Editor of THE LANCET.

SIR,—Ignorant alike of the legal position of those important gentlemen called coroners, in respect to soldiers who die in England from wounds received in France, and of military etiquette with regard to the funerals of such victims, I shall be grateful for information upon the various points which I raise.

A soldier, wounded near Ypres, was admitted into the French Hospital, London, where beds have been placed at the disposal of the War Office. Shortly after admission he developed tetanus, from which, in spite of all that we could do, he died. The registrar refused to certify the death without the coroner's approval, and this was, I understand,

only obtained after much time, criticism, and correspondence; but before reaching, with apparent reluctance, the happy conclusion that no inquest was necessary, he telegraphed to the only relation the unfortunate man possessed, a sister, a young girl aged 16, in service in Bath, asking if she was satisfied with the treatment received by her brother while in the hospital, a form of "compliment" which the staff of the hospital, who did everything in their power for the patient, properly appreciated.

Owing to the attitude of the coroner there was considerable delay in arranging the details of the man's funeral. At last, all being in order, nearly a week after his decease, a hearse, a corporal, and some twelve soldiers, arrived to take him away. No Union Jack was provided, but the hospital authorities were able to remedy this omission. On arriving at Kensal Green, however, no arrangements had been made for the services of a clergyman, and it was not until three-quarters of an hour had elapsed that the unfortunate man's remains were buried—without "military honours" in the true sense. All the wounded soldiers in the hospital were aware of these omissions—if omissions they were—and their comments were various and free.

It would be interesting to know whether other coroners practise similar proceedings and pay such delicate compliments to other hospitals, and whether these are the usual arrangements approved of by the War Office. Surely it would be possible for the War Office, the coroner, and the hospital authorities to work in conjunction with one another, so that such a state of things could not occur again.

I am, Sir, yours faithfully,

W. H. CLAYTON-GREENE,
June 5th, 1915. Surgeon to the French Hospital.

THE PULSUS ALTERNANS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 29th Dr. C. O. Hawthorne relates a case in which the pulsus alternans has been present on and off for five years without the manifestation of serious cardiac symptoms. The sphygmogram (Fig. 6) illustrating this case I believe answers Sir James Goodhart's question in your present issue, "When is a pulsus alternans not a pulsus alternans, so far as its now accepted gravity of prognosis goes?"

When interpreting tracings such as this it is important to remember that the respiratory muscles attached to the arm move the arm slightly during breathing if it is at all laboured. Unless the arm is kept still by grasping the condyles while the pulse is recorded, and particularly if the wrist apparatus of the sphygmograph is not securely fixed up, the movements of the arm modify the force of impact between the spring and button of the tambour, and thus cause variations in amplitude of the pulse-curves which are often mistakenly ascribed to changes in blood pressure. For example, if there are three pulses to one breath an apparent pulsus alternans may be occasioned, and with higher ratios the grouping of stronger and weaker beats may be such that one or two low beats alternate with two or three high beats. I have a number of tracings illustrating these fallacies, and the seeming alternation in Fig. 6 of Dr. Hawthorne's paper impresses me as being caused in this way. The outline of the curve, as a whole, suggests laboured breathing with a ratio of three pulses to each breath, and the weaker pulse of the groups of three

¹ See THE LANCET, June 22nd, 1912, p. 1726 (Anoxyhæmia of Altitude); Medical Press and Circular, May 1st, 1912, and Dec. 23rd, 1914; also Practitioner, July, 1911, p. 130.