smaller room adjoining can be used for lectures or services. In it too refreshments can be secured during entertainments from a recess in direct contact with the kitchen. This is capable of cooking for 2500 persons by electricity or steam. The food is carried on insulated trolleys to the various blocks and the patients have all their meals in their own dining rooms. The menus are on a monthly system which allows for greater variety and avoids the foreknowledge of what dish is to be expected on a particular day of the week.

Variety has also been considered in the patients' dress; evidence for this is in the large store room behind the kitchen. There is no fixed uniform: the women have a choice of coats, skirts, and jumpers; the men a selection of tweed suits, shirts, and ties; so that a patient is not conspicuous outside the institution. Interest in clothes is regarded as conducive to self-respect. Occupational therapy is carried on in a separate building (G) with three large bright rooms, in addition to the large amount of similar work in the wards. The wool rugs, the cane wastepaper baskets, the trays and stools are testimony to what even chronic patients can be taught to do.

Of the other new buildings on the estate there are separate houses for the medical superintendent, Dr. G. W. Shore (H), and his deputy (J) as well as 24 cottages for the married male staff. The nurses' home (K) is a particularly bright and attractive house on the south side of the colony, self-contained with a separate kitchen of its own. Each nurse has her own room with hot and cold water laid on, the matron and assistant matron having their own small suites. A wide terrace overlooks a run of four tennis courts. The mansion (M) is not at present occupied, but it is hoped to use it later for private paying patients and early cases. A staff village occupies the north-east corner of the site.

This modern hospital for the rate-aided mental patient is a tremendous advance on the mental hospitals of even a few years ago, and will lead to emulation on the part of other county authorities that can contemplate the expense, which has so far been in the neighbourhood of £520,000. It would be desirable to give the general public very free access to this hospital and the opportunity to realise that the patients could not be better looked after in many private homes than they are here.

CORRESPONDENCE

TREATMENT OF MYASTHENIA GRAVIS WITH PHYSOSTIGMINE

To the Editor of THE LANCET

SIR,—The abnormal fatiguability in myasthenia gravis has been thought to be due to curare-like poisoning of the motor nerve-endings or of the "myoneural junctions" in the affected muscles. It occurred to me recently that it would be worth while to try the effect of physostigmine, a partial antagonist to curare, on a case of myasthenia gravis at present in St. Alfege's Hospital, in the hope that it would counteract the effect of the unknown substance which might be exerting a curare-like effect on the myoneural junctions. I found that hypodermic injections of physostigmine salicylate did have a striking though temporary effect.

Mrs. M., aged 56, had had a previous attack of myasthenia gravis, lasting about six months, 14 years ago. Gastric ulcer four years ago. Non-specific infective arthritis seven months ago, now improved.

Towards the end of last February she found that she was unable to hold her shopping bag, and that her head used to fall forwards when she knelt to do the hearth. She had to remain in bed after March 18th, and had difficulty in sitting up. Her jaw then began to droop, she had to hold it up with her hand, and the left eyelid began to droop. Speech became indistinct when she was excited, swallowing was difficult, and fluid sometimes regurgitated through her nose. She was admitted to the hospital on March 28th, and a few days later weakness came on in the middle and ring fingers of both hands. The weakness is much increased by excitement, and is lessened by rest. It becomes worse as the day goes on. There is no wasting, and the tendon reflexes are all present. The masseters respond slightly or not at all to faradism; a myasthenic reaction has been obtained in the left deltoid. Radiograms show obsolete pulmonary tuberculosis. The thymus is not enlarged.

On April 11th treatment with hypodermic injections of physostigmine salicylate, gr. 1/60 once a day, was begun. In from half an hour to an hour after the injection the left eyelid "goes up" (see Figure), arm movements are much stronger, the jaw drops rather less, swallowing is improved, and the patient feels "less heavy." The effect wears off gradually in from 2–4 hours. With injections of gr. 1/50 the improvement is greater, and it lasts for 4–5 hours. Still greater improvement, lasting for 6–7 hours, followed an injection of gr. 1/45, but the patient felt rather faint and trembly, her "inside seemed all on the work," and she felt as if "something were going to happen." These feelings did not completely disappear till an hour after the injection. In all, 26 injections of physostigmine salicylate have been given. The effect is not quite uniform; on two occasions injections of gr. 1/45 and gr. 1/60 failed to produce any obvious effect. She feels better and more cheerful since the injections were begun.

Before injection the patient cannot raise her left eyelid. Thirty minutes after it the eye is fully open. (The photographs are reproduced from a cinematograph film and are reversed left for right.)

Given by the mouth, physostigmine salicylate gr. 1/60 produced no obvious effect, but an hour after gr. 1/30 slight improvement occurred. No improvement followed control injections of water, pilocarpine gr. 1/20, strychnine gr. 1/30, adrenaline ℥5, ephedrine gr. ½, or acetylcholine 0·05 and 0·1 g.

I think that this effect of physostigmine on myasthenia gravis is important, though it is only temporary, for it improves swallowing and might tide a patient over a respiratory crisis. It supports the opinion that the fatiguability is due to a poisoning of the motor end-organs, or "myoneural junctions,"

rather than to an affection of the muscle itself. It may be significant that physostigmine inhibits the action of the esterase which destroys acetylcholine. I have not had the opportunity of treating another case to confirm the findings. The administration of other drugs whose action resembles that of physostigmine is under consideration. It is also possible that physostigmine might be of some service in botulism and in cobra poisoning, in both of which a curare-like poisoning of the "myoneural junctions" of the respiratory muscles has been stated to be the main cause of death.

I wish to thank Dr. Philip Hamill for his interest and advice, and Dr. W. D. Wiggins, medical superintendent of the hospital, for permission to publish the case. I am, Sir, yours faithfully,

M. B. WALKER.

St. Alfege's Hospital, Greenwich, May 12th.

COLLAPSE THERAPY IN PNEUMONIA

To the Editor of THE LANCET

SIR,—The annotation on p. 1127 of your last issue leads me to seek the hospitality of your columns in order to state my views on the position of this method of treating pneumonia. Artificial pneumothorax is not to be regarded as a specific for lobar pneumonia; the induction may have no effect on the progress of the disease or may even make it worse. Used, however, strictly according to the technique described, I am convinced that a crisis can be produced in a few hours and the patient cured in the majority of cases. For this the correct technique is essential and disappointment has, I believe, been caused by failure to adjust the size or spacing of the fills. A four-hourly chart of the respiration-rate will help as a check on the progress of treatment.

The first fill must always be large, 350–550 c.cm., depending on the physique of the patient and the day of disease. The earlier the day, the larger the fill necessary, no attention being paid to the manometric readings. It will be found that in a few hours there will be a marked fall in the respiration curve, and if the fill is adequate the rate should drop to 22–25. The second fill, given 12–24 hours later, will require to be almost as large as the first, although as conditions should by now be more normal the pressure readings of the manometer can here be of some assistance. If the respiration-rate 12 hours after the first fill is under 25 the second fill can be postponed to 24 hours, but not longer. After the second fill the respiration-rate will steady at 20–22, and if this is maintained no further treatment is necessary. A temporary peaking of the curve to 25 can be disregarded, but if the curve again rises above 25 a third fill is advisable, while should it rise above 28 this fill is necessary. It need usually only be a small one, 200–250 c.cm., but it is wise to err on the side of overfilling as the air is absorbed very rapidly.

The technique thus elaborated is based on a definite conception of the pathology of lobar pneumonia and of the mechanism of the natural crisis.

I am, Sir, yours faithfully,

Hull, May 27th. J. J. COGHLAN.

BILATERAL EMPYEMA

To the Editor of THE LANCET

SIR,—The communication of Mr. D'Arcy McCrea in your issue of May 26th (p. 1117) attracted my attention, because I have had myself several cases of bilateral empyema: first as a chief physician of Imperial Sanatoriums in Russia and then during the war, especially in large hospitals in Finland. The first case I had was in 1909, at Irkutsk Hospital in East Siberia, which was demonstrated then by my senior colleague, Dr. N. Bessonoff. The method he applied, and which I followed with outstanding success afterwards and demonstrated to the students and my colleagues, is very simple. First of all it is necessary to replace the aspirated pus by saline solution with addition of a very dilute solution of iodine. This diminishes possibility of collection of pus in the cavity, leaving the pressure practically the same, also diluting and disinfecting the remaining contents. I used as a rule Potain's aspirator with two bottles connected with the same needle; one bottle with negative pressure, the other with positive. By changing taps I could either aspirate or introduce certain liquids. Bottles are graduated, so it was easy to reinstate the original pressure in the cavity. As a rule I introduced just a little less than I aspirated, in order to reduce the pressure somewhat. I never treated both sides simultaneously and always under control of X ray pictures before and after the manipulation. Unfortunately I had no chance to keep exact statistics, but the number of cases was not less than 80 and the mortality was very low.

I am, Sir, yours faithfully,

London, May 28th. B. PEROTT.

PETER DE ALCOBASSE

To the Editor of THE LANCET

SIR,—The quotation from Hutchins, "Hist. of Dorset," cited in the article on Alcobasse, Henry IV.'s physician, appearing in your issue of April 21st, obviously contains a blunder. One wonders what reason Hutchins can have had for making him into an Italian, with a hung, drawn, and quartered name. "Alcobasse" is clearly the Gallicised form of Alcobaça, about 80 miles north of Lisbon. The Cistercian Abbey was founded by Affonso Henriques, the first king of Portugal, and in Henry IV.'s time it was one of the largest and most powerful monasteries in Europe. Nothing would be more natural than that a physician should be selected from the successors to the Arabian culture in the Iberian Peninsula, and, as it is stated that Peter was born in Portugal, there seems no reason to doubt that he was educated, if not born, at Alcobaça. There might even be a connexion between his name and that of King Peter, whose tomb is in the Abbey, and who died in 1367—45 years before Henry IV.'s physician was admitted Dean of Westminster. Certainly this was a period of the closest associations between England and Portugal, cemented by the Treaty of Windsor in 1386, and by the marriage of John of Gaunt's daughter, Phillipa of Lancaster, in the following year to King John of Portugal, who was made a Knight of the Garter by Henry IV. in 1400.

I am, Sir, yours faithfully,

ALAN G. BODMAN.

Lisbon Medical Mission, May 25th.

ORGANISED TREATMENT OF MOTOR ACCIDENTS

To the Editor of THE LANCET

SIR,—In your report (p. 1137) of my paper on this subject at the Royal Institute of Public Health congress there is one slip that might lead to misapprehension. I am quoted as comparing the modern orthopædic hospitals to the military special hospitals "where the services of surgeons skilled in dealing with head and chest injuries would be available."