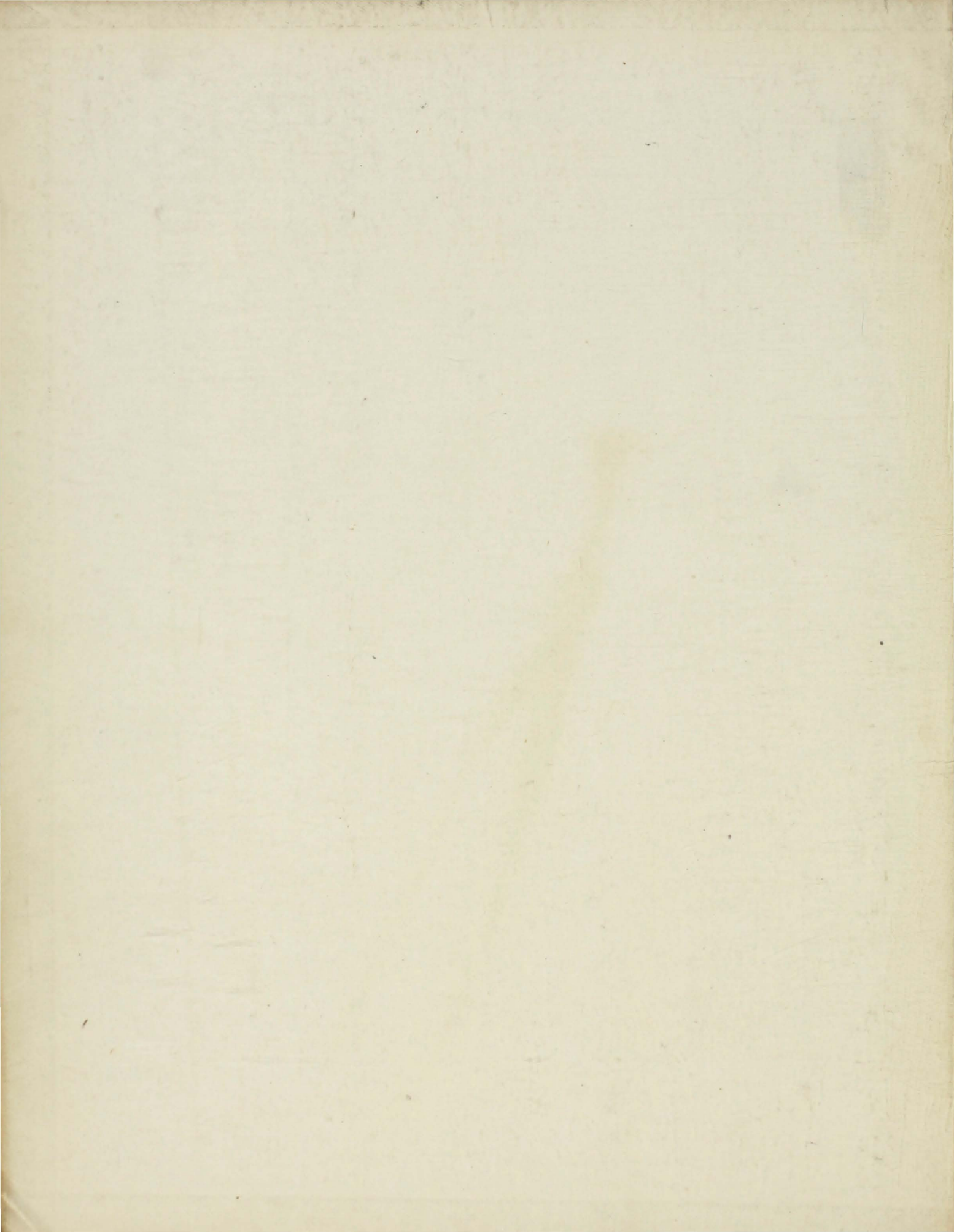


St. Bartholomew's Hospital



Journal.

1916-17



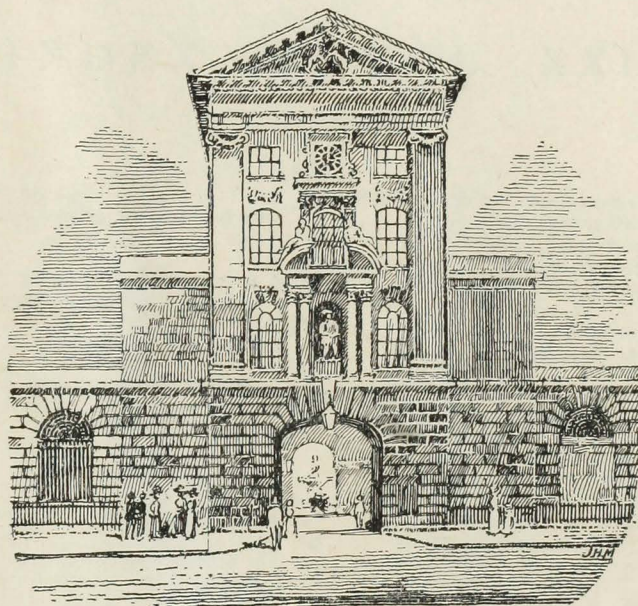
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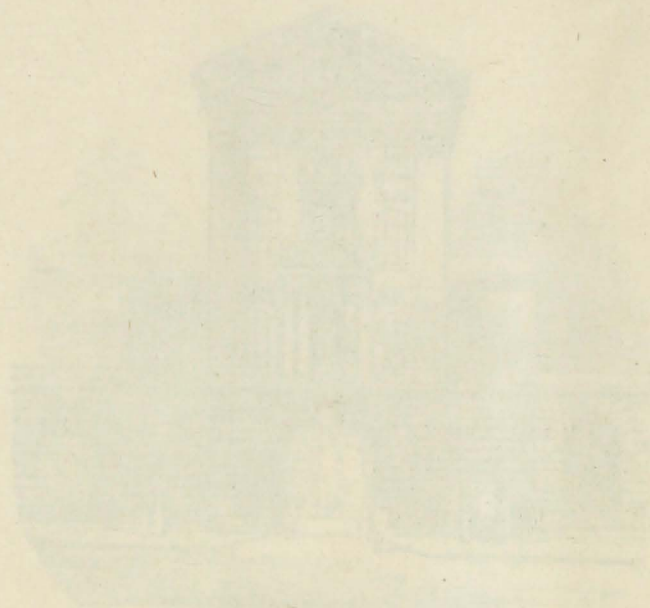
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St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXIV.—No. 1.]

OCTOBER 1ST, 1916.

[PRICE SIXPENCE.]

CALENDAR.

- Mon., Oct. 2.—**Winter Session begins.**
Cambridge Michaelmas Term begins.
Exam. for Part II of Second M.B.(Camb.) begins.
Exam. for D.P.H.(Camb.) begins.
First Exam. Society of Apothecaries begins.
- Tues., " 3.—Dr. Calvert on duty.
Final Exam. Conjoint Board (Medicine) begins.
- Wed., " 4.—Second Exam. Society of Apothecaries begins.
- Thurs., " 5.—Final Exam. Conjoint Board (Midwifery) begins.
- Fri., " 6.—Dr. Morley Fletcher and Mr. Wilson on duty.
Final Exam. Conjoint Board (Surgery) begins.
Clinical Lecture (Medicine). Dr. Drysdale.
- Tues., " 10.—Dr. Drysdale on duty.
Oxford Michaelmas Term begins.
- Wed., " 11.—Exam. for D.P.H.(Camb.), Part II, begins.
Clinical Lecture (Surgery). Mr. Waring.
- Fri., " 13.—Dr. Hartley and Mr. Waring on duty.
Clinical Lecture (Medicine). Dr. Drysdale.
- Tues., " 17.—Dr. Horder on duty.
- Wed., " 18.—Clinical Lecture (Surgery). Mr. Waring.
- Fri., " 20.—Dr. Calvert and Mr. McAdam Eccles on duty.
Clinical Lecture (Medicine). Dr. Hartley.
- Mon., " 23.—Exam. for M.B., B.S.(Lond.) begins.
- Tues., " 24.—Dr. Morley Fletcher on duty.
- Wed., " 25.—Clinical Lecture (Surgery). Mr. Waring.
- Fri., " 27.—Dr. Drysdale and Mr. Bailey on duty.
Clinical Lecture (Medicine). Dr. Horder.
- Tues., " 31.—Dr. Hartley on duty.
- Wed., Nov. 1.—Primary F.R.C.S. Examination begins.
Clinical Lecture (Surgery). Mr. McAdam Eccles.
- Fri., " 3.—Dr. Horder and Mr. Wilson on duty.
Clinical Lecture (Medicine). Dr. Morley Fletcher.
- Tues., " 7.—Dr. Calvert on duty.

EDITORIAL NOTES.

MR. R. GILL, who recently resigned the post of Chief Chloroformist at this Hospital, has been elected a Governor. We tender our heartiest congratulations to him as the recipient of this mark of the esteem in which he was always held.

We congratulate Dr. Arthur J. Hall, Professor of Medicine at the University of Sheffield, on his appointment as Examiner in Medicine at the University of London.

The appointment is gazetted of Surgeon-General Sir C. P.

Lukis to be Director-General, Indian Medical Service (ranking as Lieut.-General).

* * *

The name of Alexander Granville appears in the Foreign Office List of the King's Birthday Honours as a recipient of the C.M.G. Our heartiest congratulations are extended to him.

* * *

We congratulate Mr. W. Foster Cross on his appointment to the post of Senior Administrator of Anæsthetics to this Hospital, the post till recently held by Mr. R. Gill.

* * *

We very much regret to announce the death of Sir Thomas Lauder Brunton, M.D., F.R.S. Born in 1844, he was educated at Edinburgh, where he graduated M.B. in 1866, B.Sc. in 1867, M.D. in 1868, and D.Sc. in 1870, having in the meanwhile studied in Paris, Vienna, Berlin, and Leipzig. He became a Member of the Royal College of Physicians in 1870 and a Fellow in 1876, in which year he was appointed Assistant Physician to this Hospital, with which he has been connected ever since. At the time of his death he was, of course, one of our Consulting Physicians. In 1890 he was knighted, and received a baronetcy in 1908.

Sir Lauder's elder son, James Stopford Lauder Brunton, succeeds to the baronetcy, and to him and to his two sisters our deepest sympathy is extended. A more detailed obituary notice appears on another page of this JOURNAL.

* * *

It is with great regret that we learn of the death of Lieut.-Col. William Selby, I.M.S., which took place as the result of a cycle accident at Lucknow, India, on September 8th. He was Principal of King George's Medical College, Lucknow, and Honorary Surgeon to the Viceroy of India. The younger son of the late Mr. Prideaux Selby, of Croydon, he was born in 1869, and was educated at the Whitgift Grammar School, receiving his professional training at St. Bartholomew's Hospital. He qualified as a licentiate of the Royal College of Physicians, London, and a member of the Royal College of Surgeons, England, in 1892, taking his F.R.C.S. in 1905. He took part with the relief force in the operations in Chitral in 1895, for which he had the medal

with clasp. In 1897-8 he was in the operations on the north-west frontier of India, and in the Tirah Campaign, when he was mentioned in despatches. He was also awarded the Companionship of the Distinguished Service Order. Our deepest sympathy is extended to his relatives and many friends.

* * *

At the moment of going to press we learn with sorrow of the death of a nephew of the late Lieut.-Col. William Selby. Captain Gerard Prideaux Selby, R.A.M.C., was killed in action on September 26th while attending to the wounded on the field. He was 25 years of age and had been a popular student of this Hospital. Our heartfelt sympathy is extended to his father, Dr. Prideaux George Selby, in his sad loss.

* * *

With very much regret we learn of the death of Lieut. Donald Roy Drysdale from wounds received in action. He was a student at this Hospital for a short time, and on leaving the Hospital went to Cambridge. He took a commission in the Dorsetshire Regiment early in the war. Lieut. Drysdale was the nephew of Dr. J. H. Drysdale, of this Hospital, and the son of Joseph N. Drysdale, of Buenos Aires, to whom our sincere sympathy is offered.

* * *

Again we learn with extreme sorrow of the loss sustained by a member of our surgical staff. Captain John Dennison Eccles, the eldest son of Major McAdam Eccles, has died from wounds received on September 9th, at the age of twenty years. On the outbreak of war he obtained his commission, and in July, 1915, he went to the front, and was wounded in December. For conspicuous bravery on this occasion he was awarded the Military Cross. He returned to the front in April this year, when he received his company, which he was leading in an attack when he was mortally wounded. We offer our truest sympathy to Major and Mrs. McAdam Eccles in their sad loss.

* * *

It is with very much sorrow that we learn of the death in hospital of Archibald William Robertson Don, which took place on September 11th. Soon after the outbreak of war he worked on a motor ambulance in France until he obtained his commission as Second Lieutenant in the Royal Highlanders (the Black Watch). He was the fourth son of Mr. and Mrs. Robert B. Don, to whom our sympathy is extended in their sad bereavement.

* * *

With very great regret we hear of the death of John Schofield Heape, who was killed in action on July 1st. Lance-Corporal Heape, who had previously been reported missing, was in the signal section, and previously to the war was a student at this Hospital, where he had many friends. Our deepest sympathy is extended to his parents in their sad bereavement.

* * *

The Index for Vol. XXIII (1915-1916) of the JOURNAL will be published and distributed with the next issue.

FROM THE FRONT.

EXTRACT FROM A LETTER FROM MAJOR GASK, EARLY IN JULY.



NOW that all the facts have been published in the papers, I can tell you about my visit to the lines without giving anything away. A. B— took R— and myself up in his car, a distance of about seven miles, and seeing that it took over an hour you can imagine the congestion. At first the roads were comparatively free, that is to say, one side, for there was an almost continuous stream of lorries with ammunition, food and supplies, motor ambulances, guns, mobile kitchens, and troops. About four miles up we got into the region of big guns which went off with a tremendous "whump" close beside us, making it feel as if one's back hair was blown off. Then we came to villages with innumerable troops quartered, cooking and looking after horses and mules. A little further on we met a brigade of infantry marching out to rest, and were much interested looking at them to see whether they appeared broken at all. These didn't—dirty, plastered with mud, but with clear bright eyes. The tin helmets, which they love, give them a very Chinese appearance. These helmets must have saved hundreds of lives. A little further on we came to the area shelled by the enemy as shown by ruined houses and churches, often a F.A. tucked away among the ruins. The roads now became very bad, hard on the crown with a ditch of mud and often great holes two feet deep and three or four across. There were many blocks, and one long one for a lorry badly ditched. Now we were in the area of the guns—ours—and all around they were bursting off. A little further on we came to our old trenches held by our men through the long winter. In one place the trench had crossed the road, which was temporarily repaired with barks of timber, over which we bumped. The noise now was becoming intense, and we had reached as far as the car could go, and got out. We picked up the A.D.M.S. of one of the corps—he happened to be an Old Bart.'s man—and he led us into X—, recently taken by us. You may not believe it, but honestly I did not know when I was in it. The whole place had been levelled and destroyed by our artillery. There was one small piece of wall, perhaps eight feet high, standing. The earth was so churned up by shells that all grass had disappeared and the only sign of trees were a few bare shattered stumps. The noise was now terrific; guns were going off all round without intermission, one had to shout in a man's ear to make him hear. The whole place was pitted with craters and everything covered with mud. A little ahead was a wood, very like one of our Bucks woods, on the top of a hill. Our front line was in this and was being shelled—some were falling by us. Our objective was an advanced medical post quartered in a dug-out. The entrance to this was rather like the old-fashioned

ship companion: a long flight of steps, wooden and very greasy with mud, about fifteen feet deep, led down to a passage with rooms opening off it. The first one on the left, about fourteen feet square, was being used as a dressing room for wounded; further on was the kitchen and then another exit, then another flight of stairs down to a second story, so that the whole thing was perhaps thirty feet deep. The passage was about three feet wide and six feet high, with walls shored up with timber as in a mine. There were many telephone wires and it had been lighted by electricity. In each room was a little stove, making the place look like a Swiss hut, but the atmosphere was different, very mouldy and grave-like. In one place the roof had been bulged by one of our shells and had been shored up. After the din above, the quiet was extraordinary, the noise of the guns resembling damp squibs only. We stopped there about twenty minutes and then made our way back to the car, which had stopped in a sheltered hollow, and personally I was very glad to get away. It was very interesting but very unpleasant, and my first inclination was to take to my heels and run, and I can quite understand how the thing gets on one's nerves—growing cabbages for me every time.

WITH THE YEOMANRY ON THE WESTERN FRONTIER OF EGYPT.

By LIEUT. H. E. BLOXSOME, R.A.M.C.

LIFE from the point of view of a M.O. in Egypt on the western frontier cannot be considered either arduous or exciting. There has been no trouble with the Senussi since last Christmas, and they do not seem inclined to venture from their oasis a hundred miles across the desert to try conclusions with the Yeomanry.

Our brigade is stationed in a large oasis. The headquarters are in a big country town, and the Yeomanry are placed at different outposts. At the headquarters camp is the field ambulance, while the casualty clearing station is a well-equipped modern building used in peace-time only for natives, but now appropriated to the troops.

There are six M.O.s in the ambulance, and each of the three regiments has its own doctor. Isolated squadrons are supplied with medical officers from the field ambulance, and it has been my lot to remain for several months in this outpost to take medical charge of each squadron as it is relieved by another. It is the simple life in its most perfect form. One is on the edge of a small patch of cultivation, surrounded on three sides by desert which stretches away into infinity with no habitation for many miles except the mud huts of the natives.

The desert air is bracing and healthy, so there is very little sickness amongst the troops except just after the sandstorms, which are truly terrible affairs, lasting several days

and choking everything, including one's inside, with sand and dust. The heat during May and June was very bad, 120° in the mess tent at the hottest time of the day, and making sleep impossible at night. It is better now, in August, and seldom gets hotter than 105°. Practically no work is done between ten and four, so the men and horses have been able to stand it. Flies and mosquitoes are a far greater pest than the heat, however, and a very objectionable thing called the sandfly keeps one awake and scratching at night.

The medical duties are elementary—a sick parade at seven, when one deals with a septic mosquito bite or a case of diarrhoea, and a tramp round the camp through the heavy sand to inspect the labours of the three native sanitary men, complete the day's work.

There are plenty of relaxations when the sun will allow them. One generally rides in the early morning and can often get a good gallop after a fox or jackal, finishing him off, if lucky, with a revolver shot. A neighbouring squadron has a couple of native hounds which are very fast and clever with foxes and jackals. In the winter there is plenty of wild duck to be shot on the lake which one can see from the camp. Sometimes one treks twenty miles or so to a neighbouring squadron and puts up for the night. The natives are a subdued and simple lot. At first the small boys were inclined to harass one's dignity by throwing mud at the "Ingleezi," but they have learnt better manners now. The animals are often treated very badly, and we delight in finding some poor ass or camel with a heavy load and many sores. The load is dumped down in the desert and the poor beast spends a few weeks in our sick lines while the driver receives an appropriate number of welts from the willing hand of the transport sergeant. He is allowed to come and fetch his animal when it is well. We have five donkeys recuperating at present and having the time of their lives.

There seems very little chance of our being moved from here, but every week someone has a new theory that we are soon to be sent elsewhere, but they have been saying that for nearly a year now.

THE "SALT PACK" METHOD OF TREATING INFECTED WOUNDS.

By W. GIRLING BALL, Capt. R.A.M.C. (T.).

DURING the present war the treatment of infected wounds has come prominently before the notice of surgeons: so that there has been a much larger opportunity of dealing with these conditions than has hitherto arisen. The dispute as to the use of antiseptics against other methods has become acute, and has led to a great deal of discussion. It is not my intention, however,

to enter into this discussion, but to relate my own experience as regards the use of the salt pack method, as advocated by Col. H. M. W. Gray, C.B.

For many years past it has been my practice to use salt in solution for the irrigation of suppurating wounds, and with success. I have no hesitation in saying that the results obtained in the use of the pack method are excellent, and the method has many advantages over those previously used; at the same time it would be unwise to say that it is the only method that should be used.

It has been used in all stages of infection, from a few hours after injury, immediately after opening an abscess, after opening up wounds caused by gunshot injuries in order to obtain better drainage, in cases of gangrene due to similar injuries, in cases of deep as well as superficial abscess formation, in suppurative arthritis, and in lesions close to the neighbourhood of large blood-vessels in which it might have been reasonably expected that secondary hæmorrhage was likely to occur, etc.; also in chronic infective conditions even those due to tubercle.

My method of carrying out the treatment has been as follows:

The salt is used in the form of small tabloids (1-5 grs.), or as a powder which can be rubbed into the meshes of sterile gauze; it is best used in tabloid form, as it takes some little time for these to dissolve, thus rendering the action more prolonged. The salt is sterilised by dry heat in an oven at a temperature of 130° C. in bottles or small gauze bags. Some surgeons add potassium citrate to the salt, but this has not been used in my cases.

The infected areas are freely opened so as to completely expose the depths of the wound, thus converting them into surface wounds as far as possible. In the neighbourhood of important structures such as blood-vessels, or in deep abscesses under such, this is not possible; the surface incision in such cases, however, has been enlarged so as to ensure that it will not heal over too rapidly, but will remain conical in shape; the same remark applies to joints in cases of suppurative arthritis; often a deep lesion in the neighbourhood of a bone or large vessel is exposed from two different aspects by large incisions, each being packed separately so as to avoid injuring important structures.

Having made sure that the area involved has been freely opened up, and that no pockets remain—probably the most important part of the treatment—the wound is washed out with several pints of hot (105° F.) sterile saturated (30 per cent.) salt solution; any loose sloughing tissues, pieces of clothing, shrapnel, or other *débris* are removed; in the case of compound comminuted fractures loose pieces of bone are left in position or even replaced in the neighbourhood of the fracture if displaced to a distance. Having cleaned up the wound in this manner, a layer of plain sterile gauze is laid over the whole of the raw surface, care being taken to pack it into the corners of the wound.

It is important to do this so as to avoid contact taking place between the tabloid and the exposed tissues; if this happens, on removal of the packing minute areas of gangrene are found at the site of contact; if powdered salt is sprinkled over the area, a thin layer of gangrenous tissue is found on removal of the pack. On to the layer of gauze a large number of the salt tabloids are placed, not too thickly, themselves wrapped up in bags of gauze so as to prevent their straying during the packing of the wound; a further layer of gauze is placed over this, and then more salt, and so on until the wound is filled up with successive layers, tightly packed in. The most superficial layer is tucked under the skin edge. The area of skin around the wound is washed with a lotion of biniodide of mercury (1-2000) or any other antiseptic that may be preferred, to remove blood, pus, etc. A thick pad of plain sterile gauze and wool is placed over the whole and a bandage tightly applied. In order to keep the parts at rest, in the case of all limb wounds, however trivial, a splint is applied. Padded splints are covered with jaconet, as there is considerable oozing from the wound. When the wound is deeply placed, especially in cases of compound fracture, a large-bore rubber tube is inserted into the depths; lateral holes are made in the tubing, and the distal end is sewn up; salt tabloids are then placed in the bore of the tube. It is necessary to give a small dose of morphia after the application, as in some cases, though not all, the wound is painful for about four to twelve hours; after that there is no pain as a rule.

During the first twenty-four hours there is a profuse discharge of blood-stained serum, so large at times as to lead to the suspicion that some bleeding point has been left untied. If the soaking is very profuse the surface layer of gauze and wool is replaced by another; but in no instance is the packing touched. This is left as a rule for four days. A foul odour is often emitted, but is not an indication for the removal of the plugging. The most noticeable feature is the great improvement in the general condition and comfort of the patient, no doubt due to the evacuation of the purulent material and the absence of œdema, all the fluid exudate being discharged into the wound, instead of collecting in the tissues, thus limiting the degree of pain.

The temperature often rises to a considerable height, but usually falls on the second or third day; a rise of temperature alone, other symptoms being favourable, is not an indication for the removal of the plugging. If the general condition does not improve, and the local condition is not relieved, the œdema persisting, it means that the original lesion has not been efficiently dealt with. This is the chief indication for the removal of the plugging; a further examination usually defines the source of the trouble. Bone injuries are the commonest lesions necessitating further investigation, pockets of pus collecting around the ends of the bone or in the bone cavities themselves. On the fourth day the packing is removed, usually without any

anæsthetic; it sticks to the skin margins, but is easily loosened by moisture. The rest of the packing comes out in one mass, quite painlessly, soaked with purulent material; in passing it may be noted that as much as 2 per cent. of salt is to be found in the juices squeezed out of the soaked gauze. There is seldom any large collection of pus beneath the gauze. Any collection of pus that may be present is washed out with a 30 per cent. solution of saline. This may cause pain, but does not do so in all cases. The underlying tissues are found covered with a thin layer of fibrinous material, and some sloughs; most of these have come away with the original dressing, in gangrenous conditions. The fibrinous layer is not removed, but the wound is well irrigated, and all loose *débris* removed in the case of deep wounds, no fresh packing, except in the very gangrenous cases, is used on to the surface of the granulations, but the edges of the wound are kept apart by gauze or wire frames, with a tube passed into its depth. In surface wounds the dressing is soaked in saline and laid on the surface. This process is repeated three times daily, care being taken on each occasion to wash the skin surrounding the wound with some antiseptic solution. Within two or three days the surface of the wound becomes marvellously transformed into one of brilliant scarlet granulations of a healthy character, with practically nothing but a small amount of clear serous discharge. The strength of the saline irrigation is gradually diminished until at the end of the week normal saline solution only is used and continued until the wound has healed. If the use of the stronger solutions is persisted in fresh sloughing takes place, and the recovery is retarded. At the end of ten days to three weeks, depending on the extent of the wound, with the superficial, and even in the deeper lesions where the bone is not involved, the wound has become so cleaned up that, where the area is a wide one, the skin edges can be freed and sewn together or drawn together by strapping, which expedites the convalescent period.

The chief advantage of the method is the rapidity with which the wounds, even the most foul, heal by healthy granulation tissue formation. Of great importance also is the avoidance of multiple dressings, which are so painful in the early stages of healing of a recent wound, and at a time when it is important to avoid giving pain which will interfere with the general condition of the patient. The prolonged packing also tends to keep the outer edges of the wound from falling together, as is seen in cases where only a drainage tube is used. It is my belief also, that it tends to prevent secondary hæmorrhage in cases where the septic condition is in the neighbourhood of large blood-vessels, no doubt by rapidly causing the cleansing of the tissues. It has been noted that in cases which have previously been discharging large quantities of pus, that after the salt pack has been instituted this immediately diminishes, the wounds take on the characteristic changes

above noted. The salt causes an exudation of fluid, which washes out the bacteria not only from the surface of the wound, but also from the deeper tissues, thus affecting them in a manner which no antiseptic applied to the surface will do. Whether this is due to osmosis or irritation it is difficult to say; the clinical fact remains.

This method has been carried out in almost all the cases that have come under my care in the Hospital during the last fourteen months, and has established itself in my mind as a great advance in the treatment of infected wounds.

NOTES ON MINOR SURGERY

NO I. THE CIRCUMCISION OF CHILDREN.

By PAUL BOUSFIELD, M.R.C.S., L.R.C.P.

THE newly qualified surgeon or the advanced student who is called upon to perform some minor operation has in very many instances never seen that operation performed by any member of the senior hospital staff; often his only experience of it may have been a textbook. This applies to several of the operations of minor surgery, not merely to the one under present consideration. Not long ago I inquired of various acquaintances with the result that I discovered no less than four fully qualified men, and quite a number of senior students, who had never seen the operation of circumcision performed, others who had both seen and themselves performed the operation stated that they had done so under the auspices of previous house surgeons who were not in all cases experts.

One is inclined to approach circumcision in a somewhat light-hearted manner; it is simple, with but little danger, and appears to be very easy. It is only when one has had to tackle the job for the third or fourth time that some realisation is brought about that this simple little operation is in reality a delicate and by no means to be despised work of art, if one is to obtain a workmanlike result, and under workmanlike conditions.

Two things are primarily to be borne in mind—firstly, that it is very easy to produce a very ugly result; and secondly, that the more speed with which the work can be done the better, because the operation must often be performed upon very small infants with whom every minute under an anæsthetic is a minute to be avoided when possible.

I had myself seen the operation done in an indifferent manner by various house surgeons at two or three hospitals. Each employed a separate technique, with very varying results. As casualty house surgeon at a children's hospital I found that I had to perform a very large number of these operations myself, whereupon I set about inquiring as to various methods in use, out of which the following technique was finally evolved, and this I found to be very satisfactory.

The patient is placed upon the table with a loose sterile

towel in position, and the parts are prepared by the usual application of iodine, which should be done before the patient is anaesthetised.

The instruments should be placed in the order in which they are to be used and arranged with their handles right and left according to which hand must grasp them. This saves a great deal of time and trouble.

The instruments in the order in which they are used are as follows:

Dissecting forceps	(Left hand)
Straight bone forceps	(Right hand)
Scalpel	(Left hand)
Probe	(Right hand)
3 Spencer Wells forceps	(Right hand)
Small scissors	(Right hand)
1 straight needle threaded with 12 in. of soft gut.	

Three spare artery forceps and some gut ligature are also necessary in case of hæmorrhage.

The operator stands at the patient's right side.

With the dissecting forceps the prepuce is grasped and stretched to its full extent. The straight bone forceps are then made to grasp the prepuce above the glans, which fits into the concave surface of the forceps, taking care to incline the blades so that slightly more of the upper than the lower surface of prepuce is included. The bone forceps are then gripped tightly and the prepuce crushed between the blades. The dissecting forceps are replaced in the dish and, with a scalpel in the left hand the prepuce is sliced off, along the flat surface of the blades of the bone forceps. Scalpel, bone forceps and prepuce are then discarded, as they are no longer required.

The cut surface will bleed very little on account of the slight crushing to which has been subjected, and a beautiful straight edge will be found to have been made, quite unlike the somewhat notched edge sometimes made when using scissors for this work.

The outer skin is then pressed back manually and the three pairs of artery forceps are clipped on to the inner layer. One is fixed in the mid line ventrally, *i. e.* immediately distal to the frænum. The other two are fixed on the upper surface immediately on either side of the mid line.

Holding these two latter pairs of forceps in the left hand, a probe is passed between the skin and the glans penis as far as it will go, immediately beneath the forceps on the upper side of the glans. This creates a space into which one blade of a pair of scissors may be safely passed. The probe is not discarded, as it may be required later. In using the probe to separate the skin from the glans, I only separate it on the dorsal aspect sufficiently to insert the blade of a pair scissors, and do not try to separate the whole surface of the glans, which is often very adherent, as this is done manually much more effectively and with a great saving of time after the dorsal incision has been made along

the inner skin, so that the latter can simultaneously be turned back.

Still holding the two dorsal forceps in the left hand, the skin between them is cut vertically right down to the junction of the skin and mucous membrane at the base of the glans with the scissors.

The scissors are for a moment laid down, and the skin, which is often adherent to the glans, is gently separated therefrom with downward pressure by means of the fingers or a swab of wool. It is most important that this separation be completely carried out and all the smegma cleared away, otherwise the results may be far from those desired.

An assistant now holds two of the pairs of forceps well out so as to stretch the attached skin; the operator holds the third pair similarly. With a couple of quick cuts the whole is removed, leaving about an eighth of an inch as a collar round the glans. The part in the neighbourhood of the frænum should be cut very close in order to avoid an ugly lump afterwards. One stitch is now inserted through the skin and frænum, care being taken to include not more than one eighth of an inch of skin between the entrance and exit holes of the needle. The stitch must be not more than about one-sixteenth of an inch from the edge of the skin. A substantial quantity of frænum should be caught up so as to include the artery which runs in it, and which is sometimes a source of bleeding. By this means we shall obtain a neat result, avoiding the somewhat unsightly lump which follows a careless suture in this position.

No further stitches are as a rule necessary, but they may be inserted if there be hæmorrhage. There is in most cases of children under about eight years of age very little hæmorrhage, and the one stitch indicated above is all that is required. Occasionally there is some hæmorrhage from the two arteries which run on the dorsum of the penis. This can generally be stopped by application of forceps for a minute, but they may need ligaturing. Ligatures should be avoided if possible, as they may tend to cause painful erections; for this reason I use soft gut instead of silk if a ligature is necessary. The most difficult form of hæmorrhage in infants appears to take place from the plexus of veins on the body of the penis, as these are very delicate and sometimes torn. I have only had two cases of this, and in each instance I treated it by allowing a nurse to compress the whole surface with her finger and thumb for ten minutes while I went on with the next case.

A strip of gauze, 2 ft. long by $\frac{1}{8}$ in. wide, is now wrapped round the penis from the root to the glans, and then tied firmly.

As a dressing Friar's balsam, poured on to the gauze after it has been tied in position, seems to be better than Lotio Plumli and other dressings I have tried, since not only is it antiseptic and hæmostatic, but being of the nature of gum, it helps to keep the dressing in position very effectively. When using it great care must be taken not to upset

a drop over the meatus, as this may effectively prevent mic-turition. It is for this reason that the probe has not been cast aside, for should a drop reach this position, the probe must be gently forced into the meatus to free the passage.

The time taken for this operation, in straightforward cases, varies from $2\frac{1}{2}$ minutes in the case of a child of four years or over to $3\frac{1}{2}$ minutes for a child of a few weeks old, for the smaller children are sometimes much more difficult; indeed, on one occasion, in a boy of six weeks old, who was very small, I have seen the penis disappear into the scrotum, a matter of no importance except that it wastes time and renders the dressing somewhat more difficult. Often there is a good deal of adherent smegma, and the separation of the skin from the glans and the clearing away of the smegma will extend the operation for a further couple of minutes.

The anæsthetic which I prefer in these cases is ethyl chloride or nitrous oxide for children of three years or above, and æther for younger children, who only require sufficient to keep them still for about one minute, as thereafter not much pain is felt.

SURGICAL NOTES.

By Col. G. F. ROWCROFT, Temp. Major, I.M.S.

(1) SKIN-GRAFTING.

IT may be only my crass ignorance, but I do not remember ever seeing or hearing of a method of skin-grafting I employed very successfully about a year ago. I had a patient on a hospital ship, a poor fellow who had been badly wounded in the Gallipoli Peninsula. A shell had passed across his back, ploughing an immense furrow right across, breaking one scapula and the spine of the other, and making a wound as if a gigantic cheese scoop had been used on him. The ends of various muscles were exposed, and a huge area left which would have taken months to granulate and heal by itself. Moreover, when healed, I fancied that the resulting cicatricial contraction would probably draw his head right down, so that he would be looking straight up to the sky. This I hoped to avoid, to at any rate some extent, by skin-grafting, but the difficulty was that, owing to the wound, the patient could not lie down in any position, so that the administration of a prolonged general anæsthetic was practically impossible. (He had to be propped up in bed always by an arrangement of pillows, in which the nurse was very skilful.)

I therefore employed a local anæsthetic on the left arm, and took numerous small grafts of skin from the anæsthetised area by pinching up a little bit of skin with forceps and pulling it upwards, and then cutting it off with scissors. Each little bit so removed was a round piece about a

quarter of an inch in diameter. Each one, as it was clipped off, was placed in position on the wound on the back, and I took about twenty of them. The arm was then bandaged, and the usual dressing applied to the wound on the back, and when removed a few days later, all the scattered skin-grafts were found to have taken root most satisfactorily. With so many centres of epithelial growth the wound should have healed rapidly, and I hope did so, but I had to hand the case over, of course, on reaching England, when the man was transferred to, I believe, Netley. I might mention—though it had nothing to do with the skin-grafting—that a violent secondary hæmorrhage suddenly started from a spot near the left scapula after the separation one day of a sequestrum, when we were having some particularly rough weather in the Bay of Biscay. In spite of all I could do I could not catch the bleeding vessel, so, against all teaching, used a graduated compress, which effectually stopped the hæmorrhage. It is not the easiest way to work, holding on “for dear life” to a stanchion with one hand and stopping the flow of blood with the other! However, it succeeded. A very firm bandage was of course applied, and a careful watch kept over him.

(2) NOTES ON NURSING.

May I emphasise one or two little points about nursing which may seem self-evident, but each one of which was borne in on me about eighteen months ago, when so seriously ill that I could not lift a hand off the bed.

(1) The *taste* of medicines. I had often been ill, and pretty badly so before, but never worried much about the taste of my physic, and am not addicted to being fanciful, but, on the occasion referred to, it was a real physical torture to drink the stuff prescribed, t.i.d. When a patient is really ill the physician should pay attention to this point, which is often quite ignored, as it was in my case. It is very easy as a rule to add something to improve or disguise the flavour.

(2) See that hot-water bottles are really warm (*not too hot*), and placed where they can warm the patient. A cold and clammy bottle is disgusting, while a hot one out of reach is useless. I have often been left for hours in one predicament or the other. This in cold weather when one is really ill and helpless is very trying. *Efficient* nurses and sisters would guard against such things, but there are inefficients in every line of life.

(3) Use of feeding cup. *Before* using one with a patient for the first time show him, or her, how he can use the tip of his tongue as a cork to stop the flow, in order to take breath, etc. And then, when you use it, *put the spout well into the mouth*. It may sound extraordinary, but I have repeatedly had the tip of the spout placed only just between my lips, with the result that the least movement on the part of the holder dislodged it, and sent a rivulet down my neck, wetting me uncomfortably.

Having got the spout well into the patient's mouth, *tip the cup up well*. (I assume that you have already explained how to "cork" it up, if necessary, with the tip of the tongue.) It is irritating and annoying to only be able to get a drop or two at a time.

(4) As regards making the bed: What is the prejudice some sisters and nurses seem to have against allowing the bed-clothes to come well up to the chin and ears? I have often seen a bed made, and have had my own made, in such a way that they only came up a little more than half way above the top of my chest. This, in cold weather, is absolutely miserable, and makes one chilly all over.

Whatever is worth doing at all is worth doing well, so if a patient is to be made comfortable in bed see that he really is so, and not merely that the tops of the bed-clothes are all in one line.

(5) In winter one may suffer much from cold hands in bed. Take my advice, and if you suffer thus wear warm gloves. If reading, or handling things, it makes an immense difference in comfort, although it may not be usual; but that is not the point.

The above may all appear very trivial matters, but they are not so to a sick person, and it is attention to all such little details which make all the difference between efficient nursing, such as one has a right to expect from trained people, and the rough and uncomfortable experiences which one may expect only from the untaught.

EXTRACTS FROM THE PRIVATE JOURNAL OF DR. REVLYN-BLOOD,

SOME TIME ASSISTANT PHYSICIAN
ACCOUCHEUR TO ST. BARTHOLOMEW'S
HOSPITAL. 1609-1616.

Found in an Old Chest during alterations to "Mackenzie's."

Now Concerning y^e matters related in thys JOURNAL, let itt be plaine to alle from y^e first that they are but a plaine tale of such thinges as passed in oure tyme at Bartelmey's and no fancifull discourse on things OBSTETRICK; for thatte is foreign to oure purpose and very hatefull to alle goode District Clerkes.

Aug. 1. Did meete at Mackenzies in greate force. Alle mightie busy purging awaye y^e heape of olde mucke. Did heare how one, seeking in a darke Cupboarde did drawe forth an olde Ham wrapt in news sheetes, w^{ch} some doe say was layd by for provision in y^e warre but now gone foule and stank abominably.

Made ready our Black Bagges, mightie exercised to keepe our kerchiefs and geare cleane, but were told how 'twas impossible, so did give vppe y^e attempte, eache being contente to packe his geare as beste he mighte—and alle very Septick.

To y^e Abernethian Roome and saw y^e Newes, how oure Army in Flanders hath gained a Victory—but what result 'twill have in St. Luke's none dare thinke.

Did waite very expectant for most of y^e day and later met one returned from hys first cafe, who told how he did give a gallon by waye of glyster and then rettyred for a space—but being called of a sudden from a Pot Hovse neare by, didde mayke al speede to y^e hovse and perceiv'd y^e babe. But y^e corde being cutte of a sudden, ye babe dropt and so was trampled under foote by y^e greate prefs of lookers on and Children. Then came y^e midwyfe, having scraped uppe y^e babe, w^{ch} beeing of ye Bovncing forte, did presently recover and joynd in y^e dinne what tyme y^e mother sitting vppe did calle for ayle, but was mayde quiet with a douche mightie hotte and so was lefte and all very merrie.

Aug. 2nd. To y^e square and there fell a talking wth one of our clerkes who going to Goswell Roade, a meane streete—did see a woman mightie fatte about y^e legs and they y^e colour of snow. And how hee, taykinge itt for a leprosy didde put one two paires of gloves and presently did test her reflexes with a pinne—but perceiving a babe of a sudden att y^e foote of y^e bedde—did thinke otherwyse as toe her difease.

August 6. To Bartlemeys Church and there heard a good discourse by M^r Visday tho' overlong for so small a man.

Heard how M^r Snagdout hath suffered his latest babe to be borne before he came—this being his 7th—hee crying

SIMPLE RHYMES FOR FRIGHTFUL TIMES.

6. MINNENWERFER.*

When big and little Minnie fly
Like blundering bird across the sky,
And shattered sandbags round you lie,
Mid sounds of muttered curses vocal,
You may always, if you try,
On these soothing words rely,
Which to these the great apply—
"Their effect is very local."

J. R. R. T.

* "The enemy made use of Minnenwerfer. Their effect, however, was very local."—*Official communiqué.*

aloude to Heaven how hee doth hate these careles folk and wishd them dead.

Aug. 10. To y^e Chirurgery and there hearde how one Octavius, being called, didde finde a wenche took wth a great los of bloode and y^e babe nott yet come; and how hee did plugge her, and being come to y^e ende of his kerchiefs did prefs in alle those things proper to his hande and coming to y^e curtaines ended not his greate worke but did tampe her wth y^e bedde cloathes—and putting atop y^e bolfter did commend her to Her Maker: thus showing how truly spake thatte learned Docktor who, later seeing her, said 'twas Multum in parvo.

Aug. 14. To y^e Queenes Ward and there heard a good discourse on y^e Dropsy in pregnant WOMEN by Dr. Chearful w^{ch} pleased me much, and hee very learned and sympathetick being mindfull always of his owne clerkshippe in former years.

Aug. 15. To y^e Office where busy writing a greate list of those TEACHERS of PHYSICK most meet toe bee internd for y^e common weal and did adde others.

Did heare how one of oure clerkes—being ever a poore starter—hath at last seen a delivery—w^{ch} pleased him mightilie tho' Dr Sharp—being privy toe itt—saith "twas due rather to chance than toe y^e clerkes endeavour that hee arrived not, as is his wont, too late."

Did receive complaintes, amongst them a woman crying oute against y^e long delays of our Office to sett forth her "ETERNITY PAPERS"—but what thys may be no man knoweth, for it is sure no paper will avail at such a HEATE.

This nighte at cardes and won much money but troubled by one breakinge in vpon us crying for red Wyne and hee very druncke. Did refuse him liquor and did adde his name to oure liste. So to bedde—being first for DUTY.

Aug. 16. Lords Day, vp betimes to finde M^r Octavius gone to y^e Fyre Station where hee is in great esteem, but they that be privy toe it do thinke him a fly dogge.

Today to y^e swimming bath and divid for coines w^{ch} we did throw inne—but got none till later when seeing one of a greate bigness toe lye vpon y^e bottom did presently take it uppe, and found it to bee my owne watch thrown in in errour and y^e workes all broke by too great zeal.

At Crickett in y^e Fives Courte but brake open y^e balle (itt being parte of a Hygginson) and cannot prevaile vpon y^e Curator for another—he saying he hath been there before.

Did perceive a fayre maide to wave her kerchief at us wee being vpon y^e roofe) from a neighbours house: and all did wave backe but none knowing whether she meaneth him or no and all disputing.

Shall to Arnolds foon for y^e fitting of my bagge and will enquire more clofely.

Mem. Must have a care that Dorothy heare none of this.

So to bedd after waving a long while and no reply.

18th. Did hear M^r Paterfon going oute to a case by M^r Grousewell did finde a woman with a great flux and pretty nigh gone but M^r Grousewell fulle of Hope plugging her as if 'twas in Dublin. And howe he went oute and cried for a coache but none came, so perforce returned afoot to y^e Hofpitall and made ready y^e Jewes chaire and did presently wheele itt to y^e house, they being at greate paines to mount her vpon itt and very nigh came to overturn itt in y^e mire but albeit returnd safely by Smithfield and sad to thinke so few should bee aboute to see such an exercise (itt being about midnichte and y^e chaire a brave sighte wth its high wheelles making a greate rattle).

(To be continued.)

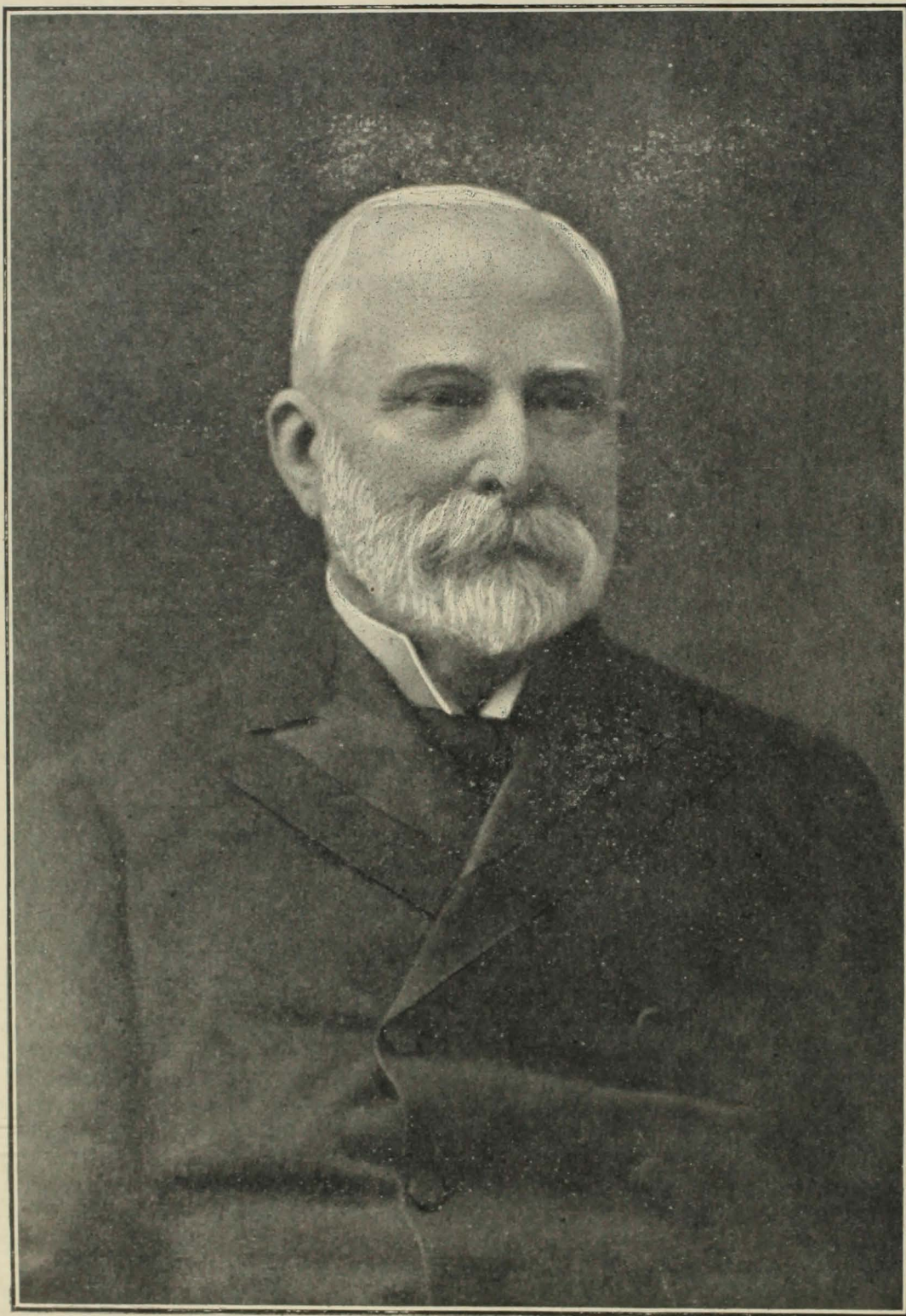
OBITUARY.

SIR T. LAUDER BRUNTON, BART., M.D., LL.D.
D.Sc., F.R.S.



THE death of Sir Lauder Brunton will awaken many recollections in the minds of his old friends and pupils at St. Bartholomew's. He came to us with a remarkable reputation from Edinburgh, where he carried off every University distinction in Science and Medicine that it was possible for him to secure. He had already conducted clinical and laboratory researches of value respecting the actions of digitalis, and introduced the employment of nitrate of amyl as a standard remedy for the agony of angina pectoris.

Dr. Frederick Farre's retirement created a vacancy in our *Materia medica* lectureship, and Brunton was appointed his successor. He modified the character of the teaching, and rendered it both pharmacological and therapeutical, bringing his practical physiological knowledge to bear especially on the subject. He was well equipped for this, having studied successively in Vienna, Berlin, Leipzig, and Amsterdam under the best masters of the time. He was appointed Assistant-Physician in 1876, and associated with Sir William Church as his senior. The out-patient work at that time was very heavy, yet he was able to continue laboratory research, and to write several large treatises which led to his Fellowship of the Royal Society at an early age, and his election later to the Council and Vice-Presidency of that body. In his vacations he travelled much on the Continent, revisiting his former masters, with whom he maintained a close connection. He went to India in 1889 for some months to take part in the Hyderabad Chloroform Commission, and was on the Commission appointed to examine Pasteur's treatment of rabies. With Sir Joseph Fayrer he conducted a research on the treatment of snake poisoning, which was profitable. He also travelled far and widely in America, visiting the Medical Schools and



SIR T. LAUDER BRUNTON, BART., M.D., LL.D., D.Sc., F.R.S.

gathering fresh ideas and knowledge everywhere. His private practice now began to be active, yet he never relaxed his efforts when he became full Physician, and was ever diligent and inspiring in his clinical teaching. He resigned his office rather sooner than he need have done, no doubt finding his private work seriously engrossing his energies. He was elected a member of several foreign medical societies. He received the honour of knighthood in 1900, and was created a baronet in 1908.

Looking back on his career, we find him to have been a man of extraordinary parts, earnest, far-seeing, ingenious, and full of resource. Personally a man of charming disposition, simple, sympathetic, most generous and hospitable, he had no enemies. His private life was very happy, and supported by a devoted and able wife, whose loss was a severe blow to him in 1909. He was always a prominent figure in the International Medical Congresses, and accepted as one of the lights of British Medicine. His health gave way two or three years ago, and he began to suffer from cardiac failure, yet he carried on his work prudently and bravely. The loss of his second son, a Cambridge man, and one of our pupils, killed by a shell at the front in France while serving with the Grenadier Guards, was a severe shock to him. He passed away on September 16th, in his seventy-third year, and a funeral service was held for him at St. Peter's Church, in Vere Street, on the 20th inst., his remains being interred in Highgate Cemetery.

He leaves behind him none but bright memories of a guileless, strenuous, and useful life, largely spent in the service of our Hospital. Yet he found time to take an active part in several patriotic movements such as the Second International Congress for School Hygiene, of which he was President, the City of London Cadet Brigade, the National League for Physical Education and Improvement, and the National Association for the Prevention of Infant Mortality. He was a prolific writer, and sought persistently to apply in practice such remedial measures as gave promise, on physiological grounds, of affording relief to various maladies and symptoms. His position in the medical world was probably unique. Intense earnestness was the keynote of it. His title passes to his elder son, formerly in the Royal Engineers, and now an Instructor at Montreal in the Canadian Engineers.

D. D.

CORRESPONDENCE.

THE VEXED QUESTION OF ANATOMICAL NOMENCLATURE.

To the Editor of the 'St. Bartholomew's Hospital Journal.'

DEAR SIR,—As *Gray's Anatomy* is one of the text-books which I am constantly recommending to our students, I hope you will allow me to state briefly why I differ from your Reviewer of the Nineteenth Edition when he states, in the August number of the JOURNAL, that he considers "it would scarcely be our duty to recommend it to students."

True, the "B.N.A." names are used throughout this work; but when they differ from the older names (on what grounds these can be called an "official terminology" I fail to understand) the latter are always given in brackets, clearly prefixed by the letters "O.T."

I am convinced that it is really no hardship for the student to learn both names, at any rate in the case of the larger structures with which he will generally have to deal in practice later on. He will find it best to know the new because many of them, manifest improvements on the old, have no doubt "come to stay"; he must know the old because many of them will certainly remain in use, for a long time to come, in our medical schools and clinics.

Now, while the task of learning both names may appear an indescribable nuisance to the mere book-crammer, it may, nevertheless, I think, be regarded as a blessing in disguise in the case of the industrious practical student. This type of worker—the only one we should seek to encourage—has ample opportunities nowadays of handling and examining the structures themselves. If he finds that a structure he is studying may be described by two or more different names he is stimulated to inquire the reason therefor; in observing it again more carefully, in order that he may understand *why* it should bear these alternative names, he is made to devote more *thought* to his work, and that, surely, is always more of a help than a hindrance to successful study.

The picture drawn by your Reviewer of the student (B.N.A.) and demonstrator (O.T.) at loggerheads over the radial nerve may suggest, at first sight, a state of hopeless confusion. But surely, unless the student be simply one of those cramming sheep deplored by Epictetus, the discussion of the musculo-spiral nerve which would follow, with a specimen at hand, would not only reconcile apparently contradictory descriptions but would also impress the student more strongly with the actual facts. I do not believe that any of us who demonstrate in the dissecting room find it any harder to get in touch with the difficulties of our students because we were brought up exclusively on the old terms, while they largely use text-books which for the most part employ the new.

In my considerable experience as an examiner in many parts of the country I have never come across a single case of a student who failed in his examination owing to what R. L. Stevenson has called the "Tyranny of Nomenclature." To parody another well-known saying, "The *Structure's* the thing"—not the *name*—and for that reason I wish to say that I think your Reviewer suffers from a false perspective when he feels that he cannot recommend the text-book in question, though he admits that, apart from terminology, the new edition is all that may be desired.

Though it is a matter outside the main purpose of this letter, I would point out that one of the dangers of using epynymic names—a danger which the "B.N.A." with all its faults, has made an effort to lessen—is well illustrated in two printer's errors which have escaped the proof-reader in the same number of the JOURNAL. What in the name of the high surgical traditions of this Hospital, is the *Warham* (p. 122) Prize in Surgery? To have his well-known corpora called "*aurantii*" (p. 129) is surely enough to make the shade of Arantius, disciple of the great Vesalius, turn *orange* with grief!

I am, yours faithfully,
ALEX. MACPAIL.

REVIEWS.

PRINCIPLES OF DIAGNOSIS AND TREATMENT OF HEART AFFECTIONS. By SIR JAMES MACKENZIE. (Henry Frowde and Hodder & Stoughton.) Pp. 264. Price 7s. 6d. net.

Originally prepared as a series of lectures for post-graduate students, which owing to the outbreak of war were never delivered, this work is of a somewhat colloquial nature. From this it certainly gains much interest in the reading. The author's aim has been for the most part to teach the practitioner to recognise, by employing the ordinary bedside methods of investigation, those heart conditions of which we have recently obtained so much information by means of the polygraph and electro-cardiograph, instruments which are not as a rule available to the general practitioner. The teaching in this respect is excellent, but its value will be to some extent limited by the fact that the practitioner does not as a rule see a sufficient number of similar cases, especially of the rarer types, to attain or retain the high standard of efficiency necessary.

The author states that "the main question in every examination of the heart is concerned with heart failure—whether it is present or foreshadowed." And a considerable portion of the book deals with the essential matters connected with heart failure in a very able manner, which should be of much service to the practitioner. We can confidently recommend the work to students and practitioners alike as a very valuable exposition of the subject.

ACUTE POLIOMYELITIS. By F. E. BATTEN. (John Bale, Sons & Danielsson, Ltd.) Pp. 104.

This work consists of a series of Lumleian Lectures delivered at the Royal College of Physicians, and reprinted from *Brain*, vol. xxxix, 1916.

They form a concise yet thorough investigation into the subject, dealing with it in the first place historically and geographically, and afterwards going very fully into its pathology, clinical manifestations, and treatment. The work is of great interest at the present moment in view of the recent outbreak of poliomyelitis in London. It is well illustrated, and those concerned in the subject from a scientific standpoint, as well as from the mere matter of diagnosis and treatment, will find much of interest throughout, and perhaps especially in the chapter devoted to experimental work.

THE STORY OF A RED CROSS UNIT IN SERBIA. By JAMES BERRY, B.S., F.R.C.S., F. MAY DICKINSON BERRY, M.D., B.S., W. LYON BLEANE, L.C.M., and other members of the Unit. (J. & A. Churchill.) Price 6s. net.

This story of the "Royal Free Hospital Unit" should take high rank among the many books descriptive of the different phases of the Great War. Mr. and Mrs. Berry had spent a summer holiday cycling in Serbia in 1904 and had acquired some knowledge of the language, which stood them in good stead. The short but interesting historical introduction is worth reading, and the whole book is full of incidents graphically described, which will commend it to the general reader and to the student of the course of the war in Serbia. Their appreciation of the Serbian character is also good.

For the medical profession the chief interest of the book will be found in the account of the struggles of the unit with the dirt and disease of a primitive country into which they managed to introduce the refinements of a London hospital in the face of every kind of difficulty. Typhus was rampant, and the methods by which it was fought are of great interest. Mr. Berry comes to the conclusion that the ubiquitous flea was not a carrier of typhus in Serbia. Lice were the culprits, and their complete elimination from the hospital resulted in the elimination of typhus. The drastic remedy of shaving every hair from all parts of the body was finally adopted. "Not only were hairs removed from the head, face, axilla, and pubes, but those also on the thighs, legs, chest, and abdomen." Mr. Berry arrives at the emphatic conclusion, "Remove lice and you remove all danger of transmitting typhus," and that there is no danger of the transmission of typhus through the air, even in the wards. Next to the typhus wards was the common sitting-room used by all members of the Unit, yet no one ever contracted the disease.

The general interest of the book, from the inception of the Mission to their capture by the Austrians and final release, is well maintained, and the authors are to be congratulated on a notable contribution to the war literature.

APPOINTMENT.

W. FOSTER CROSS, M.R.C.S., L.R.C.P., appointed Senior Administrator of Anæsthetics to St. Bartholomew's Hospital.

NEW ADDRESSES.

D. L. E. BOLTON, 15, Russell Square Mansions, 122, Southampton Row, W.C.

R. B. KHAMBATA, Winters' Buildings, Calcutta, India.

J. W. TREVAN, Sundridge, Grange Road, Norwood, S.E.

BIRTHS.

LEWARNE.—On Thursday, September 21st, at Stonecroft, Cricklade, Wilts, the wife of Frank Lewarne, M.R.C.S., L.R.C.P., of a son.

O'BRIEN.—On August 28th, 1916, at Surgeon's House, Royal Military College, Camberley, to Dorothy, wife of Major C. W. O'Brien, R.A.M.C., a son.

PAGE.—On September 21st, at 7, The Marina, Worthing, Violet (née Shillitoe), the wife of C. H. W. Page, M.A., M.D. Cantab., Temp. Lieut., R.A.M.C., of Holly House, North Walsham, of a son.

RAMSAY.—On September 13th, at Eldon Place, Blackburn, the wife of Jeffrey Ramsay, M.D., Capt., R.A.M.C.T., of a daughter.

RIDOUT.—On September 6th, at St. Elmo, Clarendon Road, Southsea, the wife of Major C. A. Ridout, R.A.M.C., of a son.

WELLS-COLE.—On September 21st, at 37, Grosvenor Place, S.W., the wife of Lieut. Gervas Wells-Cole, R.A.M.C., of a son.

MARRIAGE.

KITCHING-BOUCHER.—On August 30th, at Frolesworth Church, by the father of the bride, Robert Lacy Kitching, Capt., R.A.M.C., of 9, Lansdown Road, Blackheath, to Alyson May Estcourt, elder daughter of the Rev. Canon and Mrs. C. E. Boucher, of Frolesworth Rectory, Lutterworth.

DEATHS.

BRUNTON.—On Saturday, September 16th, 1916, at 1, De Walden Court, 6, New Cavendish Street, Sir Thomas Lauder Brunton, Bart., M.D., LL.D., F.R.S., in his 73rd year.

DON.—On September 11th, in hospital, Archibald William Robertson Don, 2nd Lieut., Royal Highlanders (the Black Watch), beloved fourth son of Mr. and Mrs. Robert B. Don, Tealing House, Forfarshire, and Lodge, Broughty Ferry, aged 25.

DRYSDALE.—On September 25th, of wounds, Donald Roy, Lieut., Dorsetshire Regt., son of Joseph N. Drysdale, of Buenos Aires and St. Rode, Bournemouth, aged 21.

ECCLES.—On September 27th, of wounds received on September 9th, at the 1st London General Hospital, Capt. John Dennison Eccles, M.C., Queen Victoria's Rifles, eldest son of Major and Mrs. W. McAdam Eccles, 124, Harley Street, W., aged 20.

HEAPE.—Previously reported missing, now reported killed in action, on July 1st, 1916, John Schofield Heape, Lance-Corporal, Signal Section, Middlesex Regt., second son of Sam and Bertha Heape, 4, St. Albans Road, Bedford, aged 20.

MURPHY.—On September 13th, 1916, at Plymouth, James Keogh Murphy, M.D., M.C. Cantab., F.R.C.S., Staff-Surgeon, R.N.V.R., eldest son of the late Right Hon. James Murphy, aged 47.

SELBY.—Killed on September 26th, while attending the wounded, Gerard Prideaux Selby, B.A., M.B., B.Ch. (Oxon), M.R.C.S., L.R.C.P., Captain, R.A.M.C., eldest son of Dr. Prideaux George Selby, of Teynham, Kent, aged 25.

SELBY.—On September 8th, at Lucknow, India, William Selby, D.S.O., Lieut.-Col., I.M.S., F.R.C.S., Principal, King George's Medical College, Lucknow, Hon. Surgeon to the Viceroy of India, son of the late Prideaux Selby, of Koroit, Croydon, aged 47.

WOOLLCOMBE.—On August 30th, 1916, at 16, The Crescent, Plymouth, Walter Ley Woolcombe, F.R.C.S., aged 51.

ACKNOWLEDGMENTS.

London Hospital Gazette, British Journal of Nursing, L'Attualita Medica, Guy's Hospital Gazette, The Nursing Times, The Medical Review, New York State Journal of Medicine, Long Island Medical Journal, Otago University Review, Westminster Hospital Gazette, The Hospital.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial, or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, the Journal Office, St. Bartholomew's Hospital, E.C. Telephone: City 510.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD & SON and WEST NEWMAN, Bartholomew Close. MESSRS. ADLARD & SON and WEST NEWMAN have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXIV.—No. 2.]

NOVEMBER 1ST, 1916

[PRICE SIXPENCE.]

CALENDAR.

- Wed., Nov. 1.—Primary F.R.C.S. Examination begins.
Clinical Lecture (Surgery). Mr. McAdam Eccles.
- Fri., " 3.—Dr. Horder and Mr. Wilson on duty.
Clinical Lecture (Medicine). Dr. Morley Fletcher.
- Tues., " 7.—Dr. Calvert on duty.
- Wed., " 8.—Clinical Lecture (Surgery). Mr. McAdam Eccles.
- Fri., " 10.—Dr. Morley Fletcher and Mr. Waring on duty.
Clinical Lecture (Medicine). Dr. Horder.
- Tues., " 14.—Dr. Drysdale on duty.
- Wed., " 15.—Clinical Lecture (Surgery). Mr. McAdam Eccles.
- Thurs., " 16.—Final F.R.C.S. Exam. begins.
Exam. for D.P.H.(Oxford) begins.
- Fri., " 17.—Dr. Hartley and Mr. McAdam Eccles on duty.
Clinical Lecture (Medicine). Dr. Fletcher.
- Tues., " 21.—Dr. Horder on duty.
- Wed., " 22.—Clinical Lecture (Surgery). Mr. Wilson.
- Fri., " 24.—Dr. Calvert and Mr. Bailey on duty.
Clinical Lecture (Medicine). Dr. Calvert.
- Tues., " 28.—Dr. Morley Fletcher on duty.
- Wed., " 29.—Clinical Lecture (Surgery). Mr. Wilson.
- Fri., Dec. 1.—Dr. Drysdale and Mr. Wilson on duty.
First and Second Exams. for M.B.(Oxford) begin.
Clinical Lecture (Medicine). Dr. Hartley.
- Mon., " 4.—Exams. for M.D., M.S.(Lond.) begin.
- Tues., " 5.—Dr. Hartley on duty.
- Wed., " 6.—Clinical Lecture (Surgery). Mr. Bailey.
- Fri., " 8.—Dr. Horder and Mr. Waring on duty.
Clinical Lecture (Medicine). Dr. Calvert.

EDITORIAL NOTES.

E notice with the greatest of pleasure that two more Bart's men have received the Military Cross. Capt. R. A. Peters, R.A.M.C., has received this honour for tending the wounded the whole day and night under heavy shell fire, and at night was instrumental in getting in many wounded who were lying out in front in the open. Capt. F. G. Lescher, R.A.M.C.,

has been awarded the distinction for initiative in searching for wounded under heavy shell fire. He repeatedly led his bearers through heavy barage. He continued his work until he had got all the wounded to safety.

* * *

It is also our pleasant lot to note that Capt. R. C. Clifford, I.M.S., who has already received the Military Cross, has now been awarded the Distinguished Service Order.

* * *

In a recent issue we referred to the posthumous award of the V.C. to the late Captain John Leslie Green, R.A.M.C. We are now pleased to relate that the King received Mrs. Green on October 7th and handed to her the Victoria Cross won by her late husband.

* * *

Our congratulations are extended to Mr. R. N. Geach, F.R.C.S., who has been appointed Assistant Surgeon to the Italian Hospital.

* * *

It is with very much regret that we hear of the death of Mrs. Edkins, the wife of Dr. J. S. Edkins, the late Lecturer on Physiology at this Hospital. Our most sincere sympathy is extended to Dr. Edkins in his bereavement.

* * *

Whilst we are fortunate this month in that no Bart's men have been lost at the front during this period, yet we unfortunately notice no less than six sons of Bart's men, or members of the School staff. Amongst these we must particularly mention Second Lieut. P. S. Chattaway, the only son of Dr. Chattaway, our late Lecturer on Chemistry, who was killed in action on the 14th inst.; our deepest sympathy is extended to Dr. Chattaway in his sad loss.

* * *

Just as we go to press we learn that the King has been pleased to award the D.S.O. to Captain Augustus Scott-Williams, R.A.M.C., in recognition of his distinguished

service and devotion to duty during the typhus epidemic at the Gardelegen prisoners of war camp in Germany. The epidemic lasted four months, during which time there were over 2000 cases. The Germans displayed great callousness and cowardice and the British and Allied doctors a heroic devotion to duty. Of the sixteen Allied doctors in the camp twelve took the fever, and two died. It is an honour right well deserved, and we hope to publish some of Captain Williams' experience in a later issue.

* * *

The following is the list of the new Junior Staff appointed from November 1st:

<i>House Physicians.—</i>	
Sir Wilmot Herringham	G. Burton
Dr. Tooth	P. O. Ellison
Dr. Garrod	W. H. Blackburn
Dr. Calvert	T. B. Bailey
Dr. Fletcher	N. Sherrard
<i>House Surgeons.—</i>	
Mr. D'Arcy Power	A. Morford
Mr. Waring	H. E. Griffiths
Mr. Eccles	C. V. Braimbridge
Mr. Bailey	C. H. Terry
<i>Medical Receiving Room Officers</i>	{ E. O. Goldsmith
	{ L. Cunningham
<i>Surgical Receiving Room Officers</i>	{ P. Bousfield
	{ A. H. Beyers
<i>Ophthalmic House Surgeon</i>	W. B. Heywood-Waddington
<i>House Surgeon to Throat, Nose and Ear Department</i>	R. Moser
<i>Extern Midwifery Assistant</i>	G. Day
<i>Intern Midwifery Assistant</i>	D. A. Blount

FROM THE FRONT.

LETTER FROM MAJOR L. B. RAWLING.

*No. 34 (The Welsh) General Hospital,
Deolali,
Bombay Presidency,
India.
September 9th.*

IT will be of some interest to the readers of the JOURNAL to know where I am. Deolali is a hill station situated rather more than 100 miles north-east of Bombay. I am in charge of the Surgical Division. We are able to take in 2000 cases, and we are the largest hospital in India. We act as a base hospital for sick and wounded from Mesopotamia.

Wallis (Mackenzie) is with us, also Burn. Stanley has left us to take up the post of Surgical Specialist at Secunderabad.

All of us are well.

Yours truly,

L. BATHE RAWLING
(Major R.A.M.C., T.F.)

TO "SOMEWHERE" IN FRANCE AND BACK TO "BLIGHTY."

"DANGEROUSLY ill from multiple wounds," so ran the wire. Then the hurry and worry to obtain necessary permits and passes. Waterloo at 10.30 p.m., a good non-stop run to —, where the courteous R.T.O. made easy the embarkation on the packet. Some hours of interrupted sleep and a start in the early hours of the morning. The slowness of the steaming, when haste was desired to reach the other side, was trying, and the rolling of the boat in the rough sea even more so. Landing, a little difficulty with some of the necessary papers for entering the "area occupied by the British Army," and the express inland was nearly lost thereby. About an hour's run through beautifully cultivated French land brought us to our destination. Having had our papers examined by the R.T.O., we found a Red Cross car, generously given by the farmers of Dorsetshire, waiting to take us to the hospital. At the wheel sat an English girl, whose helpfulness was great to those tired with a trying journey, associated with much anxiety concerning their wounded relative. A short drive up a very steep hill and we were at No. — Red Cross Hospital, kept for officers only. It is housed in a seminary which, in the days of the Franco-German War, had been used by the Germans for their wounded—thus have the tables been turned. Nothing can be too high in the way of praise for the whole of the staff of the hospital, from the commandant down to the newest orderly.

It so happened that the week-end, September 15-18th, was one of great activity on the western front, and the number of casualties which came through were naturally considerable, and it enabled a great deal of work to be observed at the various hospitals of this large base. Situated on both sides of the river, some miles from the city itself, are the two areas now covered with hospital tents and huts. When one goes round these places, here if nowhere else, one is filled with admiration for the wonderful organisation of the British, and especially of the R.A.M.C. Stretcher, aid post, field ambulance, ambulance train, hospital motor ambulance, stretcher, all and each take a share in the transport, treatment and comfort of the wounded man from the trench to the base. Nothing seems to have been unthought of. Certain it is that stretcher-bearers may be damaged, or even killed, in their courageous work near the firing line; true it is that the aid post may be annihilated by shell fire, the field ambulance overturned in the mud, and an ambulance train run off the line, but such accidents occur in the best regulated families. The wounded man, unless he dies on the way, eventually finds himself comfortably in bed, with all the skill and care of the medical and nursing staff at his disposal.

It was my privilege to see a large amount of the admirable equipment, staffing, running, and medical and surgical work of the General and Stationary Hospitals.

When one remembers that everything had to be prepared—the ground, the tents, the huts, the operation theatre, the X-ray rooms, the pathological department, the destructors, the sanitary arrangements, etc., and all with modern perfection—one is amazed and gratified. Truly we are a wonderful nation—never quite ready, but always there!

These improvised hospitals are to a large extent upon more or less the same general plan, but each has its individual peculiarities. Here I saw an absolutely spick and span quarter-master's department; there one found most elaborate hospital gardens still radiant with colour; at another a most ingenious Russian steam-bath, in which a large number of newly-arriving "walking" cases could be cleansed in a very short space of time; and at still another a kitchen, which looked as if nothing was ever in it which could tend to soil its cleanliness.

One met many a Bart.'s man, many a Bart.'s nurse, but out there, unlike our 1st London General Hospital, they were rubbing shoulders, working, resting, eating, and quarrelling in a good-natured way with others drawn from all parts of the United Kingdom, even of the Empire. Truly it is wonderful, and if it were not that the wastage of war had brought them together one could have been delighted over all.

The surgical treatment carried out is excellent. Of course in the different hospitals it varied, chiefly owing to the personal equation of the staff.

For instance, in one the "salt pack" was practically the only method of treatment of the wounded when first dealt with, in another eusol held its sway, while in a third hardly any wound was treated other than with peroxide of hydrogen.

One great lack was apparent, and it was the want of facilities for treating the wounds by immersing the patient in a bath. The joy with which a wounded man lies submerged in a hot bath in our large home hospitals is so apparent that one wishes baths could be more generally used "somewhere" in France.

Specialism, even in the base hospitals, even though of necessity patients are cleared as quickly as possible, is becoming more and more the vogue. One surgeon will take a particular interest in joint cases, and he is able to point to a ward nearly filled with brilliant successes, particularly in gunshot wounds of the knee. There, as here, infection of the hip or shoulder is always very serious.

Another surgeon has paid special attention to the treatment of open, septic, fractures of the femur, and the ingenuity seen in splinting and dressing of these cases redounds to the credit of both surgical and nursing staff.

One great incentive permeates the whole work, and it is

to get the man fit to return to England or to go back to the firing line. Probably the uppermost thoughts in the mind of the wounded man are two: "Is my wound one that will make them send me to 'Blighty'?" and "How soon shall I get there?"

If one is filled with admiration of the transport to and the treatment at the General and Stationary Hospitals in France, one is amazed at the splendid organisation of evacuation. Think of it, literally thousands a day, even in times which are not excessively busy, are conveyed from hospital to train, from train to ship, from ship to train, and from train to hospital in the homeland with the least possible discomfort or delay. In some places where there is a river or seaport near at hand the necessity of a train journey intervening between the hospital and the ship is negated.

It was my good fortune to be allowed, owing to special circumstances, to return in one of the hospital ships. Some hundreds of wounded and sick were conveyed, by motor ambulances chiefly, from a dozen or more hospitals to the quay-side. Here they were carried or walked on to the ship. The arranging and making comfortable of the "cot" cases takes some time, so that the period from 8 to 11.30 a.m.—the hour at which the ship was to leave her moorings—was none too long.

For the medical officers on board no praise can be too high. Efficient, cheerful, scornful of the waves, capable of work without sleep, alert for emergencies, and enduring the strain week in and month out—such is the record of these men doing their large bit. And what of the nursing sisters? They are "just splendid." If the relatives and friends of the wounded could see the skill and devotion of these sisters in the most trying circumstances, careful, resourceful, clean, and sympathetic, I think they would realise a little more what the nation owes to its nurses in this war. In passing, I may say that, although none of the medical officers were of us, one of the sisters was altogether Bart.'s, and it was grand to see her work.

It is an anxious time for those tending the wounded on a hospital ship. Bad cases come on board—there was one death during the voyage I made—secondary hæmorrhage not infrequent—the troubles and perils of the sea are around—sea-sickness is not pleasant at any time, it is horrible when added to a fractured humerus. Submarines have been known in the Channel, and the masts of sunken vessels are a disagreeable evidence that the enemy did not always respect neutral vessels or even the Red Cross.

Still, the men are buoyed up with the knowledge that a few hours of it may be misery, will bring them to "Blighty," and this forgives much. All are patient; "up" cases revel in the sight of the English shore from the deck, "cot" cases grow excited when the engines stop and the ship is alongside the quay. Then comes the journey in the ambulance train, a journey sometimes short, sometimes long.

It is at this stage that a shade of disappointment may arise. A man whose home and friends are in London learns that the train he is placed in is destined to land him in a hospital in Glasgow, while an Aberdonian is carried to Bristol. Still, with the thousands that have to be dealt with it is impossible to prevent such happenings.

Our ambulance trains are almost perfect, and the manner in which they are run over our railway systems leaves little for improvement. I have in a previous issue of the JOURNAL written an appreciation of the arrival of an ambulance train, and the work of the transportation of the wounded to hospital (see *St. Bartholomew's Hospital Journal*, May, 1915). On this occasion the same splendid care was taken of the one conveyed to the 1st London General Hospital, where unfortunately all the skill and care bestowed upon him was destined to go unrewarded by his recovery from wounds. This fragmentary sketch of a visit paid to "somewhere" in France under somewhat tragic circumstances will suffice, I hope, to kindle or deepen admiration for all the labours of the R.A.M.C. and Nursing Services so freely and generously placed at the disposal of our brave men.

W. MCA. E.

RECENT ADVANCES IN THE STUDY OF SPEECH.

By E. W. SCRIPTURE, M.D.



ALL of us remember that in our clinical years when we referred to our books we never could make out exactly what the authors meant by their "scanning speech, staccato speech, slurred speech," and so on. We read that in disseminated sclerosis the speech is often "scanning," and that a very similar form of speech may be met with in Friedreich's ataxia. We often had observed a laboured speech where each syllable came out with a separate effort; but although the case might be one of disseminated sclerosis, yet it was just as often one of cerebral diplegia, and most often of all an old hemiplegic. We read that in myxoedema the speech is often slow, but for one case of myxoedema that we saw with slow speech we would find a dozen of various other diseases with speech even slower. In short, our minds were in hopeless confusion in regard to the speech signs, and when we attempted to use them for a diagnosis we generally found that we had made a mistake.

The trouble does not lie with the physicians or with the men who write the text-books; it arises from the fact that an accurate scientific study of speech in disease has never been carried out.

The problem is not an impossible one, as has just been shown by recent work. The trial of many methods has resulted in the development of one that is not too com-

plicated, and is direct and accurate. An outline of its principles may be of interest.

The patient speaks into the mouth-piece of a rubber tube which conducts the waves of air to a flexible membrane at

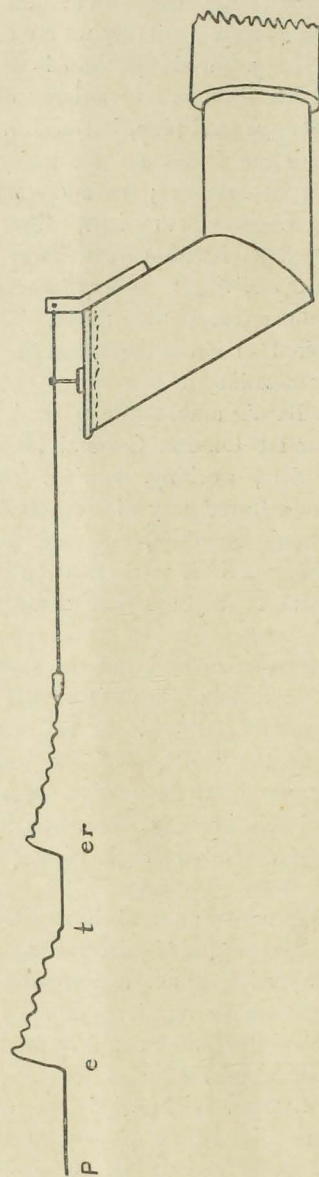


FIG. 1.—DIAGRAM OF THE RECORDING APPARATUS. The air waves passing through the rubber tube set a thin membrane in motion whose vibrations are recorded by a light lever writing on the revolving surface of a blackened drum.

the end of a metal tube. The vibrations are recorded by a lever on the moving surface of a blackened cylinder. The speech thus appears recorded as a white line on a blackened surface (Fig. 1).

A phonautograph record of "Peter Piper's peppers" from a case of general paralysis is given in Fig. 2. One of the marked characteristics of this record is the variability

of the lengths of the occlusions and heights of the explosions. Every one of these sounds would be a correctly formed sound in some language. In any language such as English the lengths of the occlusions and the heights of the explosions are practically constant. Here there is a variation round the type. This variation from the type is known as "asaphia." It corresponds to what has been rather improperly called "cortical ataxia." A particular interest lies in the fact that asaphia can be found in the records long before it can be detected by the ear. The method thus offers a means of recognising general paralysis at a very early stage, when it is often confused with neurasthenia or other troubles.

The study of records of many cases of general paralysis has shown that asaphia is the one sign that is never lacking whether the case is early or late. As the degeneration continues, other disturbances of speech arise. These proceed until in the advanced cases every factor of mental and nervous degeneration is shown in the records.

The speech in disseminated sclerosis shows so many protean forms and varies so utterly from one case to the next that all attempts have failed hitherto to introduce any system of classification. One prominent neurologist has declared that there is no one type of speech characteristic of this disease. Many records have been made of cases, and it has been found possible to reduce all the many varying and confusing speech symptoms to one fundamental principle, namely, "motor ataxia" and the efforts to correct it (anataxia). It is interesting to note that this ataxia shows itself in the records before any speech disturbance can be detected by the ear. This is of great value for an early diagnosis.

Studies of spastic speech in infantile cerebral diplegia have shown very characteristic peculiarities, and have indicated that the present methods of treating these cases by education in precise and accurate movements is directly contra-indicated. It has been found that the only really successful way of improving the speech and also the movements of the legs and arms is by systematic training in lessening the amount of voluntary effort needed for the action; as this effort becomes lessened the speech and the movements become correct of their own accord.

These methods are being extended to the various nervous and mental diseases. A characteristic epileptic speech has been found. The records of speech in hysteria can never be confused with those of epilepsy; a differential diagnosis is always possible. Certain peculiarities have been observed in the speech of dementia præcox.

In the course of time we may hope to establish the speech signs for all the nervous and mental diseases so definitely that the disease can be diagnosed by an analysis of the speech record alone. The method will then do for such troubles what an elaborate urinary analysis does for metabolism.

It is interesting to note that some of the troubles hitherto regarded as being the most characteristic speech "defects" are shown to be in no sense cases of diseased speech. Probably if one were asked to give the most striking speech

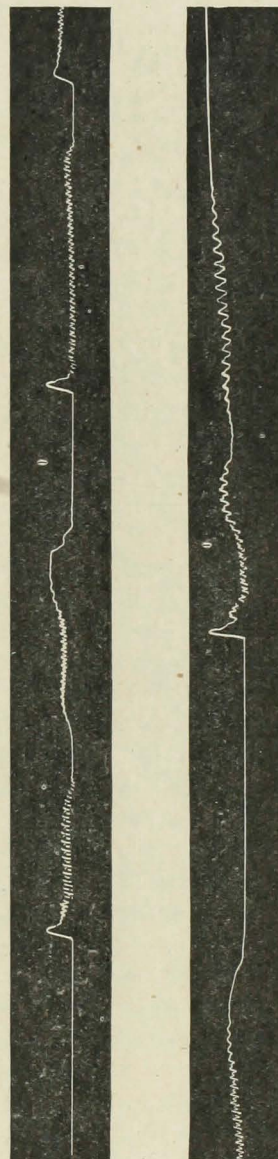


FIG. 2.—PHONAUTOGRAPH RECORD OF "PETER PIPER'S PEPPERS" BY A CASE OF GENERAL PARALYSIS. The straight lines show the durations of the "occlusions" during which the lip- or tongue-passage was closed. Each occlusion ends with a slight puff of air, or "explosion," which shows in the record as an upward jerk. In normal speech all the occlusions are of about the same length and all the explosions of about the same height. In this record the occlusions vary. For example, that for the second "p" in "Piper's" is only half that of the first "p." The "pp" of "peppers" should have been recorded by a straight line for the occlusion with an upward jerk for the explosion; really there is neither; the line does not sink completely, indicating that the lips were not completely closed; there was no explosion, and the small waves indicate that the larynx kept on vibrating instead of stopping. The variations in the details of the letters while they conform to the general type are illustrations of asaphia (cortical ataxia). The presence of laryngeal vibrations in the "pp" is due to transmission apraxia. The insertion of "s" in "Peter's" is due to transmission apraxia.

disease he would name stuttering. It is quite true that the records of stuttering show most grotesque abnormalities, yet these never in any way resemble the records found for any troubles that involve the speech mechanism, either bodily or mentally. Since the whole ground has now been covered in outline we can declare that stuttering is not a speech disease at all. The reasons for concluding that

stuttering is a psychoneurosis closely related to hysteria are derived from other sources that we do not need to consider here.

A large amount of work has already been done at various London hospitals in the speech line; but publication of the results is only now being begun, because it was thought wise to wait until the chief diseases had been studied.

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NOTES ON MINOR SURGERY.

No 2. A NEW METHOD OF SUTURING WOUNDS.

By PAUL BOUSFIELD, M.R.C.S., L.R.C.P.

THE following technique was primarily designed as a painless method of closing incised wounds in children.

It is within the experience of all that a child with a cut forehead is terrified at the thought of a stitch being inserted. Moreover the process is rendered more difficult by the fact that the child will often perform contortions during the operation, at the same time using its voice and lungs in no measured manner. Under these circumstances one is sometimes unable to get the stitches symmetrically placed, and an unsightly scar may result; further, there is a strong temptation to make two stitches answer the purpose of three, with a similar inartistic result.

With the idea of avoiding all pain in closing these wounds, and at the same time of getting a good scar, I use the following method, which does not necessitate the skin being punctured with the needle.

Two strips of plaster, each about one foot in length by a quarter of an inch broad, are stretched on a table and pinned down at each end, the two pieces of plaster being parallel to one another and about half an inch apart. The adhesive side is downwards. Across these strips and at right angles to them are placed pieces of horse-hair or silk at intervals of half an inch. Two more strips of plaster are now placed on the top of the horse-hair, fastening this securely down to the first strips. The ends of the horse-hair are now carried round to the under-side of the first strips—*i. e.* to the adhesive side, to which they adhere, and the superfluous ends are cut off.

We now have formed a kind of ladder the sides of which are formed by plaster strips, the rungs by the horse-hair or silk.

This is kept in stock ready for use. In treating a cut on the forehead or arm, say of one inch in length, I should merely cut off about one and a half inches of this ladder. Pressing one of the plaster sides on to the skin a quarter of an inch from the wound, I then close the edges of the

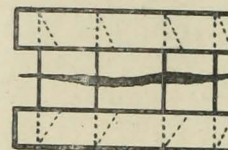


FIG. 1.—AS APPLIED TO A SMALL INCISED WOUND.

wound with suitable pressure, and, while it is compressed, fasten down the plaster on the opposite side. The horse-hair is then stretched across the wound and takes the place of an ordinary suture (Fig. 1).

As a variant of this method I sometimes place a piece of plaster on each side of a wound and then, inserting the needle between the plaster and the skin, stitch the two pieces

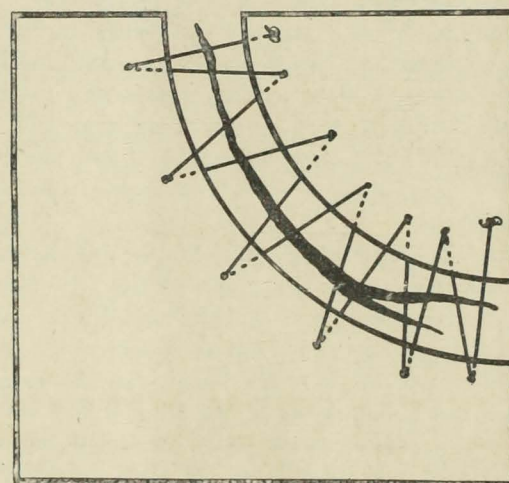


FIG. 2.—AS APPLIED TO AN IRREGULAR CURVED WOUND.

of plaster together. This method is especially suitable where a wound is curved or irregular, as the plaster can be cut to the shape required (Fig. 2).

In extending this method to abdominal wounds, or large wounds elsewhere, I find that considerably wider pieces of plaster must be used, and these may be reinforced by other pieces at right angles extending to a distance of several inches on either side. The reason for this is two-fold. In the first place the force tending to open a large wound on the abdomen is much greater, and a greater adhesive surface is necessary in order to avoid risk of slipping; and in the

second place a consideration of the mechanical forces at work will show that if the pull be applied only near to the edges of a deep wound, the edges will be approximated, but the flesh immediately beneath will not meet and the edges will thus be turned in (see Fig. 3). In order to pull the lower portion of the wound together, the pull must be applied at a distance (see Fig. 4). It must be remembered that, even so, closure can only take place to a depth of about half an inch, with any degree of certainty.

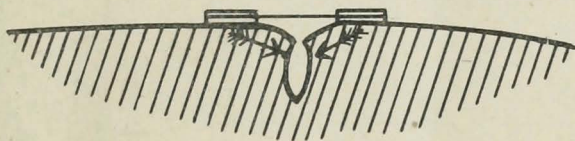


Fig 3.—INVERTED EDGES OF DEEP WOUND DUE TO LACK OF TENSION AT A DISTANCE—ONLY NARROW STRIPS OF PLASTER HAVING BEEN USED.

[The arrows indicate the direction of movement or compression of the underlying tissues.]

There are certain situations in which this method of suturing cannot be applied, viz., at angular points such as the chin, or upon hairy surfaces, such as the scalp, unless this be very thoroughly shaved, which is often impracticable.

On the other hand, there are certain very definite advantages to be claimed for its use.

(1) The avoidance of pain either in suturing or in removing sutures.

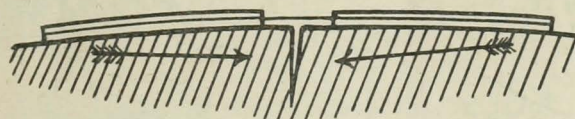


FIG. 4.—CORRECT CLOSURE OF DEEP WOUND. TENSION IS EXERTED FROM A DISTANCE—BROAD STRIPS OF PLASTER HAVING BEEN USED.

[The arrows indicate the direction of movement or compression of the underlying tissues.]

(2) The improved scar, for there are no stitch holes, and no puckering of the skin.

(3) In cases of suppuration there is more ready egress for discharge, and "stitches" can be removed in definite positions with the least possible difficulty.

(4) In cases where there are wounds with friable edges, or irregularities which will not hold ordinary sutures, this method will often overcome the difficulty.

(5) The speed with which the suture can be applied when it has merely to be cut off from a ladder-like strip of sutures first described.

It is very necessary to use a good plaster, there are many adhesive plasters which are liable to slip or "dry off" and

such as these are, of course, worse than useless. A plaster which I have found excellent in practice is "Curity" adhesive plaster, which has zinc oxide in its constitution and is made by the Lewis Manufacturing Company, U.S.A.

A CASE OF SPONTANEOUS HÆMORRHAGE FROM THE SPLEEN.

By W. E. WILSON, M.R.C.S., L.R.C.P.



MILY L—, æt. 18, was admitted to the Hospital on September 6th at 1 p.m., complaining of abdominal pain.

History Preceding Admission.—September 5th, 7 a.m. There was severe pain in right iliac fossa which woke the patient up; she felt sick and vomited.

The pain remained all day, but was not very severe. The patient had no sleep that night.

September 6th.—There was pain now in left hypochondrium. There was no vomiting. The bowels were open. The patient was seen by a doctor, and sent here as case of appendicitis.

Case on Admission.—The patient walked to the hospital; she was rather pale, but was apparently not in any great pain. On questioning, she said she had some pain in the right iliac fossa, about the umbilicus, and in the left hypochondrium. There was some rigidity and tenderness in right iliac fossa, but it was most marked in the left hypochondrium. No swelling was palpable. The abdomen was not distended. There was a suggestion of free fluid in the peritoneum on the right side. The skin was rather clammy. T. 96.8° F.; P. 120; R. 28.

Operation.—A definite diagnosis was not made, but the patient was first explored in the appendicular region, an incision being made at the outer margin of the right rectus below the level of the umbilicus. On opening the peritoneum free blood was found in the peritoneal cavity. The contents of right iliac fossa were explored; the appendix was found to be normal, and no cause for hæmorrhage discovered here.

The abdomen was then opened in the middle line above the umbilicus and explored for the cause of the bleeding. The left hypochondriac region was explored and the spleen found to be the cause of the trouble. The incision was enlarged and the spleen removed. Nothing else abnormal was found in the abdomen, there were no enlarged glands, the liver was not enlarged. The abdomen washed out with saline, and clots of blood were removed. The patient had lost a great deal of blood, her pulse becoming very rapid and feeble until the splenic vessels were ligatured, after which she improved considerably by the time the abdomen

was sewn up. Next day her condition was very good indeed. She had an uninterrupted recovery, being kept quiet in bed for three weeks, and discharged in a month.

On examining the spleen it was found that there had been a large hæmatoma under the capsule, which had ruptured into the peritoneal cavity. Beyond this the spleen seemed quite normal in size, etc.

Reports on examinations of blood were as follows:

7-9-16 (morning after operation).—R.B.C., 3,200,000.

W.B.C., 35,000. Normoblasts (2 in 500 W.B.C.).

Platelets unusually conspicuous. Slight relative lymphocytosis.

11-9-16.—R.B.C., 3,050,000. W.B.C., 20,000. Nor-

moblasts (1 in 500). Anisocytosis and polychromatophilia. Slight relative lymphocytosis.

26-9-16.—R.B.C., 4,870,000. W.B.C., 3,500. Rela-

tive lymphocytosis, Wassermann reaction positive.

The case is interesting from two points of view, firstly, the differential diagnosis; secondly, the cause of the hæmorrhage from the spleen without any obvious history of trauma or violence, which is a very unusual condition. The diagnosis of splenic hæmorrhage (it cannot be called ruptured spleen) was very difficult in this case. It would well have done for an acute appendix, except for the subnormal temperature.

Perforated gastric ulcer had been suggested, although there were many points against it, such as the temperature and absence of history of indigestion, the onset of the attack, and combined with this the age, etc.

No family history of syphilis was obtained from the relations, and no possible cause for the condition could be extracted from them or from the patient herself. When discharged the patient looked a particularly healthy girl.

It is interesting that the pain from the beginning of the attack was in the right iliac fossa, and only appeared later in the splenic region. This could perhaps be accounted for by the blood, as a result of the splenic hæmorrhage tracking down along the upper surface of the root of the mesentery, which conveyed it to the appendicular region, where it accumulated. The line of the root of the mesentery corresponded to the regions of pain, namely, the right iliac fossa, the umbilical region, and the left hypochondrium. The blood must have oozed very slowly into the peritoneal cavity from the spleen, seeing that she was operated on thirty hours after the onset of her pain in the right iliac fossa. Also, her condition and appearance when admitted did not give any great cause for alarm as a large hæmorrhage would have done.

The pathology and cause of the condition would be interesting.

I am very much indebted to Major Bailey and Captain Girling Ball for allowing me to publish the above case.

TWO CASES OF FRACTURE OF THE OS CALCIS.

R. C. DAVENPORT, M.R.C.S., L.R.C.P.

TWO cases of fracture of the os calcis, occurring very shortly the one after the other and showing different types of fracture, seem of sufficient interest to be recorded. I am indebted to Major McAdam Eccles for permission to publish the notes of the cases.

(1) W. T—, æt. 38, was admitted on August 29th, 1916, giving a history of a fall down a lift shaft through mistaking the entrance for the door of a room. The depth of the shaft was said to be about thirty feet and its width about six feet. The flooring was probably concrete and smooth.

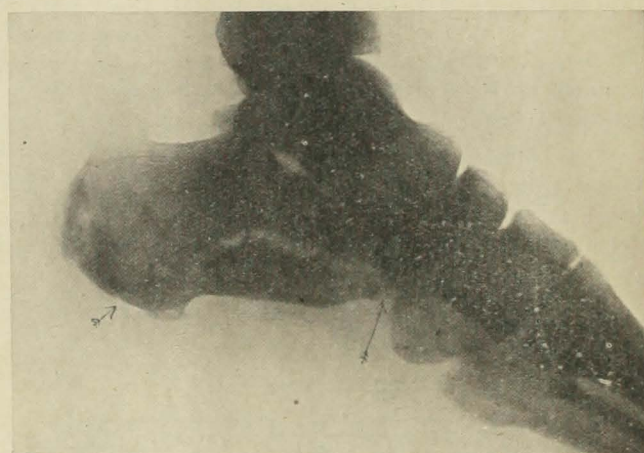


FIG. 1.—HORIZONTAL FRACTURE OF OS CALCIS.

Patient showed considerable shock and was in great pain, particularly in the left arm and left heel and around the pelvis. The left heel was swollen and hot but not reddened. Palpation showed much tenderness but revealed nothing definite. The movements of the ankle joint were limited and caused great pain. A provisional diagnosis of fracture of the left os calcis was made, and this was confirmed by skiagram (Fig. 1) which shows a longitudinal fracture which turns downwards before reaching the tuberosity. Also a small vertical fracture far forward on the upper surface. Patient also had three fractures of his pelvis, a left Colles' fracture, and a fracture of the internal condyle of his left humerus.

(2) W. S—, æt. 17, was admitted on September 27th, 1916, stating that on September 25th he fell some thirty feet on to stone ballast. A skiagram was taken on that day as no definite diagnosis could be made, and this revealed a comminuted fracture of each os calcis (Figs. 2 and 3) though the reproduction of Skiagram 3 shows only one vertical

fracture. In this case swelling and tenderness were the only signs to be elicited, for the movements of the ankle-joints seemed perfect. In neither case could crepitus be felt.

As is usual the bone in all the three cases is comminuted,

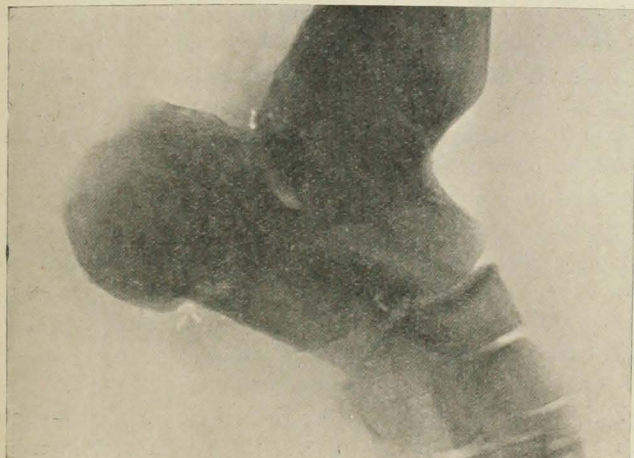


FIG. 2.—VERTICAL FRACTURE OF THE RIGHT OS CALCIS.

but owing to the binding of the soft parts displacement is but slight. The long horizontal fracture in the first case is unusual, and the fact that in both cases joints are involved seems to have made no difference, for the right foot of the second patient recovered its full functions as

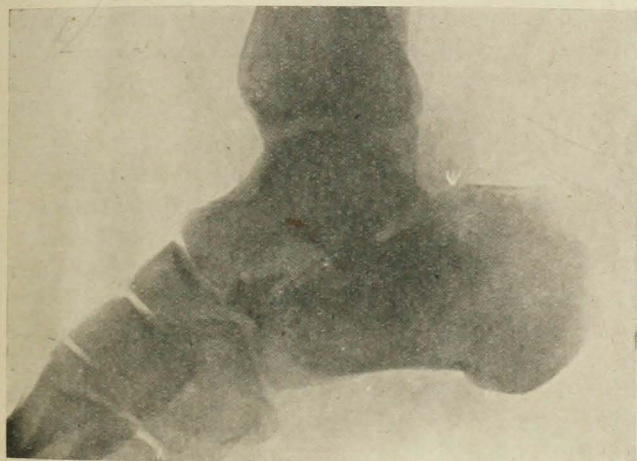


FIG. 3.—VERTICAL FRACTURE OF THE LEFT OS CALCIS.

quickly as the left, though the fracture was complicated by extension into a joint.

Both men gave a history of falling on their feet—the latter of a definite fall on to his heels—and this is almost always the history, for a fall on to the ball of the foot is more usually attended by forward dislocation of the astragalus.

Both cases were treated by rest without splinting of any form, the only precautions taken being to prevent talipes equinus and stiffness of any joints through disuse. Accordingly early massage and passive and active movements of all the joints were enforced.

There has been no persisting pain or tendency to "flat foot," but whether the latter will follow on further use remains to be seen.

EXTRACTS FROM THE PRIVATE JOURNAL OF DR. REVLYN-BLOOD,

SOME TIME ASSISTANT PHYSICIAN
ACCOUCHEUR TO ST. BARTHOLOMEW'S
HOSPITAL. 1609-1616.

Found in an Old Chest during alterations to "Mackenzie's."

(Continued from Page 9.)

19th. Mr Extern very instant with me toe take conduct of a labour—hee faying it was high tyme and I dallying fo long and holding his hande. So to Flag Alley—but flowly and with great misgivings—tho' I put itt forthe twas but y^e thoughte of y^e fleas thatt wroughte ill vpon my spirits—and there founde y^e wyfe of a dealer in small cole in greate hope of a XIIth babe. Did make triall of itt and fware I could feele its Eares and Eyes and presd vpon them toe make sure—they being mighty soft and one bursting as I did thinke. Anon came y^e Amnion Water of a sudder, I being without apron.

Did thinke how twas mightie Diagnostick of a Face—that being all I could calle toe mynde from my boke of wordes. Sat awchyle in greate hopes of a speedy deliverance and writ oute a long paper toe Mr. Extern showing how twas plainly a face or twin babes lying transverse and did adde toe itt aboute a greate flux of bloode coming after—tho' this laft were only as it were a f safeguard left it should bee so—y^e babe coming not yett.

Markd how one oppofite did play "Another litel drinke" at y^e harpfichord—but a poore thing and ill playd with half y^e notes dumb, and how shee, presently taking to hearte her song did ceafe and filling a greate can wth ayle did toast our speedy success—wee being in plaine view and y^e blinde broken. Talked awchyle wth y^e nurfe, a comely enough wench,—but y^e babe—turning to y^e lefte and in fronte was born of a sudder very eafy and no more ado.

Packd vppe my geare, being at greate paines to show y^e nurfe how twas ever thuf with my cafes be they never so desperate (w^{ch} laft was a greate LYE, this being my first cafe). And so parted very merry.

Mem. Founde y^e letter to Mr. Extern in my pockett—must burne itt.

Aug. 20th. With M^r Extern to a cafe by M^r Grousefwell who doth tell of y^e babe being vpright and y^e harte heard high vppe—but when wee were come to mayke triall of itt did perceive itt to be more nearly oblique and presently—looking narrowly, I did see itt to turne, as Euclid hath it, Base over Apex like S^t Catherines Wheele—but M^r Extern will nott stomach thifs and saith twas no spontaneous Recktification—but holdeth with learned D^r Eden that twas naught but y^e babe at exercife.

And so to bedd, M^r Extern saying 'twas plainly no cafe for drinckes alle rounde.

Aug. 24. To y^e Houfe Chirurgeons roome and there made a greate musick.

D^r Norman, but lately come from Oxford making greate sport at y^e Harpfichorde and hee very clever at playing sometimes wth one finger, and anon very quicke with two handes so thatt one may nott perceive y^e motion of them save only a dimnests in y^e aire, w^{ch} pleased us much.

Did note how hee, by y^e exceeding fury of his musick, did quite vanquish and overcome y^e musick manglers of y^e White Harte and y^e players of streete musick—they being poore toilers at eache note and onlie able to compafs Pot house aires and poore ballads of squire Chumley—and how he, turning of a sudden to litel gentle aires of former dayes did play with fuch exceeding sweetnests that all were compell'd to filence and all listening at y^e windowes. So to bedd—but presently calld and needs must drefs againe—there being an alarme of y^e Enemy attacking from y^e sky w^{ch} shows how thefe lewd Germans, being brought by oure armes to a deadlocke on Earthe, scruple nott to put Heaven to theire base vses.

To ye rooffe with alle our Company and did note y^e Generall there mayking a brave show in his laced Coate. Waited awhile in darknests and naught to bee seen, but presently came a found like to a man humming a greate way off, and y^e greate lanthorns all lit vppe searching y^e sky. Then we did heare y^e sound of cannons far off, at w^{ch} y^e Generall was very instant with us to retyre—but stayd with another and climbed vpon a poft whence we did see a great light over vpon Greenwich—all red—and a mightie found and shelles to burft in y^e sky (or did thinke we didde) there being a greate prefs of lights and cannons fying.

Anon, all being quiet, did climb downe but being catcht suddenly in a greate flare of lighte did thinke our last houre was come and prayd very vrgent—tho' I did heare my companion to use wordes but ill fitted to y^e Church service—and so dropt to y^e rooffe, but no explosion followd and we did see 'twas naught but a greate lanthorne shynig bright vpon us and all oure panick in vaine.

So to y^e Chirurgery and marked how greate a prefse was there all drincking and mayking merrie against y^e ende and a greate deal of cocoe and small cakes used.

Did see also y^e Bilhop to take counfel wth others in y^e middle Roome and he very brave at y^e cocoe.

To y^e square and saw many walking toe and fro and others fat fmoaking and one I did see fmoaking that should not—but enough said.

So to bedd againe, sadd toe have seen so litel.

Mem. Did heare how y^e Warden lookd weary next day and very short in speech.

25. To y^e Queenes Warde and heard a noble discourse on Hydramnnoticks by D^r Chearful—he discovering to us y^e plaine reasons for such a mischance, telling them by y^e alphabetickal letters in order. Did note how hee cryed downe y^e practife of Paracentesis Abdominis in fuch an event, he holding strongly that y^e lessening of y^e naturall elements in fuch a manner doth discourage y^e babes from y^e first and thus preventeth them from early learning to fwimme. Heard also of y^e Saproemick Condition and how twas now held separated from y^e Septicaemick State—y^e former arising from foule humours retayn'd within y^e body and y^e latter from y^e pestilential poyson w^{ch} some poore folk doe breed in their owne veins and are thus confumed.

Did note there were none of these in oure warde—but was told twas y^e practife to fend them to a darke warde undergrounde and make casualties of them.

26. To Bottle Alley with M^r Paterfon and there prevail'd vpon one of oure poore patients to come to y^e Hospital—or as they say “to tayke her inn.” Shee being very sick of a greate imposthume on her breaft and we waiting with a coache at y^e ende of y^e alley.

Did note how many did throng vs thinking 'twas an arrest or at y^e least a funerall: and how she, being drest and come down we did urge her to y^e coache with greate cries—there being about three hundred present all very filthy and shee supported at each hande by her spouse and y^e Gampe—both mightie drunke and nigh falling at eache step. Did stow her in y^e coache what tyme her neighbours cryed out to her very hearty to take courage—saying “We shall meete againe in Heaven” and y^e like and reasoning among themselves whether they were downhearted or no and others answering with a great shouting.

So to y^e Hospital, she mighty sad and wee prying her with cordials.

27. Came M^r Extern and let open y^e imposthume wth his greater knife mightie pretty, and I mightie near pickt off wth y^e humours that came from within itt. Did note how he stuck therein a hollow rod with holes to give encouragement he faith.

28. To drefs her wounde and heard how shee, coming round from y^e anisthetick did descrybe y^e nurfing staff at greate length giving all detailes and many Home Truths tolde and how y^e other patients did make merry of it.

To-day M^r Snagdout to Richmond with Grousefwell and others all making merry with one another, and mightilie diverted by M^r Snagdout's pretence that twas his first coming to Towne and he asking all kind of antick questions of y^e strangers on y^e Coache. Heard how one—an olde

beldame sitting neare—did spend clofe vpon an houre making plaine to him how twas y^e Mufick Halle and not Westminster Abbey, as hee did seem to thinke, that they passed at Chiswick.

Heard how Mr. Groufewell was catchd in a greate storm of raine—he taking no cloke—and sitting perforce outside. Did note how he cried downe y^e towne of Richmond on his return and will not beare it so much as spoke of.

29. Calld this morning very Early by one Creapy a porter who told of a letter waiting me—but slept again, it being revealed to me in a dreame that y^e woman was not yet in travail.

Presently he comes againe and so I rose. To Blinde Alley and there founde one delivered of her babe some hours and not sending till th n. Did mine office quickly and so to to bedd againe.

Called again at 6 o'clock by y^e under porter one Marnight to St. Lukes againe and found another babe in like case with y^e first.

Did kneade y^e mother though shee making greate ado did kick me shrewdly but I turning round sharpe did put in a stitch or two tho' she was not torne as a lesson to her.

Mem. Shall see to itt that all mothers have their booties drawn off or their leggs tyed in future.

30th. A quiet day and nothing.

31. Visited oure poore folk for y^e laft time and sadd to leave them. Called at one o'clock by Marnight y^e porter to a woman with a greate fluxe of bloode and had a greate ado to stanch itt.

STUDENTS' UNION.



MEETING of the Council was held on October 19th.

It was decided that :

(1) A freshmen's meeting should be held as soon as possible.

(2) An estimate should be obtained for a suitable glass-covered case in which to keep the Hospital Cups in the library.

(3) The paper *Land and Water* should be discontinued, and that for it should be substituted *Country Life* and one other illustrated weekly journal.

NOTICE.

The Secretary regrets to inform the members of the Union that many and continual complaints have been made with regard to the condition of the illustrated papers in the Abernethian Room, which are unnecessarily defaced, torn, and rendered useless. Arrangements will shortly be made for the sale of these papers to members of the Union by contract, and it is earnestly hoped that everyone will try to preserve their original condition as far as possible.

PRESENTATION TO MR. E. W. HALLETT.



ON October 20th an interesting meeting took place in the Anatomical Theatre on the occasion of the completion by Mr. E. W. Hallett of twenty-five years' service in the Anatomical Department. A presentation was made to Mr. Hallett on the part of the Dean and the past and present members of the staff of the department; unfortunately, owing to war conditions, many of the subscribers had to express their regret at not being able to be present, but the gathering, though small, was representative of all periods of Mr. Hallett's connection with the department, and including, we were pleased to note, a distinguished late lecturer, the Rt. Hon. Dr. Christopher Addison, P.C.

Mr. Jessop, who was Senior Demonstrator at the time of Mr. Hallett's appointment, made the presentation, and in recalling the early days of the department he told several interesting and amusing stories, after which he handed to Mr. Hallett, on behalf of the twenty-seven subscribers, an inscribed photograph of the Smithfield Gate and a War Savings Certificate for the balance of the subscriptions, with a list of the subscribers' names.

Mr. Hallett replied, recalling his long service in the "rooms," and assuring those present of his feelings of loyalty to the Hospital and School. Thus concluded an interesting occasion, recalling a quarter of a century of excellent service.

CORRESPONDENCE.

BERMONDSEY MILITARY HOSPITAL,
LADYWELL, S.E.

DEAR SIR,—While invigilating at one of the examinations at the Apothecaries' Hall, I have just seen a copy of the ST. BARTHOLOMEW'S HOSPITAL JOURNAL. I thought it might interest you to know that I have this morning received a cable from my son-in-law, Capt. A. S. Cane, R.A.M.C., an old Bart.'s man.

He left India in November, 1914, with the 6th Division for Mesopotamia, where he has been ever since. After seeing a good deal of fighting he was shut up with Townshend's force in Kut-el-Amara, and at its fall was taken prisoner by the Turks. He reached Baghdad, but fever and jaundice developing, he was kept there in hospital. When sufficiently recovered, he was put on duty to attend the British, Indian, and Russian prisoners. Last month he was exchanged, and, reaching Busra, was sent on a hospital ship to Bombay, which he reached on the 18th ult. and was admitted into the Calaba Hospital. Cable just received states that he is sailing from Bombay to-day for three months' leave in England. I thought these few notes might be of interest, as he is a Bart.'s man.

Yours truly,

H. W. MARCH TIMS, Major, R.A.M.C.
O/c Bermondsey Military Hospital,
Ladywell, S.E.

October 4th, 1916.

REVIEW.

PULMONARY TUBERCULOSIS IN GENERAL PRACTICE. By H. G. SUTHERLAND. (Cassell & Co., Ltd.). Pp. 290, 6 plates, 42 figures, and 9 charts. Price 10s. 6d. net.

The aim of the work, as stated in the preface, is to present, with an especial view to the requirements of the general practitioner, "the modern conception of pulmonary tuberculosis as a systemic disease, with an account of clinical and biological methods of diagnosis, and the national treatment of the malady." In our opinion the author has been entirely successful in his endeavour. The pathology, course, symptoms, and physical signs are dealt with in a most clear manner; the chapters on treatment, however, are perhaps the most useful, and these are very thoroughly entered into, especially from the practitioner's point of view, and from the point of view of the patient who must be treated at home. The work gains interest from the fact that it was written in the neighbourhood of the equator on board H.M.S. armed merchant cruiser "Empress of Britain," and that many of the diagrams have been drawn by surgeons of the Royal Navy. A work that we can confidently recommend to the general practitioner.

EXAMINATIONS.

CONJOINT BOARD.

First Examination.—September, 1916.

Part I. Chemistry.—D. H. Cockell, T. B. Thomas.

First Examination.—October, 1916.

Part IV. Practical Pharmacy.—J. B. Brash, H. Davies, S. R. E. Davies, W. A. Drake, M. N. Eldin, E. F. S. Gordon, K. A. I. Mackenzie, H. Nosrat.

Second Examination.—October, 1916.

Anatomy and Physiology.—D. P. Guilfoyle, H. L. Sackett, A. W. Taylor, N. S. B. Vinter.

APPOINTMENTS.

R. N. GEACH, F.R.C.S., appointed Assistant Surgeon to the Italian Hospital.
Lieut.-Col. A. G. HENDLEY, I.M.S., M.R.C.S., L.R.C.P., appointed Officer in Charge, Military Hospital, Parkhurst, Isle of Wight.
E. G. STANLEY, M.S.Lond., F.R.C.S., appointed Surgical Specialist, Secunderabad, India.

NEW ADDRESSES.

R. ARMSTRONG-JONES, 9, Bramham Gardens, S.W.
M. D. EDER, 37, Welbeck Street, W. (Tel., Mayfair 1094.)
A. F. FLOWER, Temp. Capt., R.A.M.C., Inns of Court O.T.C., Berkhamsted.
A. J. S. FULLER, 17, Park Road, Southborough, Tunbridge Wells. (Tel., 29 Southborough.)
R. W. B. GIBSON, 145, Eighth Avenue, Mayfair, Johannesburg.
F. GRÖNE has changed his name to F. PIERCE GROVE, and his address to Stoke House, Stoke St. Mary, Taunton.
Lieut.-Col. A. G. HENDLEY, I.M.S., Clatterford Farm House, Carisbrooke, Isle of Wight.
C. D. KERR, Meekatharra, West Australia.
F. G. LLOYD, 10, Upper Phillimore Place, Kensington, W.
C. A. S. RIDOUT, Major, R.A.M.C.(T.), No. 29 Stationary Hospital, Salonica Army.
R. M. SOAMES, Temp. Capt., R.A.M.C., Ridgeway, Reigate Hill, Reigate.
E. G. STANLEY, Temp. Capt., R.A.M.C., Station Hospital, Tremulgherry, Deccan.

BIRTHS.

ADAMS.—On October 4th, at 13, Prince's Gate, W., the wife of Surgeon J. Wroth Adams, R.N. (née Gwinnell Wonwell, Bedford Park), of a daughter (Dorothy Margaret).
CATES.—On October 11th, at Laurel Mount, St. Helens, the wife of Joseph Cates, M.D., D.P.H., of a son.
DAVIS.—On October 23rd, at 24, Upper Berkeley Street, W., the wife of K. J. Acton Davis, F.R.C.S., M.C., a daughter.
HEALD.—On September 27th, at The Cottage, Weybridge, the wife of Capt. C. B. Heald, R.A.M.C., of a daughter.
MAUNSELL.—On October 21st, at Farnleigh, Kettering, Northamptonshire, the wife of Bertram S. O. Maunsell, of a son.
MELLER.—On October 14th, at Harcourt, Leighton Buzzard, to the wife of Surgeon R. W. Meller, R.N., a daughter.
PULLING.—On October 23rd, the wife of John B. Pulling, M.B., B.C.Camb., The Grove, Faringdon, of a son.
WHITING.—On September 22nd, to the wife of E. W. Whiting, M.B., B.S.Lond., 51, Woodlands Road, Ilford, a daughter.

MARRIAGES.

GIBSON—MCNAIRN.—On July 12th, at the Church of St. John the Baptist, Harrismith, O.F.S., South Africa, Robert William Beor Gibson, B.A.Cantab., M.R.C.S., L.R.C.P., to Elizabeth Winthrop McNairn.
HANDS—COX.—On October 25th, at the Servite Church, Fulham Road, by the Very Rev. Austin Moore, Dr. Charles Hubert Hands, Totland Bay, I.W., to Nancy Cox, Fulham.
SANGER—CREWDSON.—On September 27th, at St. Mary's Church, Syde, by the Venerable Archdeacon of Cirencester, assisted by the Rev. John Sanger, Frederick Sanger, M.D., of Rendcomb, Cirencester, to Cicely, youngest daughter of Theodore Crewdson, of Styal, Cheshire, and Syde, Gloucestershire.
SHERMAN—BROOKE.—On October 23rd, at St. Alfege, Greenwich, by the Rev. F. J. Tackley, Vicar of Greenwich, assisted by the Rev. John Kirby, M.A., Capt. Reginald Sherman, R.A.M.C., elder son of the late Arthur Sherman and Mrs. Sherman, 2, Gloucester Place, Greenwich, to Dorothy Raffles, elder daughter of J. Raffles Brooke and Mrs. Brooke, Osborne House, Formby, Lancs.
STIDSTON—CUMBERLAND.—On September 27th, at the Parish Church, Luton, by the Rev. J. St. Clare Hill, assisted by the Rev. A. E. Chapman (Vicar), Lieut.-Col. C. A. Stidston, M.D., R.A.M.C., T.F., of Wolverhampton, and Olive, youngest daughter of Mr. Hugh Cumberland, J.P., of The Lynchet, Luton, and the late Mrs. Jeanie Cumberland.

ACKNOWLEDGMENTS.

The Medical Review, The Hospital, Long Island Medical Journal, New York State Journal of Medicine, The Shield, The Middlesex Hospital Journal, St. Thomas's Hospital Gazette, The Nursing Times, Guy's Hospital Gazette, The British Journal of Nursing, St. Mary's Hospital Gazette.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial, or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, the Journal Office, St. Bartholomew's Hospital, E.C. Telephone: City 510.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD & SON and WEST NEWMAN, Bartholomew Close. MESSRS. ADLARD & SON and WEST NEWMAN have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXIV.—No. 3.]

DECEMBER 1ST, 1916.

[PRICE SIXPENCE.]

CALENDAR.

- Fri., Dec. 1.—Dr. Drysdale and Mr. Wilson on duty.
Minor Operations. Mr. Waring's dressers.
First and Second Exams. for M.B.(Oxford) begin.
- Mon., „ 4.—Exams. for M.D., M.S.(Lond.) begin.
- Tues., „ 5.—Dr. Hartley on duty.
- Fri., „ 8.—Dr. Horder and Mr. Waring on duty.
Minor Operations. Mr. Eccles' dressers.
- Mon., „ 11.—First Exam. for Med. Degrees (Lond.) begins.
First, Second, and Part I of Third Exams. for M.B.
(Camb.) begin.
- Tues., „ 12.—Dr. Calvert on duty.
- Thurs., „ 14.—Part II of Third M.B.(Camb.) begins.
- Fri., „ 15.—Dr. Morley Fletcher and Mr. McAdam Eccles on
duty.
Minor Operations. Mr. Bailey's dressers.
- Sun., „ 17.—Oxford Michaelmas Term ends.
- Tues., „ 19.—Cambridge Michaelmas Term ends.
Dr. Drysdale on duty.
- Fri., „ 22.—**Winter Session divides.**
Dr. Hartley and Mr. Bailey on duty.
Minor Operations. Mr. Wilson's dressers.
- Tues., „ 26.—Dr. Horder on duty.
- Fri., „ 29.—Dr. Calvert and Mr. Wilson on duty.
Minor Operations. Mr. Waring's dressers.
- 1917.
- Mon., Jan. 1.—D.P.H. (Conjoint) Exam. begins. Second Exam.
of Soc. of Apothecaries begins.
- Tues., „ 2.—Dr. Morley Fletcher on duty.
First Exam. Conjoint Board begins.
- Wed., „ 3.—First Exam. of the Soc. of Apothecaries begins.
- Thurs., „ 4.—Second Exam. Conjoint Board begins.
- Fri., „ 5.—Dr. Drysdale and Mr. Waring on duty.
Minor Operations. Mr. Eccles' dressers.
- Sat., „ 6.—**Winter Session resumes.**

EDITORIAL NOTES.

CUR heartiest congratulations are extended to Col. C. Gordon Watson, who has been appointed Consulting Surgeon to the Expeditionary Forces in France. Col. Watson's career in the Army has been an exceptionally happy one. In August, 1914, he was a Captain, R.A.M.C. (T.). In September, 1914, he became Commandant of the Duchess of Westminster's Hospital at Le Touquet, with the rank of Temp. Major, R.A.M.C. In August, 1915, he was promoted to Temp. Lieut.-Col., and in January, 1916, he was appointed C.M.G. Now, in November, 1916, he has been promoted Temp. Col., A.M.S., and Consulting Surgeon to the Forces in France. It would be difficult to find a better record, we believe.

* * *

We also give our heartiest congratulations to four more Bart's men who have been awarded the Military Cross :

Capt. J. R. R. Trist, R.A.M.C., "tended and dressed wounded under heavy fire, with great courage and determination. He has on many previous occasions done fine work."

Capt. R. E. Barnsley, R.A.M.C., "when in charge of an advanced dressing station he tended the wounded under heavy hostile shell fire when impossible to bring them to the dressing station."

Temp. Capt. T. R. H. Blake, R.A.M.C., "dressed the wounded for seven hours in an open trench under heavy fire. Later he tended the wounded in the open, displaying great courage and determination."

Temp. Capt. J. C. Sale, R.A.M.C., "rescued many wounded men under intense fire by carrying them on his back, displaying great courage and coolness. He set a splendid example throughout the operations."

* * *

Col. Gilbert Barling, A.M.S., is proceeding to join the British Expeditionary Forces in France in the course of reliefs to the consultants attached to those forces.

Surgeon Major-Gen. Sir A. F. Bradshaw, K.C.B., K.H.P., has been appointed Hon. Consulting Physician to the Military Hospitals in Oxford and the neighbourhood.

* * *

We hear that the following Bart.'s men were among the prisoners taken by the Turks in Mesopotamia: Capts. T. E. Osmond, R.A.M.C., H. H. King, I.M.S., A. S. Cane, R.A.M.C., W. Spackman, I.M.S., R. C. Clifford, I.M.S., E. G. S. Cane, R.A.M.C. Of these we congratulate Capts. A. S. Cane and H. H. King, who have recently been exchanged, and are once more free.

* * *

The following extract from a post-card which we have seen should be of great interest to readers of the JOURNAL: "Major Rawling I met at Deolali, near Bombay. He was in charge of a medical ward (chiefly dysentery, I think) and doing wonders with a stethoscope! *O Tempora. . . !*"

* * *

THE ROLL OF HONOUR.

It is with the greatest regret that we hear of the death, on active service, of the following Bart.'s men, and to their sorrowing relatives and friends we extend our deepest sympathy in their bereavement:

Lieut. Frederick Whitaker, R.A.M.C. The second son of Joseph Whitaker, J.P., of Halifax, he was born in 1874, and was educated at Rugby, Trinity College, Cambridge, and St. Bartholomew's Hospital. In 1897 he represented Cambridge successfully against Oxford in the Feather-weights, and acted as cox for his hospital. He was House-Surgeon at the Halifax Royal Infirmary from 1903 to 1906, after which he was elected to the Honorary Staff. He went out to Salonika last year as one of the Surgeons of the 29th General Hospital, and died on his way home at Alexandria on October 28th, of dysentery.

* * *

Surgeon Charles Humphrey Gow, R.N., was killed on November 13th. The only son of the Rev. Henry and Mrs. Gow, of Hampstead, he was educated at Westminster School and Emmanuel College, Cambridge, and later at this Hospital. When war broke out he volunteered as a surgeon probationer, and served for eight months in the destroyer "Laforey." He then returned to the Hospital, and qualified in the summer of 1915. Joining the R.N.D. as a surgeon, he served in both Gallipoli and Salonika, and has been serving for the last eight months on another front, where unfortunately he has been killed in action.

* * *

Capt. Leonard Osborne Habershon, though not a member of the Hospital, was the son of a well-known Bart.'s man. He was in the East Yorkshire Regiment, and was the youngest son of the late Dr. S. H. Habershon and Mrs. Habershon, of Westbourne Crescent. Shortly after the outbreak of war he joined the fighting forces of the Army, which he has served with considerable distinction. He was killed in action on November 13th.

THE ADMINISTRATION OF CHLOROFORM.

By J. W. BEAN, M.D. (Cantab.).

ANALYSIS.



CHLOROFORM when inhaled by man enters the air passages and is taken up into the blood.

Herein is the key to its correct administration.

We must concentrate first upon

CHLOROFORM—its properties;

Next upon

MAN (the personal equation).

In particular upon

AIRWAY	}	The two bodily parts with which Chloroform first comes in contact—the two bodily parts upon which it directly acts.
and		
BLOOD		

Chloroform has a heavy pungent vapour, nearly four and a half times the weight of air.

It decomposes fairly readily in the presence of air and sunlight.

The *weight* and *pungency* of chloroform vapour must never be forgotten. They are two things which greatly make for danger when it is administered by inhalation to man.

DANGERS OF A HEAVY VAPOUR.

Heavy vapours, such as chloroform, can interfere with respiration in two ways:

(1) They are extremely inert compared to air and tend to collect in the middle airway (trachea and upper bronchi) in a dense plug. It is as though the middle airway were lightly packed with cotton wool. It is plain that given such a plug in the middle airway the inrush of further air to the lungs is hindered. What happens? The pulmonary arterioles contract, damming back the blood in the pulmonary circulation. The pulmonary capillaries and the systemic circulation are starved of blood and as a consequence the respiratory muscles, being underfed and overworked in the effort to counteract this interference with respiration, become exhausted.

(2) Heavy vapours interfere with respiration in a second more direct way. Being so inert they need powerful respiratory movements to keep them circulating freely to and fro, into and out of the airway.

Respiratory movements quite efficient where air is the atmosphere breathed may be inefficient in an inert "chloroform air" atmosphere where chloroform is present in excess.

In the above two ways, then, chloroform vapour by its mere weight may bring breathing to a standstill. It does this chiefly

(1) Where respiratory movements are initially weak, as in very feeble people, or in severe cases of emphysema.

(2) Where respiratory movements are temporarily weakened (*e. g.* inhibited breathing of light anæsthesia prior to vomiting). This hindering of respiration by a heavy chloroform vapour in the airway is called the *physical action of chloroform*. Any mechanical obstruction in the airway will help chloroform to interfere in this way with the respiration. The pungency of chloroform vapour frequently creates such a mechanical obstruction.

DANGERS OF A PUNGENT ANÆSTHETIC VAPOUR.

Chloroform vapour is usually, but wrongly, thought to be much blander than ether vapour.

This is chiefly due to its being used in such low concentration as compared to ether. Ether will not redden or blister the skin, but chloroform will. In an equal concentration chloroform vapour is far more of an irritant than ether vapour.

It has three atoms of chlorine united to its anæsthetic or hydro-carbon radical, and this chlorine causes it to be an irritant.

It is very apt to irritate the respiratory mucous surfaces, which respond by secreting an extremely thick glutinous mucus far more slimy and tenacious than the secretion which you get with ether. No doubt this is a protective effort on the part of the mucous membrane.

This secretion takes place very insidiously; it is not forced upon one's notice as is the ether secretion. There are two reasons for this:

(1) The extremely slimy glutinous nature of the chloroform-secretion.

(2) The gentler character of chloroform-respiration as compared to ether-respiration.

Ether, fairly light, volatile, quickly absorbed, acts as a respiratory whip. The heavy breathing of ether churning up the more fluid ether secretion makes it bubble and rattle very noticeably in the airway.

Chloroform: Relatively inert. May, as we have already seen, greatly hamper respiration and can never be compared to ether as a respiratory whip.

Thus the quieter breathing associated with chloroform fails to displace or churn up the more sticky chloroform-secretion.

What happens? No bubblings nor rattlings in the airway warn the anæsthetist of approaching danger. He fails to notice the very gradual and insidious weakening of respiratory movements—the very gradual and insidious onset of cyanosis.

When he does notice it the crisis is probably in its later stages. Even now that he sees something is seriously wrong he does not realise *exactly what is wrong*.

Breathing has been brought to a standstill by the combined action of two or more causes:

(1) Mechanical obstruction to respiration by a sticky plug of mucinous chloroform-secretion in the airway.

(2) The physical action of chloroform which, as we have already seen, is liable to become dangerous whenever it is helped by a co-existing mechanical obstruction.

(3) Probably, in cases ending fatally, combined with the above causes, there is usually a third cause, viz.:

Reflex depression of circulation and respiration due to surgical stimulation of a sensory afferent nerve or due to the imminence of vomiting.

Now this state of crisis has been slowly produced, and only slowly can it be removed. It may happen, and sometimes does happen, that the heart will fail before this removal can be effected. The patient dies, and it is thought that chloroform has paralysed the heart muscle or respiratory centre.

In the examination now under consideration, at all events, such is not the case; the patient has really died of a most insidious and deceptive type of asphyxia.

The pungency of chloroform vapour tends to danger it in two other ways:

(1) A sudden unexpected intake of a too concentrated vapour may over-stimulate the sensory terminals of the vagi in the larynx, and reflexly stop the heart. Such a catastrophe would be especially likely to occur in panic-stricken patients with nervous systems ablaze, with reflexes strung far above concert pitch and ready to act explosively on any provocation. Embley maintains, however, that the action of chloroform is on the vagal centres, in which it is borne by the blood-stream, rather than peripheral.

(2) A too powerful vapour may cause spasm of the glottis—sometimes dangerously persistent.

Chloroform is liable to be impure through decomposition. Does this fact make for danger? Yes, it does. Impure chloroform is weaker anæsthetically than pure chloroform; you have, let us say, to use "A + B" of impure chloroform to get the effect produced by "A" of pure chloroform. Now the more (within limits) anæsthetic you drop on to your mask, the more do you substitute anæsthetic vapour for air in the atmosphere breathed.

When using weak chloroform you may have to give so much of it to attain anæsthesia that the patient is starved of air. Straightway the pulmonary arterioles begin to close. This denial of air to the lungs which an excess of anæsthetic vapour causes is called the *negative action of that vapour*. Weak chloroform, then, tends to unduly exaggerate the negative action of chloroform—tends to cause narrowing of the pulmonary arterioles. Narrowed pulmonary arterioles are a great danger in chloroform. Why so?

They are an obstacle to recovery from the various crises which may occur during the chloroform administration. Safety in such crises lies in being able to secure an efficient circulation of blood through the lungs. If, previous to the onset of crises, the pulmonary circulation is already

hampered, it is obvious that the crisis becomes thereby more serious, and recovery will be delayed. To take one example: A sensory nerve is strongly stimulated—say in the region of the gall-bladder. Splanchnic vaso-dilatation occurs. The heart having no blood to contract on becomes automatically reduced in action. The blood, which has been displaced into the splanchnic area, to get back to the system must pass through the pulmonary circulation. It gets very little help on from the heart, since the heart is automatically reduced in action. The patient is placed head down on an incline, and the airway is kept normally patent so that air can get freely to the alveoli. Gravity drives the displaced blood on through portal system, etc., to the pulmonary artery. Finding the pulmonary arterioles open the blood passes on freely through the lungs to the left heart, and the heart thereupon quickly resumes the normal action.

Suppose, now, a pre-existing spasm of pulmonary arterioles. The blood on its way back to the left heart is stopped by this. You have a reduced heart trying to overcome an obstructed pulmonary circulation. It obviously cannot do it. Immediate artificial respiration and a patent airway become urgently necessary. Till the pulmonary alveoli become flooded with air the obstacle will not begin to yield, and even then it yields gradually. It is none too early to flood the lungs with air in such a case, because the airway is already filled with a dense inert chloroform vapour, and it takes time to get rid of this. It is obvious now how dangerous is spasm of the pulmonary arterioles during chloroform anæsthesia.

It may cause such delay that recovery becomes impossible. Now the anæsthetist is not clairvoyant; he cannot see the contractions of arterioles nor can he see the pulmonary artery, right ventricle, and auricle all distended by back pressure. When the back pressure has reached the right auricle it extends backward further into superior vena cava (chiefly) and inferior vena cava (to a less degree). Their tributaries begin to swell. *And this swelling he can plainly see* in the frontal and auricular veins; such visible warning is valuable, but comes somewhat late in the vicious cycle of events just described. Nature is kind, and gives the anæsthetic a far timelier warning than venous distention, namely, *discoloration of the arterial blood*. The moment aeration becomes insufficient (however slight the degree of insufficiency) that very moment the arterial blood darkens, though the degree of colour change may be very slight where defective aeration is also slight. Nature has given the anæsthetic all he needs; the danger—closing of pulmonary arterioles—and the warning—discoloration of arterial blood—are practically synchronous.

It is clear, then, how *all-important* it is to watch closely the colour of the arterial blood, to train oneself to detect the *very slightest* changes in it. The ear is the best place, usually, in which to observe such colour changes.

Let us now turn to

MAN—*The Personal Equation—more especially Airway and Blood.*

PRELIMINARY EXAMINATION.

Individuals differ very much in temperament and in bodily structure, and such differences have far-reaching effects upon the course of anæsthesia. To successfully give chloroform you must make first a swift but searching examination of each patient. You must be able to analyse correctly your findings, to estimate the probable danger or difficulty likely to be caused by any given variation from the normal. Having made a correct estimation you are in a position to devise modifications of the routine method—modifications designed to obviate the difficulties present in any individual case, designed to attain and maintain a safe smooth anæsthesia.

Let us consider Airway and Blood, the two first and most intimate points of contact between chloroform and the human body.

Airway: We have already set forth the physical action of chloroform in the airway, hindering respiration, and we have asserted that any mechanical obstruction in the airway tends to exaggerate such physical action. We have spoken of the dangers of the glutinous chloroform secretion; it is obvious then that we must look carefully for any mechanical obstruction in the airway, *e.g.* nasal obstruction, large tongue, large tonsils, etc. We must look, indeed, for any signs of weakness or stiffness of respiratory movement, for any poverty of air entry. We must examine the respiratory machine as a whole, not only airway but motor power (muscles) and lungs.

(To be continued.)

THE AFTER-MATH OF BODY-SNATCHING: A PLEA FOR ANATOMY.*

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HERE is no doubt that the highly organised though clandestine supply of "subjects" by the body-snatchers resulted in a notable quickening in the pulse of scientific teaching in the medical schools of this country in the later years of the eighteenth and the beginning of the nineteenth centuries. This quickening led to a great increase in the number of medical students, and this

* Being the Mid-session Address to the Abernethian Society, delivered November 9th, 1916.

in turn to an ever-growing anxiety on the part of the anatomists as to ways and means. Their precarious supply at this period depended on three sources. First, the civil authorities were empowered, by an Act of Parliament passed in the reign of King George II, to hand over the bodies of criminals after execution to the Schools. This was not only a meagre source of supply, but it also served to bring the practice of dissection into disrepute through its association with the ugly crimes and angry mobs that formed its necessary prelude.

Another source, still more meagre, but of more than passing interest, was the voluntary deposition of their own bodies by enlightened people who left instructions in their wills, with more or less eloquence, directing their mortal remains to be devoted to the advancement of the healing art in this way. They form a small but noble company, and we are bound to salute their zeal with reverence. Even the laconic directions recorded of one of these testators, a certain Mr. Boys, is worthy of respect in spite of its rather odd ending. He addresses his executor thus: "It may be irksome to you to superintend the business, but perhaps you have knowledge of some rising genius or geniuses who may be glad of a subject without paying for it. *Let them slash and cut and divide as best may please 'em.*"* Very different were the stately terms of the Will of the famous philosopher and politician, Jeremy Bentham, who, when a young undergraduate at Oxford, felt so impressed with the opposition offered to a science which he regarded as indispensable for the advancement of knowledge, that he there made a will devoting his body to the public good; though Bentham lived to be 85, he once again, only two months before his death, full of years and honour, bequeathed his body for that purpose, thinking it unjust that the humbler classes should alone be called on to sacrifice those feelings which are cherished alike by rich and poor. It is very significant that the framing of this codicil by the mature philosopher in 1832 coincided with the very climax of the troubles experienced in getting the teaching of anatomy placed on a satisfactory footing in this country.† Bentham's skeleton is preserved to this day in the Museum of University College, and one wonders if it may have been the force of his example that formed the inspiration of the bequest recently published‡ as having been made by another who added so much to the fame of that college and who died so nobly for his country—the late Sir Victor Horsley. Another heroic soul touched by this feeling of duty was Florence Nightingale, who similarly directed by her Will that her body should be devoted to the purposes of medical science. All that was mortal of Sir Victor Horsley had been laid to rest in the sands of Mesopotamia ere the terms of his Will could be made known, and by the time of Florence Nightingale's

death the difficulties she sought to alleviate had passed away; yet these examples and many others that might be quoted go to show that choice spirits have felt, in past times as well as in our own, that a feeling of reverence for the dead need imply no repugnance to the dissection of the human body.

It is on record that at the time when the evils of body-snatching were at their height, ninety-nine gentlemen of Dublin signed a document in which the wish was expressed that their bodies instead of being interred "should be devoted to the more rational, benevolent, and honourable purpose of explaining the structure, functions, and diseases of the human being."* And later, when the opposition to the introduction of the Anatomy Act was at its height, "many of the highest in the land, amongst them the Duke of Sussex, youngest son of King George III and uncle of Queen Victoria, gave directions that after death their bodies, if required, should be anatomised."†

It may be the imperfect understanding of examples such as these that has led to poor misguided folk at various times writing to anatomists offering to barter their frail and mortal coil for a consideration of sordid gold! These pathetic missives, which still turn up every now and then, appear always to share two points in common; first, the manifest conviction that the art of anatomy is a wildly lucrative profession, and second, that the bargain is to be a hard one—cash down and the body when you can get it!

The third source of supply, to which we now return for a moment, were the body-snatchers. The "profession" of body-snatching became so highly organised, as has already been pointed out, that ample supplies of bodies were always to be had through its ghoulish aid. But the process of getting them conveyed to the Schools was disgraceful often, precarious always, and calculated to bring the teachers not only into disrepute but even into real personal danger. Professors of anatomy themselves, and their surely entirely innocent windows as well, commonly experienced violence at the hands of enraged mobs; there are authentic accounts of some such who were like to have lost their lives indeed, but for the timely protection of the police.

By the end of the third decade of the nineteenth century things had got so bad that both for the honour of medicine and for their own personal safety the teachers were compelled to bring their grievous difficulties to the notice of the Government, and to press for the security of an adequate supply of bodies under the ægis and protection of an Act of Parliament. So strong were the representations then made, that in 1828 the Government appointed a Committee to investigate the whole matter. This Committee took evidence from many sources, teachers of anatomy, police officials, and a chosen few of the resurrection men

* *Diary of a Resurrectionist*, p. 38.

† *Brit. Med. Journ.* Oct. 21st, 1916, p. 564.

‡ *The Times*, Oct. 1916.

* *Diary of a Resurrectionist*, p. 37.

† *The History of Burke and Hare*, McGregor p. 271.

themselves, who had been induced to give evidence under the promise of ample police protection.

But in this very year the profitable but ghoulish trade in bodies snatched from the grave had progressed, by an all too easy evolution, to some dreadful crimes of murder done on poor victims whose bodies were never to be allowed to enjoy even temporarily the protection of Mother Earth. These were the revolting murders committed by the notorious Burke and Hare in Edinburgh. Though in his dying confession Burke made a point of the fact that they had never been guilty of body-snatching, yet it was a close acquaintance with the customs of "the trade" that actually launched these men on their brief but busy career of crime. The dire game started when an old pensioner who lodged with Hare died while still owing some of his rent. Rather than risk waiting to be recouped by a share of the pension, then nearly due, Hare conceived the idea of conducting a sham funeral with an empty coffin and surreptitiously selling the body for dissection. He found in his neighbour Burke a willing accomplice. Sharing a house in the midst of the warren of broken-down and utterly disreputable slums of Edinburgh not far from Surgeons' Hall, they were well placed from the start. Conveying the body of the old pensioner by night to Surgeons' Hall they realised, as they afterwards confessed, £7 10s. for the bargain. The immediate sequel to this successful transaction was that the ghastly idea occurred to them that if money was to be made thus easily they could surely gather riches more quickly by letting their own hands act the part of the "Fell Sergeant" who had given their crime the first impetus by laying low the old pensioner under their wretched roof.

So they set out to decoy any poor wandering tramp who might be induced to lend an ear to the promise of lodging and warmth and drink. Once, indeed, they actually succeeded in winning out of the hands of the police, by promising to take care of her, an old drunken woman whom they were on the way to lock up.

In his dying confession Burke gave an account of at least sixteen victims whom Hare and he and the women who lived with them had first decoyed, then murdered in cold blood and conveyed to Surgeons' Hall. Sometimes the intemperance of the victims made them an easy prey, but in some the end was not reached, he confessed, without a fierce struggle. With diabolical cunning, however, Burke had invented a method which made a quiet and sure end, and at the same time left on the body no traces that might arouse suspicion when it came to be laid on the table for dissection. Burke was a man of heavy build and immense muscle, and his method was first to throw his victim down, then to leap on the breast with the whole weight of his knees, and at the same moment grip the mouth and nose with both hands like a vice, thus producing suffocation in a moment or two.

It is a curious speculation to wonder how many of the mild people who to-day speak blandly of having "burked" some question are aware of the sinister etymology of the word they use. It is fast becoming a forgotten fact that this innocent-looking transitive verb owes its origin to the deep impression made on the English-speaking world by the publicity given to Burke's confession of his brutal *modus operandi*. Surely the penalty of anyone bearing this name must have been a severe one in those days; but it is a consolation to reflect that, with Nature's happy way of covering over evil with a cloak of good, the surname now recalls to us all more readily the other Burke, Edmund, the eloquent orator and author of the immortal essay *On the Sublime and Beautiful*.

If inclined to marvel that the suspicions of the thoroughly trustworthy officials, who received these murdered bodies into their School, were never aroused, we must remember that in those days the teachers had to take what bodies they could get from the body-snatchers, and had to be content to receive them without any clue as to their source. We must realise, too, that in the rough processes of resurrection and conveyance to the schools these bodies often suffered far more mutilation than any of those offered to the unsuspecting officials by Burke and Hare. Indeed, it is recorded that the body of one their victims, that of a depraved but handsome young woman, was so fairly proportioned and so well preserved, that it was allowed to lie undisturbed for a considerable time, that artists might come to study a model that was said to be "worthy of Phidias and the best Greek art" (Lonsdale's *Life of Knox*, p. 101). Surely there can have been no trace there of the foul murder that had been done upon it. Yet suspicion *had* been aroused in two instances where the murderers sailed dangerously close to the wind by making victims of persons who were well-known in the neighbourhood of Surgeons' Hall and were recognised at once both by the dissecting-room porter and the students: in these cases awkward questions were asked of the murderers when they arrived with the bodies, but it was surely easy for such cunning criminals to invent circumstantial and believable lies in ascribing their death to natural causes.

How true the saying has often proved to be that "Murder will out!" But there is no saying how long these crimes might have gone undiscovered had this murderous gang of men and women not "given the show away" by growing overbold. One night they actually invited some neighbours to a carouse in the very room where the dead body of their latest and last victim lay awaiting disposal, concealed too carelessly beneath a heap of straw. The story of the remorseless strides with which judgement now fell quickly on them—at the hands, in the first instance, of these carousing guests half frenzied with drink and fear—is a tale too long to be told here. Burke and Hare and their two female accomplices were now soon in the hands of the

police and on their trial for murder. Hare turned informer, the women were acquitted, and Burke alone, who had actually carried out the murders they had all planned together, was condemned to death. He was executed in public in January, 1829. His dead body was exposed to the view of a curious crowd, of more than 25,000 people, who filed slowly past it as it lay in the University of Edinburgh, to which it had been consigned for dissection. A notable lecture, full of moral periods, no doubt, as well as anatomical, was delivered on the anatomy of the brain of this man who had planned for so many helpless victims the fate he himself was to suffer in the end. This lecture was given by Prof. Monro, the son of the more famous father, Monro Secundus, after whom the well known foramen connecting the ventricles of the brain is named.

Needless to say, the public disclosure of these awful crimes thrilled the whole land with horror; but it is curiously significant of the effect of geography on politics that when, within two months of the execution of Burke in Edinburgh, a Mr. Warburton introduced a Bill into the House of Commons for "preventing the unlawful disinterment of human bodies and for regulating Schools of Anatomy," no mention was made in that Bill of the dreadful series of murders that had so recently stained the fair fame of the capital of the North.

It seems strange, too, at a time when the legislature might have been expected to welcome, and amend if need be, *any* Bill framed to prevent the recurrence of such horrors, that Mr. Warburton's Bill was so strongly opposed that, though it survived the House of Commons, it was abandoned in 1830 in its passage through the House of Lords. Truly the Bill had many defects, as first introduced, but it seems extraordinary to us now that it was actively opposed by the Royal College of Surgeons and other public Corporations, and by so powerful a medical periodical as *The Lancet*. In spite of all these opponents, however, it is very probable that it would have been passed by the House of Lords had it not arrived there at a time when the country was seething with the Reform agitation, and the dissolution of Parliament was imminent.

The abandonment of this Bill seemed to have ended for a time all public agitation, and to have nullified the anxious efforts of the authorities of the Schools to secure an adequate legal basis for the practice of anatomy. But the difficulties and alarms which the teachers were still left to face at this time are well shown in the following account of a coroner's inquest held within the walls of St. Bartholomew's Hospital. It is given verbatim from the copy of a contemporary account in the possession of the Librarian. It is dated December 11th, 1831:

ANATOMICAL SUBJECTS.

Coroner's Inquest; December 11th, 1831.

On Thursday afternoon, at 4 o'clock, an inquisition was taken in the Board Room of St. Bartholomew's Hospital, before Mr. Payne,

the City Coroner, and a highly respectable jury, on view of the body of a middle-aged man, transmitted from the country to that institution for anatomical purposes, and who, from a dreadful wound in the throat and other marks of violence, was supposed to have fallen a victim to the diabolical system of "Burking," so prevalent of late. Alderman Wilson, at whose instance the inquiry took place, was present, and took a prominent part in the proceedings, and the room was crowded to excess by medical practitioners and other persons interested in the investigation.

Mr. Edward Stanley, the demonstrator of anatomy at the institution, was the first witness examined, who deposed that the body of the deceased man had been sent up from a village, 100 miles in the country. It was packed in a deal box, was received through the same channel which supplies the dissecting rooms of the metropolis with subjects, and arrived at the institution about noon the preceding day. He saw it soon afterwards, and was struck at beholding a wound in the throat, which extended from thence all the way down the body as far as the knee. These suspicious appearances induced him to make a most careful and minute examination of the body in order to ascertain whether the man had died a natural death or not. The result of his observations were, that the deceased had died from consumption, the lungs being much diseased, and he was of opinion that the wounds he had described were inflicted after death, and in all probability by the instruments used by resurrectionists in extracting bodies from the earth. The deceased appeared to have been dead about a week, and had evidently been interred.

Mr. Stanley added that although he felt satisfied, in his own mind, that the deceased had not come to a violent death, yet, in the present feverish state of the public mind, produced by the fiendish system of "Burking," he did not think himself justified in placing the body in its mutilated state before his pupils, but judged it advisable that a public investigation should take place.

Dr. George Burrows, who had also examined the body, gave similar testimony as to the cause of death.

William Smith, a porter in the institution, stated that he received the body, on its arrival, from the waggon-office. It was placed in the box in a recumbent position, and was quite naked.

In his opinion the corpse had been buried in the ordinary way and had been exhumed by the resurrectionists.

Alderman Wilson: What leads you to suppose that the body had been interred?

Witness: Because it appears to me to have been drawn through the earth by body-snatchers.

Alderman Wilson: Did you ever then see a body raised by the body-snatchers, as they were termed? (A laugh.)

Witness: No; but I have heard them relate how they do it.

Alderman Wilson: Describe how it is done.

Witness: They first dig down to the head of the coffin, disturbing the earth as little as possible. This enables them to raise the coffin on the feet end. They then force open the lid with a strong instrument, and divesting the body of the shroud, place it in a sack and decamp.

Alderman Wilson: Would the instrument you mentioned inflict the wounds on the deceased in forcing open the coffin?

Witness: I think it very likely.

A Juror here observed that he did not conceive it probable that the wound would in such a case have extended so far as the knee; besides, the shroud would, in his opinion, have formed a protection to the body.

The Witness said that it might have been buried without a shroud.

A Juror observed that he hoped the recent atrocious cases of Burking persons for the dissecting-knife would put medical men on their guard, and that they would be more cautious than heretofore in examining bodies furnished them by the wretches carrying on the disgusting trade of resurrectionists.

The Coroner eulogised the conduct of Mr. Stanley, who had, in the case before them, acted most properly in instituting an inquiry, and the public would now be satisfied that the deceased had died a natural death. If the circumstances of the case had got wind without an inquiry taking place, there was no doubt, from the excited state of the public mind upon the subject, that a very unfavourable opinion would have been formed of the medical gentlemen belonging to the establishment.

The Jury returned a verdict of "Natural Death." The body is to be re-interred at the expense of Cripplegate Ward.

Very soon again, however, another revolting murder—this time nearer the centre of things—startled the Govern-

ment into renewed and speedy action. On November 5th, 1831, in the ordinary routine of the prevailing method of supply, two well-known body-snatchers brought the dead body of a boy to King's College, Strand. The dissecting-room porter was suspicious from the first of the appearance of the body and summoned the Demonstrator, who, from a further examination of the body, confirmed his suspicions. Convinced that the boy had been the victim of foul play, the Demonstrator—Mr. Partridge—hit on a clever ruse for detaining the men; these "transactions," it must be explained, were always conducted on strict "cash" principles. Producing a £50 note, he asked them to wait in the dissecting-room while he went to have it changed. It was not to a bank he hurried, however, but to the nearest police-station, and very soon the men were safe in gaol. A more complete examination, made later at the instance of the Crown, showed that the boy had died of a broken neck; the men, Bishop and Williams by name, who had been concerned in the attempted "deal" with King's College, were tried for murder at the Old Bailey in the following December and condemned to death. Before their execution they made a full confession of how they had decoyed the lad to their house in Nova Scotia Gardens, Saffron Hill, drugged him with opium, and then thrown him into a well, where he died of suffocation. They confessed, too, to having previously murdered a woman and another boy, and disposed of them successfully to the Schools without arousing any suspicion. Bishop made the further confession that he had been engaged in body-snatching for the past twelve years, and in that time had obtained over 500 bodies and sold them to the Schools.

Something must be said here to maintain the honour of the teachers, who had perforce to deal in those matters with the low ruffians who carried on this ghastly trade. Upright men themselves, of high honour and education, they had no alternative but to deal with those ghouls in order that the science and art of medicine might progress and its students be efficiently trained as proper craftsmen in their life-work. Dr. Knox, the noted anatomist of Surgeons' Hall, Edinburgh, to whose dissecting-room Burke and Hare successfully disposed of all their victims but their last, was publicly attacked after their trial, on account of his supposed connivance with the murderers. He had to be protected by the police from a riotous mob bent on his destruction; but at his own request an influential Committee at once investigated his whole connection with these crimes and completely freed him from any suspicion that he had even any inkling of them before they were revealed to him by the police, and this exoneration was subsequently endorsed by the dying confession of Burke. The account of the inquest in St. Bartholomew's Hospital given above amply illustrates the honour and watchfulness of the teachers at a time when they were in constant danger of being implicated in such horrible crimes. Finally, the astuteness

and prompt action of the Demonstrator and porter at King's College in detecting the murder perpetrated by Bishop and Williams stand to their lasting credit, and were actually the chief instrument in bringing to an end this dreadful era of body-snatching and murder.

Bishop and Williams were publicly hanged in Newgate on December 5th, 1831, in presence of an enormous and excited crowd. In their frenzy to get near the scaffold the angry people broke through the barriers erected by the police, and the casualty out-patient room of St. Bartholomew's Hospital must have been a busy scene at 7.30 that morning, as the *Weekly Dispatch* declares that "by that time between 20 and 30 persons were carried thither, all seriously maimed." "Fortunately," the *Dispatch* goes on to state, a "Mr. Birkett, the Dresser to Mr. Vincent," had been forewarned, and "was in attendance to receive any accident that might be brought in."

The bodies of Bishop and Williams, as had been the fate of Burke before them, were handed over to the College of Surgeons, and subsequently given for dissection to the very Schools they had staked their lives to trade with.

This single sordid crime of Bishop and Williams, no doubt because it took place in the heart of London, accomplished at once what the holocaust of murders by Burke and Hare in the north had failed to do. It stirred the Government to immediate action, and the legislation which the teachers, through long years, had earnestly been asking for was hurried forward with express speed. In December, 1831, the same month in which Bishop and Williams were hung, Mr. Warburton again introduced his Bill into the House of Commons, and in a very few months—August, 1832—the Anatomy Act under which we still work took its place among the laws of the realm.

The dark deeds of the previous year find a sinister echo in the "preamble" to this Act:

"Whereas a Knowledge of the Causes and Nature of sundry Diseases which affect the Body, and of the best Methods of treating and curing such Diseases, and of healing and repairing divers Wounds and Injuries to which the Human Frame is liable, cannot be acquired without the Aid of Anatomical Examination: And whereas the legal Supply of Human Bodies for such Anatomical Examinations is insufficient fully to provide the Means of such Knowledge: And whereas, in order further to supply Human Bodies for such Purposes, divers great and grievous Crimes have been committed, and lately Murder, for the single Object of selling for such Purposes the Bodies of the Persons so murdered: And whereas therefore it is highly expedient to give Protection, under certain Regulations, to the Study and Practice of Anatomy, and to prevent, as far as may be, such great and grievous Crimes and Murder as aforesaid; be it therefore enacted" etc., etc.

The chief clauses of the Act, under which all the dissecting and operative surgery work of our medical schools is still carried on, may be briefly summarised: The Secretary of State to grant to duly qualified teachers a licence to practice Anatomy: government inspectors to supervise the whole matter of the supply and burial of subjects; any person having lawful possession of the body of any deceased person legalised to permit the body of such deceased person to

undergo anatomical examination, with certain restrictions as to previously expressed wishes on the part of the deceased; no body to be received by a school without a certificate of the time, place and cause of death duly signed by some physician, surgeon or apothecary; carefully expressed enactments regarding the respectful treatment and decent interment of the body and due certification thereof; repeals the previous Act of George II directing the dissection of the bodies of executed criminals and substitutes burial of these malefactors within the precincts of the prison.

The passing of the Act was hailed with approval and confidence on all sides, as a measure, to quote a contemporary, "which infallibly respects the wishes of the humblest as to the burial of their bodies after death. The pauper and the peer are alike safe."*

Truly it does merit profound praise in that it sounded once and for all the knell of the body snatchers, made the crime of murder for anatomical purposes no longer possible, and established for the first time on a legal and decent basis the necessary place of anatomy in the medical curriculum.

But, alas! it has not stood unscathed the trial of the eighty-four years it has been in operation. The bitter experience of anatomists and operative surgeons in all parts of the country in recent years has proved that it is now quite inadequate to accomplish the beneficent purpose it was framed to serve. Nor are the explanations of this far to seek.

Investigations which immediately preceded the passing of the Act had shown that if *all* the unclaimed bodies of persons dying in the various Poor-law Institutions were made available there would be ample supply of subjects for all the medical schools, and undoubtedly the Act was originally framed principally to legalise this particular source of supply. If the body of a pauper dying in one of these institutions is not claimed by any known relative, then the Guardians become the "Executor or other Party, having lawful possession of the body," as described in the vital clause of the Act; but the crucial defect in this clause is that it merely enacts that "it shall be lawful (for these custodians) to *permit* the body of such deceased person to undergo Anatomical Examination."

Now, it must be admitted that the idea of a human body being dissected may be naturally repugnant to many, and that the revolting crimes which we have passed under review might have added, at that time, to simple repugnance an active prejudice. But it is a matter for wonder and regret that among the men of education forming these Boards of Guardians there are many who, turning a deaf ear to the eloquent preamble of the Anatomy Act, actively oppose the provision of these unclaimed bodies for the beneficent purposes described therein. Unfortunately, too, the desire to escape their responsibility in this matter has actually

been adopted sometimes as a plank on electioneering platforms. It is probably no exaggeration to say that some candidates who have enjoyed no *other* qualifications have scored success at the poll simply because they declared with dramatic fervour in speech and pamphlet that they positively would *not* permit the bodies of the poor to be desecrated by dissection.

It is impossible to regard with any patience or respect such retrogressive prejudice, which, if it were universal, would simply throw the science of medicine back on the deplorable days when human bodies were only to be obtained by inhuman crimes of theft and murder.

With this spirit of obstruction only too common at the fountain-head, it is not surprising that so called philanthropic societies have been formed for the express purpose of contravening the spirit of the Act by furnishing funds to induce the Guardians actually to divert all unclaimed bodies from the Schools.

Several other factors, naturally unforeseen by the framers of the Act and all quite laudable in conception, have combined in late years to reduce the much-needed supply. Thus, the increase in thrift among the working classes has led to a gradual falling off in the number of persons who seek the shelter of these Poor-law Institutions; the up-growth of burial clubs and insurance societies among the poor, and the introduction of old-age pensions, now make it much easier than it used to be for the penurious to be themselves responsible for the care, right to the end, of their aged relations. Nevertheless, the number of unclaimed bodies that are still available would be ample to supply the needs of all the medical schools in the country if only their legal custodians, the Boards of Guardians, were at all times intent on carrying out the *spirit*, as well as the *letter*, of the Anatomy Act.

So desperate had the difficulties of the schools become in the first decade of the present century, that in 1910 a committee was elected by representatives from all the medical schools in the kingdom to press upon Government once more the urgent necessity for some drastic improvement in the sources of anatomical supply.

This Committee, after making a very complete inquiry into the nature and causes of these difficulties, issued a Report, which was sent to the Prime Minister, with the request that he would receive a deputation. This request was graciously granted. An imposing deputation was forthwith organised and received at the House of Commons, in December, 1912, by the particular Ministers of State in whose province the matter actually lies.

Forming this deputation were representatives from the Faculty of Medicine in every University in the United Kingdom, in almost all cases the Chancellor or Vice-Chancellor; from the Councils of all Royal Colleges of Physicians and Surgeons, in all cases the President; from all the Examining Boards, from the Medical Service of

* Lonsdale, *Life of Knox*, p. 106.

the Royal Navy, the Indian Medical Service, and the Army Medical Service. Little wonder that this galaxy of distinguished men was described by the Home Secretary as forming a deputation "literally and truly unparalleled and unprecedented."

The proceedings of this deputation to the House of Commons were, at the time, kept strictly confidential, and the eloquent and impressive speeches delivered there have not yet been freed for publication. They remain on record, however, in twenty-six closely-typed official pages; and this much may be said, that the opinion unanimously expressed by the speakers, on behalf of the high authorities whom they represented, was that the only likely remedy lay in some such amendment of the Anatomy Act as would render *obligatory* its merely *permissive* enactments in the case of *all unclaimed bodies*, that these bodies should be placed at the disposal of the State, and the State become responsible for their distribution to the medical schools, to serve there the humane purpose indicated so eloquently by the preamble of the Act.

Passages in support of the argument may be recalled from some of the speeches which were then made; first, from that of one of the Vice-Chancellors:

"But after all," he said, "the strongest ground for this appeal to you, sir, is that it is in the interests of the nation, and especially of the poor of the nation. For their safety under all forms of medical treatment, it is absolutely necessary that their physicians and surgeons should come to them not as still experimenters on the human body, but as experts with such knowledge and confidence as can only be provided through a more adequate supply of material in the cases of anatomy and operative surgery than is at present possible."

These words, it is curious to note, read almost like an echo of the speech made by Sir Robert Peel in support of Mr. Warburton's first Bill in 1829*; and the argument, used by another of the speakers in this deputation, on behalf of medical students who had had perforce to go abroad in recent years to enjoy facilities of this kind which were denied to them at home, had likewise been used eighty-three years before.

Another peroration which may be recalled closed the speech of the distinguished soldier who represented His Majesty's Forces. It is of special interest in that it was delivered nearly two years before our country was plunged in war. "I wish to say that it is a matter of national importance that the Medical Officers of our Navy and Army should be highly trained in operative procedures in order that sailors and soldiers may receive that treatment in peace to which they are entitled. Above all should they be able to receive that treatment in war when they have been stricken down in carrying out a patriotic call. I venture to repre-

sent, therefore, that the provision of means to that end is a national duty, conducing to efficiency in public servants and thereby to economy and conservation of life and limb."

Now what of the Government's reply? Here again rang out an echo from 1828. The first admission of the spokesman of the Government was almost identical with that made to a similar deputation in that year; he appreciated the difficulties of the situation, he recognised the necessity for some radical alteration in the Act, but he was very dubious of the possibility of getting these measures, asked for by the deputation, through the House of Commons in face of existing prejudices. But he promised that it would be tried if certain practical suggestions he was prepared to make did not have an immediate effect in removing the difficulties and disabilities abundantly shown by this influential deputation to be so pressing in all parts of the country. These suggestions were considered, shortly after, at a conference held early in the year 1913, and from then till now practically nothing more has been done!

The unforeseen calamity of war has plunged all who took part in this last assault, into many urgent concerns and anxieties of other kinds; the magnificent response made by our students to the call to arms has largely emptied the medical schools; thus the matter has naturally become less urgent now than it was then. But when once more we reach the time of peace, when once again "the (medical) boys come home," when many more will range beside them to swell the ranks of our noble calling, we know we must expect a greater demand than ever for these facilities we have been fighting for.

It is the duty of those of us who are more directly concerned to see to it that the settling of this matter is not delayed until then, and that the Government's pledge is not left to die a natural death in some official pigeon-hole, overlooked and unfulfilled.

But there may also be a part for you who listen to play, students and nurses both, for you both have knowledge and experience of these things, and you may be able, as opportunities occur, to help to remove some of the unthinking prejudice against the science on which rests the only sure foundation of medical teaching. I therefore ask you to lend us your aid in bringing in the happy day when its needs will be more truly and frankly and openly met, when all trace of the dangers and difficulties which have lurked in these dark pages will be spent, and will have left no "aftermath."

* *Diary of a Resurrectionist*, p. 106.

AN APPEAL

RECEIVED BY A MEDICAL OFFICER IN
THE EAST.

To the Chief Cocktail-shaker, General Hospital.

ARCHÆOLOGICAL NOTE ON COCKTAILS.

THE earliest cuneiform inscriptions on which reliance can be placed in dealing with the subject of cocktails date from the time of Semiramis; on the architecture of the temple of Astarte at Memphis there are frequently found in combination the following symbols:

- (i) A slave-girl holding a goblet.
- (ii) A cow.
- (iii) A fowl.
- (iv) * * *

It is to be noted that in no case is symbol (iv) absent when the other symbols are present. Helmholtz has proved that the astronomical significance attributed to symbol (iv) is entirely imaginary, and in his exhaustive treatise on the subject (Tauchnitz, Dresden, 1875) has, with the aid of the researches of the learned Hennessy, proved beyond all doubt that this symbol represented the vine.

Phœnician inscriptions, while less conclusive in the mutilated state in which they have come down to us, point in the same direction. But perhaps the most valuable record of all is the swizzle-stick branded with the emblem (iv) found in the tomb of Dido at Carthage.

To come to more recent times, have we not the record of that prince of raconteurs, Nicostatus, to the effect that it was the neglect of Xantippe to infuse into his cocktails sufficient of the coarse wine of Thessaly that drove the philosopher Socrates to the fatal dose of hemlock?

In Roman times we have the invaluable testimony of Horace (*vide* Epist. *passim*) and Vergil (*Georgics passim*) as to the use of the old wine of Falernus in the morning cocktail.

Philologically perhaps we are the losers by the introduction from across the Atlantic of the word "cocktail" in succession to our old English "posset." While we have gained a graphic word we have not added to the potency of the drink, for did not the ripe Falstaff complain of the "intolerable deal of sack" that was his lot? while at yet another time he almost gave up cocktails through the infliction upon him of an equally intolerable deal of eggs.

It is indisputable that while eggs and milk have often been omitted from the best cocktails, from burnt-sack to the modern bar-tender's product, wine in some form has never been omitted from the true cocktail.

In the opinion of many of the profoundest drinkers, the 11 a.m. cocktail holds first rank among life-saving cocktails,

and is therefore the last which should be deprived of its most important ingredient, even by a race addicted to appendicectomy. The argument is still stronger that the last place in which so effeminate a custom should be introduced is in those institutions which combine with the advancement of medical research the frequent saving of lives—the hospitals. In this respect general hospitals should be particularly careful of their patients, and not hurriedly discard the life-saving cocktail which has had the approval of generations of savants—and others less wise.

Hence, chief cocktail-shaker, hitch your swizzle to *three* stars.

ABERNETHIAN SOCIETY.

The officers elected for the forthcoming year are as follows:

Presidents.—Mr. J. Basil Hume, Mr. Cecil H. Terry.
Vice-Presidents.—Mr. H. G. Griffiths, Mr. D. A. Blount.
Extra Committeemen.—Mr. T. B. Vaile, Mr. D. J. Batterham.
Secretaries.—Mr. T. B. Bailey, Mr. J. P. Ross.

STUDENTS' UNION.



COUNCIL Meeting on November 27th, Capt. Ball in the chair.

It was decided that all old periodicals are to be sold on the first working day of each three months; payment to be made in advance, and one of the Secretaries to be auctioneer. Mr. E. I. Lloyd's resignation was accepted with great regret. Mr. G. A. Fisher was elected to the Council in place of Mr. Lloyd. Mr. Joyce's resignation from the post of Senior Secretary was accepted, and, after a vote of thanks had been passed to him for his services, he was elected Vice-President. Mr. Watson was elected Senior Secretary, and Mr. G. A. Fisher Junior Secretary.

REVIEWS.

CLINICAL METHODS. By R. HUTCHISON and H. RAINY. (Cassell & Co., Ltd.) Pp. 664. Sixth edition. Price 10s. 6d. net.

This work is intended as a guide to students in the investigation of their cases. The manner, method, and order in which such investigations should be pursued are carefully and clearly dealt with. A special chapter has been devoted to the clinical methods of examining children, as these, naturally, differ in many respects from those employed in the case of adults. Chapters have been added to this edition on the examination of pathological fluids and clinical bacteriology, and new matter has been added regarding various micro-organisms, many of which have assumed a special importance in connection with the war. We are glad to see that the Basle anatomical nomenclature has not been adopted except in so far as the new names are given in brackets after the older ones when anatomical structures are referred to.

The book is excellent in every way, and should be studied by every student of medicine during the period of his medical clerkship

FIRST AID FOR THE TRENCHES. By S. HASTINGS. (John Murray.) Pp. 49. Price 1s. net.

A practical little book devoted to "simple instructions for saving life that every soldier should know." The work deals with shock, bleeding and poisoning of wounds in the first place, and gives both preventive and general treatment in a concise form. The reasons for carrying out the various methods of first aid are given, and this is no doubt wise, for it will impress the treatment much more firmly in the mind of the learner. The whole is clearly written, and should be easily grasped by the average lay mind. Methods of carrying, treatment of burns and scalds, artificial respiration, and, in fact, most of the first aid possibilities, are dealt with. It is a handy little volume and should prove very useful.

I.K. THERAPY IN PULMONARY TUBERCULOSIS. By WILLIAM BARR. (John Wright & Sons, Ltd.) Pp. 81. Price 3s. 6d. net.

In the medical profession as a whole there is considerable antagonism to the use of Spengler's immune substances, commonly known as "I.K." All discussion centres round tuberculin, and many are inclined to sneer at "I.K.," and relegate it to the therapeutic rubbish-heap without trial. Dr. Barr has made considerable trial of it, and has come to the conclusion that in many cases it yields very valuable results, though by no means placing absolute reliance upon it, nor discouraging the use of tuberculin, which he uses almost as extensively as I.K. In this book he has approached the study of I.K. on purely clinical grounds, and gives the clinical history of forty-seven cases, together with forty-two temperature charts. The contra-indications and classification of special conditions are treated in a very lucid manner, and the book should prove of value to anyone interested in the subject of the therapy of the treatment of tuberculosis.

EXAMINATIONS.

UNIVERSITY OF CAMBRIDGE.

The following Degrees were conferred on November 18th, 1916:
M.D., B.C.—A. S. Cane.

UNIVERSITY OF LONDON.

Third (M.B., B.S.) Examination for Medical Degrees.
October, 1916.

Pass.—P. C. Cole; A. Morford, B.Sc.; E. C. Spaar.

Supplementary Pass List.

The following have passed in one of the two groups of subjects:

Group I. Medicine.—C. V. Boland.

Group II. Surgery and Midwifery.—H. M. C. Macaulay, B.Sc.

CONJOINT BOARD.

Final Examination.—November, 1916.

The following candidates have completed the examinations for the Diplomas of M.R.C.S. and L.R.C.P.:

L. Cunningham, G. Day, E. O. Goldsmith, B. Haskins, J. F. Haynes, W. B. Heywood-Waddington, E. I. Lloyd, A. Morford, R. Moser, B. H. Pidcock, C. H. Terry.

NEW ADDRESSES.

- H. E. BLOXSOME, Temp. Lieut., R.A.M.C., 1st North Midland Mounted Brigade Field Ambulance, Force in Egypt.
A. R. J. DOUGLAS, 1st London General Hospital, Cormont Road, Camberwell, S.E.
G. E. ELLIS, Surg., R.N., 2, Naval Terrace, Sheerness.
J. GIRVIN, Col., R.A.M.C., 27th General Hospital, Cairo, E.E.F.
C. GORDON WATSON, Col., A.M.S., Army Medical Service, Head Quarters, Second Army.
A. B. TUCKER, Temp. Lieut., R.A.M.C., Eastcote, Branscombe, Axminster.

BIRTHS.

- LETCHWORTH.—On October 28th, at Vinchelez, Hornsey, the wife of Capt. G. H. S. Letchworth, R.A.M.C., of a son.
TAYLOR.—On November 15th, at St. Leonards-on-Sea, the wife (née Peto) of Capt. C. R. Taylor, M.B., R.A.M.C., of a daughter.

MARRIAGES.

- BURNE—TURNER.—On November 23rd, at St. Andrew's Cathedral, Singapore, Thomas W. H. Burne, second son of the late Col. S. T. H. Burne, V.D., Loynton Hall, Staffs, to C. Violet Turner, M.D., second daughter of the Rev. W. H. Turner, Hazelwood Vicarage, Derby.
POCOCK—DASHWOOD.—On November 30th, at St. Mary's, Newick, by the Rev. C. S. Gillett, Chaplain of Liddon House, South Audley Street, assisted by the Rev. Clement Powell, Rector of the Parish, Surgeon W. A. Pocock, R.N., eldest son of Mr. W. H. F. Pocock, of St. James, Cape Town, to Margaret A. E. (Greta), younger daughter of the late Mr. Edmund S. Dashwood, of Foulsham, Norfolk, and Mrs. Charsley Mackwood, of Greenfields, Newick.
ROXBURGH—LAMBERT.—On November 29th, at St. Mary's, Bryanston Square, W., by the Rev. L. J. Percival, Archibald Cathcart Roxburgh, M.B., Surgeon, R.N., son of the late Archibald Roxburgh, to Mary, daughter of the late Col. J. A. Lambert, Queen's Bays.
WALLIS—GROVE.—On November 29th, at the Parish Church, West Wickham, Kent, by the Rev. Bertie Roberts, Vicar, Surgeon Percy Boyd Wallis, R.N., fourth son of the late Mr. Henry Wallis, of "Graylands," Horsham, Sussex, and of Mrs. Wallis, of 48, Holland Park, W., to Mary Glenie, younger daughter of Mr. and Mrs. Frederick Grove, of "Antrim," West Wickham, Kent.
WALSHAM—BANNISTER.—On November 17th, at the Central Mission Church, Barking Road, West Ham, by the Rev. R. Rowntree Clifford (brother-in-law of the bride), assisted by the Rev. Walter S. Lord, Hugh Walsham, M.A., M.D., F.R.C.P., to Amy Bannister.

DEATHS.

- BLAKENEY.—On October 29th, at Denehurst, Dorking, Hugh Theophilus Weare Blakeney, M.R.C.S., youngest son of the late Edward Hugh Blakeney, M.D., Deputy Inspector-General of Hospitals, A.M.D.
GOW.—Killed in action, on November 13th, Charles Humphry Gow, M.R.C.S., Surgeon, R.N., Royal Naval Division, aged 25, only son of the Rev. and Mrs. Henry Gow, of Hampstead.
MOSS.—On November 17th, at Sutton Court, Chiswick, William Boyd Moss, F.R.C.S., in his 88th year.
WHITAKER.—On October 28th, in hospital abroad, Frederick Whitaker, Lieut., R.A.M.C., M.A., M.B., B.Ch. (Cantab.), beloved husband of Jessie Whitaker, Montana, Halifax, and second son of Joseph Whitaker, J.P., Halifax, in his 42nd year.

ACKNOWLEDGMENTS.

New York State Journal of Medicine, The Medical Review, The Nursing Times, British Journal of Nursing, L'Attualita Medica, Long Island Medical Journal, Guy's Hospital Gazette, Sydney University Medical Journal, St. Mary's Hospital Gazette.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.
The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.
All communications, financial, or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, the Journal Office, St. Bartholomew's Hospital, E.C. Telephone: City 510.
A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD & SON and WEST NEWMAN, Bartholomew Close. MESSRS. ADLARD & SON and WEST NEWMAN have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXIV.—No. 4.]

JANUARY 1ST, 1917.

[PRICE SIXPENCE.]

CALENDAR.

Mon., Jan.	1.—D.P.H. (Conjoint) Exam. begins. Second Exam. of Soc. of Apothecaries begins.
Tues., "	2.—Dr. Morley Fletcher on duty. First Exam. Conjoint Board begins.
Wed., "	3.—First Exam. of the Soc. of Apothecaries begins.
Thurs., "	4.—Second Exam. Conjoint Board begins.
Fri., "	5.—Dr. Drysdale and Mr. Waring on duty. Minor Operations. Mr. Eccles' dressers.
Sat., "	6.— Winter Session resumes.
Mon., "	8.—Cambridge Lent Term begins. Exam. for Matriculation (London) begins.
Tues., "	9.—Dr. Hartley on duty. Final Exam. Conjoint Board (Medicine) begins.
Thurs., "	11.—Final Exam. Conjoint Board (Midwifery) begins.
Fri., "	12.—Dr. Horder and Mr. McAdam Eccles on duty. Minor Operations. Mr. Bailey's dressers.
Sun., "	14.—Oxford Lent Term begins.
Tues., "	16.—Dr. Calvert on duty.
Fri., "	19.—Dr. Morley Fletcher and Mr. Bailey on duty. Minor Operations. Mr. Wilson's dressers.
Tues., "	23.—Dr. Drysdale on duty.
Fri., "	26.—Dr. Hartley and Mr. Wilson on duty. Minor Operations. Mr. Waring's dressers.
Tues., "	30.—Dr. Horder on duty.
Fri., Feb.	2.—Dr. Calvert and Mr. Waring on duty. Minor Operations. Mr. Eccles' dressers.
Tues., "	6.—Dr. Morley Fletcher on duty.

EDITORIAL NOTES.

WITH the entrance of 1917 we once again wish our readers the best of luck. Our wishes are the more sincere since so many of our JOURNALS are read in the trenches, both east and west, and we know that quite apart from ordinary war risks a good deal of luck is often essential for those in the west, if they are to keep warm, and for those in the east if they are to keep cool.

* * *

The Christmas festivities at this Hospital have this year passed off as last year, wonderfully successful in spite of the war. Father Christmas made his rounds in the morning in the approved manner to the delight of patients both old and young. Turkey and plum-pudding appeared at the appointed time. The programme of the day was carried through without a hitch, and with a swing and gaiety which would have made us forget that a war was in progress, were

it not that the soldiers' wards were there to remind us. The decorations have, as usual, been above reproach, but the gradually increasing cost of labour and material have hampered us somewhat in other directions. However, the spirit was there, and though the old "firm" troupes were lacking, there was yet no lack of entertainment.

It was generally conceded that the most effective decorations were those in which the Chinese lantern played a part. This, of course, may be due to the fact that with so much enforced darkness upon us we welcome these little extra one-candle-power rays with more than common appreciation.

The Christmas trees also were quite up to their pre-war standard as far as appearances were concerned, though we understand that in many instances the presents were not so costly as they have been in the past.

It must also be mentioned that two babies were born within the precincts of the Hospital on Christmas day, though we hardly know whether to classify them under the heading of "decorations" or of "entertainments."

We are greatly indebted to many kind friends who brought troupes or otherwise assisted in the entertainment of the patients in this time of need. Our own "Dry Dressings" were again present, and this unfortunately was the only troupe provided from within the Hospital itself. The others who so kindly assisted were Mrs. Le Breton, Miss Warren Fisher, Miss Florence Castelle, Miss Robertson Hayward, Miss Gladys Dickinsen, Mr. Seymour Dicker, and "The Roland Ramblers." To these and their assistants we have to express our great appreciation of their services, and our hope that those services will be available again next year.

* * *

It is with much satisfaction that we congratulate the Right Hon. Dr. Christopher Addison on having become a member of the Cabinet and Minister of Munitions. It does not often happen that one who is educated to the profession of a medical man rises to great eminence in another walk of life. Such a change as this serves to encourage the rising generation of medical students. Some of them may also become cabinet ministers or poet laureates.

The University of Malta, which was founded under the rule of the Order of St. John of Jerusalem, has, under a recent statute, reacquired the power of conferring honorary degrees. Under this power, which has been in abeyance for a century, the University, on December 15th, 1916, conferred upon the four consultants to the forces stationed upon the island the degree of M.D. *honoris causâ*. Among the recipients were Cols. Tooth and Garrod, A.M.C. This honour is a graceful recognition of the work done by the R.A.M.C. in that large hospital base, and seeing that the two physicians are members of our staff, may be regarded as a compliment to our Hospital and Medical School.

* * *

It is with great pleasure that we congratulate yet another Bart's man on having been awarded the Military Cross, Temp. Capt. R. A. Fuller, R.A.M.C., has received this distinction, and the following extract is coupled with this award: "He led stretcher parties and tended the wounded under intense fire. He displayed great courage and determination throughout the operations."

* * *

As we go to press we learn also that two other decorations have been awarded to Bart's men in Mesopotamia. We heartily congratulate Capt. W. Hayward Hamilton, I.M.S., who has received the D.S.O., and Temp. Capt. D. R. Thomas, of the Cheshire Regiment, who has received the Military Cross.

* * *

It is with very much regret that we learn of the death of Sir Frederick Eve, which took place as the result of an attack of influenza. His medical education took place at St. Bartholomew's Hospital, and later at Leipzig, and he subsequently became known as a careful and skilful operator. His connection with this Hospital was short, but at the London Hospital it was long and full of work. He finally became senior surgeon to that Hospital, and soon afterwards was knighted by the King. He was a member of the Council and lately a Vice-President of the Royal College of Surgeons, and formerly Lecturer on Surgery at the London School of Medicine for Women. After the outbreak of war he was appointed a Temporary Lieutenant-Colonel in the R.A.M.C., and became Consulting Surgeon to the Eastern Command. He leaves a son and a daughter, to whom our deepest sympathy is extended, in their bereavement.

* * *

THE ROLL OF HONOUR.

It is with the greatest regret that we have to report the death of Captain J. Cropper, R.A.M.C., on active service. He was on board H.M.S. "Britannic" when she was sunk, and, though reported at first as "missing," we are informed that there is no foundation for any other belief than that he was drowned. A memorial service was held on December 22nd at Caerwent Church. We give our heartfelt sympathy to his sorrowing relatives and many friends.

THE ADMINISTRATION OF CHLOROFORM.

(Continued from p. 34.)

By J. W. BEAN, M.D. (Cantab.).



E must likewise find out the degree of salivation in each case. If it appear excessive or if the oral cavity appear congested and inflamed we shall be especially on the alert for signs of danger from chloroform-secretion, and we shall take steps to obviate such secretion.

Blood is the body tissue upon which I believe chloroform exerts its direct chemical action. It attacks the red blood corpuscles and probably impairs their function as oxygen carriers. Anæsthesia is thus an indirect result of chloroform due to oxygen starvation. It follows that a correct estimate of the quantity and quality of the blood, in each case, is a matter of fundamental importance. From it, more than from anything else, is calculated the correct dosage for each case.

Anyone who attends to give an anæmic girl the same dosage as a full-blooded man, say, is courting disaster.

Good red blood, in plenty, takes up large quantities of oxygen. Such blood has high resisting powers, and needs much chloroform to cripple it in its function of carrying oxygen to the tissues.

Scanty anæmic blood can only take up small quantities of oxygen and the red cells of anæmic blood offer little resistance to chloroform's attack. If then you present too much chloroform to it such blood quickly becomes profoundly deoxidised, the pulmonary arterioles close, and an unsafe strain is put upon weak flabby respiratory muscles and upon a weak flabby heart. I am inclined to think, though it is mere conjecture, that there may be a further danger in the case of anæmic people.

Ordinarily, if excess of chloroform be given, the blood automatically protects the body from being poisoned by such excess. It effects this by causing strong spasm of the pulmonary arterioles and thus preventing the chloroformed blood from getting into the systemic circulation in excess.

It is well known that anæmia is associated with extreme poverty of muscular tone. Take for example the feeble heart sounds in anæmia. It is a fact that the muscle phenomena of asphyxia in anæmia are very, very feeble—sometimes barely noticeable. It may be then that the spasm of pulmonary arterioles in anæmic people may be weak and incomplete or in extreme cases pretty well absent. If such be the case then their automatic protective action against a toxic blood would be weak and incomplete.

Naked chloroform—that is chloroform not linked to the red cells—would then pass through to the systemic circulation and would exert its usual action as a protoplasmic poison. This, as I say, is mere conjecture, but it is conceivable and therefore possible.

Chloroform present in the arterial blood to an anæsthetic degree is associated with the normal red colour, or even with an increase in colour, a hyper-red colour of arterial blood.

Chloroform present in excess always darkens the blood. It follows that, above all, the patient's color must be watched and must be kept hyper-red.

Another important point in connection with the blood must be remembered. *The dosage of chloroform depends on the quantity of the blood in the systemic circulation at any one particular time*, not on the total quantity of blood in the body. Now it may happen that a full-blooded man getting a large dosage suddenly becomes pale through surgical stimulation of a sensory nerve. Much of his blood is depleted into the splanchnic area and his heart action becomes automatically reduced. It becomes necessary to greatly lessen the dosage of chloroform given to him and to keep it reduced till the circulation returns to the normal, when the original dosage may be resumed. Neglect of such precaution may lead to dangerous crisis.

Yet one more point in connection with the blood must be noted. Blood offers a resistance to chloroform's attack. This resistance is great at first, but gradually and steadily lessens as the administration proceeds. It follows that the chloroform dosage must in like manner be progressively and systematically lessened from time to time.

One last point of importance before we leave the blood. Chloroform is known to be especially dangerous in toxæmias, such as diabetes, septicæmias, and renal inefficiency.

Why is this? Probably it is because in these conditions the blood is already flooded with toxins, and the red cells are already fully engaged oxidising and destroying the toxins of the blood (oxygen is known to be a great destroyer of toxins—hence the cleansing properties of Condry's fluid, to take one example.)

In toxæmias you usually get a darkening of the blood, together with incomplete or complete unconsciousness (delirium or drowsiness and profound coma), which states find a ready parallel in incomplete or complete chloroform unconsciousness.

If now you add chloroform to an already poison-laden blood, one or two things must surely happen: either chloroform has a greater affinity for the red cells than have the bacterial renal or diabetic toxins, in which case the latter will pass on unoxidised and poison the system. A second possibility is that the original toxins have a greater affinity for the blood than has chloroform, in which case "naked" unlinked chloroform, that is to say ChCl_3 not combined chemically with the red cells, will pass on into the systemic circulation (a protoplasmic poison) and poison the system.

In either case it is clear that chloroform and circulating toxins act as adjuvants, each of them lowering the resistance of the red cells and impairing their productive action.

Several other points in the personal equation should be carefully considered, for example:

- (1) The circulatory system as a whole.
- (2) The nervous system as a whole, the temperament of the patient, the dangers of excessive fear, the likelihood of excessive or unduly persisting reflex action. The possibility of excessive weakness or sluggishness of the vital nervous centres, associated sometimes with exceptionally slow pulse and respiration.
- (3) The muscular system as a whole—both striped and unstriped musculature. The power and endurance of the respiratory muscles—blood pressure, which is fitly considered under unstriped muscle-tone and cardiac tone.
- (4) Metabolism and the nutrition of the body as a whole.

Indications of defective nutrition or defective metabolism should be carefully noted, such as eczema, gout, any rough skin, hives, bilious attacks and sick headaches, muscular rheumatism. etc., etc. Enquiry should be made as to previous anæsthetics and the amount and persistence of vomiting after them.

Time forbids me to do more than merely mention these items in the preliminary examination; they have been dealt with in detail in previous papers.

SYNTHESIS.

Having completed our analysis we are in a position to construct, step by step, a safe and sound method of administering chloroform. Such a method must above all things be elastic and adjustable, so that the complications caused by individual peculiarities of structure or temperament may be avoided or overcome.

Let us construct in the same order as we have analysed, and start with chloroform.

IMPURE OR SUB-STANDARD CHLOROFORM.

Get your chloroform in bottles, 2-4 ounces, and see that it is in coloured bottles. Keep it in a *cool dark spot*, firmly stoppered, and never expose it to heat or sunlight nor leave it unstoppered for more than a few seconds at a time. The advantage of a small bottle is that it is finished at one sitting probably, and so is not kept for many weeks or months half-filled, tending to decomposition.

Get the very best chloroform.

In dealing with a drug so dangerously powerful as chloroform "the best or nothing" should be one's motto. It is possible, after considerable practice and experience, to "spot" impure chloroform by the smell alone, pouring a few drops on one's hand and smelling it.