St. Bartholomew's Hospital

Journal.

1915 - 1916

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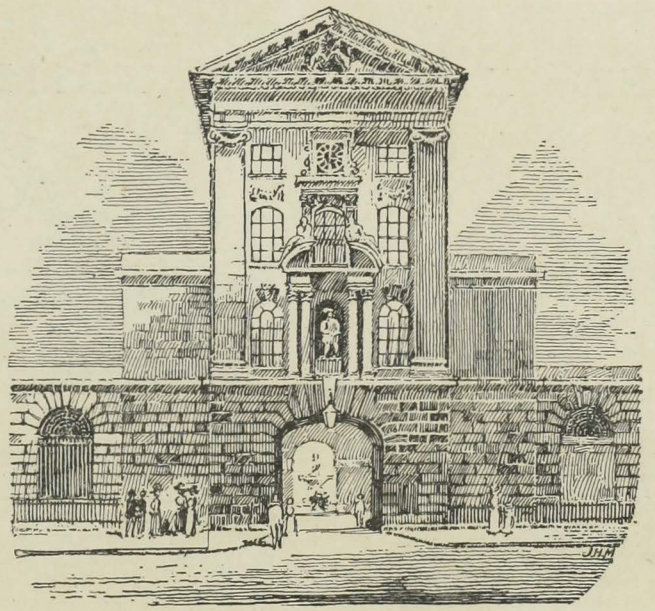
ST. BARTHOLOMEW'S HOSPITAL JOURNAL



VOL. XXIII.

1915-1916.

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1916.

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St. Bartholomew's Hospital Journal.

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

VOL. XXIII.—No. 1.] OCTOBER 1ST, 1915. [PRICE SIXPENCE.

CALENDAR.

Fri., Oct.	1.	**Winter Session begins.** Exam. for Part II of Second M.B.Cantab. begins. Cambridge Michaelmas Term begins. Dr. Calvert and Mr. McAdam Eccles on duty.
Mon., ,,	4.	Exam. for D.P.H.Camb. begins. Second Exam. of Society of Apothecaries.
Tues., ,,	5	Final Exam. Conjoint Board (Medicine) begins. Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., ,,	6.	First Exam. of Society of Apothecaries begins.
Thurs., ,,	7.	Final Exam. Conjoint Board (Midwifery) begins.
Fri., ,,	8.	Dr. Drysdale and Mr. Rawling on duty. Final Exam. Conjoint Board (Surgery) begins.
Sat., ,,	9.	Oxford Michaelmas Term begins.
Mon., ,,	11.	Exam. for D.P.H.Camb. (Part II) begins.
Tues., ,,	12.	Dr. Tooth and Mr. D'Arcy Power on duty.
Fri., ,,	15.	Dr. Garrod and Mr. Waring on duty.
Tues., ,,	19.	Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., ,,	22.	Dr. Morley Fletcher and Mr. Bailey on duty.
Mon., ,,	25.	Exam. for M.B., B.S.(Lond.) begins.
Tues., ,,	26.	Dr. Drysdale and Mr. Rawling on duty.
Fri., ,,	29.	Dr. Tooth and Mr. D'Arcy Power on duty.
Tues., Nov.	2.	Dr. Garrod and Mr. Waring on duty.
Wed., ,,	3.	Primary F.R.C.S. Exam. begins.
Fri., ,,	5.	Dr. Calvert and Mr. McAdam Eccles on duty.

EDITORIAL NOTES.

WE very much regret to learn of the death of Capt. A. W. Scot-Skirving, of the 5th Royal Irish Fusiliers. He was qualified in Sydney, New South Wales, but came over to England to study at this Hospital for the Fellowship of the Royal College of Surgeons. He passed his Primary Fellowship a little over a year ago, and on the outbreak of war joined the 5th Royal Irish Fusiliers as a combatant. He was wounded in Gallipoli and unfortunately succumbed to his wounds. Scot-Skirving was a man of brilliant promise, and though of a retiring disposition was exceptionally popular with those who knew him intimately. Our deepest sympathy is extended to Mr. and Mrs. Scot-Skirving in their sad bereavement.

* * *

We have just heard, with great regret, of the death of Capt. B. M. Hughes, of the 4th Norfolk Regiment (T.F.), who was killed in action at the Dardanelles on September 15th. He gave up a lucrative medical practice in Wymondham in August, 1914, to rejoin his old regiment, with which he had served in South Africa in 1901, where he earned the Queen's Medal with four clasps. He was a Justice of the Peace for Norfolk. Our deepest sympathy is given to Mrs. Hughes and her two children.

* * *

We have also to record with sorrow the death of another of our students, Lieut. George Francis Juckes, who has been killed on active service in France. He was twenty years of age and received his commission soon after the outbreak of war. Our deepest sympathy is given to his parents, Mr. and Mrs. F. H. Juckes, upon whom the blow will fall the more severely since his younger brother, Lieut. T. R. Juckes, was killed at Richebourg L'Avoué on May 9th last.

* * *

We heartily congratulate Sir Anthony Bowlby, who has been promoted to the rank of Surgeon-General.

* * *

We heartily congratulate Surgeon B. A. Playne, R.N., R.N.D., who has received the D.S.O. for gallantry and good service during operations near Gaba Tepe from April 28th to May 1st, 1915. On several occasions he rushed across the open (the communication trench being incomplete) into the fire trenches and attended the seriously wounded, regardless of the severity of the enemy's fire; on one occasion he carried a wounded officer on his back from the fire trench to the communication trench under heavy fire. His conspicuous bravery not only inspired the stretcher bearers to perform fine work, but gave confidence and spirit to all ranks. He was again several times brought to notice for gallant deeds when attending wounded on May 3rd and 4th.

* * *

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The Rede Lecture for 1915, delivered by Dr. Norman Moore, was entitled "St. Bartholomew's Hospital in Peace and War," and must not be passed over without notice. Essentially it consists of a brief history of the Hospital since its foundation. It is lightened throughout by curious and interesting details, such as Dr. Moore knows so well how to weave into his writings and discourses. He narrates how during the Great Rebellion the Hospital was full of wounded soldiers, who "drank and quarrelled a great deal," and he shows throughout "how in a free country, such as ours, where everything is not dominated by Government, an ancient institution like St. Bartholomew's Hospital, whether in peace or war, lives with the nation and is in touch with the national life in every period."

* * *

Once again it is our pleasant duty to offer a hearty welcome to those who are coming to Bart.'s for the first time. These are arriving at a period which will ever be memorable in their lives, not only because they have reached one of the important milestones upon their career, but also because they come at a time when the Hospital is mobilised for war. At the same time we are glad to be able to inform new students that the social life of the Hospital, though not by any means what it is in times of peace, is by no means neglected. The various sports clubs are kept going, for we must get exercise and keep fit, and the Abernethian Society still holds meetings from time to time. We regret, however, that the Rifle Club is for the time being dormant, owing to the fact that the miniature range, being underground, is now filled with specimens from the Museum ; a precaution taken in case a Zeppelin managed to drop a bomb by unlikely accident within a radius of two miles of the Hospital. There is also the Officers Training Corps of the University of London, to which we hope the majority of new students will attach themselves.

A small booklet, containing the constitution and rules of the Students' Union, with the rules of the constituent societies and clubs, will be issued to each student, and we hope that these will be read and that each student will be able to play his part in one or the other of these constituent clubs. The secretaries of the various clubs are only too anxious to meet with each student. W. F. Eberli and I. Braun are the respective secretaries of the Rugby and Association Football Clubs. The secretaries of other clubs which may be active at a later date will post notices on the boards in the Abernethian Room. The Cricket and Swimming Clubs are, of course, not active during the winter.

We congratulate all new students upon having selected St. Bartholomew's Hospital as their *Alma Mater*, because not only is it the senior London hospital, with a history dating back some 800 years, but it undoubtedly possesses the finest traditions and the highest examination records, particularly in surgery, in which subject it is approached by no other hospitals, however excellent they may be in other respects.

While we are by no means sure that we should encourage men to become doctors while there are still vacancies to be filled in the army, we cannot refrain from pointing out that those who join the profession just now and in the near future are assured not only of a life of interest and human service, but also of a very fair income, for there are unfor tunately not enough doctors to "go round."

We wish the best of luck to all, and may you remember that the future of the Hospital is in your hands. The future senior physicians and surgeons are in all likelihood just entering upon their careers. Another Lord Lister or a Poet Laureate may be amongst you. But whoever it be that enters the Hospital to-day—remember that to-morrow the traditions of Bart.'s will be in your hands.

THE DUCHESS OF WESTMINSTER'S HOSPITAL.

By CAPT. W. P. S. BRANSON, M.D., F.R.C.P.

THE war had not been in progress many days when the Duchess of Westminster laid the foundations of the Hospital, which has since borne her name, by inviting Mr. Gordon Watson, through Mr. R. C. Ackland, to collect the *personnel* for a hospital of 200 beds and to take the professional charge of it. The scheme was blessed by the authorities, and after some laborious weeks for the chief actors (including, of course, the Duchess and Watson, and also a number of others, whom I do not mention by name simply because this is not a history) the second week in September found us ready to start at twenty-four hours' notice.

Our military Commandant was Major (now Lieut.-Col.) Douglas, V.C., D.S.O. Our medical staff of six all hailed from Bartholomew's—Gordon Watson and Sydney Scott, Surgeons ; W. P. S. Branson and Harold Pritchard, Physicians ; D. M. Stone, Assistant Surgeon and Radiographer ; and J. S. Burn, Assistant Surgeon and Anæsthetist. We had four Bart.'s dressers—Bowes, Derry, Robinson, and Tresidder. Our nursing staff consisted of twenty trained Sisters, including Mrs. Llewellyn Phillips, our Matron, and married to a Bart.'s man. Several of our Sisters were from Smithfield at one time or another—Miss Kilner, Miss Bailey, Sister Casualty (Miss Clowes that was), Miss Hallett, and Miss Vincent. Indeed, I think the predominance of Smithfield in the *personnel* brought qualms to the hearts of some of the other Sisters, but I hope and think we have lived it down. Our sixty orderlies were

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provided by the F Bearer Company of the St. John Ambulance Brigade, from Bristol.

We left Waterloo for France on September 27th, 1914, but not at our full strength, for Mr. Woodhouse, who was to have been our Quartermaster, fell sick at the last moment with appendicitis. Pritchard also defaulted for the time, having, by a bitter irony, knocked himself out by his own anti-typhoid inoculation, which made the rest of us merely unhappy, but kept him on his back for upwards of a fortnight. The vacant quartermastership was very sportingly filled by Mr. H. L. Etherington-Smith, brother of our lamented "Ethel"; but he was unable to accompany us because he required a few days to put his affairs as an architect into order before immersing himself in rations and bedding and plumbing and the fifty thousand other things which have since littered his ambit.

The Duchess, having successfully inaugurated an ambitious undertaking, had reserved enough enterprise to secure the transport of the hospital to Havre in Sir Thomas Lipton's "Erin," and so it fell out that we started most auspiciously and in great luxury with the kindest of hosts. It was expected that the ninety odd of us would be on the "Erin" for about sixteen hours. In fact, what with one *contretemps* and another, we were there for three days; but nothing seemed capable of disconcerting Sir Thomas and his chief steward. So we came to Havre and went on to Paris, at this time under sufficient suspicion of being insecure to warrant the transference of the Government to Bordeaux. Certainly it was a dead city. We thought we were to make a start there at first, for a fair number of British wounded were coming into it at the time, but we soon learned the uncertainty of any kind of war service; for, though we lived from day to day in expectation of marching orders, we had spent a tedious month of waiting before being finally ordered to Le Touquet. This very deadly month (for, of course, we were all in a fever of impatience) was unrelieved by anything of interest beyond the occasional visits of marauding Taubes, which came at this time, you will remember, to impose true culture upon Nôtre Dame and other mean relics of a barbaric past. But even these visits were generally brought to our notice by the daily paper of the following day, although on one occasion two of us, who were wrestling with French verbs in the Tuileries Gardens, did actually see something of the performance. Our attention was drawn by a small crowd of gesticulating Frenchmen, who pointed out the aeroplane above the northern part of the city, and a very pretty sight it made; for the day was sunny, with a small amount of cloud, into which the pilot would disappear for a minute or two, his reappearance being generally followed very shortly by a distant detonation. It was on this Sunday that a bomb actually fell on Nôtre Dame, but fortunately failed to explode.

Apart from the tedium of the time, it was particularly galling to people of our sensibility to be the cynosure of all eyes in our khaki (which was at this period still a moderate rarity in Paris) when we knew very well that we had done nothing at all to deserve the flattering recognition so lavishly bestowed upon us by the populace. Altogether we were very discontented, and I could fill a volume with accounts of the work and voyages put in by the Duchess and Douglas and Watson in their efforts to get going without loss of time; but on retrospect one can see how difficult it must have been for the authorities to select a site for a hospital at a time when the line was still subject to violent and rapid changes of position. Nevertheless, you may guess how the waiting taxed our patience and how we hailed the prospect of making a start when at last a site had been found for us by the joint efforts of the Duchess and the Quartermaster.

This site was the Casino de la Forêt at Le Touquet, most generously placed at our disposal, rent free, through the offices of M. Soucaret, one of the chief citizens of the neighbourhood, and this has been our home ever since. We arrived on October 28th, one of the most critical days of the first battle of Ypres, and set to work to convert the Casino into a hospital. As such things go, our task was easy, for the building is in many ways ideal. Three great and lofty halls devoted respectively in piping times to dancing, petits chevaux, and baccarat. I think even the most rigid moralists will have to admit that the casinos in France have justified their existence during this war, for, as regards the improvisation of hospitals, no class of building can compare with them, since the largeness of the rooms and their situation upon the ground floor qualify them particularly well for hospital wards. These three large halls became our principal wards, holding respectively 58, 67, and 125 beds. The fencing-room upstairs became the operating-theatre, the reading-room an officers' ward of 10 beds; the American bar fell naturally to the dispensary; Stone seized an outhouse and made a first-rate X-ray room of it, with the aid of a bathing-machine impounded from the beach. The Duchess and Mrs. Whitburn (another very generous supporter of the hospital) joined our mixed mess of nurses and doctors and voluntary dressers in a wing of the then unoccupied Hôtel des Anglais, kindly put at our disposal by its owner, Mr. Tanqueray. Mr. Norman Evill, an architect at home, who had come out with his car to do ambulance work, took charge of our transport arrangements and continued to look after this branch until a few weeks ago, when a variety of transport rearrangements, due to local changes, left him short of a job and robbed us of a good worker and a loyal colleague.

Within a week of our arrival we were ready and received our first convoy of 230 patients on November 4th. A large number of these patients were badly wounded men from the Ypres fighting, and I must say it was an experience to deal with so many new and bad cases at one time in a recently-

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established hospital. But as a large proportion of my readers will have been through the same kind of mill themselves, it is not worth while to dilate upon the difficulties that have to be met.

Having got us fairly started, Douglas was presently taken off to other duties. Our idle time in Paris must have been even more trying for him than for the rest of us. But he put up with our grumbling impatience with consistent good temper, and, as I have said, gave us a good send-off on our career. From this time Watson became our commandant as well as our surgeon-in-chief, it being possible for him to administrate in the mornings and operate in the afternoons, though the double task was no light one. None but those who have tried it can really appreciate what it means to plunge a civilian unit into a network of cog-wheels, such as the R.A.M.C., and to get it to work as a cog-wheel in the series; I mean as a help to the whole machinery and not an obstruction, however well-meant it be. We are sanguine enough to think that we have achieved this adjustment during the greater part at least of our eleven months' existence. It is no particular part of my business to puff my colleagues; indeed, I am too occupied doing that for myself to have the time, but I do not mind going so far as to say that Watson has a peculiarly practical grasp of administrative essentials, and that Etherington-Smith is about the most versatile, persevering, persuasive, and generally helpful person that I know, and between them they have succeeded in fitting us into the scheme of things.

We had not been many days at work when it became evident that we were inadequately staffed for the beds we had. We came out equipped for 200 beds, but the building admitted of our accommodating easily 250 men and 10 officers (that is to say, the figures of half a general hospital), so we expanded to that size, borrowing doctors and nurses from the Red Cross, and have continued so until about six weeks ago. At Christmas time Scott had to go home, to our greatest regret; otherwise our original medical staff remains intact, but has been supplemented from time to time by a changing series of helpers. L. T. Giles, Crichton Starkey, C. S. Myers, Tom Body, Whitehead-Reid, "Monkey" Nunn, Forbes Fraser, Neve, and Kenneth Walker, all Bart.'s men, have done a turn with us. F. P. Young is with us now. J. P. Hedley, of Thomas's, also worked with us for a time, and a regular member of our band is James Erlank, who hails from South Africa, *viâ* Edinburgh, and leads a busy life as assistant surgeon and registrar. He is our war-worn veteran as regards this campaign, having been taken by the enemy on their entry into Brussels. Our present complement, as regards doctors, is completed by Mr. R. J. Dick, of the London, a partner of Giles's in Scarborough. At Christmas time we also parted regretfully with three of our dressers, Bowes, Derry, and Tresidder, who went home to get qualified, and with several of our Sisters. I cannot pretend to give a detailed account of our fortunes, but all went well with us till April, when Watson, while home on leave, fell sick with enteric and had a bad time from a tiresome relapse, which laid him by the heels for a good long time. However, we managed to hold the fort between us in his absence, and have now had him back for a month or more. While he was away changing circumstances induced the authorities to suggest our conversion into a hospital entirely for officers, and he returned just in time to take over the supervision of the change. This is now accomplished, and we have 120 officers' beds, the majority of them being potentially cubicled, surrounded, that is to say, by woodwork frames carrying curtains which can be drawn at will. This is a convenient arrangement and less bothersome than movable screens. It is better also than permanent partitions, since if two adjoining patients want to gossip they have but to draw a curtain back.

During the nine and a half months of our active existence we have had 4281 patients through our hands, and have received as many compliments as are good for us. We are most lucky in having in charge of our district an A.D.M.S. and a D.A.D.M.S., who are sympathetic and do all they can to help us to be useful. The Duchess continues to live near the hospital and to take an active part in the work. She has steadily declined the temptation to pose as a nurse, and has earned all our admiration by sticking to the tedious, but vital, business of administering the linen room—a big and unpleasant business in our earlier days when we had 260 beds and extemporised laundry arrangements, but easier now. All things considered I think we can look back upon our past with a reasonable amount of self-complacence, and the recent promotion of Watson to be Hon. Lieut.-Col. seems to argue that the Powers-that-be share a view which might possibly be thought to be biassed if it lacked some such external support.

FROM THE FRONT.

SIMPLE RHYMES FOR "FRIGHTFUL" TIMES.

1. "LITTLE WILLIE," OR "THE WHIZZ-BANG."*

Whizz-bang, whizz-bang, little Willie:
Really it is rather silly;
Making such a foolish noise
Doesn't frighten soldier boys.

* A small noisy shell fired at close range doing very little harm.

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2. Gas-shell.

When the Boche puts over shell
That make a funny sort of smell;
And the water in your eye
Looks as though you're going to cry;
'Tis but the Boches' morning hate,
Brothers let us respirate.

3. Sniping.

When at night *giou, giou*
By Tommy's heard (or piou-piou),
He's no need to duck his head,
For the silly bit of lead
Is passed and gone away
Before you ever hear it say
Giou, giou.

4. Trenches.

(*This may also be said when troubled by the Staff.*)

When within your tiny trench
There's a rather horrid stench;
When the shells are falling thick
(And perhaps you wish that you were sick);
When the rain has made a river
Of the trench in which you shiver;
When the *fauna* of your shirt
Make you feel a little hurt;
When the flies in myriads swarm
On the bacon that you warm . . .
Don't forget that ageing cares
Might have given you grey hairs
Had perhaps you chanced to be
General Somebody's A.-D.-C.

J. R. R. T.

LONDON AMBULANCE COLUMN.

THE number of beds which are at the disposal of the Medical Department of the War Office in London is great, and the number of men who have to be conveyed to them is correspondingly large. Practically the whole of the work of such transport is carried out by the London Ambulance Column. The work is absolutely voluntary, and a few figures showing what has been accomplished during the first twelve months will give some idea as to its magnitude. Since August 30th, 1914, the date of the arrival in London of the first train of wounded and sick from the Western Front, the Column has met 662 trains. From these trains 7091 officers (2727 being stretcher cases) and 38,625 N.C.Os. and men (10,726 being stretcher cases) have been conveyed to the sixty odd hospitals which receive the wounded and sick. It will be seen that this makes a total of no fewer than 45,716 men conveyed in the motors lent to this efficient Column.

For the year the average number of "calls" per day has been seven, and the average number of patients transported per day has been 125. Every one of these has received individual attention in handling and transport. Many of the trains arrive in the "small hours" of the morning, and, although it is often in these hours that human vitality reaches a low ebb, not a single man has died during his journey in the ambulances.

More cars, the ordinary car, not an ambulance, are needed for the work, and anyone wishing to offer one should communicate with the Hon. Secretary, London Ambulance Column, 83, Westbourne Terrace, Hyde Park, W., stating type of car and days and hours available.

ARTIFICIAL LIMBS.

By R. C. Elmslie, M.S.

Part II.

Mechanism of Standing and Walking.

In order to understand properly the principles of construction of artificial legs it is necessary first to realise the mechanism of normal standing and walking. In standing, very little muscular effort takes place in the lower limb; the line of the centre of gravity of the body falls behind the centre of rotation of the hip-joint and in front of that of the knee-joint. The hip is extended by slight action by the glutei and locks in this position, the Y-shaped ligament being taut. The knee is extended and locks without any muscular action being required. The foot is kept in proper position by a balance of its muscles.

In walking upon level ground, for example, in stepping off the right foot the weight is first thrown forward on to the left foot; the right heel is then raised, the knee slightly flexed, and the limb swung forward; the foot is made to clear the ground by (1) raising the right side of the pelvis, (2) keeping the knee flexed and the foot at a right angle; the knee is then extended, the foot pointed down slightly, and the right side of the pelvis dropped so as to bring the heel on to the ground; the weight is then shifted on to the right leg. A very large proportion of the muscular work is carried out by the muscles of the pelvis and hip. Flexion of the knee requires only a slight effort; extension is carried out by the swing of the limb without any effort (patients who have lost the use of the quadriceps can walk perfectly upon the level), and the movement of the foot is very small. The ankle only moves from a right angle to a position of about 25° of plantar flexion; there is no lateral movement, but the toes dorsiflex considerably but passively.

Walking down a slope requires considerably more effort. In the first place the weight is kept upon the rear leg

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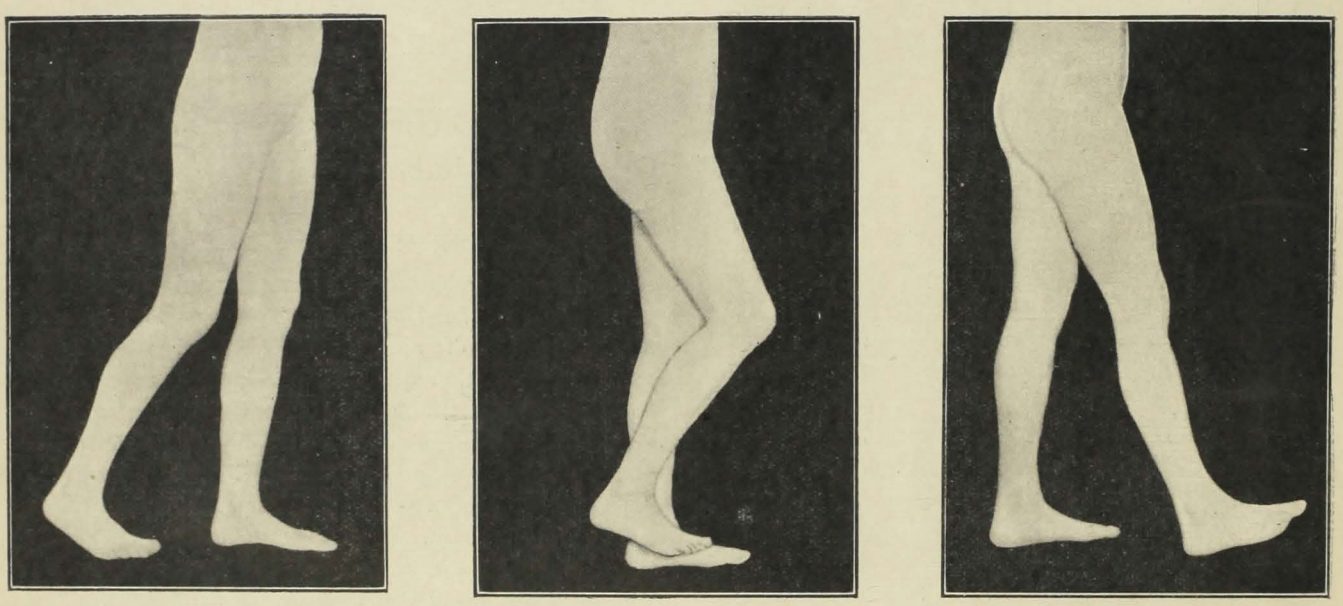
longer, whilst the knee is flexed and the heel raised, so that the quadriceps does work eccentrically, supporting the weight whilst it lengthens, and the gastrocnemius and soleus actively raise the heel. Then the fore foot is placed upon the ground with the knee flexed, so that the quadriceps has again to do work. In walking up a slope the quadriceps again must be used, in this case concentrically. In walking sideways along a slope lateral movements of the foot come into play.

In walking upstairs the advancing limb is first raised by flexing the hip, the knee flexing passively and the foot being kept at a right angle; the foot is then dropped upon the upper step either flat or with the heel raised; the weight is shifted on to this foot and the limb straightened by action of the glutei, quadriceps, and gastrocnemius and soleus. In coming downstairs the action is reversed, the same muscles work eccentrically, *i.e.*, lengthening gradually whilst supporting the weight.



a. *b.* *c.*

FIG. 1.—POSITIONS IN WALKING: *a*, RIGHT FOOT LEAVING THE GROUND. *b*, RIGHT FOOT BEING SWUNG PAST LEFT. *c*, RIGHT FOOT JUST MEETING THE GROUND.

In the above description the actions of walking have been reduced to as simple a form as is possible; they can be verified easily by personal trial. It will be convenient next to take the most general problem in the making of an artificial leg, that of the construction of an artificial limb for an amputation through the thigh, the muscles of the hip being intact.

MECHANISM OF AN ARTIFICIAL LIMB FOR AMPUTATION THROUGH THE THIGH.

In an artificial limb it is desirable to reduce movements and mechanism to the simplest possible. In the first place it will be seen that extension of the knee is carried out automatically by the swing of the limb in walking upon the level, provided that the centre of rotation of the joint is properly placed behind the line of the centre of gravity. So that an arrangement for extending the knee by means of an accumulator or spring is not essential. It is safer, however, to have some such arrangement, both because it gives a greater sense of security and because the slight power of extension is sufficient to enable the wearer to walk up a moderate slope without discomfort. Extension of the knee can be carried out by means of an elastic accumulator in front of the joint; this is the usual method adopted in the English type of leg, although it is sometimes replaced by a spring mechanism placed inside the limb. In this way the extension is automatic and involuntary, but in the American type of leg a voluntary method of extension is introduced. Straps from the front of the leg below the knee are carried up into the suspender which supports the limb over the shoulders; the action of raising the shoulders then tightens these and extends the knee. No method of extending the knee with sufficient strength to enable the wearer to walk up a step in the natural manner has been devised, and it appears that this is not capable of accomplishment.

Flexion of the knee can be made automatic if the dorsal extension of the foot is limited to a right angle; the pressure of the toes upon the ground then flexes the knee, and this flexion will persist until the limb is swung forward.

It will be seen from the description of walking that only a very limited movement of the foot and ankle is essential. The most important movement is dorsal extension of the

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toes. This is arranged for by putting in a spring or rubber joint at the level of the heads of the metatarsals. Extension then takes place by the pressure of the weight upon this, and the toes straighten out as soon as the pressure is removed. In the ankle region movement is required from the right angle position to about 25° of plantar flexion at the most. There are two essentially different methods of getting this movement, and these are bound up with the corresponding methods of arranging for the knee movement. They are best described as the English and the American types of artificial leg.

The English type of artificial leg is also called the tendon leg. Its essential characteristic is the fitting of an artificial tendo Achillis which is attached at one end to the thigh piece and at the other into the heel. When the knee is extended this tendon is taut and the foot consequently

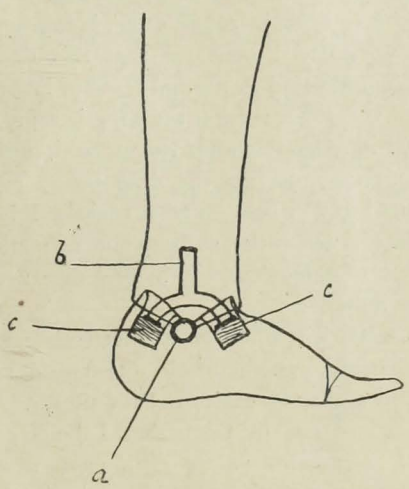

Fig. 2.—Diagram of American Spring Ankle Movement. *a*. Ankle Bolt; *b*, Steel Bolt Fixed in Leg Piece with Prongs Pressing into *c*, Rubber Compression Pads.

plantar flexed to its utmost. As soon as the knee is flexed the tendon relaxes and the foot is extended dorsally by an opposing spring. This dorsal movement of the foot is limited to a right angle. In this type of leg the knee is kept extended by an anterior elastic accumulator or by an internally fixed spring. But when the wearer has become accustomed to the leg this can usually be dispensed with, the extension of the knee being automatic through the swing of the limb.

To recapitulate in walking on such a leg the movements are as follows: In stepping off the leg, the knee being at first extended, the foot is plantar flexed by the tendon, so that the heel is raised from the ground; the pressure of the toes on the ground flex the knee, this brings the foot to a right angle and the limb is swung forward in this position with the knee flexed and the foot at a right angle, the ground being thus well cleared. The forward swing of the limb extends the knee, the foot becoming plantar flexed, and the foot is thus dropped on to the ground with the knee straight and the toe pointed down. The walk thus obtained is very natural, the chief defect being that the foot is a little loose in its mid position, and is apt to meet the ground with rather a flop. A more important defect in this type of limb is that there is considerable mechanism which may get out of order.

In the American type of limb the foot movement is isolated from that of the knee, and consists in a simple spring action. The foot is balanced in its mid position (one of slight plantar flexion), movement in either direction being resisted by a spring. In the best type the resistance is given by the pressure of a metal plate against a solid mass of rubber. The spring action thus given is smooth and sufficient, and rubber, when subjected to compression and not to stretching, does not tend to perish at all rapidly. Moreover, the rubber pads lie in simple cups and can, if

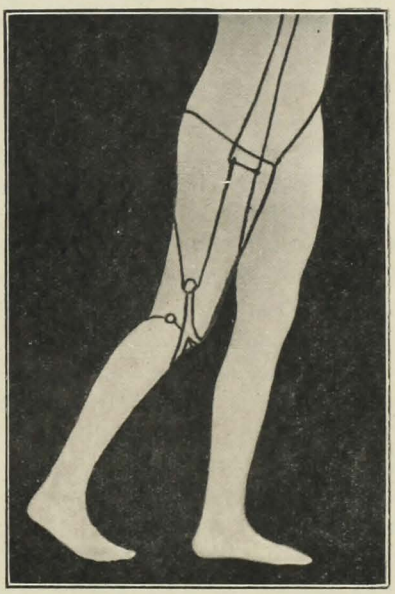

Fig. 3.—Diagram of Arrangement of Sling to Extend Knee.

necessary, be replaced in a few minutes. The knee action is automatic, assisted, when necessary, by the mode of fitting of the sling. All artificial limbs must be held on by a sling of some sort. In the usual type of sling there are simply straps passing from the top of the limb over the opposite shoulder. The objection to this is that, as the limb is swung to and fro the sling must work backwards and forwards on the shoulder. The American type of sling is not attached to the top of the bucket, but is carried on down the limb by two cords—an inner and an outer. Each cord from the front of the sling passes through a pulley in the thigh, and turns up to be attached to the corresponding part of the back of the sling. The play when the limb is swung thus takes place upon the cords around the pulleys, and not over the shoulder. In order to give a voluntary power of extension of the knee, it is only necessary to attach the pulleys to straps which are fixed to the front of the leg

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below the knee. Raising the shoulders will then tighten these cords and extend the knee.

The great advantage of this type of limb is its simplicity. There are no concealed tendons or springs, except the rubber pads in the foot, and, as already explained, these can be easily changed.

ARTIFICIAL LEGS FOR OTHER AMPUTATIONS.

In amputation through the knee-joint or condyles of the femur the bucket can be so shaped that weight is taken upon the end of the stump—a great advantage. On the other hand, it is impossible to fit the ordinary type of knee-joint with a bolt right through. As it is important to keep the knee movement at the correct level the joints must be steel ones fitted on the inner and outer side of the knee, the thigh piece being rounded at its lower end and the leg piece hollowed to glide over it on flexion and extension.

In amputations below the knee the weight should be taken on the sides of the tibia and fibula. For this purpose very accurate modelling of the fitting to the leg is necessary, and it is usually advisable to line the bucket part of the leg with leather to keep the fitting accurate; paraffined leather gives the most perfect and comfortable fitting. To hold the limb in place it is necessary to connect it by side steels to a leather lacing thigh piece. The foot is the same as in the limb for amputations through the thigh.

In a Syme's amputation and similar amputations through the ankle region, in which the weight can be borne upon the end of the stump, the chief point is that the fitting must be to the leg, and must hold it so closely that movement is impossible. Lateral steels with ankle-joint and limited spring movement connect this with the foot.

This brief description of artificial legs pretends only to give the barest outlines of their principles. There are many ways of arranging and fitting the mechanism; each maker has his own methods. But the principle described should be sufficient to enable anyone to examine these methods himself, and to judge of their efficiency.

PITUITARY EXTRACT AND OBSTETRICS.

By R. STLEGER BROCKMAN, M.R.C.S., L.R.C.P.

THE following remarks are the records of some observations I made while I was working as Internal Midwifery Assistant in the wards of St. Bartholomew's during the summer of 1915. In all cases of labour two people have to be considered, and though in some cases what is best for the mother is worst for the child, one does not like to have recourse to such treatment unless one is forced to.

The only advantage in a normal case in the use of pituitary extract is to get the labour over quickly for the mother. The danger of post-partum hæmorrhage I do not think exists any more under such circumstances than if no use had been made of the drug. On the other hand, the other party concerned runs considerably more risk if use is made of this means of quickening its delivery. Labour pains are intermittent in character, a provision of Nature whereby the circulation is allowed to proceed and undue pressure on the umbilical cord prevented. In cases where this drug is used this provision of Nature is swept aside, and the intermittent painful uterine contractions become one continued pain with no relaxation until either the child is born or the effect of the drug wears off. My experience of the use of this drug in normal cases stopped me very soon. The children were born in a precarious condition, and in one case it was only after a great deal of trouble that the child was ever brought round at all, being born in white asphyxia. Personally I consider that this drug is most strongly contra-indicated in normal cases of labour.

In cases of Cæsarean section the drug is especially useful when injected immediately after the extraction of the child, but the practice of injecting the drug before commencing the abdominal incision has, on all occasions I have seen it so administered, made the subsequent extraction of the child a matter of difficulty, and in one case nearly ended fatally for the infant.

Pituitary extract will often save interference in cases of inevitable abortion, which would otherwise require an anæsthetic and digital evacuation of the uterus.

But it is not in any of these that I believe this drug may prove of the greatest value, but in cases where a rapid delivery is essential for the well-being of the mother.

CASE 1.—A woman, seven months pregnant, was brought into the ward bleeding severely from a misplaced placenta. A bipolar version was performed, but the hæmorrhage was not controlled, as the woman was obviously bleeding into her uterus. The os was the size of five shillings. 1 c.c. of pituitary was injected into the buttocks, and in twenty minutes everything was over.

CASE 2.—A woman suffering from chorea of pregnancy had been in labour for thirty-six hours. Curiously enough the fits in no wise abated during labour, but continued with more vigour. As she was getting worn out 1 c.c. of pituitary extract was given intramuscularly, the os being dilated at the time of injection. The child was born in fifteen minutes, and was followed by the placenta three minutes later.

In making use of this drug in such cases care must be taken to ascertain the character of the cervix. A hard undilatable cervix would be a strong contra-indication for such treatment, and also in cases of placenta prævia it must be borne in mind that under these conditions the lower uterine segment is much thinned and very friable.

I have recorded these cases as I feel convinced that in

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this drug we have a very useful aid in treatment of obstetric cases where we wish for a speedy delivery, and in which the life of the child is not of equal import with that of the mother's.

THE MEDICAL ESSAYS OF OLIVER WENDELL HOLMES.

By Alex. Macphail, M.B., C.M.Glas.

ONLY rarely have recruits been raised to the Olympus of Literature from the ranks of the medical profession. Among these, Oliver Wendell Holmes, for thirty-five years (1847–1882) Professor of Anatomy in the University of Harvard, occupies a foremost place. His name and fame lie securely enshrined there, through the lasting appeal of his essays, novels, and poems. The distinction of his genial style as an essayist was first revealed in the *Autocrat at the Breakfast Table*—the forerunner of the equally delightful *Poet* and *Professor. Elsie Venner*, a romance of heredity, proclaimed him a prince among story-tellers. His fertility in verse was amazing; among many gems, both grave and gay, his "Deacon's One Horse Shay" perhaps holds most perennial charm.

But to many who have made of the genial "Autocrat" a life-long friend, his early years of training in medicine and his distinguished record as a Professor of Anatomy remain unknown. The Chair of Anatomy was to him, however, no insulating stool. He kept to the end a watchful eye on the currents and counter-currents of medical practice, and his little-known volume of *Medical Essays* is full of brilliant observations thereon. On his own confession, he would have been content had one of these essays—on the "Contagiousness of Child-bed Fever"—been all that he had ever written.

That puerperal fever is contagious had been recognised in our own country long before, but that it was still denied by many, and ignored by most American practitioners aroused his indignation to fever heat, and in this essay, first published in 1843, he accumulated a vast amount of evidence which, he claimed, "laughed all sophistry to scorn and rendered argument an insult." The mere handling of the facts seemed to cause him pain; he had no tone deep enough for regret at the too plain evidences of epidemics of dying mothers and no voice loud enough for warning—"The solemn prayer of the Liturgy singles out the mother's sorrow to plead for her in the hour of peril—God forbid that any member of the profession to which she entrusts her life should hazard it negligently or selfishly." The great outcry against this essay on the part of some members of the profession, some of them distinguished teachers of obstetrics, only showed that it carried conviction. But reproach was not his motive; he sought to teach a lesson—not in vain abstractions merely, for he indicated the remedy—and by the time he wrote the preface to a second edition, the case had long been decided in favour of the views he advocated.

Strenuous in opposing all that he deemed unsound, he next grapples with Hahnemann in a merciless exposure of "Homœopathy and its Kindred Delusions," making the nakedness of the German patentee stand out all the plainer by comparisons with the dark doings of mediæval times. Though brief, the essay is a vast collection of facts, and these are examined with a delightful mixture of keen logic and bitter ridicule.

In "Currents and Counter Currents" he reviews the ebb and flow of the extent of "drugging" in medical practice, and fights against the high tide of his day with a vigour which again got him into trouble. He reduces within very small scope the ailments that cannot be cured by simply *spitting out*—forsooth!—the morbid agent. He would take out opium and one or two specifics, wine, which he regarded as a food, and the vapours which produce anæsthesia, "and if the whole of the rest of the pharmacopœia," as then used, "could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for the fishes." This is extreme language certainly, but the current practice it was aimed against was even more extreme, and, with stinging irony, our author attributes this to the weak point in the temperament of his native land—"How could a people who send out yachts to outrun and checkmate all the rest of creation, be content with anything but heroic practice? What wonder that the Stars and Stripes wave over doses of ninety grains of quinine, and that the American Eagle screams with delight to see three drachms of calomel given at a single mouthful!"

"Border Lines of Medical Science" is a wide-reaching review of the state of our knowledge in all departments of Medicine about the year 1860. It is full of graphic accounts of interesting discoveries, which were then modern achievements, though now ranked in history.

Less subject to the changing perspective of time is his fascinating study of "Scholastic or Bedside Teaching." Though published in 1867, more than twenty years after he had taken any part in clinical work, it shows unabated clinical enthusiasm; wonderfully graphic is the description of the round of visits paid by a practitioner "of the old School" with his young apprentice Luke. The clinical pictures are perfect; Luke sees despair in the writhing of the sturdy yeoman sick with the belly-ache, and hope in the flushed cheek and bright eye of the consumptive maiden, till with fatherly care his experienced master sadly reverses his prognosis. In this same essay he draws a vivid picture of an early anatomist hastily dissecting the corpse stolen from

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a lonely gibbet—"Ever and anon he turned to his book as he laid bare the hidden organs, to his precious Vesalius or to the grand folio of Spigelius, just fresh from Amsterdam, in which lovely ladies display their viscera with a coquettish grace, implying that it is rather a pleasure than otherwise to show their lace-like omentum, and hold up their appendices epiploicæ as if they were saying 'Behold our jewels!'"

Only brief mention can be made here of the remaining essays.—"The History of Medicine in Massachusetts," beginning with the worthy Dr. Fuller, who landed with the Pilgrim Fathers; "The Young Practitioner," an address to young graduates, full of encouragement and sound advice to the young knight buckling his armour for life's battle; "Medical Libraries," an invaluable treatise on their institution and uses; "Some of My Early Teachers," his valedictory to Harvard. This last includes a delightful sketch of the Paris School and its great men in the early years of last century—Dupuytren, Piorry, whom he reveals as poet as well as percussionist, Cruveillhier, and Ricord, whom he calls the Voltaire of Pelvic Literature, a "sceptic as to the morality of the Race in general, who would have submitted Diana to mercurial treatment and ordered a course of blue pills for the Vestal Virgins!"

VIXERE FORTES ANTE AGAMEMNON.

There have been soldiers who didn't fight at Crecy.
Dead Physicians, no traditions; who can sing a Leech?
There have been Surgeons before Abernethy,
Learned men, deft men, able men to teach.
Now any quack shares in bromides or in sepias
Fleeting over Fleet Street—and other life than Art,
Others by the back stairs Moses and Asclepius
Follow, wise and quiet serpents, sound of brain and heart.
Yet, is there one with the sacerdotal function—
(Lest after ages should altogether doubt them—)
To anoint them with History, extreme Unction,
To build imperishable monuments about them?
Possibly some doctors know more about the tissues,
More about the arteries or some selected limb,
More about diseases, their crises and the issues,
Possibly, as doctors, are senior to him.
This I will leave to the College of Physicians,
But of this thing I am reasonably sure;
We shall want continual reprinting of editions
Of the history of the Hospital by Dr. Norman Moore.
Maybe some were poor and wise, baited with scurrility,
Living in delivered cities compassed with vexations.
Here shall they be written "Rich men, furnished with ability,
Dwelling peaceably (at length) in their habitations."

E. L.

ST. BARTHOLOMEW'S HOSPITAL CHRISTIAN UNION.

IT is interesting to note that Christian Unions in the medical schools of London had their origins over half a century ago. At St. Bartholomew's Hospital meetings commenced in 1874, and have been held interruptedly ever since.

While the Christian Union cannot be affiliated to the Clubs Union, it is nevertheless an integral part of the social organisation of the Hospital and School life. Among the objects of the Union are to promote in Students of the Hospital regular habits of prayer and Bible study; to keep before them the importance of the Christian solution of social problems, and the permeation of public life with Christian ideals; and to enlist them in whole-hearted service of these ideals. The inter-relation of medical study with the problems of life and death and the Christian teaching thereon has always been a subject of deep and serious interest, and some of the meetings of the Union are directed to such study.

In the coming year of international unrest, spiritual problems dealing with the war will be discussed.

The opening meeting of the Session will take the form of an "At Home" on Monday, October 18th, at 8.30 p.m., at 124, Harley Street, W., at the invitation of the President, the Officers, and the Committee, at which full details of the Union programme during the Winter Session will be announced.

Any Freshman who may not have received an invitation is requested to write to the President at 124, Harley Street, if he can attend.

UNIVERSITY OF LONDON MILITARY EDUCATION COMMITTEE.

THE University of London Officers Training Corps, under the command of Lt.-Col. D. S. Capper, will begin its eighth year of training under exceptional conditions, as the Colleges of the University are largely depleted of students. In the infantry unit, the largest in the contingent, the training since the outbreak of the war has been mainly of a continuous character, cadets being accommodated in premises near London. As a rule, a few months of training under these conditions have been sufficient to qualify cadets for commissions. The artillery and engineer units of the contingent are also in active training. Their work is especially important at the present time, as there are so few facilities for the training of technical officers. The artillery unit has been permitted to keep its guns and equipment for training purposes. In the medical schools of the University a considerable number of students are completing their medical training with a view to taking commissions as soon as qualified. The strength and training of the medical unit of the University O.T.C. have, therefore, not been much affected by the war, and the cadets attended camp as usual.

Since the outbreak of the war, the number of commissions obtained by cadets and ex-cadets of the contingent up to the end of

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August, 1915, amounts to 1521, and 189 commissions were obtained before the war, giving a total of 1710. In addition, 245 commissions have been obtained, up to the same date, upon the recommendation of the University, by graduates and students who were not cadets or ex-cadets of the University O.T.C. Before the end of September the University will have supplied well over 2000 officers to the army through the O.T.C. or by direct recommendation, and many other graduates and students have obtained commissions through other channels. Distinctions obtained by ex-cadets of the University O.T.C. include: Military Cross, 6; Medaille Militaire, 1; Mentioned in Dispatches, 14.

Under War Office Regulations membership of the University of London O.T.C. is not restricted to members of the University, and other men of suitable education, desirous of qualifying for commissions, are accepted. Candidates for enrolment should apply personally to the Adjutant at the Headquarters, 46, Russell Square, W.C.

REVIEWS.

Medical Annual Synoptical Index to Remedies and Diseases. For the ten years 1905 to 1914. (John Wright & Sons.) Price 8*s.* 6*d.* net.

Great pains have been taken to make this an exhaustive index. Lavish use has been made of cross-indexing, so that the references appear under all their conceivable headings—a process which entails the expenditure of a considerable amount of time and labour. One notices, however, in not a few instances that the references under one heading are not identical with those under its alternative heading, so that to get a complete list it is desirable that all the headings be looked up, *e. g.*, *Pneumococcal peritonitis* should be looked for not only under this heading but also under *Peritonitis, pneumococcal.* There are, too, occasional misprints, *e. g.*, *Labour, premature, indications for induction*, 11/534 should be 11/543.

The Index should prove to be very useful.

Oxford War Primers. (Henry Frowde, Hodder & Stoughton.)

Medical Hints. By Colonel J. E. Squire. Price 2*s.* 6*d.* net.

Wounds in War. By Lieut.-Colonel D'Arcy Power. Price 2*s.* 6*d.* net.

Surgery of the Head. By Major L. Bathe Rawling. Price 3*s.* 6*d.* net.

Injuries to Joints. By Major Robert Jones. Price 3*s.* 6*d.* net.

Abdominal Injuries. By Prof. R. Morison and Lieut.-Colonel W. C. Richardson. Price 2*s.* 6*d.* net.

This series of books dealing with both medicine and surgery is especially intended for the use of medical officers temporarily employed with troops, and naturally deals largely with the question of wounds, but this is by no means the only subject dealt with. Among such large forces as we have now mobilised almost every aspect of disease is presented, and general diseases have their chapters in these primers. We can cordially recommend them, not only as useful handbooks for army officers, but as excellent books for the student to carry in his pocket to refer to in odd moments.

The New Psychiatry. By W. H. B. Stoddart. Pp. 66. (Baillière, Tindall and Cox). 3*s.* 6*d.* net.

This book consists of three lectures delivered by the author. We could have wished that he had written at much greater length, because we must admit that in spite of our desire to approach the subject with an open mind we are far from convinced. We are willing to admit, however, that this is largely due to the fact that the author produces but little *evidence* to account for the faith which is in him. Psycho-analysis seems to have much in its favour; we are a little doubtful, however, when we find those interested in it attempting to turn nearly every state of mental unrest into a result of sexual abnormality. We read a book of Freud's on the *Interpretation of Dreams*, and in spite of our open mind we regarded him as an erotic lunatic. This book, however, while in many ways unconvincing is at the same time absorbingly interesting, and without doubt furnishes much food for thought. It is well worth reading, but we hope that the author will amplify it at a future date, and give us not dogmatic theories, but evidence.

Manual of Surgery. By A. Thomson and A. Miles. (Henry Frowde and Hodder & Stoughton.) 2 vols. Fifth edition. Price 10*s.* 6*d.* net each.

This well-known work needs very little praise from the hands of a reviewer. The whole of the text has been completely revised, and in many parts re-written, in order to bring it into line with recent advances in pathology and treatment. In this edition debatable questions and such subjects as can only be taught in hospitals have been eliminated in order to keep the size of the book within reasonable limits. A third volume, dealing exclusively with operative surgery, has, we understand, been added; this, however, we have not yet seen. The two volumes before us are clearly and interestingly written, and are illustrated with 590 blocks, the majority of which are excellent, although one or two have perhaps scarcely sufficient contrast in shading to show the requisite detail. We can confidently recommend this work to students, as it is quite up to date in every respect.

Practical Organic and Bio-Chemistry. By R. H. A. Plimner. (Longmans, Green & Co.) Pp. 635. Price 12*s.* 6*d.* net.

This volume is an attempt to give a complete course on physiological chemistry as part of the subject of organic chemistry. In this attempt the author has succeeded very well. The work is divided into sections, and each section has a short explanatory summary of the essential points, so as to connect the various sections together. The book should be of very great service to all taking the London. degree, and should, of course, be read in conjunction with both the organic chemistry and the physiology classes.

Aids to Tropical Medicine. By G. E. Brooke. Second Edition. Pp. 230. (Baillière, Tindall & Cox.) Price 3*s.* 6*d.* net.

An exceptionally useful little book, this second edition is all that can be desired in the way of being up to date. New chapters on three-day fever, verruca peruana, snake-bites, rats, etc., have been added, and the amount of solid information crowded into so few pages is really wonderful.

The arrangement of the subject matter in this, as in the previous edition, is strictly alphabetical throughout, which method of arrangement adds greatly to the convenience for reference.

There are thirty excellent charts and illustrations.

Essentials of Human Physiology. By D. Noël Paton. (W. Green & Son.) 4th edition. Pp. 535. Price 12*s.* net.

This well-known work keeps to its original plan in many respects and especially in its emphasis of such parts of physiology as are of cardinal importance in medicine and surgery. A number of parts have, however, been rewritten and re-arranged so as to bring the book thoroughly up-to-date and constant references have been introduced to the disturbance of functions which occur in morbid conditions. The text is clearly and interestingly written and the diagrams, which accompany it, are sufficiently simple to render them of great value to the student.

Manual of Embryology. By A. M. Paterson. Pp. 391. (Henry Frowde and Hodder & Stoughton). Price 10*s.* 6*d.* net.

This excellent little work is divided into two portions—general embryology and organogeny. It should be of very great service to the student, as it is exceptionally clearly written. As a rule embryology is found a somewhat difficult subject to follow, but with the aid of this book we think that it may be considered as a comparatively light subject, for not only is the text very concise, but the illustrations, of which there are over 300, are without exception simple and beautifully executed. The book, though small, is quite up to date, and covers the ground required by both ordinary and honours degrees; moreover, it will be found an exceedingly useful reference book for the student engaged on ordinary dissections, enabling him to understand clearly intricate or abnormal points. Without hesitation we say that every student would be well advised to possess a copy of this book.

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APPOINTMENTS.

HERNAMAN-JOHNSON, F., M.D., Ch.B.Aberd., in charge of X-ray and Electrical Department, Cambridge Military Hospital, Aldershot.

WILLIAMS, H. O., M.B., B.S.Lond., appointed Certifying Surgeon under Factory and Workshop Acts for the Milford Haven District of the County of Pembroke.

WOODMAN, MUSGRAVE, M.S.Lond., F.R.C.S., Capt. R.A.M.C. (T.), appointed Assistant Surgeon to the Birmingham and Midland Ear and Throat Hospital.

WRANGHAM, W., M.D.Lond., M.R.C.S., L.R.C.P., appointed Honorary Physician to the Royal Infirmary, Bradford.

NEW ADDRESSES.

BAINBRIDGE, F. A., National Liberal Club, Whitehall Place, S.W. (temporary).

BOKENHAM, T. J., 26, Devonshire Street, Portland Place, W.

DOBSON, J. R. B., "Dagmar," Farnborough, Hants.

FAWKES, M., Naval Airship Station, Walney Island, Lancashire.

HARRIS, U. A. C., 6, Montpellier Terrace, Cheltenham.

HENDLEY, Col. H., I.M.S., Inspector General Civil Hospitals, Lahore, Punjab, India.

HERNAMAN-JOHNSON, F., 33, Cavendish Square, W. (Tel. Mayfair 2384).

PICKERING, H. J., St. George's Hospital, Malta.

BIRTHS.

BIRD.—On September 14th, in London, the wife of Lieut.-Colonel Robert Bird, C.I.E., M.V.O., Indian Medical Service, Calcutta, of a son (stillborn).

BURROUGHES.—On September 21st, at 35a, Hertford Street, Mayfair, the wife of Capt. H. N. Burroughes, R.A.M.C. (T.F.)—a son.

FOSTER.—On September 14th, at Widey Grange, Crownhill, Devon, the wife of Reymond L. V. Foster, Royal Army Medical Corps, of a son.

HANBURY.—On August 31st, at Foxbury, Woldingham, Surrey, to Mr. and Mrs. Reginald Janson Hanbury—a son.

SLADDEN.—On August 12th, at the Park House, Port Talbot, to Arthur F. S. Sladden, M.D., Lieut., R.A.M.C., and Mary Christabel Sladden—a daughter.

MARRIAGES.

DAY—WARREN.—On August 22nd, at St. Peter's Church, Ravenscourt Park, W., by the Rev. W. R. Gill, M.A., Cyril D. Day, son of E. J. Day, M.D., of Dorchester, to Winifred Warren, daughter of W. J. Warren, of Charlton, Wilts.

DOBSON—POOLE.—On July 19th, at Christ Church, Streatham Hill, S.W., by the Rev. C. C. Dobson, Vicar of St. Peter's, Paddington, William Townsend Dobson, M.R.C.S., L.R.C.P., youngest son of the late George Dobson, F.R.G.S., of Penarth, Glam., to Catherine Grace, eldest daughter of Henry Poole, Esq., Streatham Hill, S.W.

GANDY—HONY.—On September 16th, at St. John the Baptist, Kidmore, Reading, Thomas H. Gandy, M.B.Lond., of Peppard Common, Henley-on-Thames, to Ida, daughter of the late Rev. Charles Hony, Vicar of Woodborough, Wilts.

HEALD—MASON.—On September 18th, at St. Peter's Church, Hersham, Surrey, by the Rev. E. P. Pelloe, Charles Brehmer, elder son of Mr. and Mrs. Walter Heald, of Weybridge, to Edith Hildegarde, only daughter of Dr. and Mrs. Mason, of Walton-on-Thames, and granddaughter of the late E. J. Tarver, F.F.A.

HUME—STREETER.—On August 7th, at the Parish Church of St. Peter and St. Paul, Wadhurst, Douglas Walker Hume, M.B., B.S.Lond., F.R.C.S.Eng., eldest son of W. A. Hume, Esq., M.R.C.S., and Mrs. Hume, of Riseholme, Great Headland Road, Paignton, to Dorothy, second daughter of Edwin A. Streeter and Mrs. Streeter, of Wadhurst.

LEE—FARNWORTH.—On September 11th, at St. Martin-in-the-Fields, Crichton Stirling Lee, Lieut., R.A.M.C.T., to Olive, daughter of the late Ernest and Mrs. Farnworth, of Broadlands, Wolverhampton.

MACKAY—SAVAGE.—On August 25th, at St. Mary's, Ambleside (very quietly), by the Rev. E. U. Savage, Vicar of Levens, brother of the bride, Ernest Charles Mackay, M.D., of St. Leonards-on-Sea, son of the late Thomas Mackay, of Inverness, to Nina, youngest daughter of the late Canon Savage and of Mrs. Savage, Iveing Cottage, Ambleside.

PARRY—DAVID.—On September 21st, at the Parish Church, Llanover, by the Rev. R. David, Vicar of Llantwit Major, uncle of the bride, assisted by the Rev. E. Davies, Vicar of the Parish, Guy W. Parry Lieut., R.A.M.C., to Anne, only daughter of Mr. and Mrs. David, Ty Mawr, Llanover.

TAYLOR—PETO.—On September 15th, very quietly, at St. Stephen's, West Ealing, by the Rev. W. H. Thompson, LL.D., Cedric Rowland Taylor, M.B., B.C., Lieut., R.A.M.C., second son of the late Rev. R. E. Taylor, M.A., Vicar of Cresswell, Northumberland, and of Mrs. Taylor, of 86, The Avenue, West Ealing, to Frances Muriel, youngest daughter of Mr. and Mrs. Frank Peto, of St. Leonards-on-Sea.

WHITEHEAD—DUNPHY.—On September 11th, at Belvedere, by the Rev. Lewis Low, uncle of the bride, assisted by the Vicar, the Rev. G. Hartwright, and the Rev. Victor Dunphy, brother of the bride, Brian Whitehead, Lieut., R.A.M.C., son of Mr. and Mrs. Arthur Whitehead, of Rougemont, Salisbury, to Winifred Florence, eldest daughter of James Overton Dunphy, of Park Lodge, Belvedere.

DEATHS.

GREEN.—On July 10th, at Cleve Side, Newbridge Hill, Bath, F. K. Green, F.R.C.S.

HUGHES.—Killed in action in Gallipoli on September 15th, Burroughes Maurice Hughes, M.R.C.S., L.R.C.P., Captain, 1/4th Norfolk Regiment, of Wymondham, Norfolk, aged 43.

MACADAM.—Died, on August 18th, from wounds received in action at the Dardanelles, Lieut. John Macadam, 4th Essex Regiment, aged 23 years, elder son of Mr. and Mrs. J. H. Macadam, 31, The Drive, Ilford, Essex.

SAUNDERS.—On August 29th, at Hythe, Frederick William Saunders, M.B. and B.C.Cantab., late of Donnington Hurst, Newbury, and Assouan, Egypt, youngest son of the late Deputy-Inspector George Saunders, C.B., aged 52.

ACKNOWLEDGMENTS.

St. Bartholomew's Hospital League News, The Nursing Times, The National Medical Journal, The British Journal of Nursing.

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.*

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St. Bartholomew's Hospital Journal.

Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

VOL. XXIII.—No. 2.] NOVEMBER 1ST, 1915. [PRICE SIXPENCE.

CALENDAR.

Tues., Nov. 2.—Dr. Garrod and Mr. Waring on duty.
Wed., ,, 3.—Primary F.R.C.S. Exam. begins.
Fri., ,, 5.—Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., ,, 9.—Dr. Morley Fletcher and Mr. Bailey on duty.
Fri., ,, 12.—Dr. Drysdale and Mr. Rawling on duty.
Tues., ,, 16.—Dr. Tooth and Mr. D'Arcy Power on duty.
Thurs., ,, 18.—Final F.R.C.S. Exam. begins.
Fri., ,, 19.—Exam. for D.P.H.Oxford begins.
Dr. Garrod and Mr. Waring on duty.
Tues., ,, 23.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., ,, 26.—Dr. Morley Fletcher and Mr. Bailey on duty.
Tues., ,, 30.—Dr. Drysdale and Mr. Rawling on duty.
Wed., Dec. 1.—First and Second Exams. for M.B.(Oxford) begin.
Fri., ,, 3.—Dr. Tooth and Mr. D'Arcy Power on duty.
Mon., ,, 6.—Exams. for M.D. and M.S.(Lond.) begin.
Tues., ,, 7.—Dr. Garrod and Mr. Waring on duty.

EDITORIAL NOTES.

WE have to record with sorrow the death of Dr. W. G. Grace. Comparatively few of the younger generation seem aware of the fact that he was a Bart.'s man; and yet it must be conceded that he is perhaps the most widely known of all men who have passed through our Hospital curriculum. Wherever English is spoken, there has "W. G." been known and revered as the greatest cricketer the world has seen; the father and pioneer of all modern cricket. We do not know how much of the game he learned at Bart.'s, nor how much he gave to Bart.'s in the way of high scoring or silver cups. We have no records of those bygone matches. Elsewhere we publish a portrait and obituary of this grand old sportsman who has at last passed away. *Requiescat in pace.*

* * *

It has been decided to erect a suitable memorial to the late Dr. Grace, and all Bart.'s men, past and present, are invited to assist. Subscriptions should be sent to the Treasurer of the Students' Union—Mr. W. Girling Ball—The Warden's House, St. Bartholomew's Hospital.

* * *

It is with much sorrow that we learn of the death, on active service, of Lieutenant E. H. Brunton, R.A.M.C., who has been killed in France. He was House Physician to Dr. Morley Fletcher in the early part of the year, and at the end of July became attached to the 4th Grenadier Guards. He won the esteem and regard of all with whom he was associated, and his able work was very highly valued. Our deepest sympathy is extended to Sir Lauder Brunton.

* * *

It is with very much regret that we learn of the death of Second Lieutenant Charles Douglass-James, aged 20 years. He was a student of this Hospital, and soon after the outbreak of war he took a commission in the South Staffordshire Regiment. A short time ago he was severely wounded at the Front, and since then he has died of his wounds. Our deepest sympathy goes out to his parents, who, like others we have mentioned in previous issues, have had a double sorrow, for another son of theirs, Lieutenant W. Douglass-James, R.G.A., was killed in the same action.

* * *

As we go to press we hear with great sorrow of the death of another of our students at the front—John Gay. He joined the City of London Yeomanry at the outbreak of war, and in March received a commission in the Royal Flying Corps, and was sent to France four months ago. He was taking photographs of the German trenches in company with other aeroplanes on October 10th, when he was shot down and came to earth within the enemy's lines. We now hear that he has since died of his wounds. His commanding officer writes: "He was a splendid officer doing most valuable work." Our deepest sympathy is extended to Dr. and Mrs. John Gay.

* * *

The War continues its importunate call upon our Hospital staff. We learn that both Dr. Horder and Mr.

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Harmer are going to Russia to join the Anglo-Russian Hospital. Dr. Horder, on return from active service in France, has relinquished his temporary commission as Major in the Royal Army Medical Corps and is remaining seconded from the 1st London General Hospital. At the moment of writing Mr. Harmer has not apparently been "retired temporarily," but no doubt notice to that effect will appear shortly in the *Gazette*. While much regretting the loss which the Hospital will for the time being sustain, we have no doubt that the services rendered to the Anglo-Russian Hospital will be of more than temporary importance, and we wish the best of luck to Dr. Horder and Mr. Harmer in their new venture.

* * *

When Lord Sandhurst accepted the position of Lord Chamberlain a little over three years ago, he felt that his new duties would prevent his efficient work as Treasurer of the Hospital. Accordingly, Mr. Acton Davis kindly consented to take the office of Acting Treasurer, Lord Sandhurst nominally remaining Treasurer. Now, however, there are no Court functions, and no doubt Lord Sandhurst finds that he has more time at his disposal. Consequently, we are glad to say he is once more resuming his duties.

Mr. Acton Davis has held the duties of office of Acting Treasurer with great advantage to the Hospital. While we have real feelings of regret that Mr. Acton Davis has to retire, we may be allowed to express our pleasure at the return of Lord Sandhurst.

The following is a copy of the Resolution passed at a General Court of Governors held on Thursday, October 28th, 1915.

It was proposed by the Right Honourable Lord Sandhurst, P.C., G.C.S.I., G.C.I.E., Treasurer of the Hospital, seconded by Mr. Almoner Jacomb, and unanimously resolved:

"That this Court hereby records its unqualified appreciation of the very able manner in which Mr. Acton Davis has presided over the affairs of the Hospital for the past three and a quarter years.

"In the discharge of the duties of the office of Acting Treasurer, which he is now relinquishing, Mr. Acton Davis has given generously of his time, while his special knowledge and experience have been of the greatest advantage to the Hospital in dealing with the many important questions which have arisen during his administration.

"That this Court is deeply sensible of its indebtedness to Mr. Acton Davis, and tenders him its most cordial and grateful thanks for his devotion to the welfare of the Institution."

* * *

We congratulate Major McAdam Eccles, whom, we understand, has been asked to act once again as Examiner in Surgery for the M.C. and M.B., B.C. Examinations at the University of Cambridge.

* * *

We congratulate Dr. Alfred Francis Street, who has been promoted Esquire (from Honorary Serving Brother) in the Order of the Hospital of St. John of Jerusalem in England.

* * *

The entry of full students has been much as usual. For the five years immediately preceding the war the average entry of full students was seventy-one. Last year the entry was sixty-five, and this October it is seventy full students.

* * *

A good many students have been receiving letters from Lord Derby suggesting that they should join the army. Many have been puzzled at the meaning of this, more especially since some of them on applying to the War Office have been informed that they were better employed in sticking to their jobs and getting qualified as quickly as possible. A definite statement has, however, been made in the House of Commons upon this subject, and we reprint the following extract from the *Times*, which should make it quite clear to every student what is his own personal duty:

Mr. Tennant, in answer to questions asked by Mr. Snowden (Blackburn, Lab.) and Sir P. Magnus (London University, U.) concerning recruiting among medical students, said: I would now, in the light of the experience of the last few months, make this modification of the statement I made on June 21st. I think we must remember that we have first to win the war and afterwards to encounter problems arising out of it, if they do arise. I would, therefore, answer these questions by saying that the view of the War Office at the present time is that fourth or fifth year students should continue their studies, but that students in the first, second, and third years must consider for themselves what answer they should make to the recruiting appeal addressed to them, and not to regard themselves, so far as the War Office is concerned, as under the duty of continuing their medical studies.

Should any still have doubts on the ground that Mr. Tennant's method of speech is not sufficiently direct, may we call their attention to the following extract from the *Morning Post*:

A small deputation waited upon Lord Derby at the War Office yesterday to ascertain his views with regard to the propriety of medical students enlisting, or continuing their medical studies. The deputation consisted of the President of the College of Physicians (Dr. Frederick Taylor), the President of the College of Surgeons (Sir William Watson Cheyne), the Vice-Chancellor of the University of London (Sir Alfred Pearce Gould), and Dr. Shore. In reply, Lord Derby said: It is the duty of medical students other than those in the fourth and fifth years of their studies to join his Majesty's Forces.

* * *

Early in the war we received numerous letters from the Front, which we were able to publish, and which were of great interest to those of us who were unable to leave the country for various reasons. Lately, however, news has been scarcer, and we would again appeal to Bart.'s men abroad, and to relations at home, to let us have accounts of the doings at the seat of war. Letters which friends and relations may hand on to us will be much appreciated, and will be carefully preserved and returned to them after they have been used.

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FROM THE FRONT.

OLD STUDENTS' DINNER IN FRANCE.

AN Old Students' Dinner in miniature took place somewhere in France on October 2nd, 1915, on the invitation of Lieut.-Col. Gordon Watson and the officers of the Duchess of Westminster's Hospital. Twenty-nine of us met to dine—not a bad attendance all things considered. A list of those who came is given below, as also of those who accepted but failed at the last moment owing to difficulties of transport and exigencies of the Service. The guests of the evening were Sir Anthony Bowlby (recently promoted Surgeon-General) and Sir Wilmot Herringham, who, luckily, were able to spare an evening from the G.H.Q.

The promoters of the dinner had been a little upset by the rumour that criticisms were being passed upon them for undertaking something in the nature of jollification at times like these, but they concluded ultimately that there was no reason to suppose that those who came would be the less efficient because they had escaped for a few hours from the sombre atmosphere of their professional engagements; so the matter went forward. I was one of the hosts, otherwise I should have had pleasure in affirming that our cook did well under difficulties. I can, however, assert with decency that the company was cheery and light-hearted and that the meeting was voted a success.

After dinner, Watson gave "The King." Then Col. C. E. Harrison, C.V.O., the oldest Bart.'s man present, read a Roll of Honour of Bart.'s men dead or wounded or decorated during the war. Then Branson gave "The Guests" and got Sir Anthony up. Sir Anthony was his old, breezy, reminiscent, and always interesting self, and was followed by his fellow guest of honour, Sir Wilmot, who gave us some details of the achievements which have filled our Roll of Honour so full. There followed songs by Scawin and by Miss Frost, one of the Sisters, known to many generations of patients here as "Martha." She has a beautiful voice and an unending fund of good nature which prompts her to put it freely at the disposal of the wards and other deserving objects such as this festival I tell of.

Later Warwick and Paul, our mess waiters, gave some—well—picturesque, character songs. Mr. Fitzpatrick, the Duchess' uncle, who joined us after dinner, was soon forced to bear a hand. He gave us an Irish song, and then, on the strength of some apocryphal custom of County Mayo, claimed the right to call the Colonel for a speech, or song, or sentiment. However, Watson was quite equal to the occasion, and retorted with a recitation of much merit.

By this time several people bethought themselves that they had a good way to go. So we broke up, very glad that we had met. On the whole, the most sensational event of the evening was the admission by Sir Anthony that on that occasion for the first time did he become aware that he had ever been known as "the Baron."

GUESTS PRESENT.

Surgeon-General Sir A. Bowlby, K.C.M.G.; Colonels Sir W. P. Herringham, C.B., and C. E. Harrison, C.V.O.; Lieut.-Cols. E. M. Hassard and C. Gordon Watson; Majors D. Cowin, I.M.S., T. C. Littler Jones, H. D. Gillies, and W. W. Jeudwine, I.M.S.; Capts. W. P. S. Branson, H. Pritchard, Forbes Fraser, H. H. Pirrie, A. W. Stott, H. Burrows, Colin Clarke, M. B. Oliver, T. K. Boney, and S. A. Burn; Lieuts. E. N. Russell, D. M. Stone, J. S. Burn, H. Scawin, E. H. Drinkwater, J. M. Bennion, A. E. Quine, J. Erlank, and H. L. Etherington-Smith; Mr. R. C. Ackland.

The following accepted but were prevented from attending: Lieut.-Colonel W. E. Miles; Majors T. J. Horder, C. S. Myers, and E. B. Waggett; Capts. Clementi-Smith and H. F. Marris; Lieuts. N. G. Horner, G. W. Stone, C. H. T. Ilott, and W. Attlee.

AN AID-POST BY NIGHT.

THE scene is a cavern of the earth, low-roofed and dank-smelling, the floor rudely boarded with rough-hewn planks, the whole feebly lit by one spluttering candle. Outside the rain is falling and the night is uncannily dark. Along the road near by bullets are whistling, some striking low with a dull thud, sending up vicious little spurts of mud and stones, others, flying higher, hit with a nerve-rattling "crack" the side wall of a ruined farm fifty yards away. The spitful, evil "crack" of bullet on brick has to be heard to be fully appreciated. In reality fifty yards away, the sound seems within a hairbreadth of the listener. Inside the rude "dug-out" and post lie two sick men on stretchers, tossing restlessly in their fitful sleep. On a rough bench are stacked the panniers, haversacks, and dressing-boxes—the stock-in-trade of our butcher's business—laid out in neat regimental rows.

Suddenly the sound of footsteps is indistinctly heard mingling with the whistling of bullets down the road. The orderly on watch, whose trained ear can distinguish the slow, broken-stepped, laborious tread of laden stretcher-bearers, steps out on to the road to investigate. Straining his eyes, he can distinguish nothing in the blackness till suddenly a trembling whitish-blue light flickers round the horizon—faint at first, then, bursting into vivid brightness, the enemy's "star-shell" shows the watcher a little company of men down the road bearing their helpless load.

He rushes off to awaken the regimental "M.O.," who lives in another burrow across the fateful road. The latter, sleeping heavily in all his clothes, is quietly awakened, rubs his eyes, and turns out, shivering at the inky blackness and wetness outside.

He then hurries across the danger zone of the road, an expectant "receptive" feeling in the side of his body turned enemy-wards. He breaks into a run, for in the dark no one can see, and reaches the shelter of the aid post cave.

A third stretchered figure now occupies the floor, groaning and calling in his agony for the blessed relief of death, his head a red mass of blood-saturated bandage and brain-pulp.

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The bearers stand around, their shadows making grotesque figures on the candle-lit wall.

The two sick men are awake now, but, after one horrified glance, they turn their backs on the pitiful scene and practise the deception of pretended sleep.

The "M.O." stoops to remove the blood-stained bandage, but at that moment, with a sighing gasp, the poor battered head sinks back and another hero is gone to his long rest, a rest almost envied by the weary living left.

Out of the cave of death, across the bullet-spitting road, slipping in the mire and grease, the "M.O." returns to his earthen home to sleep, if that be possible, but a sleep broken with horrid dreams.

A CASE OF CIRSOID ANEURYSM INVOLVING THE WHOLE OF THE RIGHT INDEX FINGER.

By C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.,
Military Hospital, Devonport.

Previous history.—The patient, a private, while on active service, tore the skin over the terminal joint of the right index finger with barbed wire. The wound was badly infected, and took six weeks to heal. For some years previous to the injury he had noticed, on the same finger, a painless swelling situated over the proximal inter-phalangeal joint.

Present condition.—The movements of the finger are greatly impaired, and the finger cannot be flexed.

The whole finger is a dusky blue, very hot, and larger than the left index finger, and pulsates violently. The skin is extremely thin and covered with dilated veins. Palpation gives the sensation that all the tissues between the skin and the bones had disappeared, and had been replaced by fluid.

The radial artery at the wrist is much larger than that of the left hand, and the superficialis volæ artery is hypertrophied. Pressure on the radial artery checks the pulsation, but does not cause disappearance of the fluid between the skin and the bones. Pressure on the superficialis volæ artery only partly controls the pulsation.

The finger being useless, and the risk of severe hæmorrhage from slight trauma being great, amputation was advised. This the patient declined.

Comments.—While the term "cirsoid aneurysm" does not entirely cover the condition, it is difficult to find a more appropriate description. It is possible that the tumour, noticed for some years by the patient, was a form of nævus, which, as a result of the infected wound, had extended over the whole finger.

It is difficult to believe that a relatively slight injury in the region of the terminal joint could, in the absence of a pre-existing lesion, produce such a general involvement of the finger. The situation and extent of the involvement appear very unusual.

A CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE SUCCESSFULLY TREATED "ON THE DISTRICT" BY THE DUBLIN METHOD.

By CLEMENT COOKE, M.B., B.S.(Lond.), Extern.

THIS case, which I must thank Dr. Barris for permission to publish, is one of some interest. In the first place, I think, a case of this kind always must be interesting, because it has been called by a great authority "one of the most serious accidents that can possibly happen to a pregnant woman." To me, personally, it is of special interest, as having caused me graver anxiety than any other case which I have been called upon to treat; and as having come nearer than any other case to spoiling the fortunate record which I have maintained, of four months' work as Extern without maternal mortality. Perhaps I may add that I have it on good authority that this is the first case of the kind ever successfully treated on our district.

L. S—, æt. 38, of Clerkenwell, being gravid for the tenth time, and apparently about full term, sent to the Hospital for assistance just before midnight on October 3rd, and was seen by a District Clerk at 12.5 a.m. on the 4th.

She then gave an account of several fainting attacks, which had begun in the previous afternoon, whilst the patient was walking out of doors. Since 9 o'clock of the evening, she had noticed slight pain in the abdomen; and at 10 p.m. a small discharge of blood, which she described as "a show."

Something after 1.30 a.m. the Extern was awakened by a message from the clerk which suggested the possibility of twins, stating that the circumference of the mother's abdomen, just above the iliac crests, measured 41¾ in., and that the clerk thought he could palpate two backs and two heads. The note remarked that there had been hæmorrhage of perhaps ½ oz.; that the pains were slight and infrequent; the temperature 97·6° F.; pulse-rate 84, and not increasing; and lastly, commented on the pallor of the patient.

For some reason the possibility of concealed hæmorrhage immediately crossed my mind.

Arriving at the patient's home at 2.20 a.m., I was at once struck by her extreme pallor; the lips being almost destitute

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of colour. She was in a condition of "drowsy restlessness," complaining of feeling very faint, and appeared several times to be on the point of losing consciousness. She also said she was suffering from a continuous pain in the abdomen, not sharp or severe, and not resembling the ordinary pains of labour.

Her pulse was now beating 96, and was of poor volume and tension. There had been a further small hæmorrhage, staining the night-dress and bed-clothing.

On examination, the abdominal swelling was of abnormally large size and felt hard all over, particularly in the flanks; rather as if a child's back were lying on each side; yet no fœtal parts could be definitely palpated. The abdomen was rather tender on palpation. At this time, the fœtal heart could be auscultated on each side of the middle line, below the umbilicus, beating at 120 to the minute, and faintly heard. Afterwards, no heart-sounds were audible.

The vagina contained a quantity of blood-clot and a little recent blood. The cervix was found to be dilated to the size of nearly two fingers, and the vertex felt presenting.

I diagnosed the presence of concealed accidental hæmorrhage, and elected to treat the case by the Dublin method. Perhaps I shall be criticised for not employing Champetier de Ribes' bag; but, having before me the choice of these two methods, I preferred the former. It will be urged that the use of the bag is more certain and more rapid. Yet, in my limited experience, I have found the method of packing to be sufficiently reliable; and the greater rapidity of the alternative treatment appears to be, in such a case as the present, not a recommendation but a strong argument against it.

I have not spoken of the difficulty and danger of a general anæsthetic, in such a case, which is essential when the bag is to be used. The main consideration seemed to be the extreme collapse of the patient, from which it was desired to extricate her as far as possible by restorative measures, before bringing upon her the additional strain of the second stage of labour. The subsequent account of the case persuades me that I followed the better course. I feel that, if I had adopted the alternative, and had succeeded in delivering rapidly by the bag, the case would, in all probability, have terminated unfavourably by the sacrifice of the patient's strength.

At 2.30 a.m., 10 ♏ Curschmann's solution were injected hypodermically. Then, with a view to lessening the intra-uterine tension, the membranes were ruptured by means of a probe, allowing a fair volume of clear liquor amnii to escape.

The cervical canal was next plugged with pieces of sterilised gauze, and afterwards the same material was tightly packed into the vaginal fornices, finishing off with two tampons of wool.

Half c.c. pituitrin was then injected intramuscularly into the right buttock. After this the patient's pallor was slightly increased, and her pulse remained stationary at 96. Her general condition not improving appreciably, and as she continued to be restless and agitated, a dose of tr. opii ℥ss., in ℥j of brandy, was given by mouth at 3.15.

Subsequently a second injection of Curschmann's camphor solution (10 ♏) was administered subcutaneously, followed by 5 ♏ of injectio strychninæ hypodermica (B.P. 1898).

A further dose of strychnine was given later, as the patient was almost fainting away.

In the meantime, Dr. Barris had been notified by telephone; and at his advice ¼ gr. morphine was injected under the skin of the forearm, and rectal saline (⊙ij) administered. The patient's condition was now considerably improved, and I returned to bed.

By 6.15 a.m. patient was having strong pains, regularly every two minutes; and at 7.10 a message was brought to me from the clerk (who had remained with the case) that the child's head was ½ in. from the vulva.

Arriving at 7.30, I found the woman distinctly less pale, with a pulse of 90 to the minute, of fair volume and tension, having strong pains. The child's head was already appearing at the vulva.

At 7.45 a.m. a dead female child was born, of about 8 lb. weight, followed immediately by a large mass of dark clotted blood, which amounted to fully two pints.

Five minutes later the placenta was expressed from the vagina. This was of large size, soft, and largely broken up by blood-clot.

Now came the most critical moment of the whole case. The mother collapsed very badly, her pulse running over 140, very feebly and rather irregularly, the temperature was 95·8°, and for a time she appeared to be dying.

A hypodermic injection of strychnine was given. Two pints of normal saline were introduced into the rectum, and the foot of the bed was raised twelve inches. A tight abdominal binder was applied.

The patient's condition then improved considerably.

At 3.30 *p.m.*—Pulse 124. Temperature 99·2° F. Rectal saline was given that evening and twice a day subsequently, of the same volume as the first injection. The breasts were bandaged, and a mixture given three times a day containing belladonna and ergot.

October 5th.—Patient much better. Pulse 120. Temperature 99·4° F.

October 6th.—Clerk's note says: "Patient extraordinarily well, considering her original condition."

The temperature remained above normal during the following week, reaching 102·4° F. on October 10th; while the pulse-rate persistently exceeded 100. But on October 14th temperature was 98·2° F., and pulse 104.

On October 16th the patient was discharged, being in good condition. Temperature normal, pulse 88. No lochia; uterus not felt above the pubes.

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CALCIUM.

[*Dedication:* TO THE GIN'AL.]

The sick lists ran from page to page,
The Gin'al gave up hope,
When cheerily The I.M.S.
Bade us no longer mope.

"I've found at last the cause and cure,
I'm glad it's not too late,
It has been proved that all you need
Is calcium lactate.

"If pemphigs scar the marble brow
And lost is beauty's picture,
Be not afraid, for blisters blanch
Before the albant mixture.

"Appendicitis is a curse
We wholly can avoid;
No operations any more,—
B. Wellcome's chalk tabloid.

"When jaundice with its dainty green
Tinges our skins and views,
Nor food nor life a charm possess,
Be not dismayed, but use

"Before and after every meal,
Or if you have not dined,
At any other time that suits,
A dose of lime calcined.

"And dysentery is much the same;
There's been a lot of talk,
But only one thing's any use
And that is calcined chalk.

"Ah! Apoplexy; here's the test
Of theory and of fact.
I must confess this is a point
For treatment with *some* tact.

"But if you look around you'll find
Of cases a sufficiency
Where experts swear that there exists
A palpable deficiency —→

"Of calcium in the brain—Enough!
Trepanning's out of date,
The only certain cure is this,
Give calcium lactate.

"It's funny, isn't it?" he said,
"It wasn't known before,
It needs a man of brain and faith . . .
There's only one thing more.

"Lime- (fruit not mineral of course)
Juice I must quite forbid
And lemonade and ginger ale,
Meant only for a kid.

["Kid" 's only in to end the line,
What really does the tune in
Is when you've got to find a rhyme
For calcium lactalbumin.]

"Then, when at last Death's bon'y clutch
Tells you you've done your time,
Cheer up! If faithful you have been
You'll still exist—as lime."

RECENT ADVANCES IN PHYSIOLOGY OF CLINICAL IMPORTANCE.

I. DILATATION OF THE HEART.

By J. W. TREVAN.

1. PHYSIOLOGY.

BY the combined efforts of that school of physiology so often, with blighting sarcasm, called "paper scratchers," and that of more obviously direct experimentalists, an advance has been made of immense importance in the elucidation of failure of cardiac compensation.

In 1892 Blix, a Scandinavian physiologist, discovered that up to a certain point the work done by a muscle fibre varied directly with the length to which that fibre was passively stretched before the contraction took place. Anything more dry-as-dust and open to the criticism of the "I-don't-see-that-it-takes-you-any-further" scoffer, could scarcely be imagined, yet in the fulness of time that discovery has illuminated much that was obscure in cardiac pathology.

The explanation of this fact seems to be that a contraction of a muscle fibre is a function of the surface only, not of the whole mass of the fibre. The surface is increased by stretching, the mass is not.

The experiments that have connected the contraction of the heart with the abstruse principle enunciated by Blix have been, for the most part, carried out in Prof. Starling's laboratory, and an account will be found in various papers published in the *Journal of Physiology*, vol. xlviii, 1914, p. 465.

The work was, for the most part, done on what is now known as the "heart lung" preparation. The heart of a dog was freed from the pericardium, a cannula placed in the innominate, and the blood allowed to flow (after the addition of herudin) through rubber tubes to a resistance, variable at will, representing the arteriolar bed and back to the right auricle. The variable resistance consisted of a thin-walled rubber tube through which the blood flowed, surrounded by

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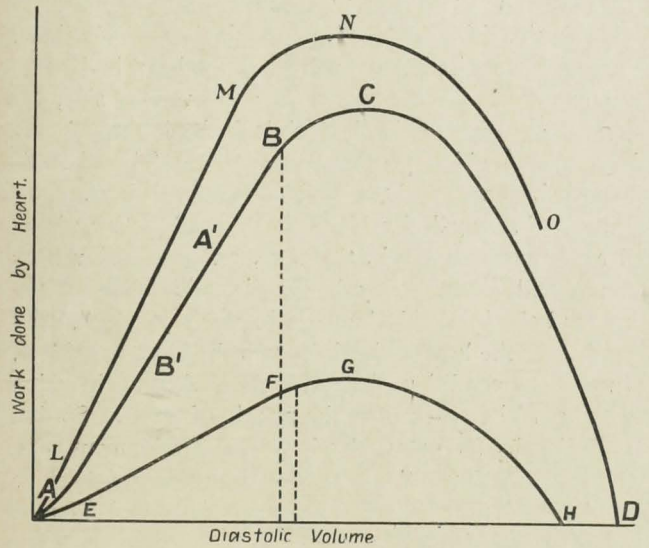
a closed glass tube connected to a pressure bottle. The resistance could be varied by altering the pressure in the pressure bottle. The systemic circulation was cut out and this system of tubes substituted for it; the pulmonary circulation was retained intact, and artificial respiration by positive ventilation kept the blood oxygenated. The alterations in volume of the heart were recorded by a piston recorder and a cardiometer made from a glass thistle funnel and a piece of rubber membrane. Venous pressure and arterial pressure were measured by manometers in the ordinary fashion.

The results can be best expressed in the form of a diagram (see Fig.), which is not quantitative, but merely represents the general relationship of the two quantities.



RELATION OF WORK DONE TO DIASTOLIC VOLUME. A B C D, IN NORMAL HEART. E F G H, IN MYOCARDITIS. *L M N O*, IN HYPERTROPHIED HEART.

The absolute numbers to be attached to the diagram depend on—

(1) The weight of the heart.

(2) The state of the muscle fibre, *e.g.* fatigue or degeneration, drugs, etc.

It will be seen that the work done by the ventricles varies directly with the volume of the heart during diastole over a large range (A—B, Fig.), then with increase of volume increases less rapidly (B—C), and then finally falls off (C—D) until the heart does not work at all, remaining as a dilated almost spherical cavity, with the individual beats represented by mere quivers to be seen on the surface, but entirely ineffectual in expelling blood into the arterial system.

The part A—B we will discuss first. It corresponds entirely to that famous principle enunciated by Blix. Up to the point C the length of the muscle fibre is directly proportional (for all practical purposes) to the volume of the heart; beyond this part the heart becomes more nearly spherical, and the length of the muscle fibre becomes in consequence less in proportion to the volume.

From A to B the work which the heart does is directly proportional to the volume, *i.e.* the length of the fibre. A B being a straight line above this point, the work done increases less rapidly as one approaches the limit of extensibility of the muscle fibre, and finally actually falls off with increasing volume, until no blood is expelled at all. The heart remains a dilated spherical ball with an occasional quiver on its surface, representing a beat. All these stages were paralleled in skeletal muscle.

The curve expresses the alteration in work done. This may be varied in one of two ways; either arterial pressure may be varied or the amount of blood expelled.

Let us consider the effect of increase of pressure in the arterial system. In an actual experiment on a dog's heart (Patterson, Piper, and Starling, *Journal of Physiology*, xlviii, p. 493, 1914), with a rise of arterial pressure from 68 mm. to 166 mm. Hg. the output remained constant at 88 c.c. per minute. Again, in another dog with a fall from 132 mm. to 52 mm. the output remained constant at 153. That is, there is some mechanism which, whatever the blood-pressure, enables the heart, when separated from the nervous system, to maintain a constant outflow—which is just what is essential for the body's needs. On the other hand, variations in the venous supply cause equal variations in the outflow.

The mechanism which brings about these changes is the same for both rises in arterial pressure and alterations in quantity of venous inflow, and is the one we have been discussing previously, as will be seen by an illustration used in the paper by Starling, Piper, and Patterson already referred to. Consider a heart "putting out 600 c.c. per minute against a mean arterial pressure of 80 mm. Hg. The mean arterial pressure is then raised to 140 mm. Hg. On measuring the total output it is found to be 600 c.c. as before." The mechanism of adaptation is as follows: At 80 mm. pressure the heart is developing just enough energy to put out 8 c.c. of blood against a resistance which may vary from 65 at the beginning of outflow to 100 mm. Hg. towards the end. The arterial resistance is then increased, so that it needs a pressure of 90 mm. to force any blood through it and a mean pressure of 140 to keep up an outflow of 600 c.c. per minute. The next heart-beat gets up sufficient pressure to force blood "into the aorta, say 5 c.c. The outflow then stops. Then, at the beginning of the next beat since the venous inflow is unaltered there are 8 c.c. + 3 c.c. of blood present in the cavity," *i.e.*, the diastolic volume is increased. As we have already shown, the next beat will be correspondingly more vigorous because of the lengthening of the muscle fibres in its walls, and it may be vigorous enough to maintain the original output of 8 c.c. per beat—leaving still 3 c.c. of residual blood. Then at the next beat, 8 c.c. more enter the venous side; the

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diastolic volume is 8 + 3 c.c.; the next beat effects 8 c.c., leaving 3 c.c. of residual blood again. If the first beat at a diastolic volume of 8 + 3 c.c. is not sufficient to pass on 8 c.c., but say only 7 c.c., extra residual blood is left = 8 + 3 − 7 = 4 c.c, and the diastolic volume at the next beat is 8 + 4 c.c. This may be sufficient to pass on 8 c.c., leaving a constant 4 c.c. of residual blood.

The influence of increased venous inflow due to increased venous pressure is exerted by the larger volume present at the beginning of each beat, leading to the expulsion of more blood at the next beat.

The end of the whole matter is this: The work done by the heart depends not on the arterial pressure, nor directly on the venous pressure, but on the size of the heart at the beginning of systole, or, what is the same thing, the diastolic length of the fibre.

2. Clinical Applications.

When any lesion of the heart is established there are two classes of phenomena that may follow:

(1) Aberrations due to a physiological compensation for mechanical difficulties. These aberrations are mostly cardiac.

(2) Phenomena due to failure of that compensation, which are mostly systemic.

The facts discussed above explain how some of these are produced.

Let us take some of the common cardiac disorders.

Myocarditis.—In this condition the sequence of events seems to be the following.

The first effect of any toxin on the heart muscle is to reduce the amount of work each fibre can turn out at a given length. Therefore, if the blood-pressure remains the same in the venous and arterial systems the same dilatation must occur as has been described for *rises* of pressure in the normal animal. When sufficient dilatation has been established to maintain the circulation at its correct level, the heart remains constant in size. The change in the properties of the muscle is very well represented by the curve E F G H. It will be seen that the general form of the curve is the same but the amount of work per unit volume is less, and since the failure of the heart from over distension sets in at the same volume in each case, there is a much more limited field of response. In the normal heart, all the calls made on it lie along the lower part of the curve, *e. g.* between A and A^1, probably never above, but, as will be seen by comparing B with F, the maximum amount of work that the heart can do is much diminished and falls within the limits of what it may be normally called upon to do. Hence the heart becomes further dilated but the work done falls off (G to H). Blood is not passed on as fast as it is received and increasing venous pressure with all its symptoms is set up. If the call is very sudden, as in those spasmodic increases of blood-pressure associated with angina pectoris, the volume may reach the point H and sudden death occur from complete failure of the heart.

Valvular lesions, apart from myocarditis, have a somewhat different relationship.

Aortic regurgitation is the simplest. In this case part of the blood pumped out during systole returns during diastole, and increases the diastolic volume by an equivalent amount. Suppose aortic regurgitation suddenly established. If the heart were previously pumping out 10 c.c. per minute, when the regurgitation started 4 c.c. might be returned, so the diastolic volume at the next beat would be 10 c.c. (flowing in from veins) + 4 c.c. (regurgitant), and in consequence the length of fibre contracting, and therefore the work done, is increased to correspond.

In obstruction at the aortic orifice there is the same effect produced as in raising the blood-pressure in the normal animal.

In aortic regurgitation, the volume of the heart in diastole depends not only on the filling from the venous side, but also on the amount of blood which leaks back through the valves under the high pressure in the aorta. The diastolic volume is increased and the work done at each beat.

In *mitral regurgitation* blood is pumped backwards as well as forwards—there is, therefore, an increased venous pressure and consequently better diastolic filling of the heart, and the inevitable increase in the work done, compensating for the loss of blood through the imperfect valves.

In all these conditions the part of the work curve in action is that from B^1 to B—nearer the margin of safety. So that abnormal calls for extra blood or the development of a myocarditis may push the heart over into the region when dilatation no longer increases the work done and "failure of compensation" sets.

So with all the other lesions.

Hypertrophy is a factor not represented in experiments extending only over a few hours. It arises, however, from the physiological fact, represented in all muscle, that increased work increases the bulk of the muscle. As in myocarditis there is no increase in the work actually done (although that work is only done by a dilated heart) dilatation takes place without hypertrophy. With a valvular lesion the work done is increased and the muscle increases in bulk. The increase in weight of the heart enables it in the end to perform the normal work at the original volume, and the condition of the heart may be represented by the curve *L M N O* in the figure.

This ends an imperfect sketch of the factor of dilatation.

There are others not less important for which there is no room to discuss, such as, for instance, the influence of carbon dioxide, of adrenalin, of the pericardium, of rhythm, and last, and most important, of rate, upon which Prof. Bainbridge has cast a new light in a paper not yet published.

And yet again I would venture to expostulate with the severely practical man who does not see what good is coming out of the mountains of abstract physiology, and ask

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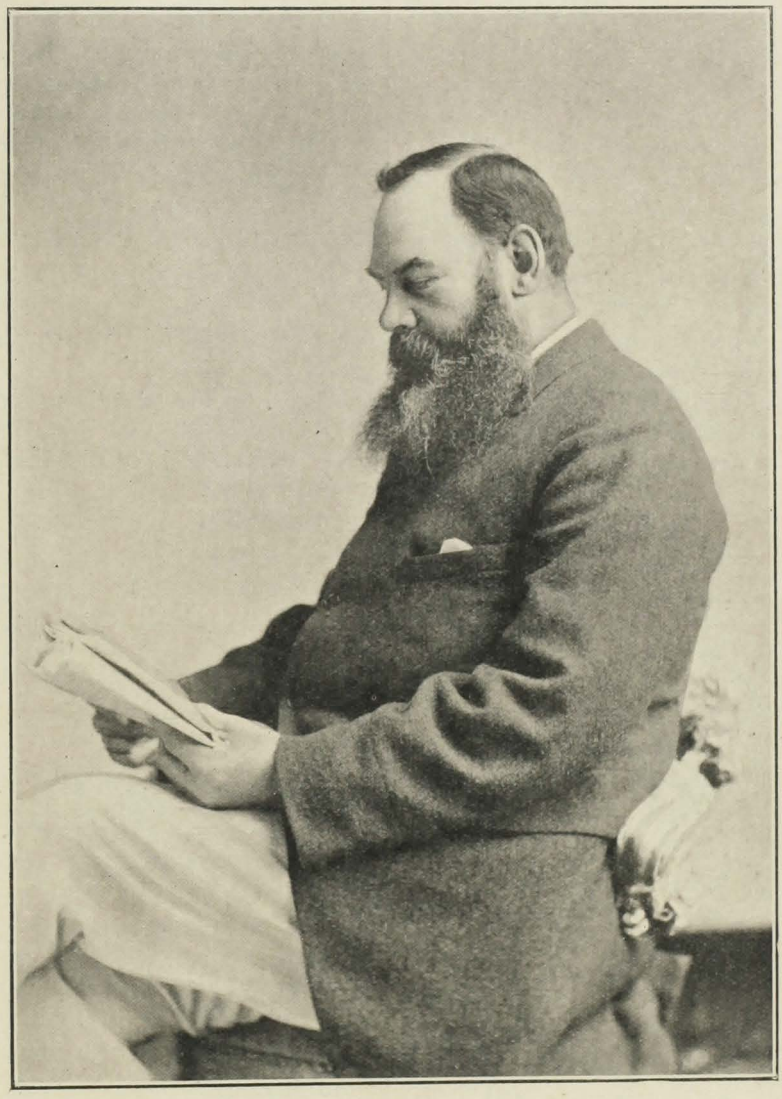
him to seek in the original papers what is poorly set forth above, and see how at every step some apparently useless investigation has filled its little part in building up the great whole. For "the eye cannot say to the hand, I have no need of thee; nor again the head to the feet, I have no need of you. Nay, much more those members which seem to be more feeble are necessary" (I Cor. xii, 21–22).

When our new ground at Winchmore Hill was to be opened by a match, Past *v.* Present, W. G. accepted, with great pleasure, a place in the Past team. Unfortunately ne couldn't play on the day, greatly to his and everybody else's regret.

I think, perhaps, one of his finest traits was his kindness and consideration to young cricketers, whether on his side



The late Dr. W. G. Grace.

OBITUARY.

W. G. GRACE, L.R.C.P., M.R.C.S.

OVER and above our losses in these terrible times, we have to deplore the death of our greatest cricketer, and one of the best sportsmen known to any of us. That he was a member of our Hospital and always spoke with affection of it makes us at the same time sadder and prouder.

or the opposite. His greatness as a critic of the game was due to the freedom from partiality and the extreme and open fairness in which he expressed his opinions; no one could, I think, add up the form of a player more exactly.

His soundness as a bat probably is unique—the whole of his strokes were sound. There have been, and still are, a few men who execute certain strokes which, owing principally to his colossal physique, were difficult for W. G. These he never attempted; he didn't want them; he had

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enough of his own. I don't think he ever borrowed a shot from any player. The brilliancy he displayed against fast bowling, especially on a fiery wicket, was due chiefly to two things—courage and the quickness of his eye. No one ever saw him working away to short-leg, or getting himself out in preference to being hit.

The great point in his bowling always seemed to me to be the deceptive length; he got rid of the ball, if anything, a little behind the shoulder and followed it with his hand—very clever, as it pitched in a length, instead of the expected half-volley, and fed the field.

W. G. was always busy in some sport or another and keeping himself fit, and always very, very keen. Running with the beagles he was untireable; he got a lot of the younger ones with their tongues out while he was still going strong. He was a good shot with a scatter gun, and nothing moved near his stand that escaped his notice, and probably did not appreciate his attentions.

As a golfer he was quite good, and deadly when getting near the pin. At his house, about two months ago, he played with me against K.S.R. and A.C.M. at bowls; after a desperate struggle we just won. The keenness our old friend displayed would not have disgraced an England and Australia fixture.

I am sorry the powers that be didn't make him at least a "baronet"; the cricket world, at any rate, have made him a "king." W. G. H.

EDWARD HENRY POLLOCK BRUNTON.

An Appreciation.

It is a privilege to be allowed to say something in praise of Edward Brunton, whom I first met at Bart.'s when he was working for his primary F.R.C.S., and afterwards came to know well during the six months of his house appointment there and some ten weeks in April, May and June, in which we shared a tent in a training centre and learnt something of the functions of officers in the R.A.M.C. and of the ways of the Army.

By his death many have lost a valued friend and his country a loyal and efficient medical officer of a sort that can ill be spared. In his medical work he showed the qualities of a keen, diligent, conscientious, and skilful practitioner. The human side of his work appealed more strongly to him than did the purely theoretic, and he took more interest in the welfare and recovery than in the morbid anatomy of his patients. His opinion on a case was always worth having and was given carefully with intent to help, while if he asked for a diagnosis or suggestion he did so prepared to judge the opinion given without prejudice and to act on it if he thought it good. Two rare great qualities—an unfailing and absolute honesty and a deep and very real modesty—coloured all his work. How far he would have pursued any definite medical or surgical career is hard to say, for he had no distinctive professional ambitions, but like many more he interrupted his career at Hospital to serve as medical officer in the Army.

In a letter written shortly before his death and just after he had distinguished himself by his good work in the advance on Loos he wrote: "I never thought I was built for a soldier, and now I am sure," but, as a fact, he possessed the qualities and cultivated the character of an efficient officer and a worthy commander. He had no natural love for the forms, routines, and procedures of army life, but deliberately set himself to acquire military methods and virtues, and in his temporary post of section commander in a field ambulance he worked with the same unselfish thoroughness that distinguished his work at Hospital.

He was attached as Medical Officer to the 4th Grenadier Guards and went out with them to France at the end of July.

He took an active part in the great advance to the assault of Loos—an advance made in daylight over open country and under heavy artillery, rifle, and machine-gun fire.

When Loos was taken he worked steadily for many hours in his aid post, while the town was shelled to pieces round him. He wrote after the end of that day's work: "Looking back on it I regard it as the experience of my life."

He was an excellent companion in leisure, a loyal friend, a useful colleague, with a love of life, and an ever present sense of humour, which by themselves would have served to carry him through very tough places, and he has not lived in vain. L. W. B.

STUDENTS' UNION.

A MEETING of the Council was held on Thursday, October 28th, at which several matters of interest were discussed.

National Guard.

Permission was given to the section of the National Guard which now comes to the Hospital every evening, to use the Abernethian Room, except on such Thursday evenings as it may be required for the meetings of the Abernethian Society.

The Late Dr. W. G. Grace.

It was decided that a memorial of some kind should be erected to the memory of this famous Bart.'s man, and a sub-committee was appointed to consider what form this should take.

Opening of Abernethian Room on Sundays.

It was suggested that this would be in the interests of resident members of the Hospital, and it was decided to ask

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the School Committee to sanction the opening on Sundays of the Abernethian Room.

FURNITURE REPAIR.

It was decided to accept the estimate of Messrs. Tapling & Co., Ltd., for the repair of furniture in the Abernethian Room.

RESIGNATION OF SECRETARY.

Mr. P. H. Wells handed in his resignation, and a hearty vote of thanks was accorded him for his services. A new Secretary will be elected at the next meeting.

ST. BARTHOLOMEW'S HOSPITAL WOMEN'S GUILD.

THE following ladies have kindly promised to hold the Working Party at their houses on Wednesdays in November and December at 3 o'clock :

November 3rd : Mrs. Calvert, 113, Harley St., W.
" 10th : Mrs. Richard Gill, 17, Albert Hall Mansions, S.W.
" 17th : Lady Kempe, 22, Pembridge Sq., W.
" 24th : Mrs. Girling Ball, The Warden's House, St. Bartholomew's Hospital.
December 1st : Mrs. Trechmann, 88, Eccleston Square, S.W.
" 8th : Mrs. Hayes, St. Bartholomew's Hospital.
" 15th : Mrs. Ranking, 28, Westbourne Terrace, W.

Work Party Hon. Sec.: Miss Helena Calvert, 113, Harley St., W.

CORRESPONDENCE.

ECONOMY.

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

DEAR SIR,—Bart.'s, I presume, has been hit, like everybody else, by the war, and wants to economise. Let me tip the authorities a wrinkle. At Bart.'s, as at most places I have seen, there's a tremendous amount of avoidable waste in the absorbent cotton-wool used for dressings (not to mention bandages). The amount so wasted must cost many, many golden sovereigns a year. Sphagnum moss, loosely packed into suitable bags of the cheapest butter-cloth, can be used for almost everything that cotton-wool is used for, and the cost is practically nothing. The moss can be got on numbers of moors, etc., in England, simply for the picking. It then requires to be handpicked and dried, the picking being to remove twigs, roots, grass, etc., and is then ready for use. The bags simply require the usual sterilisation ; so that the only cost is the bags and the cost of conveyance of the moss. I should think that with a very little organisation numbers of people could be got to gather it gratis, as a labour of love. Several papers on the subject have already appeared in the *B.M.J.*, so I need say no more. I have occasionally seen compressed pads of what I believe was sphagnum used at Bart.'s, in suprapubic cystotomy cases ; but why not make more use of it, uncompressed ?

G. F. ROWCROFT,
Colonel, Temp. Major, I.M.S.

REVIEWS.

A PRACTICAL MANUAL OF BANDAGING. By Capt. D. C. L. FITZWILLIAMS. (Baillière, Tindall & Cox.) Price 3*s.* 6*d.* net.

An excellent little work for surgeon or student. Every essential form of bandage is described, and, moreover, well illustrated. The artist, a Hungarian prisoner of war, has a fine touch of humour, too. The frontispiece shows a well-executed foot-sling—but—it is hung, together with an iron cross, round the neck of His Satanic Lowness the Crown Prince of Germany ! So complete is this work that we only miss one form of bandage or sling—the neck-sling or hangman's rope. An illustration of this, at the end of the work, placed round someone's neck, would be a welcome feature in the next edition.

OXFORD WAR PRIMERS. (Henry Frowde and Hodder & Stoughton.)
CEREBRO-SPINAL FEVER. By Major T. J. HORDER. Price 3*s.* 6*d.* net.
NERVE INJURIES AND SHOCK. By Capt. W. HARRIS. Price 3*s.* 6*d.* net.
WOUNDS OF THE THORAX IN WAR. By Staff-Surgeon J. K. MURPHY. Price 2*s.* 6*d.* net.
GUNSHOT INJURIES OF BONES. By Capt. E. W. HEY GROVES. Price 3*s.* 6*d.* net.

We have received the above four additions to this series, and the same remarks apply to these as to those commented upon in our last issue. They should prove of exceptional interest to the surgeon or physician on war service, as not only will they revive in his mind special facts which he may have forgotten, but they will teach many new aspects which the war has brought forth. They are of convenient size for carrying in the pocket.

A TEXT-BOOK OF SURGERY. By R. WARREN. (J. & A. Churchill.) Two vols. Pp. 1400. Price 25*s.* net.

Modern surgery covers such a vast ground that it is difficult to imagine its efficient treatment even in two large volumes ; however, the work under our consideration comes very near to this ideal. The author has attained this excellence by a process of simplification which leaves out many of the more classical methods of treatment, retaining alone those which bear the hall-mark of practical utility. Special attention has been paid to those sections where, in the last few years, surgery has made such great strides, *i.e.*, with regard to blood-vessels, bones, joints, the air-passages, the abdomen, and the urinary system. The two volumes are concisely and clearly written, and the original illustrations, of which there are 504, are excellently produced and quite sufficient to elucidate the text. The work forms a valuable book of reference and should certainly be read by all students taking the higher examinations in surgery.

FIBROSITIS. By LL. J. LLEWELLYN and A. B. JONES. Pp. 693. (Heinemann.) Price 25*s.* net.

A long-needed work has at length been published in this book. The difficulties of diagnosis in all questions of rheumatic pains, whether of muscle or joint, are recognised by everyone. Difficult also are such troubles as lumbago, sciatica, and neuralgia. The importance of a correct diagnosis of such symptoms cannot be over-estimated, for only by treating the underlying lesion can we hope to relieve permanently the sometimes excruciating pain. How often do we find, for instance, the dread sciatica treated in an off-hand manner with pot. iod. and tr. hyoscyamus, or perhaps with heavy doses of aspirin ? Sometimes relief is given, more often it is not. Why ? Because sciatica may be surely a symptom of many things. It may be primary, due to neuropathic inheritance, gout, arterio-sclerosis, diabetes, and other toxic causes. Syphilis, gonorrhœa, malaria, tuberculosis may all cause it. It may be secondary, due to extra-pelvic or intra-pelvic causes, pressure, over-extension of the nerve-trunk, osteo-arthritis of the hip, or gluteal fibrositis. Intra-pelvic pressure or irritation, such as pregnancy, or neoplasm, engorged veins, or even appendicitis, may be the root of the trouble. All these conditions and their differential diagnosis are set forth in this work, together with similar dissertations upon "rheumatism," "gout," lumbago, neuralgia, and various forms of synovitis. When we realise how very

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often the general practitioner is called upon to treat local pains of one kind or another we cannot fail to see how exceptionally useful such a book of reference as this becomes.

Indications for treatment are also given, but we could have wished for a few more prescriptions useful from the authors' experience in one or two of the less common conditions.

The illustrations also are excellent, and we can confidently recommend this work as of exceptional value to every practitioner.

EXAMINATIONS, ETC.

CONJOINT BOARD.

First Examination, October, 1915.

Part I. Chemistry.—S. G. Harrison.
Part II. Physics.—D. P. Guilfoyle, S. G. Harrison, P. Lindsey.
Part IV. Practical Pharmacy.—K. R. Chapple, D. D. Evans, H. R. V. T. Lauder.

Second Examination, October, 1915.

Anatomy and Physiology.—C. E. E. Herington, W. A. Jolliffe, H. C. C. Joyce, A. E. A. Khair, L. K. Ledger, N. Synn.

SOCIETY OF APOTHECARIES.

October, 1915.

The Diploma of the Society was granted to the following candidate entitling him to practise medicine, surgery, and midwifery:
C. P. C. Sargent.

NEW ADDRESSES.

BATHURST, L. W., 143, Harley Street, W. (Tel. Mayfair 4831.)
CANE, Capt. L. B., R.A.M.C., H.M. Hospital Ship "Devanha," Mediterranean Expeditionary Force, c/o G.P.O., E.C.
FRY, A. P., 2, North Place, Whetstone, Middlesex.
HAMILTON, Major W. G, I.M.S., Registrar, Bombay Presidency General Hospital, Alexandria, Egypt.
HURTLEY, W. H., 28, Chestnut Road, W. Norwood, S.E.
JOHNSON, F., Pellhurst, Cypress Road, Newport, Isle of Wight.
LOWE, G., 42, Langworth Gate, Lincoln (Tel. 283.)
MURPHY, Capt. L. C. E., R.A.M.C., attached to 49th Divisional Ammunition Column, B.E.F.
PHILLIPS, L. L., No. 2 Ambulance Train, Southampton Docks.
TREWBY, J. F., 4, Duchess Street, Portland Place, W.

BIRTHS.

BELL.—On October 21st, at Cosham Park House, Cosham, the wife of Staff-Surgeon K. Digby Bell, R.N., H.M.S. "Iron Duke," of a son.
CATES.—On September 28th, at Laurel Mount, St. Helen's, the wife of Joseph Cates, M.D.Lond., D.P.H.Camb., of a daughter.
DOWNER.—On October 16th, at "Craiglea," Woking, to Daphne Marguerite and Reginald L. E. Downer, M.D., R.A.M.C., of "The Firs," Matlock—a daughter.
FERGUSON.—On October 19th, at "Deepdene," Haslemere (the residence of her parents), to Eileen (*née* Nash-Wortham) and Archibald Ferguson, M.B., D.P.H., Lieut., R.A.M.C.—a son.
GILBERTSON.—On October 18th, at "Newstead," Bancroft, Hitchin, the wife of Dr. H. Marshall Gilbertson, of a son.
RANKING.—On October 24th, at Hanover House, Tunbridge Wells, the wife of Dr. Robert Ranking, of a son.
THACKER.—On September 28th, at 164, Chesterton Road, Cambridge, to Dr. and Mrs. C. R. A. Thacker—a daughter.

MARRIAGES.

DAVIS—LLOYD.—On October 23rd, at St. Jude's Church, South Kensington, by the Rev. Prebendary Pennefather, assisted by the Rev. Prebendary Eardley Wilmot, Vicar of the Parish, Kenneth James Acton Davis, F.R.C.S., M.C.Cantab., of 24, Upper Berkeley Street, W., second son of Mr. G. Acton Davis, J.P., and of Mrs. Acton Davis, Julian Hill, Harrow, to Vera, younger daughter of Mr. E. Honoratus Lloyd, K.C., and of Mrs. Lloyd, 30, Collingham Gardens, W.
HILL—MACLEAN.—On September 19th, at St. Andrew's Church, Plymouth (quietly), Staff Surgeon Horace B. Hill, R.N., eldest son of Dr. R. B. Hill, of Tywardreath, Cornwall, to Edith Clara de Vere Maclean, youngest daughter of Kaid Sir Harry Maclean, of Tangier, Morocco.
RANSOM—SHILCOCK.—On October 23rd, at Brampton, by the Rev. S. I. W. Shilcock, uncle of the bride, assisted by the Rev. L. H. Ransom, uncle of the bridegroom, Capt. Peter Warwick Ransom, M.B., R.A.M.C., son of Mr. and Mrs. H. C. Ransom, of Clifton, to to Margaret Lindsay, eldest daughter of the Rev. W. A. and Mrs. Shilcock, Brampton Rectory, Norwich.

DEATHS.

ADDENBROOKE.—On October 15th, at The Platts, Kidderminster, Edward Homfray Addenbrooke, M.R.C.S., L.S.A.
BRUNTON.—Killed in action in France on October, 8th, 1915, Lieut. Edward H. P. Brunton, R.A.M.C., attached to the 4th Battalion Grenadier Guards, younger son of Sir Lauder Brunton, Bt., M.D., F.R.S., aged 25.
DOUGLASS-JAMES.—In France, on September 30th, died of wounds received September 25th, 2nd Lieut. Douglass Charles James, South Staffordshire Regiment, and St. Bartholomew's Hospital, second beloved son of Charles Henry James, Esq., J.P., of Ingledene, Plymouth, aged 20.
GAY.—On October 10th, 2nd Lieut. J. Gay ("Jock"), Royal Flying Corps, only son of Dr. and Mrs. Gay, of Putney, aged 22.
GRACE.—On October 23rd, suddenly, William Gilbert Grace, the dearly-loved and loving husband of Agnes N. Grace, and father of Capt. H. E. Grace, R.N., and Capt. C. B. Grace, K.F.R.E., of Fairmount, Mottingham, Eltham, S.E., aged 67.
MEADEN.—On October 15th, at Beech Lawn, North Finchley, George Anderson Meaden, M.R.C.S., of South Walsham, aged 73.

ACKNOWLEDGMENTS.

L'Attulita Medica, The British Journal of Nursing, The Nursing Times, The Hospital, The Medical Review, The Shield, Guy's Hospital Gazette, St. Thomas'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.*

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St. Bartholomew's Hospital Journal.

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

VOL. XXIII.—No. 3.] DECEMBER 1ST, 1915. [PRICE SIXPENCE.

CALENDAR.

Wed., Dec.	1.	—First and Second Exams. for M.B.(Oxford) begin.
Fri.,	3.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Mon.,	6.	—Exams. for M.D. and M.S.(Lond.) begin.
Tues.,	7.	—Dr. Garrod and Mr. Waring on duty.
Fri.,	10.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Mon.,	13.	—First Exam. for Med. Degrees (London) begins. First, Second, and Part I of Third Exam. for M.B. Camb. begins.
Tues.,	14.	—Part II, Third M.B.Camb. begins. Dr. Morley Fletcher and Mr. Bailey on duty.
Fri.,	17.	—Oxford Michaelmas Term ends. Dr. Drysdale and Mr. Rawling on duty.
Sat.,	18.	—Cambridge Michaelmas ends.
Tues.,	21.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed.,	22.	—**Winter Session divides.**
Fri.,	24.	—Dr. Garrod and Mr. Waring on duty.
Sat.	25.	—Christmas Day.
Tues.,	28.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri.,	31.	—Dr. Morley Fletcher and Mr. Bailey on duty.
1916.		
Mon., Jan.	3.	—D.P.H. (Conjoint) Exam. begins. Second Exam. of Soc. of Apothecaries begins.
Tue.,	4.	—First Exam. Conjoint Board begins. Dr. Drysdale and Mr. Rawling on duty.
Wed.,	5.	—First Exam. of Soc. of Apothecaries begins.
Thur.,	6.	—**Winter Session resumes.** Second Exam. Conjoint Board begins.
Fri.,	7.	—Dr. Tooth and Mr. D'Arcy Power on duty.

EDITORIAL NOTES.

IT is with very much regret that we learn of the death of Lt. J. M. M. Marshall on active service. While repairing a part of the parapet on the night of October 19th, he was shot by an enemy sniper. The bullet entered his left arm and passed through his side, penetrating the lung. He died at 6 a.m. on October 21st. Our deepest sympathy is extended to his parents in their sad bereavement.

* * *

We heartily congratulate Staff-Surgeon G. M. Levick on his promotion to Fleet-Surgeon, which appeared in the following Admiralty notification on November 22nd: "Staff-Surgeon G. M. Levick has been specially promoted to the rank of Fleet-Surgeon for his services with the British Antarctic Expedition in 1910, with seniority, November 21st."

* * *

We announced in our last issue that Mr. Harmer would shortly leave us to take up the post of surgeon in the Anglo-Russian Hospital. Mr. Rose takes charge of the wards in his absence, and Major W. Kent Hughes, an old Bart.'s man, and a well-known laryngologist of Melbourne, will take his place temporarily in the out-patient department.

* * *

The Mid-Sessional Address to the Abernethian Society will be delivered on January 6th, by Major McAdam Eccles. The subject will be "The Little Things of Medicine and Surgery." The number of men in the School has appreciably lessened, and it is hoped that those from the outside will rally with their friends to make a good audience.

* * *

The War Office has recently applied to the Governors of the Hospital for further accommodation. Unfortunately, it is scarcely possible to give up any more of the civilian wards at present, but the convalescent home at Swanley with its 70 beds has been offered as a substitute, which the War Office has accepted. Preparations are now all complete, and the first patients are expected to arrive on Friday, December 3rd. Dr. J. Dawson Crawford has been appointed Medical Officer in Charge.

* * *

At a meeting of the Students' Union Council on November 4th it was decided that the memorial to the late Dr. W. G. Grace should take the form of an engraving framed in oak and suitably inscribed, and that this should be placed in the Abernethian Room. Subscriptions should be sent to Mr.

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W. Girling Ball, The Warden's House, St. Bartholomew's Hospital.

* * *

1st LONDON GENERAL HOSPITAL.
Y.M.C.A. Hut.

It is proposed to erect a large recreation hut in the grounds of the 1st London General Hospital. Of the initial cost of about £1000, the Y.M.C.A. have promised £300 and another £450 has already been subscribed by friends, including several old St. Bartholomew's men and nurses. We venture to think that others may care to send a donation for this good object. Cheques should be forwarded to the Hon. Treasurer, Major W. McAdam Eccles, 124, Harley Street, London, W.

MEDICAL STUDENTS AND THE WAR.

IT is to be hoped that the methods employed in determining the value of the medical student to the nation have not so great a vogue in all other Governmental problems. Not only has there been discrepancy of opinion and contradiction of one authority by another, but for many a long day there seem to have been rival authorities, each claiming the right to label the medical student. At one time the students were evidently under the Ministry of Munitions—at any rate that Department sanctioned the use of their distinctive Red Cross badges. But other cooks have also stirred the pudding until the currants in it have turned giddy. We know of one instance in which a student, in the early days of the war, applied at the War Office for a commission. He was informed that he would be better advised and of more value to the country if he remained at the Hospital. Latterly he received one of Lord Derby's famous letters; again he went to the War Office, and again he was advised to go back to the Hospital, with the added information that no doubt the letter was a mistake. Thus is the left hand ignorant of what the right hand doeth. Nor is this the only student who has been juggled with, as if part of some monstrous conjuring trick. The following letter received from yet another student serves as a measure of what their perplexity has been:

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

ST. BART.'S,
October 25th, 1915.

DEAR SIR,—What is the official attitude concerning medical students enlisting?

Personally I applied for leave of absence to enlist in August, 1914. The Dean then replied that it was contrary to the wish of the War Office that medical students should throw up their professional studies.

After that we have had Col. Tooth's announcements on the O.T.C. board and Mr. Tennant's statement in the House of Commons. Also the Dean has been against any man applying for a commission in the Navy as surgeon probationer; this was as recently as last week.

Then more recently still some few have received 'Lord Derby's' letter. And yesterday the Dean entered the dissecting rooms and made a little speech, the gist of which was: Reply to Lord Derby's letter and say that directly you have passed your second examination you intend to apply for commissions in the Navy.

What are we to do, and where are we among all the conflicting advices, etc.?

Yours truly,
PERPLEXED."

No doubt the magnitude of our needs has greatly exceeded the expectations of those in authority twelve months ago, and of necessity a change in their opinions and policy has taken place. At the beginning of the war they advised medical students to remain at their posts, and even released those who had already enlisted in order that they might go back to their studies. Now that policy is reversed. There is no fault to find with a change of policy *qua* such, for to change one's mind is by no means a sign of weakness—it is essential to progress. But the vacillating and uncertain methods displayed and the apparent lack of forethought and of departmental cohesion certainly create grave doubts as to whether the change of mind under consideration is a wise one. In the writer's opinion there is only one possible justification for the new orders, and that is an extremely urgent need of young *officers*. Should it be intended, if conscription becomes necessary, to bring the remaining medical students into the ranks as *privates*, the loss to the country would be out of all proportion to the infinitesimal gain. These matters have been represented both to Lord Derby and to Mr. Asquith by various persons and deputations.

So short a time ago as June 21st Mr. Tennant reiterated his intimation that medical students were of more use at their hospitals than serving in the Army. About three months afterwards this was rescinded by an announcement that the War Office "would be very unwilling to suggest that junior medical students should be discouraged from taking combatant commissions." It will be here observed that the War Office makes no definite announcement of its needs as compared with the medical needs of the country. In the guarded and foolish phraseology of the professional politician, it merely succeeded in confusing hospital authorities and medical students as to what was really required of them. The Medical Correspondent of the *Times* on August 25th called attention to the dangers arising to the country in the event of the medical student relinquishing his professional studies. But it was not till the beginning of this month that any clear pronouncement was actually forthcoming in the House of Commons, when

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according to the *Times* the following definite statement was made.

"Mr. Tennant, in answer to questions asked by Mr. Snowden (Blackburn, Lab.) and Sir P. Magnus (London University, U.) concerning recruiting among medical students, said: I would now, in the light of the experience of the last few months, make this modification of the statement I made on June 21st. I think we must remember that we have first to win the war and afterwards to encounter problems arising out of it, if they do arise. I would, therefore, answer these questions by saying that the view of the War Office at the present time is that fourth or fifth year students should continue their studies, but that students in the first, second, and third years must consider for themselves what answer they should make to the recruiting appeal addressed to them, and not to regard themselves, so far as the War Office is concerned, as under the duty of continuing their medical studies."

And in the *Times* of November 3rd the following confirmatory evidence appeared:

"In view of the recent issue of Lord Derby's appeal, which was received by the junior students at the medical schools, the question has again come to the front, and yesterday a deputation consisting of the President of the College of Physicians, the President of the College of Surgeons, the Deans of the medical schools, and the Vice-Chancellor of the University of London waited upon Lord Derby to discuss the matter with him. It was pointed out to him that the medical curriculum extends to five years, and in view of the fact that Lord Derby's letter was being received by students in their first, second, and third year the authorities were anxious to know whether it would not be possible to exempt them. It was urged very strongly that the medical student would be of much more service to the nation if he continued his studies and qualified as a doctor in three, four, or five years' time than if he joined the Army as a combatant at present.

"Lord Derby, after hearing the views of the deputation, gave his decision on the point in the following words: 'It is the duty of medical students (other than those in the fourth and fifth years of study) to join his Majesty's Forces.'

"According to the statistics published at the beginning of September, the number of students in ten leading medical schools during the first year of the war was 1891, as compared with the normal total of 2562. The effect of Lord Derby's decision will be, of course, to deplete the number of students still further."

On November 4th the following circular was sent out by the General Medical Council:

"The President of the General Medical Council is requested by the Council to inform the licensing bodies, medical schools, and approved teaching institutions, that the Director-General of the Army Medical Service has intimated to the Council his entire agreement with the Earl of Derby's decision regarding the recruiting of medical students, namely, that—"It is the duty of medical students (other than those in the fourth and fifth years of study) to join His Majesty's Forces.

"The President hopes that in every medical school steps will be taken to convey this information to the students who are eligible for military service."

One would have thought that matters were now definitely settled. At any rate here was a definite statement reiterated, curt, and final. By no means. Further deputations and correspondence beat upon the Governmental doors, and beat successfully. At the moment of writing, the following notice is exhibited upon the School notice board:

"TO JUNIOR STUDENTS.

The Dean desires to inform first, second, and third year men that he has received the following letter:

10, DOWNING STREET,
WHITEHALL, S.W.
November 11th, 1915.

DEAR SIR,—The Prime Minister desires me to thank you for your letter of November 1st, to which he has given careful attention.

Mr. Asquith desires me to inform you that he is unable to differ from the view already expressed by Lord Kitchener in the letter of August 11th addressed by him to Prof. Halliburton.

Mr. Asquith is of opinion that students of their fourth and fifth years should complete their studies, while those in earlier years should be free to offer themselves for service with His Majesty's Forces.

Yours faithfully,
M. BONHAM CARTER.

T. W. SHORE, Esq., M.D.

N.B.—The view in Lord Kitchener's letter to Prof. Halliburton on August 11th is:

'The War Office would be unwilling to suggest that junior students should be discouraged from taking combatant commissions.'

The position created by Lord Derby's expression of opinion on November 2nd is modified by the Prime Minister's letter of November 11th.

Junior students, instead of being told that it is their 'duty' to join His Majesty's Forces, are now informed that they—

'*Should be free to offer themselves for service with His Majesty's Forces.*'

The decision must rest, therefore, with each student individually.

Meanwhile—

All lectures and practical classes for first, second, and third years students will continue as usual.

T. W. SHORE."

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So now it is no longer the medical student's *duty;* once more it has been left to his discretion. The general has informed the rank and file that the attack will be left to their discretion! The medical student is now on a footing with the rest of the unmarried young men. Again we feel the confusion of the issues.

We know perfectly well that the powers that be want the medical students to join the Army. But as they give us no figures as to the number of officers either available or required, nor do they even say whether the medical student is essential or not essential as a combatant officer, we have no indication that they are not merely urging the medical student in an omnivorous orgy of plethoric accumulation—part of the comprehensive and excellent scheme for enlisting all the available men of England. It seems clear that the medical student should not be thus treated in a general scheme, and it becomes extremely difficult for the individual student to know his duty, especially when he reads the views of such an authority as Sir Donald MacAlister, who expressed these views in his Presidential Address at the opening of the 102nd Session of the General Medical Council on November 2nd:

"They had it on the highest authority, he said, that within the next few months every qualified man of suitable age who was fit for the work of an officer in the Medical Corps would be needed. The profession looked to the public to lighten the sacrifices and burdens which all practitioners must endure in these days both by loyalty to the absent and by consideration for those who took their place. The proportion of country practitioners who had been set free for military service was higher than that from the large centres of population. The town doctor, owing to the somewhat loose attachment of his patients to him, feared that they might be alienated if he went into the Army. The Medical War Committees were endeavouring to promote equitable agreements between practitioners who remained on civil duty and their colleagues on active service, and he thought the profession had given abundant proofs that it would not be wanting in duty or in self-denial.

"From the British Dominions and from other countries over 240 practitioners had been registered this year, and it was believed that when certain reciprocity arrangements had been completed, the number from Canada would be considerably increased. Although the War Office authorities recognised that the withdrawal from professional instruction of large numbers of medical students of the first three years would have a serious effect on the future, they had deemed it inadvisable to discourage junior students who offered themselves for combatant service. It was much to be desired, he thought, that the Army authorities should give clearer guidance on this perplexing question. The result of medical students accepting commissions and enlisting was that the prospective shortage of 250 qualified practitioners per annum which he had mentioned on a former occasion as probable during the coming years would almost certainly be exceeded.

"There was one direction in which it appeared likely some economy of medical students might be effected. The minor vessels of the Fleets carried a surgical 'probationer,' and for this work medical students who had completed their physiological and anatomical studies and had been instructed in surgical dressing are preferred. He was authorised to make it known that any 'probationer' who, after, say, six months' service, desired to present himself for a professional examination or to resume his studies, would be granted leave of absence or be demobilised, and a less senior student appointed in his place. By such a rotation of service a succession of students might continue to be employed in war work, and yet the qualification of none would be unduly delayed."

In the words of Dr. Shore "the medical student is no shirker," and we believe that the public are well aware of this fact; indeed the *Star* of Nov. 5th described the scenes which took place at St. Bartholomew's Hospital when Lord Derby's decision was first announced, and we cannot do better than quote this article at some length.

"The decision of Lord Derby that medical students in their first, second, and third years should join the Army has caused a considerable amount of excitement in the London hospitals. The students almost to a man are delighted at the decision, although in some quarters the desirability of taking the few students that are left is still a debatable point.

"The scene at one of the largest of the medical schools when the news was made known was one which will not easily be forgotten. Work was quite at an end. Several students at once applied for commissions, and the possibility of the school closing was discussed at considerable length.

"The dissecting room presented a sight which almost beggars description. Several students arrived with large recruiting posters, with which they immediately proceeded to decorate what, in the ordinary course of things, is at the best a rather gruesome place.

"The numerous subjects in the course of dissection were carefully draped with vividly coloured posters, such as

Have you done your best?

Your King and country need you,

etc. The walls and the gallery also received similar decorations.

"The original contributions, mostly executed in coloured chalks by the students of more or less artistic type, caused the most excitement, and certainly the most amusement. On the concrete floor such messages as

Join up, and *This way to the recruiting office*

met one's eye, large arrows indicating the direction the would-be patriot should go. A khaki hat, bearing the words

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Is this yours? and *Does this hat fit you?*
occupied a prominent position on a gas bracket.

England expects every 1st, 2nd, and 3rd year man
will this day do his duty.
Glorie aux Allies.
Don't sit by this fire, get up and join.
Don't study diagrams, study maps.
Cut up live Germans, not dead Englishmen.

are typical of the messages, some of which were executed with a considerable amount of skill.

"A wooden anatomical model of a man was adorned with the words, 'Why are you not in khaki?' written on his chest, and an excellent sketch of Lord Kitchener had attached to it the words, 'Men, and still more men, till the enemy is crushed.'

"A budding artist had executed a sketch of a Tommy, and demanded to know, 'Would you like to look like this?' The retort, 'Not for worlds,' was evidently the work of a humorist. A photograph of the room taken by one of the students will, no doubt, be treasured in years to come.

"The culminating point, however, was the speech by the Dean to the students. 'Medical students are not shirkers,' said the Dean—a statement which was decidedly to the students' liking, for the theatre fairly shook with the applause which greeted this remark.

"The meeting ended with a strong appeal to the eligible men to join, and the cheers for those who intended to put this into practice left little doubt that for some time to come the hospital would be very short indeed of first, second, and third year men."

It is, of course, since this article was printed that the new doubts have been cast upon the student's duty. There appears on consideration, however, less real cause for doubt. The authorities may not know the requirements of the country, the medical student knows still less; but in his ignorance it is well for him to reflect that the services of the requisite number of officers may not be obtainable elsewhere. He cannot run the risk of leaving his country short of officers. If he be wrong, if the country suffer hereafter from lack of doctors, the mistake will be upon the heads of the Government, who have asked us to make a decision without giving sufficient material to do so. Unless the Government issue more definite instructions within the next fortnight, the student ought to go. He should *not* go as a private, but as an officer. If he cannot obtain a commission he should stay at the Hospital. Moreover all those who remain at the Hospital, whether of the first or fifth year, should, without doubt, obtain some elementary military training by joining the O.T.C. We would urge, however, the necessity which exists for

The Dissecting Rooms on "Derby Day," November 5th, 1915.

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filling up the ranks of the profession, and those who have sons who, through some slight physical defect, are unable to join the Army, let them remind their sons that a slight defect would not hinder them from becoming valuable assets to their country in the medical profession.

PAUL BOUSFIELD.

THE WORK OF A CAVALRY FIELD AMBULANCE.

By MAJOR H. NORMAN BARNETT,
Commanding 3/2nd South-Western Mtd. Brigade Field Ambulance.

THE work of a mounted brigade field ambulance is perhaps the most interesting and exciting that the medical service of the British Army has to offer.

The ambulance forms an integral part of a brigade and is the highest authority on all matters appertaining to its branch of the service in the brigade.

All officers attached to units other than medical are under the jurisdiction of the C.O. field ambulance on all matters other than disciplinary, and though they may be appointed by the O.C. under whom they serve, they render all reports on special matters to the O.C. field ambulance, who is their Commanding Officer.

The usual procedure in action is that the ambulance is divided into tent and bearer sections, the former of which establish a temporary hospital of fifty beds some five miles behind the firing-line. The bearer section goes forward and gets into touch with the regimental attached R.A.M.C. Officer at his regimental aid post when the cavalry are engaged in *reconnaissance*.

From the aid post they will move cases in light wagons to the temporary hospital.

When the cavalry are engaged in concentrated action the regimental attached R.A.M.C. Officer moves forward with his regiment, and the ambulance collects the wounded from the field of action and evacuates them to its base; or the cases may be sent back to a heavy ambulance *rendezvous*, the latter transferring the cases to the ambulance operating base, the light wagons returning to the regimental aid post or to the field of action, as the case may be.

Professional work for officers consists of emergency operations and quick evacuation of wounded to the lines of communication. It does not burden itself with chronic cases, as it is a highly mobile force and must be ready to move forward at the shortest possible notice in conjunction with the cavalry brigade.

The present war has seen many alterations in procedure, and it frequently happens the general idea outlined above cannot be followed. This is especially so with regard to the pitching of the operating tent and the establishment of the hospital.

Very frequently it is an unwise procedure, especially on the part of a mobile force, to pitch any tents or make any more or less permanent arrangements. It would interfere with its rapid movements.

Under these circumstances it would often be necessary to use heavy ambulance wagons as improvised operating shelters and to move the wounded in them from place to place as required, especially if the cases are such as can soon be returned to the firing-line.

Should a forward movement be carried out in the present war, which there is no doubt there will be in the future, there will be a larger scope and more exciting work for this branch of the Service.

THE NATIONAL GUARD AND ST. BARTHOLOMEW'S HOSPITAL.

IN the event of further air raids on London, the hospitals will not be found unprepared, but there is probably no institution at which more thorough precautions have been taken than at St. Bartholomew's. The scheme in operation at that Hospital originated with the 1st Battalion of the City of London National Guard, whose Commandant, Colonel Cobbett, has made arrangements for a detachment of the Guard to attend at the Hospital every night.

THE GUARD ARRIVES.

At seven o'clock every evening sixty members of this unit arrive at the Hospital, and at eight o'clock they are reinforced by sixty more. The first sixty remain on duty until nine o'clock, and those who come at eight stay till midnight, so that between the hours of eight and nine there are 120 men on duty, and should news be received that a raid is expected, the whole force would remain on duty until their services were no longer required. The duties of the guard are very clearly defined, and the men are prepared for them by regular drills. It may be assumed that in the event of a raid on the Hospital one wing only would be hit by a bomb, in which case the maximum number of patients who would have to be removed is estimated at sixty. The work of removing them would be done by the members of the National Guard on duty, and for this purpose every man is provided with an ash stretcher pole.

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REMOVING THE PATIENTS.

The cases that would require removal are divided into three classes—namely, (*a*) those in bed who cannot walk or be carried; (*b*) those who can be carried on the back, or by bandy chair; (*c*) those who can walk.

The mattresses of the first group at all times have under them a special canvas sheet with a wide hem on each side through which poles can be passed, thus forming a stretcher. A supply of these sheets is provided in each ward, and it is the duty of the sister to see that one is placed under the mattress of every bed occupied by a patient who is too ill, or is otherwise unable to walk. Each of these beds is indicated by a crimson tape, so that the stretcher-bearers would know at a glance which patient they had to remove on the improvised stretchers. The second and third group would be directed and aided to leave the wards by the emergency staircases at the ends of the wings while the stretcher cases were being removed by the main staircase.

The destination of the patients on removal from a wing would depend upon circumstances; it would either be to another wing or to the surgery. In the event of the removal of patients becoming necessary, the sisters are instructed to see that all doors giving access to the wards and to the emergency staircases are opened.

To give a better idea of how precise the arrangements are, it should be added that each night printed forms are filled in showing the number of patients on each floor of each of the wings. These are in the following form, but, of course, much larger:

NUMBER OF PATIENTS TO BE REMOVED FROM WARDS.

(*a*) by stretcher; (*b*) requiring help.

First floor:

	Name of Wards.					
	On Right.			On Left.		
		(*a*)	(*b*)		(*a*)	(*b*)
EAST WING	Pitcairn ...			Hope ...		
SOUTH WING ..	President...			Mark ...		
WEST WING ...	Annie Zunz			Henry ...		
					(*a*)	(*b*)
CASUALTY WING.....		Lucas				

It is fervently to be hoped that such a tragedy as the dropping of a bomb on St. Bartholomew's will never occur, but the authorities have acted with great wisdom in making these admirable arrangements. Rumours that Zeppelins are about are not infrequent, and it needs no effort to imagine that such reports, notwithstanding that they are generally untrue, have a disturbing influence on those whose duties lie in the Eastern Counties. But there is certainly much comfort in the knowledge that six score trained men are keeping watch and ready to help at the first signal of danger. It also gives a sense of security to hear the tread of the sentries as they walk the quadrangle. Should an official notice be received at the Hospital that an air raid is expected the sisters will be informed, so that they can disregard all unfounded rumours. Either Captain Girling Ball, the medical officer in charge of the military wing, or Mr. Hayes, the chief resident administrative officer, is always on duty in the Hospital to receive any warning, so that there will be no delay in taking action.

In addition to utilising the services of the National Guard, it need hardly be said that the Hospital authorities have made supplementary arrangements for dealing with outbreaks of fire. For instance, there is a Hospital fire brigade under the direction of the resident fireman; and there is also a volunteer fire brigade of students. Further, the nurses are practised in the use of hand-pumps, and the Hospital is very adequately provided with electric fire alarms, fire hydrants, hose, and chemical extinguishers. The arrangements are that upon an outbreak of fire information is given to the porter, who communicates with the London Fire Brigade, and a horn is sounded in the square to call up the Hospital fire brigade. In the case of an air raid the services of the London Fire Brigade might not be immediately available, and if the Hospital were struck by incendiary bombs these arrangements might be inadequate. Hence the wise policy of the authorities in availing themselves of the services of the National Guard. The action taken at St. Bartholomew's is recommended to all hospitals in the Zeppelin zone.

[Reprinted, by kind permission of the Editor, from the *Hospital*, November 20th, 1915.]

A SEVERE CASE OF DYSENTERY TREATED WITH ANTIDYSENTERIC SERUM (LISTER'S).

By C. DE CHANVAL PELLIER, Lt., R.A.M.C.,
H.M.H.S. "Salta."

THE case described below is one of severe dysentery, similar to many others to be seen on every trip which our hospital ships make from Gallipoli, but I have selected this case to write a few notes on, because it is so very typical of the disease as we see it out here.

Private E—, æt. 20, R.A.M.C., admitted to this ship on October 21st as a stretcher case. Attached to him was a label stating that he had dysentery, that temperature was 102° F., and that he had been given emetine, gr. $\frac{2}{3}$.

On admission the patient was very blue, cold, and collapsed, and was treated at once with hot bottles, blankets, and a hot drink. He gradually became warmer and less collapsed, but his pulse still continued to be very weak.

On the morning of the 22nd he presented the typical

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picture of a severe case of dysentery, and the stools were very frequent and consisted of blood and slime.

I gave him a hypodermic injection of ℞ emetine, gr. ss + liq. strychnine ♏iv. In the evening I again gave him an injection of ℞ emetine, gr. ss, followed later by morph., gr. $\frac{1}{4}$, administered hypodermically.

The stools now contained much less blood and were of a green colour.

October 23rd.—The patient had obviously lost ground. The pulse was very weak and uncountable, the breathing gasping and irregular, and he was unable to move himself in the bed. He looked thoroughly toxic.

I gave him 20 c.c. of Lister's antidysenteric serum at 10 a.m., and, as his pulse was very bad, at 2 p.m. strychnine, gr. $\frac{1}{40}$. There was some improvement in his pulse after this was injected.

The patient remained in a profoundly collapsed condition for the next twenty-four hours, passing urine and fæces unconsciously, and it became increasingly difficult to get him to take nourishment.

October 24th.—The morning temperature was 97·4° F., but the stools, though still passed unconsciously, contained less blood.

In the evening of the 24th the patient's temperature rose to 100·2° F., and from this time his condition gradually improved.

With regard to the further treatment of this case, the patient was given morphia, gr. $\frac{1}{4}$, each evening to relieve his pain and to obtain sleep.

The feeding of the patient from October 22nd to 26th consisted of small quantities of albumin water, egg-flip, jelly, brandy, and champagne, given every two hours.

On the 27th I placed him on a milk diet, but still continued the stimulants.

The patient was landed at the base on the afternoon of October 28th, and though he still had a good deal of diarrhœa he was steadily gaining strength, and his general condition appeared to be improving.

To add a few facts which have struck me in connection with these Peninsula dysenteries, of which this ship has carried 855 cases, sent on as such, besides a large number of cases which were sent on as diarrhœa with blood and mucus, etc., of which I have not the number.

Most of the cases came to us having had ol. ricini and injections of emetine on shore, so I "carry on" on the following lines in straightforward cases:

A saline purge (soda sulph.) each morning until the tongue is clean, and inject emetine hypodermically at the rate of gr. j per day, given as follows:

In the morning ℞ emetine, gr. ss, + liq. strych., ♏iv. At night ℞ emetine, gr. ss, with or without brandy, ♏xx.

If, at the end of thirty-six hours, the case does not seem to be improving, I inject 20 c.c. of antidysenteric serum into the subcutaneous tissues of the chest and stop the emetine.

I also stop the emetine if the pupils become greatly dilated, if there is much irregularity of the pulse or marked præcordial pain.

Usually the blood disappears from the stools on the third day.

After this stage, or before it is reached, in severe cases, I give morphia hypodermically (gr. $\frac{1}{4}$ to gr. $\frac{1}{2}$) as required to relieve the pain, tenesmus, and strangury.

I am convinced that the morphia should be given early, and not as a last resource when the patient is broken-down and the heart is failing.

The effect of a single injection of morphia is very prolonged, and there is no need to repeat the dose until the pain returns with severity.

Other points to be observed in the treatment of these cases are:

(1) That they require all the fresh air that can be given them, and that they bear cold much better than a close, stuffy atmosphere.

(2) The necessity for scrupulous cleanliness—a very difficult task, especially when the patients are passing their stools involuntarily; the vitality of their tissues is so much lowered that they develop bedsores very readily. Packing is essential in these cases.

With regard to the feeding of these patients, one would naturally like to start these cases on a fresh milk diet—an absolutely impossible thing; so one is driven back on to working with as suitable a light diet as resources will allow—*i. e.*, tinned milk, cereals, egg flip, broths, with albumin water for the worst cases. Tea and cocoa are not well borne by them, but small doses of brandy and champagne can often be retained when it is impossible to get the patient to take anything else, and, as the disease is usually of short duration in its acute stage, there can be no objection to the moderate use of stimulants.

Hot-water bottles are of great use, both to relieve pain and to combat the cold collapsed condition.

A CASE OF RECURRING VOLVULUS.

By S. W. ISAACS, M.R.C.S., L.R.C.P.

AS cases of volvulus are rare and have a very high mortality, I think the following to be one of extreme interest, since on two different occasions the patient has had a volvulus, the first of her cæcum and the second of part of her small intestine.

The patient, Annie N—, æt. 54, a theatre cleaner, awoke on October 19th, 1915, with abdominal pain, which was at first a little more marked on the right side below the umbilicus but which soon became generalised. The pain was not very severe and was accompanied by a feeling of

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"tightness and much flatulence." The patient's bowels had been opened the previous day, but they were now unopened, and she was unable to pass any flatus, although she made frequent attempts to do so. There was no nausea or vomiting. On October 20th the pain was more severe and the distension more marked. In the evening she vomited a little "green bitter fluid." She was still unable to pass flatus, and the bowels were still unopened, although she had taken castor oil.

On October 21st, the patient vomited "green bitter fluid" three times and was still unable to pass flatus. She gave herself an enema, but only very little fæcal material was passed. As she was getting more and more distended she came to the Hospital and was admitted. She looked ill and appeared to be in much pain, but her general condition was good. Her temperature varied from 97·8°–99·8° F., and her pulse from 84–94. Her abdomen was very distended, especially to the left of the umbilicus, and moved poorly but uniformly on respiration. There was no respiratory distress. Peristalsis was distinctly visible. On palpation, there was a little rigidity and tenderness all over the abdomen. No definite swelling could be felt. The abdomen was resonant all over, but on the left side, where the distension was most marked, there was a drum-like note on percussion. Rectal examination revealed nothing abnormal. An enema was given, but was returned clear.

An operation was performed the same evening by Mr. Harold Wilson. The abdomen was opened in the middle line below the umbilicus, and distended coils of small intestine presented. When these had been displaced, a large, enormously distended, very tense piece of intestine was found, lying more to the left than to the right of the middle line and chiefly occupying the umbilical, left lumbar, and left hypochondriac regions. Its limits, however, could not be defined, partly on account of its size and partly because it was very tense and appeared as if it would easily burst. A portion of it was surrounded by gauze, a trocar and cannula were inserted, and a large amount of gas and about two pints of very offensive liquid fæcal material escaped. The hole was then closed by a layer of Lembert's sutures.

The swelling, the nature of which could now be more thoroughly investigated, was found to consist of a piece of intestine about 9 in. long and 3–4 in. in diameter, which had twisted round its mesenteric attachment. The mesentery was about as long as that of adjacent small intestine. The affected portion of intestine was congested but showed no signs of gangrene. At its proximal end it was continuous with distended small intestine, and at its distal end it was lost among adherent coils of small intestine, which were closely matted together and not distended. The twisted intestine had no appendices epiploicæ or longitudinal muscular bands. No large intestine was seen. The volvulus was untwisted, a Paul's tube was inserted, and the abdomen closed as far as possible.

The patient vomited a little after the anæsthetic, but next morning she felt much better. A large amount of liquid fæcal material escaped from the Paul's tube, and on the fourth day an enema was given with a very good result. The amount of fæcal material that escaped from the tube now began rapidly to diminish, and on the eighth day the bowels acted normally. The tube came out on the ninth day. The fæcal fistula gradually got smaller, but continued to discharge liquid fæces, especially so when the patient drank much. For another three weeks her bowels were not opened naturally except by enemata, but the result from these was always very satisfactory. On November 18th the patient was able to get up, and appeared to be very well. On November 21st her bowels again commenced to act normally without enemata, and since then the fistula has got considerably smaller, and scarcely any fæcal material now escapes from it. The fistula, at the time of writing, is about $\frac{1}{8}$ in. in diameter. The patient is now able to get up every day, and as soon as the fistula closes will be able to return to her work.

In January, 1914, the same patient was in President Ward with a volvulus of her cæcum. Her symptoms then were almost identically the same as they were on the present occasion. When admitted there was a history of flatulence, constipation, and increasing distension of six days' duration —a somewhat longer history than on the present occasion. The abdomen showed visible peristalsis and was markedly distended and resonant, but there was again not much tenderness or rigidity. When the abdomen was opened the cæcum was found to be twisted on its mesentery and enormously distended. The twisted mesentery was untwisted, and fæcal material and flatus were allowed to escape *viâ* the appendix before it was removed and its stump invaginated into the cæcum. The abdomen was then closed, but, unfortunately, later on a portion of the abdominal wall sloughed and a fæcal fistula resulted. The patient rapidly recovered, and Mr. Waring operated to close the fistula. The operation was successful, and the patient left the Hospital feeling very well.

I have looked up the records of the cases of volvulus in this Hospital during the last twenty years, and have found in all 24 other cases. Out of these 21 died and 3 recovered, giving a mortality of nearly 88 per cent. It is thus very rare for a patient to recover from a single attack. It is the only case of recurring volvulus that I have been able to find in the Hospital records. Cases of recurrent volvulus are, I think, on record, but they are very rare, and usually occur soon after the first attack and in the same place. In this case the second volvulus occurred one year and nine months after the first, and the site of the volvulus was different on each occasion.

From the records of the 24 cases I have found, the causation of a volvulus, especially the exciting cause, seems very obscure. In no case has the volvulus been

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attributed to a fall, a strain, or other sudden movement. In the case above described, however, the patient felt quite well when she went to bed, but awoke with pain. It is conceivable that the volvolus resulted from her turning over in bed.

In 5 cases there is a history of chronic constipation previous to the onset of symptoms, but this cannot be a very potent etiological factor, because normally about five in every twenty-four people are constipated. I asked twenty-four people, excluding those suffering from febrile conditions, in the surgery one morning whether they were constipated or not—seven said they were and seventeen said they were not.

The commonest predisposing cause of a volvulus is a congenital defect, namely, the presence of a meso-cæcum, a meso-colon, or an abnormally long mesentery. This being the case, one would expect cases of volvulus to occur early in life, but the following figures do not bear this out:

Under 20 years	2 cases.
20–30 „	1 case.
30–40 „	6 cases.
40–50 „	3 „
50–60 „	7 „
60–70 „	4 „
Over 70 „	1 case.

Volvulus appears to be commoner in males than in females. In the 24 cases, 16 were males and 8 females.

It is more common in the small than in the large intestine:

Small intestine	13 cases.
Large intestine	11 „
Cæcum	7 „
Sigmoid	3 „
Position not stated	1 case.

All occurring in the small intestine proved fatal.

Of those occurring in the large intestine, the following recovered:

Cæcum	1 case.
Sigmoid	1 „
Position not stated	1 „

All the cases, except one, were due to twisted mesentery. In the other case the bowel was twisted on itself. It occurred in the large intestine (position not stated) and the patient recovered. Nineteen cases were discovered by operation and 5 cases post mortem. In 20 cases a volvulus was the only abnormal condition found; in 2 cases the appendix was inflamed; in 1 case a pyosalpinx was found, and in 1 case an annular carcinoma. The cases in which the appendix was inflamed are interesting because in one of them the volvulus was in the small intestine, extending to the ileo-cæcal valve. There was a four days' history of absolute constipation, and the abdomen was resonant, especially in the right iliac fossa, where there was a little tenderness. A diagnosis of appendicitis was made, and the appendix, which had perforated, was removed. The patient died, and post mortem the volvulus was found. From the symptoms it appears as if the volvulus existed from the commencement of the illness, and as the cæcum was not involved it seems as if the appendicitis may have caused the volvulus. In the other case the whole of the cæcum was involved, and part of it showed patches of gangrene. The appendix also was gangrenous, and thus it seems as if the virulent bacteria in the twisted cæcum had invaded the appendix. This being so, the volvulus caused the appendicitis.

In the majority of cases when an operation has been performed, the volvulus has, if practicable, simply been untwisted. In the majority of cases, however, it has first been necessary to puncture the distended intestine in order to allow gas and fæces to escape.

In none of the cases has a diagnosis of volvulus been made. In 1907 Mr. Harold Wilson published a paper on "A Case of Migration of the Cæcum," * and in it laid stress on certain symptoms which might suggest the possibility of a volvulus occurring in part of the large intestine. Among these he mentioned a subacute onset of partial intestinal obstruction, vomiting which was rarely fæculent, and the presence of a visible globular and tympanitic abdominal tumour.

In the majority of the 24 cases the intestinal obstruction was not at first complete, a little fæcal material being, as a rule, either passed normally or by means of enemata. The average history before the patient came to the Hospital was of about five days' duration, and the vomiting was very rarely fæculent. In 3 cases it is stated that a swelling was seen in some part of the abdomen over which the note was more tympanitic than elsewhere.

I am extremely grateful to Mr. Harold Wilson for his kind permission for me to publish this case, and to Mr. Waring for allowing me to make use of the former notes.

FOREIGN BODY IN STOMACH OF DOG; GASTROSTOMY; RECOVERY.

By GERALD SMYTHE, M.B., B.C.Cantab.,
Late House Physician, St. Bart.'s Hospital.

A SMALL mongrel dog, æt. 4 months, was brought up to me on the evening of January 22nd, 1913, at the General Hospital, Bristol. The story was that he had swallowed a hat pin a week previously. The dog was evidently very ill, and, as nothing definite could be felt by palpation, an X-ray photograph was taken (see picture) under chloroform.

If nothing were done it was obvious that the dog would die, so we decided to operate at once. The dog was still

* *St. Bartholomew's Hospital Reports*, vol. xliii.

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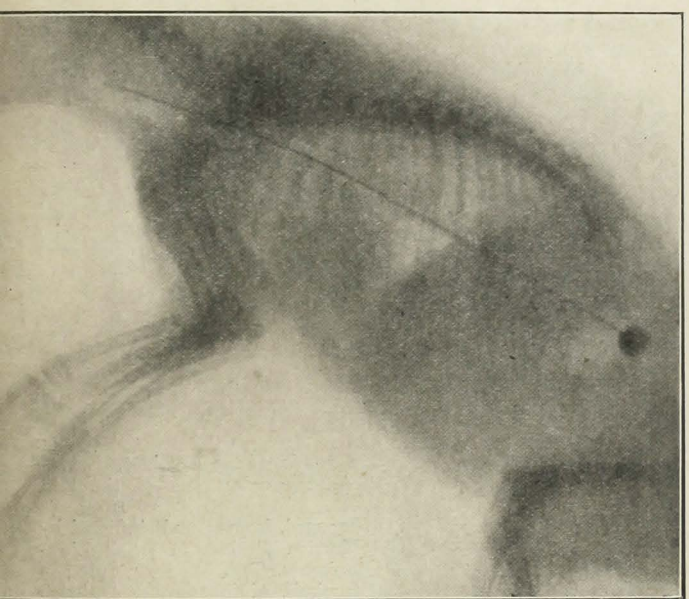
under the influence of the anæsthetic. The abdomen was shaved and painted with iodine, and a one inch incision made, starting above at the ninth right costal cartilage and extending downwards. The incision was deepened through the rectus muscle and peritoneum. A finger was inserted into the wound, and the hard, round head of the pin felt in the stomach, which had been displaced downwards and to the right; the point of it could be felt in the right side of the neck. A small incision was made into the stomach, the head of the pin isolated and the whole pin withdrawn through the stomach opening. The pin was fully nine inches long and had a large black head—such as is usually worn in the hats of women of the lower classes.



HAT-PIN IN THE STOMACH OF A DOG.

A purse-string suture closed the aperture into the stomach, and the peritoneum, muscles and skin were sewn up separately in the ordinary way. A binder was placed over the dry dressing, and $\frac{1}{12}$ gr. morphia injected subcutaneously. The patient was placed in a basket and sent to the ward, where he was kept for ten days, making an uninterrupted recovery. I saw him every fortnight for several weeks; he thrived exceedingly and showed no ill effects from his experience.

STUDENTS' UNION.

A MEETING of the Council was held on November 4th.

Memorial to the late Dr. W. G. Grace.—The following report of the Sub-Committee *re* the memorial to the late Dr. W. G. Grace was received and approved by the Council:

"The Sub-Committee thought that the memorial should take the form of an engraving framed in oak, with a suitable inscription.

"That this memorial be placed in the Abernethian Room.

"That the students, staff, and Old Bart.'s men be asked to subscribe towards the cost of the memorial.

"The following amendment was proposed and carried: 'That if any more money is available, the Committee be asked to consider any further form of memorial.'

"It was also carried that the Warden and Secretary be asked to be responsible for the means of collecting the subscriptions."

Election of Secretaries.—Mr. Powell was elected as Senior and Mr. Watson as Junior Secretary.

ABERNETHIAN SOCIETY.

THE following officers have been elected for the present year:

Presidents.—Mr. S. W. Isaacs, Mr. P. H. Wells. *Vice-President.*—Mr. S. L. Green. *Secretaries.*—Mr. E. B. Barnes, Mr. C. H. Terry.

NOTICE.

Major McAdam Eccles has kindly undertaken to deliver the Mid-Sessional Address on Thursday, January 6th, at 8.30 p.m. His subject will be "The Little Things of Medicine and Surgery." The address will be illustrated by the epidiascope. It is hoped that as many past and present Bart.'s men as possible will endeavour to be present and bring their friends with them. The nursing staff has been invited.

CORRESPONDENCE.

"THE BARON."

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

SIR,—It is with feelings blended of amazement, indignation, wounded *amour propre*, and humiliation, that I read in this month's JOURNAL that on October 2nd, 1915, Sir Anthony Bowlby "became aware, for the first time, that he had ever been known as 'The Baron.'"

You, sir, will appreciate the depth of my composite emotions when I remind you of an editorial by one of your predecessors which appeared in the JOURNAL of July, 1911. I quote from memory; but you will perhaps refer to your office files, and correct me if I am wrong. This official utterance, which took upon itself the authority of voicing the sentiments of the whole Hospital, said: "Sir Anthony's distinction has been long expected, and for years we have affectionately regarded him as 'The Baron' with such intensity of intelligent anticipation that no change seems to have occurred now that he *is* Sir Anthony."

To me the only lamentable conclusion is that our Sir Anthony could not have read the JOURNAL in those days, or that he must at least have sedulously avoided its ponderous editorials, whilst

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the editor of those days has for four years and four months been living in a fool's paradise fondly imagining that he treasured every word.

And now this fool's paradise has been disturbed. Verily another notable addition to be laid to the charge of this dreadful war!

I am, yours obediently,

ADOLPHE ABRAHAMS.

THE CONNAUGHT HOSPITAL, ALDERSHOT.
November 14th, 1915.

THE LATE DOUGLASS JAMES.

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

DEAR SIR,—I think perhaps your readers would be interested to know the circumstances under which Second Lieut. Douglass James, 2nd Battalion South Staffordshire Regiment, met his death. He was wounded during a most gallant attack on September 25th while leading his men in the advance on that date. He sustained a fractured femur as the result of a shell wound, and, though he was so badly wounded, betrayed no signs of pain, being unflinching to the last. While I was dressing his leg and splinting it he smoked a cigarette and gaily cracked jokes, and made even badly wounded men smile. He asked to be remembered to his old Hospital. I was very shocked to hear a few days afterwards of his death.

I remain, Sir, yours truly,

M. O.

EXAMINATIONS, ETC.

UNIVERSITY OF CAMBRIDGE.

The following degrees were conferred on November 29th, 1915:
M.D.—F. A. Roper, J. A. Nixon.

UNIVERSITY OF LONDON.

Third (M.B., B.S.) Examination for Medical Degrees. November, 1915.

Honours.—G. C. Linder (University Medal), distinguished in Medicine, Surgery, and Pathology.

Pass. Group II.—W. H. Dupre, P. O. Ellison.

CONJOINT BOARD.

Final Examination, October, 1915.

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

C. F. Beyers, G. K. Bowes, E. G. Dingley, N. G. El-Gawly, H. H. L. Ellison, C. L. Emmerson, S. C. W. Iredale, L. G. C. Ytriago, C. S. J. Kearney, S. R. Prall, H. E. Robinson, T. J. Taunton, P. H. Wells, W. R. Wilson.

L.M.S.S.A.

The Diploma of the Society was granted to F. H. Young.

APPOINTMENT.

J. M. Nicholls, M.R.C.S., M.R.C.P., appointed Acting Medical Officer and Public Vaccinator for the St. Ives District of the Penzance Union.

NEW ADDRESSES.

BRIGSTOCKE, P. W., The Old Rectory, Scole, Norfolk.
DAVIS, K. J. A., 24, Upper Berkeley Street, W.
HAYES, Major A. H., R.A.M.C., 86, Tombs Road, Lucknow, U.P., India.
HUGHES, Major W. Kent, A.M.C., 45, Weymouth Street, W.
TREWBY, J. F., 4, Duchess Street, Portland Place, W. (Tel. Mayfair 3950 and 1200.)

BIRTHS.

MARRETT.—On October 25th, at Merivale Sanatorium, near Chelmsford, Essex, the wife of H. Norman Marrett, M.R.C.S., L.R.C.P., of a son.

NEVE.—On November 18th, at 31, Dingwall Road, Croydon, the wife (*née* Elsie Pedley), of Clement Treves Neve, F.R.C.S., Lieutenant R.A.M.C., of a daughter.

WILLIAMS.—On November 17th, at 102, Lansdowne Road, Clapham, S.W., the wife of C. Williams, M.R.C.S., L.R.C.P., of twin daughters.

WOODWARK.—On November 2nd, at 38, Queen Anne Street, Cavendish Square, W., the wife of A. S. Woodwark, M.D., Temporary Lieut.-Colonel, R.A.M.C., of a daughter.

MARRIAGES.

DAND—SCRYMGOUR.—On November 18th, at Whitstable Parish Church, by the Venerable Brook Deedes, Archdeacon of Hampstead, assisted by the Rev. Hyla Holden, Vicar of Whitstable, the Rev. Robert Beaty Dand, Vicar of Brockham, Surrey, lately of St. Bartholomew's Hospital, E.C., and of Meadow Croft, Whitstable, to Nan, elder daughter of W. H. Scrymgour, Esq., and Mrs. Scrymgour, Mill Strood, Whitstable.

DYSON—CORNISH.—On November 20th, at St. Stephen's, Hampstead, very quietly, by the Venerable A. F. Sharp, Captain Ernest Andrews Dyson, M.B., R.A.M.C., elder son of Dr. W. Dyson, J.P., and Mrs. Dyson, of Westbourne Road, Sheffield, to Minnie, younger daughter of Mr. and Mrs. H. J. Cornish, of 2, Lawn Road, Hampstead, N.W.

DEATHS.

ARCHER.—On November 2nd, the result of an accident, Ernest George Archer, M.R.C.S., L.S.A., the eldest son of the late George Archer, of Feltwell.

MARSHALL.—In Gallipoli, on October 23rd, from wounds inflicted by a sniper on October 21st, John Morrice Maitland Marshall, Lieutenant 1/4th Battalion, Essex Regiment, T.F., aged 24, only son of Mr. and Mrs. J. Maitland Marshall, of the Grove, Dulwich Village, S.E.

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 AND SON, *Bartholomew Close. (Temporary offices: 76, Newgate Street, E.C.)* MESSRS. ADLARD *have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.*

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St. Bartholomew's Hospital Journal.

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

VOL. XXIII.—No. 4.] JANUARY 1ST, 1916. [PRICE SIXPENCE.

CALENDAR.

Mon., Jan.	3.	—D.P.H. (Conjoint) Exam. begins. Second Exam. of Soc. of Apothecaries begins.
Tues., ,,	4.	—First Exam. Conjoint Board begins. Dr. Drysdale and Mr. Rawling on duty.
Wed., ,,	5.	—First Exam. of Soc. of Apothecaries begins.
Thur., ,,	6.	—**Winter Session resumes.** Second Exam. Conjoint Board begins.
Fri., ,,	7.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Sat., ,,	8.	—Cambridge Lent Term begins.
Mon., ,,	10.	—Exam. for Matriculation (London) begins.
Tues., ,,	11.	—Final Exam. Conjoint Board (Medicine) begins. Dr. Garrod and Mr. Waring on duty.
Wed., ,,	12.	—Clinical Lecture (Surgery). Mr. D'Arcy Power.
Thur., ,,	13.	—Final Exam. Conjoint Board (Midwifery) begins.
Fri., ,,	14.	—Oxford Lent Term begins. Final Exam. Conjoint Board (Surgery) begins. Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine). Dr. Drysdale.
Tues., ,,	18.	—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., ,,	19.	—Clinical Lecture (Surgery). Mr. D'Arcy Power.
Fri., ,,	21.	—Dr. Drysdale and Mr. Rawling on duty. Clinical Lecture (Medicine). Dr. Drysdale.
Tues., ,,	25.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., ,,	26.	—Clinical Lecture (Surgery). Mr. Waring.
Fri., ,,	28.	—Dr. Garrod and Mr. Waring on duty. Clinical Lecture (Medicine). Dr. Calvert.
Tues., Feb.	1.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., ,,	2.	—Clinical Lecture (Surgery). Mr. Waring.
Fri., ,,	4.	—Dr. Morley Fletcher and Mr. Bailey on duty. Clinical Lecture (Medicine). Dr. Hartley.

EDITORIAL NOTES.

1916. MAY the coming year be fraught with good luck and improved conditions to the whole country, and to readers of the JOURNAL in particular. During this last year of war there have been many changes which have been duly noted in the JOURNAL from time to time—but to-day we realised how really inconvenient these changes are becoming. The Editorial chair having been shifted for the period of a week to a small village some fifty miles from London—we entered the village newsagents and ordered our morning paper. We were then informed that it could not arrive before 10 o'clock. Only 50 miles from London, and no paper to read at breakfast! *O Tempora* . . . !

* * *

The Christmas festivities in Hospital this year were exceedingly well organised, and, if possible, went off in a manner surpassing former years. It is not the way of a Britisher to show his mental disturbance when things are not altogether going his way, or in the way that he would like; it must be said in the Hospital, at least, that there was no semblance of pessimism.

It is on record that one of the "Tommies" started as early as four o'clock in the morning to give his views as to how the day was going to be spent, and it is true that as far as the soldiers were concerned merriment prevailed. After the usual preliminaries of the day, Father Xmas made his tour of the wards, surrounded by various troupes of the smaller inhabitants of the institution. After dinner early evidence of having had a good repast was forthcoming in the arrival of bands of soldiers decked in caps of paper in the Square, each provided with an instrument, trumpet, whistle, comb and paper, tin trays, and sticks, or other weapon; selections of quite unknown melodies rent the air.

As the day passed on a large number of troupes, who had offered their services, arrived. Those from the outside were brought by old friends of the Hospital, including Mrs. Le Breton, the "Roland Ramblers," the "Cherrohs," Miss Fletcher, Miss Fisher, Miss Castelle, and others who had not formed themselves into parties. From amongst the residents two excellent troupes masquerading under the titles of the "Dry Dressings" and the "Optimists," respectively, were provided, each vieing with the other to obtain the greatest respect of the audiences; it is difficult to say which party had the better of the other.

The wards were beyond description in the beauty of their decorations. Many colour schemes were devised, and in such

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a manner as to harmonise with the surroundings; the scene in each ward was a reminder of the many hours of work which had been put in by the sisters and nurses of the wards in order to make the occasion a success. It was almost impossible to refuse the proferred cup of tea in each of the twenty-eight wards, in order to survey the scene.

The National Guard, as usual, arrived at the Hospital on Xmas night to carry out their self-imposed duties as recorded in a past number of this JOURNAL. The occasion was, however, unique in that a special supper was provided for them, followed by a musical programme. This was carried out in the Abernethian Room. The Junior Staff joined the Guard in the latter part of the evening, and a large number of songs were got through.

* * *

The Faculty of Medicine of the University of London have appointed Professor F. W. Andrewes, F.R.S., as one of their representatives on the Senate for the remainder of the period 1915–19, to fill one of the vacancies caused by members of the Senate who have resigned on account of military duties abroad.

* * *

The annual Bradshaw lecture was delivered at the Royal College of Surgeons on December 20th, by Surg.-General Sir Anthony Bowlby. The subject being "Wounds in War." The comparison made between wounds in the present war and those of the South African war was by no means one of the least interesting items, in a lecture which throughout was of exceptional interest.

* * *

We have to record with very deep regret the death of Mrs. Mary Anne (Minnie) Griffith, wife of Dr. Walter S. A. Griffith, which sad event occurred on December 14th, at the age of 58, to the great sorrow of a large number of friends by whom she was held in the highest regard and esteem.

The late Mrs. Griffith was well known in London circles for the many charitable and other useful organisations with which she connected herself, in which sphere she will be greatly and sadly missed. In Hertfordshire she also had many friends and acquaintances, made by her geniality and kindly disposition, and by whom her death is much lamented.

TRIGEMINAL NEURALGIA.

A Paper read before the Abernethian Society.

By C. M. HINDS HOWELL, M.D., F.R.C.P.

PART I.

MR. PRESIDENT AND GENTLEMEN, — The term "neuralgia" signifies pain in the distribution of a particular nerve or nerves unaccompanied by any gross pathological condition of the nerve involved. It is by no means synonymous with "neuritis," although there may be, and often is, intense pain associated with this condition. Take, for instance, brachial neuritis, where the nerve affection is diffuse, or sciatic neuritis, where a single nerve trunk only is involved. In both these conditions the most severe pains are often experienced. But the pain of neuralgia differs materially in one particular from that experienced as the result of an inflammatory process involving the nerve—its onset and termination are both likely to be abrupt. Thus one of its most characteristic features is seen to be its paroxysmal nature. Periodicity is another characteristic during a bout of neuralgia, attacks often recurring at the same hour each day.

The causes of neuralgia are often quite obscure. In many cases a hereditary tendency seems to exist, whilst in others convenient but illusory toxic agencies are invoked to explain its origin and periodicity. Fatigue and emotional disturbance both seem sinister influences which in certain individuals will determine an attack; whilst "nerve strain" belongs nearly to the same category of exciting causes. What "nerve strain" exactly means is a question which I trust nobody here to-night will pursue with too relentless curiosity. Certain it is that, for example, the strain on visual accommodation imposed by uncorrected errors of refraction will often give rise to violent neuralgic attacks.

Nevertheless, in certain instances neuralgia arises from some quite definite lesion, which is not, however, primarily neuronic. Neuralgic pains in the head are very frequently caused by disease of one or other of the sinuses of the skull. Supra-orbital neuralgia is common as a symptom of frontal sinus suppuration, and neuralgia in the distribution of the second or third division of the fifth cranial nerve is often found consecutive to disease of the antrum or of the teeth. An exposed and inflamed pulp may cause wide-spread neuralgia involving the whole of the distribution of the fifth nerve. Supra-orbital neuralgia never occurs alone as the result of dental trouble; but I have noted in several instances that a temporal neuralgia has been associated with pyorrhœa, and has disappeared when the teeth have been adequately treated.

Seeing that neuralgic pains in the face are of common occurrence, it is important to distinguish between them, pains due to gross organic lesions affecting the fifth nerve, and true trigeminal neuralgia. There is no real difficulty in effecting this division, except in the early stages. Gross disease, which is commonly tumour, soon declares its true character by giving rise to sensory loss in the fifth area, with diminution or absence of the corneal reflex. It is, of course, often associated with weakness of muscles supplied by the fifth nerve, and with involvement of other cranial nerves. As an instance of this we may quote the cases of extra cerebellar tumour, where the seventh and eighth cranial nerves are evenly involved with the fifth, or in sarcoma of the base of the skull.

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I would like to emphasise the point that any sensory loss in the distribution of a nerve precludes the diagnosis of neuralgia.

In its early stages trigeminal neuralgia is almost always mistaken for a severe attack of ordinary neuralgia. The teeth early fall under suspicion, and by the time that cases come under my observation in private practice have almost always been extracted. This brings no relief, and the denture provided to replace them cannot as a rule be worn on account of the attack which their presence in the mouth usually produces.

I cannot pretend to do justice to the terrors of trigeminal neuralgia by any word picture. Victims of this terrible disease become emaciated, worn out mentally as well as bodily, and not infrequently suicidal unless relief can be obtained. I have known one or two cases who have developed morphino-mania as a result of their sufferings, and this eventuality should always be borne in mind by the medical man who may be tempted to bring relief by the syringe. On no account should morphia be given.

A peculiar feature of the disease is that its onset is usually followed by a more or less prolonged period of freedom from pain. In a lady, whom I have recently treated in the way I shall presently describe, a whole year passed between the first and second attack. Subsequent attacks are almost invariably more severe than the first, and the periods between them become progressively shorter till the paroxysms of pain occur daily. The pain, as I have said, is unbearable and if there is any doubt as to the diagnosis, one can almost certainly decide against the case being true "tic douloureux." At the height of the paroxysm the facial muscles often pass into spasmodic contraction. There may be lacrymation or salivation during the attack. A feature which is, I think, of diagnostic significance is furring of half of the tongue on the affected side.

Most of the cases occur in middle life or old age. The youngest patient that has come under my observation was in the fourth decade, and I do not know that any case under thirty years has been described. It is common for the disease to appear during the sixth and seventh decades, and two patients that I have seen recently were 80 and 81 respectively. Trigeminal neuralgia very rarely indeed affects the first or ophthalmic division of the fifth nerve alone. The third division is more frequently affected in the first instance than either of the other two branches, though the pain which was first confined to the lower jaw and side of the tongue is often found to extend during the progress of the disease to the other divisions. Fortunately bilateral disease is almost unknown. There is little that we can say as to the pathology of this condition. It seems clear that the seat of the disorder is not in the ganglion itself, since division of one or other of the three main trunks will bring complete relief of the symptoms for a time. When regeneration of the divided fibres has occurred the pain will almost certainly begin again. Only by effectively preventing such regeneration can success be obtained.

It has been suggested that the disease is set up by a septic process involving the dental nerves first of all and gradually spreading along the nerve towards the ganglion, but I know of no proof that this assumption is correct. I have examined the ganglion itself in six cases; of these four had been successfully removed by operation, and the other two were cases which came to autopsy as the result of the operation. I do not wish to give the impression that this represents the average mortality from operation, because that would be giving an entirely erroneous impression. The mortality, according to the earlier operation results, was 15 per cent. (Krause), but has now been reduced to about 4 per cent. (Horsley). In none of the ganglia which I examined could I find any evidence of definite gross disease. In some cases there seemed to be an increase in the fibrous tissue between the bundles of nerve-fibres and ganglion-cells—but this was not sufficiently marked to amount to what could be called a definite fibrosis. The cells in some cases stained rather darkly, and in others showed a considerable amount of pigment as being present, but such appearances are within physiological limits. I have not had an opportunity of examining the main nerve trunks, or rather it would be more correct to say that in the two post-mortem cases I omitted to do so.

Now as to treatment of trigeminal neuralgia. The application of electricity, injection of the peripheral foramina, supra-orbital, infra-orbital, and mental, with various chemicals, and, indeed, division of the nerve-trunks at their exit from the skull, have not produced really satisfactory results. In the latter case the nerve-fibres were found to degenerate and the pain in most cases returned within varying periods. In the cases of the nerve divisions there is of necessity the formation of much scar-tissue, intensified by the hæmorrhage which is bound to occur in operations for nerve-section, owing to oozing from the numerous venous plexuses which surround the nerve-trunks at the base of the skull. This fibrosis renders a second operation of a similar kind difficult or impossible, and as the pain almost always returns mere division of nerve-trunks has now been practically abandoned.

With regard to drugs, many have been tried and all have failed to produce permanent effects. The most successful drugs have proved to be tinct. of gelsemium combined with butyl chloral hydrate. It is, however, only when toxic effects are produced by pushing the gelsemium that any result can be obtained in the more severe cases. This obviously limits the usefulness of the drug. It is stated to give the best results in neuralgia of the first division, but this, as we have seen, is rarely involved alone in trigeminal disease, and the cases in which improvement is said to have occurred were probably not true trigeminal neuralgia, or only the disease in its mildest early stages.

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Owing to the unsatisfactory results of treatment referred to, Krause devised his operation for removal of the Gasserian ganglion. If this is successfully accomplished the disease will be cured, but the operation is a difficult one, and in any but the most skilled hands, dangerous, and often unsuccessful. I have on two occasions examined pieces of dura mata which were said to represent the Gasserian ganglion, but in which no trace of nerve-tissue was to be found. Of course no relief was afforded by the operation.

Even if successfully performed, there are two most undesirable complications which may arise. One of these is ulceration of the cornea on the affected side. This has been quoted as an illustration of the trophic function of the nerve-cell, but in reality this assertion cannot be accepted as proved, for the normal mechanisms of defence against external injury have been rendered powerless by the anæsthesia of the cornea, with loss of its reflex, and disturbance of the normal tear secretion produced by the operation. To obviate this ulceration the eyelids are usually stitched together, for a time at any rate, after the operation. The second complication is injury to the motor root of the fifth, which is often damaged in removing the ganglion. As a result, the muscles of mastication become paralysed and atrophic, producing an unsightly disfigurement and much inconvenience to the patient. Mr. Hutchinson merely removes that part of the ganglion which gives origin to the second and third divisions, and leaves the inner and upper portion and the first division intact.

I have seen a case in which an incomplete removal of the ganglion has been performed, though not, I think, intentionally, in which much pain was subsequently complained of, and which remained resistant to all treatment.

Schlosser in 1903 devised the plan of injecting the main trunks of the fifth nerve at their exit from the foramina at the base of the skull with alcohol, the strength used being 80 per cent. This produces anæsthesia in the distribution of the nerve injected and relief from the pain. This relief lasts until the nerve-fibres have regenerated, a period on an average of about ten months in successful cases. It is comparatively easy to inject the third division at its exit from the foramen ovale, but more difficult to hit off the second division outside the foramen rotudum. Moreover, the optic nerve lies within $\frac{1}{2}$ in. of the second division of the fifth at this point, and may be injured if the alcohol be unsuccessfully placed. The objection to this method of procedure is that the nerve-fibres regenerate and further injections become necessary. If the operation has been performed in the ideal manner, a second injection should be no more difficult than the first, but, as a matter of experience, there is often found scar tissues around the nerve, formed partly from alcohol which has been placed outside the nerve sheath, and partly from organisation of effused blood, which almost always takes place to a greater or less degree. Wilfrid Harris has improved on Schlosser's method by injecting the ganglion itself, with the object of destroying its nerve-cells and thus preventing any regeneration of nerve-fibres. He does this by attacking the foramen ovale from the sides of the cheek. If you look at a skull with lower jaw attached, you will see that the foramen ovale presents from this angle a small oblique opening, and it is sometimes exceedingly difficult to enter the needle through this, and unless the patient is conscious it is almost, if not quite, impossible to be certain that the needle is actually in the ganglion itself. It is really impossible to do this injection without anæsthesia of some kind. Eucaine injected hypodermically is useless, as the most painful process occurs when the needle hits the floor of the skull. Harris uses morphia gr. $\frac{1}{3}$, and hyoscine gr. $\frac{1}{150}$, given twenty minutes before the operation. In my experience this is often successful, but in some nervous people it is not, and I now almost always carry out the injection under a general anæsthetic. I am able to do this because, in co-operation with E. G. Stanley, I have devised a route which enables me to tell with certainty when the needle has passed through the foramen ovale. I attack the foramen from in front and below, thus having its whole circumference open, instead of the oblique opening which the approach from the side offers. I enter the needle through the cheek in the naso-labial fold, just opposite the position of the last molar tooth in the upper jaw. A stilet points beyond the point of the needle, and is not withdrawn till the foramen has been entered. The needle is passed upwards and backwards at an angle of about 45° with the vertical till it strikes the sphenoid bone above the foramen. That is the first point to make for. Next the point of the needle is lowered, trial probes being made against the floor of the skull till the foramen is found. Its edges are then defined, and the needle now pushed through the foramen into the cavum Meckelii. The stilet is then withdrawn. It does not follow that the point of the needle is within the ganglion, it may be lying outside it. The position is now tested by injecting a few minims of sterilised saline, when it is easy to judge whether the needle is within the ganglion or outside it by the resistance experienced. If there is no resistance to the flow of saline the point of the needle is shifted somewhat until the necessary resistance is met with. The syringe with saline is now changed for one containing 90 per cent. alcohol, and 2 c.c. are injected slowly, a few minims at a time, into the ganglion, the point of the needle being moved systematically through the ganglion. The needle is then withdrawn, and the small puncture wound closed with collodion and gauze. The exact distance from the skin at which the foramen will be found differs in individuals according to the amount of fat present, but if the needle is directed in the first instance towards the sphenoid bone above the foramen there will be no danger of going too far. When the foramen has been found the needle may be pushed a full centimetre within it without

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fear of doing any damage whatever. The internal carotid artery, unless very abnormally placed, does not come in the line of fire, and there is no fear whatever of damaging the cavernous sinus which is more likely to be injured when the injection is made from the side. The results obtained by this method are very satisfactory, but it must not be assumed that they are always successful. Unless considerable anæsthesia be produced in the affected area the relief obtained will be of comparatively short duration. Sometimes when the alcohol has been placed around the ganglion or nerve trunk temporary relief will be obtained, although no anæsthesia has resulted from the injection, but it is much wiser to inject again at once for such relief will be short-lived. I have done this injection on nine cases this year. Of these six have been successful—that is to say, lasting anæsthesia was produced and there has so far been no recurrence of pain. One case has been a complete failure; I have been unable to obtain any anæsthesia, and the woman has only been improved for a very short time. Another case was one in which the Gasserian ganglion had been removed to a considerable extent by operation, and in which there was already fairly wide special anæsthesia. I think this hardly a fair case to include in the series, but the patient certainly derived no benefit from the injection I gave her. The last case was a man on whom the operation was performed on account of intense pain produced by a sarcoma at the base of the skull. Here again I was only partially successful, in producing a slight additional anæsthesia to that which already existed, and practically no relief of the pain. The difficulty in this case was due to the fact that I found the bone infiltrated by growth and quite soft, so that I was unable to define the limits of the foramen accurately. Excluding these last two cases, six out of seven of the cases were successful.

The advantages of this method over the serious operation for removal of the ganglion are, I think, obvious, and in my opinion the major operation should only be performed when injections of alcohol have been tried and failed. Nobody, however, should attempt the injection unless they have made themselves familiar with it by constant practice on the cadaver, where the root to be followed and the pressure indicating that the needle is in nerve-tissue can be accurately studied. I have had no serious results of the operation to contend with. In some cases keratitis does follow alcohol injections, and must be treated by sewing up the lids. Hæmatoma I have met with on two or three occasions. On one of these a large hæmatoma formed rapidly, and I was somewhat apprehensive as to what the result would be. I was, however, much relieved to find the patient next morning eating a hearty breakfast and none the worse otherwise.

(To be continued.)

A CLINICAL LECTURE ON ANEURYSMS OF WAR WOUNDS.

Delivered at St. Bartholomew's Hospital, November 17th, 1915.

By MAJOR W. MCADAM ECCLES, M.S., F.R.C.S.,
Surgeon to St. Bartholomew's Hospital and the 1st London General Hospital, R.A.M.C., T.F.

GENTLEMEN,—The war is multiplying instances of lesions which, although observed in civilian practice, are not common therein. Traumatic aneurysm is an instance of this.

By a traumatic aneurysm is understood an abnormal

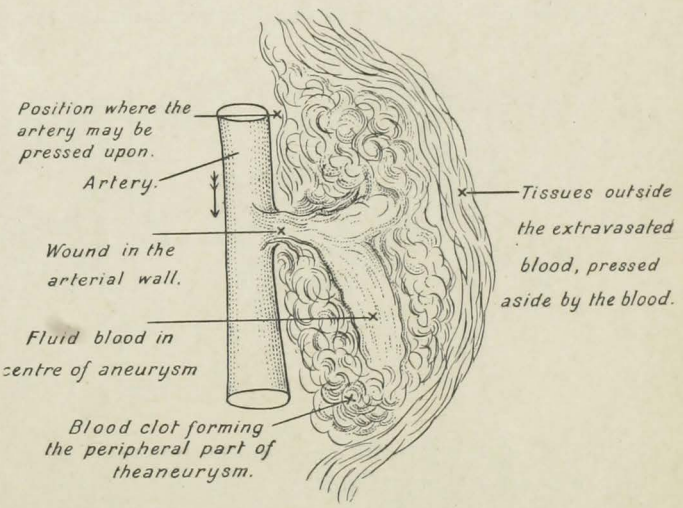

FIG. 1.—DIAGRAM OF A DIFFUSED TRAUMATIC ANEURYSM.

swelling associated with a blood-vessel, and caused by a trauma or wound of the vessel. There are several varieties of such swellings, and these may be conveniently classified thus:

(*a*) Traumatic arterial aneurysm.
  (i) Diffused.
  (ii) Circumscribed.
(*b*) Traumatic arterio-venous aneurysm.
  (i) Aneurysmal varix.
  (ii) Varicose aneurysm.

The characters of these varieties will be seen by reference to the diagrams.

TRAUMATIC ARTERIAL ANEURYSM.

The first is a diffused traumatic arterial aneurysm, and shows all three coats of the artery damaged (Fig. 1). Immediately blood pours out from the aperture and clots externally, though liquid blood still remains in the centre. The surrounding tissues are pushed away from their proximity to the artery, consequently a cavity is formed without any real

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wall; hence there is no sac, and the lesion is not a true aneurysm, for an aneurysm has a sac wall.

Then there are three varieties of circumscribed traumatic arterial aneurysm. In the first of these the blood is poured out in exactly the same way as above, but by clotting it has acted as a foreign body, and inflammation occurs around and produces condensation of the tissues so as to form a pseudo-sac, so that for all practical purposes there is a sacculated aneurysm circumscribed by a false sac wall (Fig. 2 *a*).

The second variety is much less common. Frankly, I am not sure that it really occurs, but as it is given a place in some text-books I mention it. There has been a wound of the external and middle coats of the artery, the internal coat remaining undamaged. Obviously, the pressure of blood on the thin internal coat is enough to make it bulge, and for the time being a circumscribed traumatic aneurysm exists, but as the pressure becomes greater, the thin sac wall gives way ere long (Fig. 2 *b*).

The third variety is that in which there has been a wound of the artery which has healed, but the scar is a weak spot. This may afterwards become distended by the intra-arterial pressure, and an aneurysmal sac will be formed (Fig. 2 *c*).

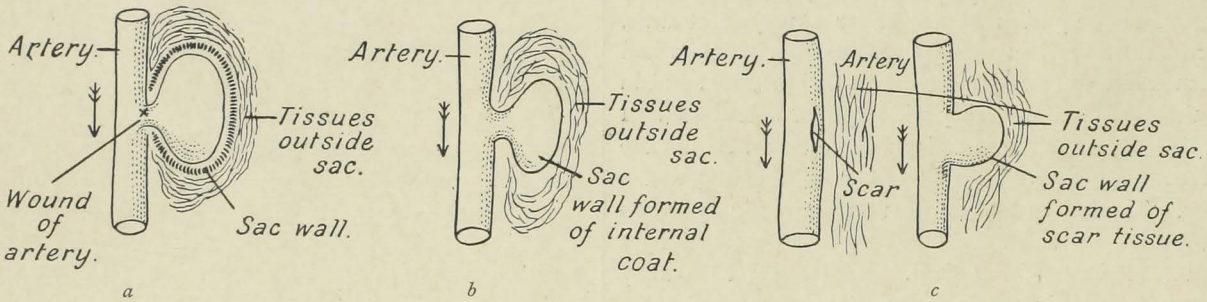

FIG. 2.—DIAGRAMS OF CIRCUMSCRIBED TRAUMATIC ANEURYSMS.

TRAUMATIC ARTERIO-VENOUS ANEURYSM.

The next diagram will show you the two varieties of arterio-venous aneurysm, in which there is a wound of both the artery and the adjacent vein, and a communication between the two. The commonest form of an arterio-venous aneurysm is an aneurysmal varix (Fig. 3). As a result of the communication which has been established between the two, part of the arterial blood passes through this communication, and goes distalwards along the vein, thereby obstructing somewhat the return of blood through the vein, and the vein becomes enlarged at the level of the junction of artery and vein.

The other variety is where there is a true aneurysmal sac lying between the artery and vein (Fig. 4). There has been a wound of the artery and the vein. The two vessels have not come into contact, but blood passes from one to the other, and a pseudo-sac forms between the two. The blood-pressure in the artery being the higher, the blood passes through the sac and into the vein, and the vein tends to bulge opposite the site where the sac communicates with the vein. The war has produced a larger number of these cases than we have had for a long time, and I think it will go on producing them.

ANALYSIS OF FIFTY CASES.

In the October, 1915, issue of the *British Journal of Surgery* are collected fifty cases of traumatic aneurysm. I have analysed them in the table below:

Analysis of Fifty Recorded Cases of Traumatic Aneurysm.

Number, 50.

Types: Arterial, 30; arterio-venous, 20.

Position:		
Head and neck		7
Upper limb		14
Lower limb		29
Arteries involved—		
Head and Neck:		
External carotid	1	
Facial	1	
Superficial temporal	1	
" Base of skull	1	
Common carotid	3	= 7
Upper Limb:		
Subclavian	2	
Axillary	5	
Brachial	5	
Ulnar	1	
Radial	1	= 14
Lower Limb:		
Common femoral	1	
Superficial femoral	8	
Deep femoral	1	
Popliteal	13	
Posterior tibial	5	
Anterior tibial	1	= 29

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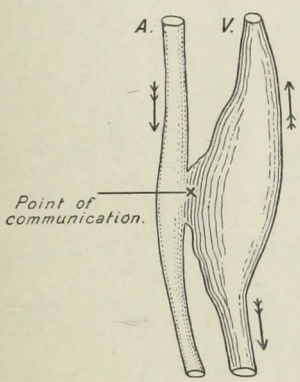
Mortality. Deaths: 4 = 8 per cent.

Vessels involved:	
Common carotid	1
Subclavian	1
Superficial femoral . . .	2 = 4

With regard to the arteries of the head and neck the cases were 7 in number. It might have been thought that arteries in this region would have been more commonly injured than those elsewhere. But it has to be remembered that if a man is shot in the neck and even has his common carotid artery wounded, he may not get very much external bleeding, but other important structures in the neck may be damaged, such as the vagus, and death results.

The lower limb is the site in which traumatic aneurysms mostly occur. The superficial femoral was injured in 8 and the popliteal in 13, and it is a very interesting fact



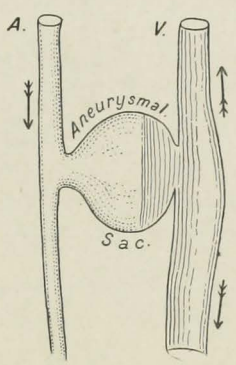


FIG. 3.—ANEURYSMAL VARIX. FIG. 4.—VARICOSE ANEURYSM. TWO TYPES OF ARTERIO-VENOUS ANEURYSM.

that the popliteal artery is also the commonest site in a limb for a pathological aneurysm. I think this may be explained in two ways. First of all, wounds of the leg are common; at any rate, soldiers who receive wounds in the leg frequently survive. The second reason is that the popliteal artery has very little tissue surrounding it except fatty tissue, which gives very little support.

With regard to the mortality shown in the table, this is strikingly low, because it would have been expected, in these cases, to have a very much higher mortality than this series shows. There were 4 deaths in the 50 cases, a percentage of only 8. None of the popliteal cases died.

SIGNS AND SYMPTOMS.

Now, a word or two with regard to the local signs and symptoms of these traumatic aneurysms. The first is a swelling in the line of the vessel. It may be very slight, but it is usually quite evident. Secondly, this swelling pulsates, and the pulsation has practically all the signs of that of an aneurysm seen in civilian practice, *i. e.* it is expansile; it ceases when the main artery is compressed on the proximal side of the swelling, and it begins again with a series of pulsations corresponding to the pulsations or beats of the heart when the pressure is removed. There is also a bruit, and the bruits of these traumatic aneurysms are usually much more marked than of the ordinary pathological aneurysm. The bruit of an arterio-venous aneurysm has its own distinctive character, namely, that of being a continuous humming or buzzing bruit. It is very distinctive when once heard. Again, the thrill which is present in these traumatic cases is more harsh than in aneurysms met with in ordinary practice. Sometimes, when there is a good deal of clot, there are few, if any, local symptoms or signs other than swelling. Pulsation may disappear, bruit may cease,

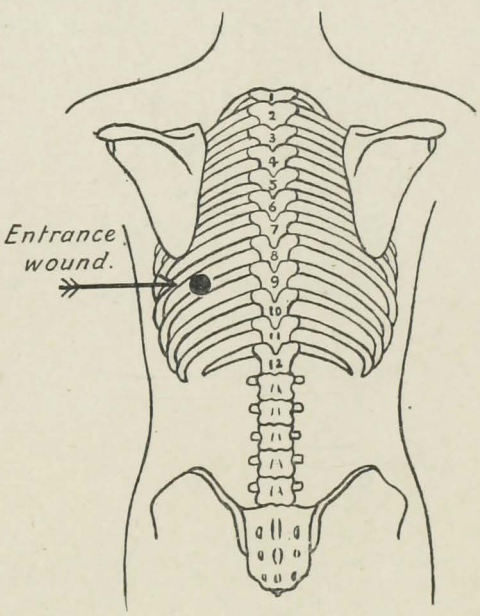


FIG. 5.—CASE OF SAPPER G. W—.

and thrill may entirely go, so that swelling alone is left, and the aneurysm is on its way to become cured. With regard to the distal signs and symptoms, there is practically always some œdema of the distal part of the limb, which is due to the aneurysmal swelling pressing upon the vein, and so preventing a proper return of blood; and secondly, that the *vis a tergo*, the force behind in the artery, is diminished in the periphery, with the result that the blood does not come back so easily in the veins, and so œdema results. For the same reasons congestion, due to dilation of the superficial vessels, is produced. Further, there is an alteration of the pulse. The pulse on the affected side is smaller, and very frequently it is delayed as compared with the sound side. And, lastly, there is very characteristic pain, pain due to pressure upon the main nerves at the site of the aneurysm, but referred to the periphery.

Before proceeding, I want to give you the history and some diagrams of two cases of injury of arteries—the

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second with a distinct aneurysm—which have been treated at the 1st London General Hospital since the publication of the fifty cases in the *British Journal of Surgery*.

The first is a case of wound of the right common femoral artery. Sapper G. W— was wounded on August 26th, 1915, the bullet entering the thorax below the lower angle of the *left* scapula (Fig. 5). There was immediate dyspnœa, and later he had hæmoptysis. From the latter he soon recovered.

On September 30th, 24 oz. of blood-stained pleural fluid were evacuated. He had pain on the left side of the chest running up to the axilla. He was admitted under our care at the 1st London General Hospital on October 16th, and on that date he had no physical signs on the left side of the chest. No exit wound could be discovered, and on X-ray examination a bullet was discovered in the *right*

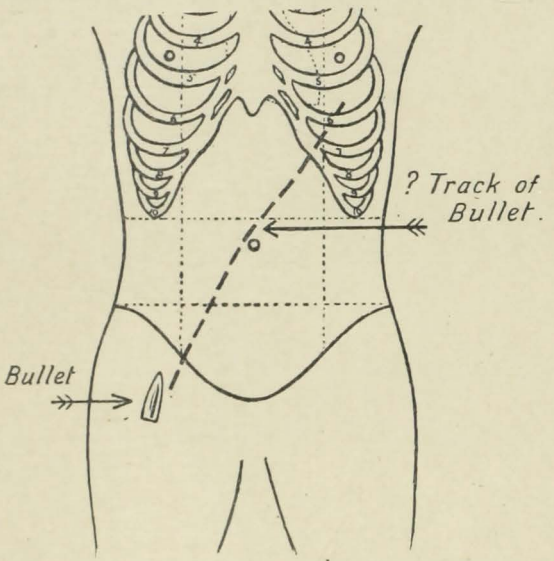

FIG. 6.—CASE OF SAPPER G. W—.

groin, with the point turned upwards; evidently it had turned during its passage through the tissues, as the entrance wound was very small (Fig. 6).

It will be observed that the bullet traversed part of the thorax downwards across the abdomen and into the groin. At the operation, nine weeks after the wound, the sharp point of the bullet was found to have penetrated the wall of the common femoral artery (see Fig. 7), and was surrounded by blood-clot. I ligatured the vessel on the proximal side, but on removing the bullet there was furious hæmorrhage. This was due to the fact that in the interval between receipt of the wound and the operation there had been time for an efficient collateral circulation to be established, and it was from the superficial and deep femoral arteries that the hæmorrhage occurred. I had perforce to ligature both these branches of the common femoral before bleeding could be arrested.

The case has made an uninterrupted recovery, the pulsation in the posterior tibial being now quite strong, and there has been no œdema of the foot, or any suspicion of even superficial gangrene. There was no damage to any of the veins.

The next case is that of Sergeant James F—, æt. 25, who was wounded on September 24th, 1915, by a bullet from a machine-gun. It entered above the inner side of the right knee, and made its exit on the outer side of the right calf (see Figs. 8 and 9). He was admitted to the Liverpool Merchants' Hospital on September 28th, 1915. The right foot was at that date cold, bluish, having no perception of touch, and no pulsation could be detected in the posterior

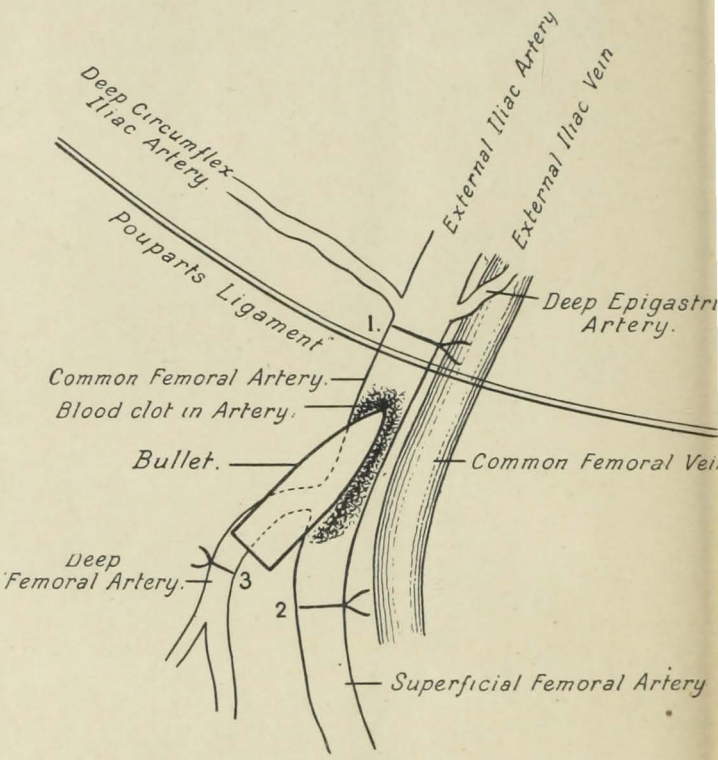

FIG. 7.—DIAGRAM TO ILLUSTRATE THE POSITION OF THE BULLET BEFORE EXTRACTION. 1. LIGATURE ON THE RIGHT EXTERNAL ILIAC ARTERY. 2. LIGATURE ON THE RIGHT SUPERFICIAL FEMORAL ARTERY. 3. LIGATURE ON THE RIGHT DEEP FEMORAL ARTERY.

tibial artery. There was no swelling to be either seen or felt in the right popliteal space; but by means of the stethoscope a loud bruit could be heard which was conducted some way down the right leg.

On October 3rd he complained of severe pain in the right calf, and there was some discoloration. There was no improvement in the condition of the right foot, and gangrene was threatening. On October 4th an incision was made over the back of the lower part of the thigh and upper part of the leg, 10½ in. in length. The contents of the aneurysm were turned out, and the popliteal artery was tied on the proximal and distal sides of the sac. The popliteal

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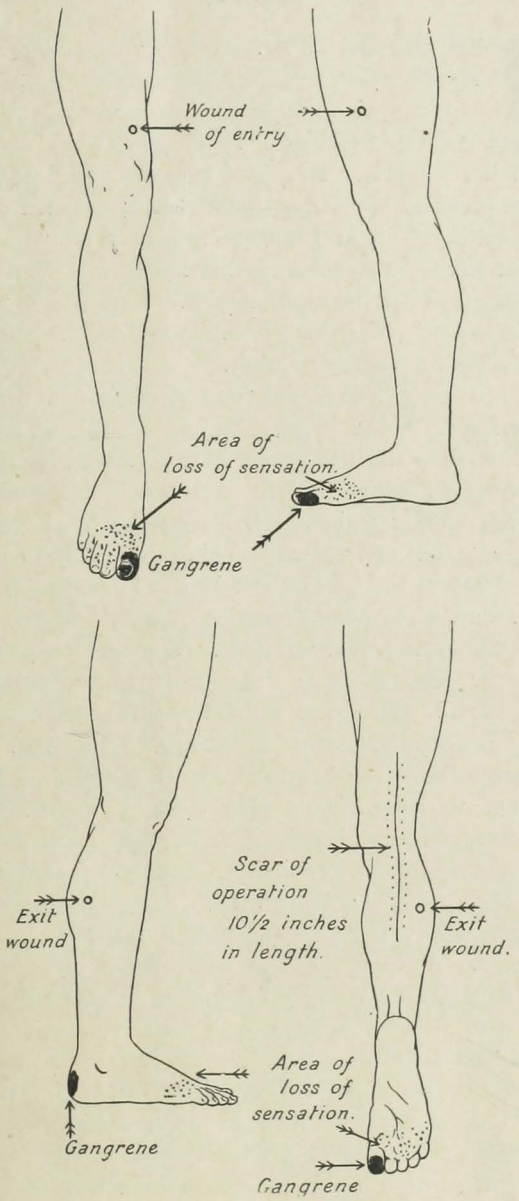
vein was also found to be damaged, and was therefore ligatured in two places. The leg was discoloured, but that was chiefly due to extravasated blood. The next note is dated October 29th, and then there had been steady improvement since the operation, though a good deal of pain was still

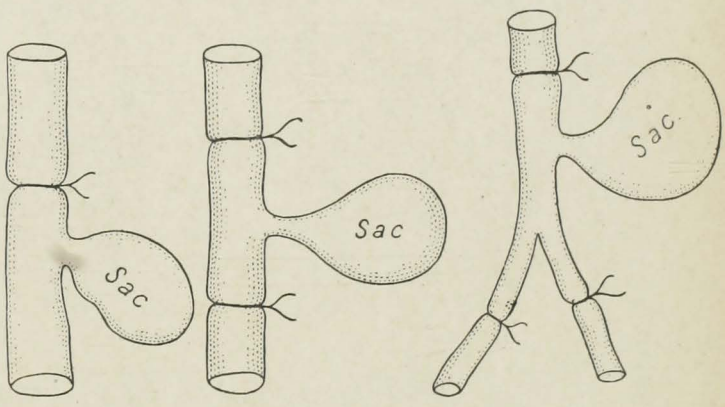


FIGS. 8 AND 9.—DIAGRAMS TO ILLUSTRATE A CASE OF TRAUMATIC ANEURYSM OF THE RIGHT POPLITEAL ARTERY. (SERGT. JAMES F—.)

being felt in the foot, and the end of the right big toe was black. No definite line of demarcation had, however, yet formed. There were to be seen superficial gangrenous patches on the heel and the fifth toe, and some œdema about the ankle. The range of movement of both right knee and ankle was somewhat restricted. He was admitted to the 1st London General Hospital on October 30th, and on November 5th the patches of gangrene still remained, and though movement of knee and ankle was still restricted, the limitation was less than formerly (Figs. 8 and 9).

TREATMENT.

With regard to the treatment of traumatic aneurysms there are one or two important general points. First, do not deal with them by operation until such a procedure becomes absolutely necessary, for by waiting as long as possible there is a chance for a collateral circulation to be established, and there is less likelihood of the occurrence of gangrene. Another case of mine, recorded in the *British Journal of Surgery*, was that in which I had to ligature the common femoral artery, because the man had a rapidly enlarging aneurysm following trauma. The operation was performed within four days of his injury, and gangrene immediately supervened, and I had to amputate through the middle of his thigh in order to save his life.



A. Ligature of the main artery on the proximal side only. B. Ligature of the main artery on the proximal and the distal side. C. Ligature of the main artery on the proximal side and of two branches on the distal side.

FIG. 10.—TRAUMATIC ARTERIAL ANEURYSM.

Secondly, be prepared for violent hæmorrhage. It may not always be possible to apply a tourniquet on the proximal side of the aneurysm. It is in these cases that a skilful assistant is of the highest value.

Thirdly, make a good incision so as to have abundance of room within which to work.

There are at least three possible methods of dealing with traumatic arterial aneurysms: (i) Ligation of vessels. (ii) Operation on the sac. (iii) Amputation.

(i) *Ligation of vessels.*—To ligature the main artery on the proximal side of a traumatic aneurysm is almost certain to be followed by gangrene in the periphery unless there has been time for a sufficient collateral circulation to become established. To ligature the main artery alone on the proximal side, even when no gangrene follows, is a somewhat risky procedure, and never a certain cure. It is risky because it may not control the bleeding; it is uncertain

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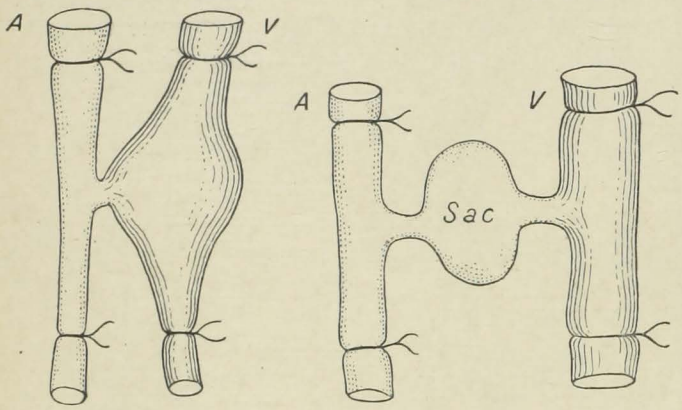
because the aneurysm may advance even in spite of the ligation. The application of ligatures on the artery or arteries, on the proximal and distal sides of the aneurysm, is quite the best method of treating these cases. It is fairly easy, it should effectually stop hæmorrhage, and is not more likely to be followed by gangrene (Fig. 10).

(ii) *Operation on the sac.*—A tourniquet having been applied on the proximal side, the aneurysmal sac is exposed by a good length of incision, and an opening made into it. The clot is turned out, and the mouth of the vessel entering and leaving it found. A probe may now be passed into each vessel, the vessels exposed externally above and below, and a ligature applied to each. The sac itself may be excised in many cases. This is an ideal method of treatment but not altogether an easy one, and causes a good deal of disturbance, particularly if the wound is septic.



A. Proximal and distal ligatures in an aneurysmal varix.
B. Proximal and distal ligatures in a varicose aneurysm.
FIG. 11.—TRAUMATIC ARTERIO-VENOUS ANEURYSM.

(iii) *Amputation.*—Not only is amputation required if gangrene has supervened, but it may be the safest as a primary treatment where there is a diffused traumatic arterial aneurysm.

An arterio-venous aneurysm, whether of the type of aneurysmal varix or varicose aneurysm, is best treated by a ligature of both vessels on both sides of the communication between the artery and vein, and if possible an excision of the portion intervening, and of the sac if there be one (Fig. 11.)

The mortality after these operations is not so great as would be supposed. In the table it will be seen there were only four deaths, making a mortality of only 8 per cent.

The vessels involved in the fatal cases were the common carotid once, the subclavian once, and the superficial femoral twice.

A CASE OF PYELITIS COMPLICATING PREGNANCY.

By D. A. BLOUNT, M.R.C.S., L.R.C.P.

I AM indebted to Dr. Barris for his kindness in allowing me to publish the following case.

E. S—, a multipara, æt. 19, was admitted to Elizabeth Ward on September 17th, 1915, complaining of pain in her left side. Her past history showed that she had one previous pregnancy which was terminated at the fifth to sixth month in Highgate Infirmary for "pyelitis." Previous to this, there was no history of kidney trouble, and when she left the infirmary she was perfectly well. She had had no illness in her childhood which would be likely to leave a damaged kidney.

The history of her present condition showed that her last menstrual period began May 14th, and was normal. Since that time she had amenorrhœa. About the middle of July, patient commenced to have a continual dull pain in the left lumbar region, with increased frequency, especially nocturnal. There was no pain or difficulty in micturition. She had had fainting attacks and rigors two or three times a week with frontal headaches and drowsiness.

On admission patient was pale. Temperature 98·6° F.; pulse 104; respiration 24. Her tongue was moist and slightly furred. Her breasts showed signs of present activity. There was nothing abnormal discovered in the chest. Her abdomen was distended and there was a rounded resistance rising out of the pelvis reaching 6 in. above the pubes. There was tenderness in both kidney regions in front, and also in the renal angles behind. Both feet and ankles were œdematous. *Urine:* Sp. gr. 1015, neutral, + albumin, – sugar. There was a heavy deposit of pus cells; no casts were seen. A bacteriological examination of a catheter specimen showed *Bacillus coli communis* in pure culture.

The treatment of pyelitis is divided into two groups: (1) Medical, (2) obstetrical.

Cases seen early are always treated medically first, and only if they show no improvement after a fair trial is the pregnancy in any way interfered with. The medical treatment consists of rest in bed, a milk diet with extra fluids, such as lemonade, imperial drink, tea, coffee, and cocoa, up to ten pints in the twenty-four hours. Urinary antiseptics, such as urotropine, are given, and the patient's bowels are made to act freely with purges which do not interfere with the milk secretion.

If this treatment fails to alleviate the symptoms, then the pregnancy must be terminated.

This may be done by three different methods:

(1) The cervix may be dilated and the canal and vagina plugged by the Dublin method.

(2) The membranes may be ruptured.

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(3) Bougies may be passed into the uterus between the membranes and the uterine wall (Krause's method).

The main thing aimed at is to get the uterus to contract and retract, for it would be courting disaster to empty a uterus of a quick placenta while in a state of complete inertia.

The case in question was treated as a first group case but failed to improve, as will be seen from the following daily notes.

September 21st.—Patient felt slightly better. Temperature varied from 98° F. to 102·6° F. Pulse steady at 100. Blood pressure 90 mm. Hg.

September 22nd.—Temperature varied between 97° F. and 103·6° F., and her pulse and respirations had both increased in rate, so she was given 5 × 10^6 *Bacillus coli communis* vaccine.

September 23rd.—Patient was worse. Her pulse-rate had increased and her temperature was up to 104·8° F., so it was decided to place her in the second group of cases and induce labour. At 8.15 p.m. chloroform was given, and she was put in the lithotomy position. The cervix admitted one finger with difficulty, so the canal was dilated with metal dilators, and the membranes were separated from the lower uterine segment as far as was possible. The cervix and vagina were then plugged by the Dublin method, and the patient returned to bed.

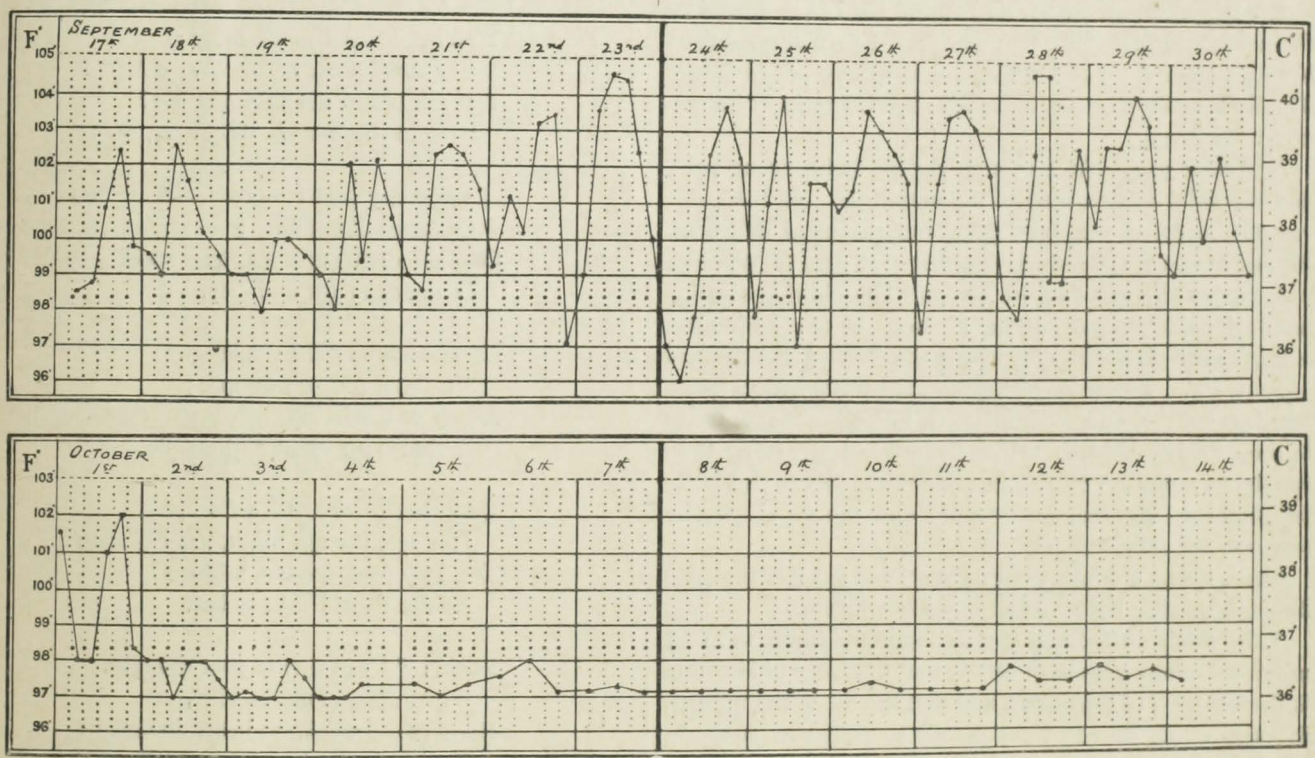
It was at this stage that I took over the case from Dr. Vischer. Her temperature was making a daily excursion from 96° F. to 104° F., the pulse was 120, and she could not pass urine naturally. Her fluid intake was five pints, and she excreted ʒxviij urine in the twenty-four hours loaded with pus and albumin.

At 8 p.m., September 24th, as she had had no labour pains, I decided to rupture the membranes without an anæsthetic. The plugging was removed, and it was found that the canal had closed down so much that it was practically impossible to get a finger through the internal os. We were faced with another difficulty, namely, that the cervix was drawn up practically out of reach, and as the manipulations caused so much pain I decided to abandon the attempt.

The next day she was anæsthetised by open ether and placed in the lithotomy position. The cervix was pulled down by a volsellum, and a bougie was passed laterally into the uterus between the membranes and the uterine wall. A second bougie was then passed opposite to the first, but it hit the edge of the placenta and separated a large part of it. As there was a great deal of hæmorrhage from the placental site, I withdrew the second bougie and left only one in position. A tampon was inserted and pituitary extract 1 c.c. was given.

On September 26th, at 6 p.m., she had slight labour pains and the bougie was seen to move. At 8 p.m. on the same day the bougie was expelled and the membranes ruptured.

On September 27th, at 2 a.m., she had a few very strong pains, but she went into secondary inertia soon afterwards. She was given 10 × 10^6 *Bacillus coli communis* vaccine and 1 c.c. pituitary, and had ergot and hydrastis three times each



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