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St. Bartholomew's Hospital Journal.

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

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CALENDAR.

Tues., Sept. 30.—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., Oct. 1.—**Winter Session commences.**
Fri., ,, 3.—Dr. Fletcher and Mr. Rawling on duty
Mon., ,, 6.—Clinical Lecture (Mr. Elmslie).
Tues., ,, 7.—Dr. Drysdale and Mr. Gask on duty.
Wed., ,, 8.—Clincal Lecture (Sir D'Arcy Power).
Fri., ,, 10.—Dr. Tooth and Sir D'Arcy Power on duty.
Mon., ,, 13.—Clinical Lecture (Mr. Harmer).
Tues., ,, 14. Sir Archibald Garrod and Mr. Waring on duty.
Wed., ,, 15.—Clinical Lecture (Sir D'Arcy Power).
Fri., ,, 17.—Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Dr. Tooth).
Mon., ,, 20.—Clinical Lecture (Mr. West).
Tues., ,, 21.—Dr. Fletcher and Mr. Rawling on duty.
Wed., ,, 22.—Clinical Lecture (Mr. Waring).
Fri., ,, 24.—Dr. Drysdale and Mr. Gask on duty. Clinical Lecture (Dr. Drysdale).
Mon., ,, 27.—Clinical Lecture (Dr. Cumberbatch).
Tues., ,, 28.—Dr. Tooth and Sir D'Arcy Power on duty.
Wed., ,, 29.—Clinical Lecture (Mr. Waring).
Fri., ,, 31.—Sir Archibald Garrod and Mr. Waring on duty. Clinical Lecture (Dr. Tooth).
Tues., Nov. 4.—Dr. Calvert and Mr. McAdam Eccles on duty.

EDITORIAL NOTES.

THE entry for the Winter Session is so large that we understand that no further applications from prospective students can be entertained at the moment. This is highly satisfactory and speaks well for the Hospital's future.

To those Freshmen who have been successful in enrolling as Bart.'s men we extend a warm welcome. They are commencing their career at a time when the prospects are unique. The traditions of London's Senior Hospital should be a great incentive to them, and we feel sure they will make every use of their opportunities.

* * *

We are glad to be able to announce an important step in the programme of reconstruction. At the beginning of the Winter Session there will be established in the Hospital a medical and a surgical unit of the "professorial type," with Sir A. E. Garrod and Mr. G. E. Gask respectively as Directors of Clinic. The Directors will be whole-time officers debarred from private practice, and in each case will have the help of an Assistant Director, a first and a second assistant, and two house-physicians or house-surgeons. The units will be provided with wards, clinical laboratories, and out-patient departments.

It has for some time been felt that there existed a gap in the English system of medical education; that though the clinical teaching of the medical student was on the whole admirably adapted to the production of practical physicians and surgeons, the teaching of scientific research, and the collective efforts of a properly organised group of highly-trained medical men, were not possible without a monetary endowment which neither the Hospital nor the School could hope to supply. The enlightened action of the Board of Education has now provided a large part of endowment, and St. Bartholomew's is one of the first medical schools to be able to seize an opportunity which will, we are sure, be productive of an advance in the more scientific paths of medicine and surgery.

The units will, of course, take their share in the treatment of patients and clinical teaching of the Hospital, but with their larger staffs and equipment and with the directing abilities of their chiefs, will, in addition, be able to organise research in many affections which involve an outlay in money, time and experience, impossible under the conditions hitherto prevailing. We have no doubt that the new units will do much to repair the gap to which we have alluded, and that St. Bartholomew's is grateful to the Board of Education for the opportunity of initiating so important an advance.

* * *

The Hospital Rugby Football Club are looking forward to a good season. Strong fixture lists have been arranged

for three teams, the opponents of the first fifteen including Oxford University, Cambridge University, Harlequins, Old Merchant Taylors, Coventry, Rosslyn Park, United Services, and Aldershot Command.

The team, under the captaincy of Campbell Shaw, will be identical with that of last year (excepting that the valuable services of C. F. Krige are no longer available), and will include M. G. Thomas, the Welsh three-quarter, while E. F. Llewellyn, the Navy half, and C. E. Kindersley, the Old Sedberghian, who was skipper of the Public Schools Services side last season, will again turn out.

The second fifteen has an attractive list of fixtures, chiefly against "A" teams of clubs played by the first, and the third fifteen card is also a good one, with only five open dates.

Drainage operations have been undertaken on the ground at Winchmore Hill, which should make a considerable improvement to the playing pitches. It has been decided to make a charge of one shilling (including tax) for admission to the ground. Bart.'s men will of course be admitted to home matches without payment, but we are asked to state that much trouble will be saved if the new men will carry their Students' Union card.

* * *

Hospital cricket enthusiasts have followed with much interest the performance of B. G. Melle during the past first-class cricket season. Mr. Melle, who is completing his last year as a student in the Hospital, will be remembered as the old Oxford Blue. During the season he has appeared for both the M.C.C. and Hampshire, and we congratulate him on completing his 1000 runs. His average for the season is 35·7, and the total number of runs scored 1021.

* * *

Our warmest congratulations to the Nursing Staff on winning the *Nursing Times* Lawn Tennis Cup Competition for the Hospital.

The team consisted of Nurses Saxon, Wilson, Minton and Holmes. Their opponents in the final were the University College Hospital.

Bart.'s have had a remarkably successful tennis season, having also won the Senior Inter-Hospital Cup.

* * *

We desire to remind our readers that the Blakeway Memorial Fund still remains open and the Committee hopes that before the Fund is closed at the end of the year further contributions may be received by the Treasurer, Dr. Macphail, Anatomical Department, or the Secretary, Mr. R. M. Vick, Pathological Department.

* * *

We feel sure that a large number of Bart.'s men will be interested to learn that Sister Darker (Miss Eleanor Jones) and Sister Kenton (Miss E. Bryan) have recently retired from active service at the Hospital.

Miss Jones was trained at St. Bartholomew's and remained in the service of the Hospital for over twenty-eight years. First as Sister Radcliffe and later as Sister Darker (Sir Anthony Bowlby's ward), her services were highly valued. Her training was excellent and she was a splendid organiser.

Miss Bryan was first appointed Sister Radcliffe, but afterwards became Sister Kenton (Mr. Lockwood's ward). A few years before the war she went to King Square, but on the outbreak of war returned to more strenuous duty in the soldiers' block, acting as Sister Pitcairn during Miss Gascoyne's absence for four and a-half years, and retiring when the soldiers' wards were closed at the end of last year. Miss Bryan was highly thought of for her nursing capabilities, and was a great favourite with all she came into contact with.

We wish Miss Jones and Miss Bryan long life and happiness in their well-earned retirement.

* * *

This year marks the centenary of an old city medical society—the Hunterian Society. During the war its meetings had naturally to be somewhat curtailed, but it is now hoped to renew its full activity. The meetings will be held on the 2nd and 4th Wednesdays from October to April at 9 p.m. at the School of Oriental Languages (formerly the London Institution) in Finsbury Circus.

An attractive programme has been arranged, starting with a special address by Prof. A. Keith, F.R.S., on October 8th. This particular meeting will, however, be held, by kind permission of the authorities, in the Hall of the Society of Apothecaries. The Centenary Dinner will be held on October 22nd, at which Sir Norman Moore has kindly consented to propose the health of the Hunterian Society. In January Dr. Leonard Hill will deliver a lecture on "Hunter's Influence on Physiology." In February Sir Wm. Osler will deliver the Oration.

The Annual Subscription is only half a guinea, with half a guinea entrance fee, and this includes the right to get books from Lewis's Library.

Dr. W. Langdon Brown is the President. Dr. F. Howard Humphris and Dr. R. L. Mackenzie Wallis the Hon. Secs., from any of whom further particulars can be obtained.

It is hoped that Bart.'s men will show a renewed interest in this Society.

* * *

Our heartiest congratulations to Dr. Drysdale, Mr. Rawling and Mr. Gask on being appointed to the Senior Staff.

The following appointments have also been made:

Assistant Surgeon: J. E. H. Roberts, M.B., F.R.C.S.

Junior Demonstrators of Pathology: J. E. Pearce, M.R.C.S., L.R.C.P.; R. R. Armstrong, M.B., B.C.(Cantab.), M.R.C.P.; G. Lyon-Smith, M.R.C.S., L.R.C.P.

* * *

We understand that Mr. Girling Ball has retired from the post of Medical-Officer-in-Charge of the Venereal Department.

He was the officer who first established this Department some two years ago and has brought it up to its present high reputation.

Mr. K. M. Walker has been appointed to carry on his duties. Under him we have no doubt that the Department will become still more efficient, as he is to devote his whole time to the study of venereal diseases, and will thus not be hampered by outside duties.

* * *

The Gresham Lectures are to be delivered by Sir Robert Armstrong-Jones on October 14th, 15th, 16th, and 17th, at the Gresham College, Basinghall Street, E.C. The subject of the lectures is "The Evolution of Military Medicine and Surgery from Ancient Times and the Medical Lessons Derived from the Great War."

* * *

Our congratulations to Col. C. A. Peters, D.S.O., A.M.C., of the Canadian Forces, on being mentioned in Sir Douglas Haig's despatches.

We are also pleased to congratulate Capt. (acting Major) R. O. Ward, D.S.O., M.C. (Hon. Artillery Company), who has been similarly honoured.

* * *

It gives us much pleasure to see the names of the following in the Home Command Lists who have been brought to the notice of the Secretary of State for War for valuable services:

Eastern Command:

Capt. (acting Major) A. J. Gibson, R.A.M.C.T.
Temp. Major A. O'Neill, R.A.M.C.
Temp. Capt. F. J. Rawlinson, R.A.M.C.
Temp. Lieut.-Col. L. W. Rolleston, R.A.M.C.

Northern Command:

Temp. Lieut.-Col. J. J. G. Blandford, R.A.M.C.
Major H. L. de Legh, R.A.M.C.T.
Lieut.-Col. W. M. Gabriel, R.A.M.C.T.
Temp. Major C. D'O. Grange, R.A.M.C.
Lieut.-Col. F. Harvey, R.A.M.C.
Capt. J. W. Malim, R.A.M.C.T.
Temp. Major J. C. Wright, R.A.M.C.

Southern Command:

Temp. Capt. H. H. Butcher, R.A.M.C.
Temp. Capt. E. K. Campbell, R.A.M.C.
Capt. F. Clarke, R.A.M.C.T.
Capt. G. H. R. Holden, R.A.M.C.T.
Capt. and Brevet-Major J. L. Joyce, R.A.M.C.T.
Temp. Capt. J. N. Martin, R.A.M.C.
Major E. G. Stocker, R.A.M.C.T.

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In the Honours List under Egypt we are pleased to see the name of Temp. Capt. E. Colston Williams, R.A.M.C., who has been promoted to be Brevet-Major.

* * *

The King has been pleased to give directions for the following appointments in recognition of naval services during the war. To these gentlemen we offer our congratulations.

O.B.E. (*Military Division*):

Surgeon-Lieut. K. B. Bellwood, M.B., R.N., for valuable services in H.M.S. "Diligence," H.M. Hospital Ship "Soudan," and at the Royal Naval Hospital, Chatham.

Surgeon-Commander H. Clift, R.N., for valuable services in H.M.S. "Hercules" and at the R.M. Barracks, Chatham.

Surgeon-Lieut. (acting Surgeon-Lieut.-Commander) G. E. D. Ellis, R.N., for valuable services in several of H.M. ships during the war and at H.M. Dockyard, Sheerness.

Surgeon-Lieut. J. G. A. Fairbank, M.B., R.N., for valuable services in H.M.S. "Bacchante" and at the R.N. Barracks, Chatham.

Surgeon-Lieut. M. Fawkes, M.B., R.N., for valuable services in H.M. ships during the war, and at the R.N. Hospital, Haslar, and at the R.N. Air Station, Barrow.

Surgeon-Lieut. T. E. Francis, M.D., D.P.H., R.N., for valuable services in H.M.S. "Britannia," H.M. Hospital Ship "Soudan," and at the Royal Naval Hospitals, Haslar and Plymouth.

Surgeon-Lieut. R. G. Lyster, R.N., for valuable services in H.M. ships during the war and at H.M. Dockyard, Rosyth.

Surgeon-Lieut. A. C. Morson, F.R.C.S., R.N., for valuable services in several of H.M. ships and hospital ships during the war and at the R.N. Hospital, Haslar.

Surgeon-Commander H. W. B. Shewell, M.B., M.A., R.N., for valuable services in H.M.S. "Euryalus" and at the R.N. Barracks, Portsmouth.

Surgeon-Lieut. E. L. Sturdee, R.N., for valuable services with the R.N. Division and at the R.N. Hospital, Plymouth, R.N. Barracks, Devonport, and at the R.N. Depôt, Crystal Palace.

Surgeon-Lieut. A. G. Williams, R.N., for valuable services in H.M.S. "Ebro," with the R.N. Division, Deal, and in Belgium.

The following officers have been brought to the notice of the Admiralty for valuable services in the prosecution of the war:

Surgeon-Lieut. R. St. L. Brockman, R.N.
Surgeon-Lieut. E. A. Cockayne, M.D., F.R.C.P., R.N.

* * *

We note with much interest the names of thirty one Bart.'s men who have been included in the list of Civil Medical Practitioners brought to the notice of the Secretary of State for War for valuable medical services rendered in the United Kingdom. The individual names are too numerous to mention in these columns, but will be included in the complete roll of honour which we hope will be published in due course.

* * *

The following are the official details of service for which the Military Cross were conferred, the announcements of which have already appeared in these columns:

Military Cross:

Capt. Edwin John Bradley, attd. 1/3rd (N. Mid.) Field Amb. T.F.

He was in charge of the bearers during the attack on the St. Quentin Canal on September 29th, 1918, and displayed great gallantry and initiative. He went forward and sought a position for an advanced dressing station in Bellenglise when it was being heavily shelled by the enemy, and finally organised collecting and relay posts on a route farther north. His dispositions were most skilful, and the rapid evacuation of the wounded was mainly due to the exertions of this officer.

Capt. (acting Major) Hubert Roy Dive, 1/2nd Mtd. Bde., Field Amb., attd. 230th Field Amb.

On September 21st, 1918, at Templeux-le-Guerard, when in charge of evacuation of casualties from the front line, he worked incessantly without rest under intense shell fire, exposing himself in the most fearless manner when bringing in casualties. He showed a very fine example of devotion to duty, and the successful evacuation was entirely due to his personal gallantry and initiative. He has been superintending the evacuation from the front line continuously since September 2nd, and during all this period has shown the greatest zeal and resource.

Temp. Capt. William Balfour Gourlay (N. Russia).

Throughout the period October 7th—15th, 1918, he showed exceptional devotion to duty in the care of the sick and wounded in the village of Borok, under frequent shell fire and several infantry attacks. His hospital at Borok had twice to be moved owing to fires caused by shelling; and though worn out by want of sleep and hard work, he attended to the evacuation of the wounded when the troops moved back from the village, marching with them for a long distance and helping to ease them over bad roads under difficult circumstances. He set a fine example throughout of unselfish endurance in the performance of his duties.

Temp. Capt. Charles William Berry Littlejohn, 140th Field Amb.

For great gallantry and initiative in the operations south-east of Ypres from September 28th to October 4th, 1918. During this period he was in command of forward stretcher-bearers, and it was solely due to his energy and dash that close touch was kept with battalions and their wounded promptly evacuated. He exposed himself freely to sniping, machine-gun and shell fire to get at the wounded of not only his own brigade but of other divisions, and by his fine conduct saved many lives.

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The Index for Vol. XXVI (1918–1919) of the JOURNAL will be published and distributed with the next issue.

* * *

It is with very great regret that we have to record the death of Dr. Archibald H. Hogarth, which took place at Quainton on September 5th. Dr. Hogarth, who was only 42 years of age, was one of the most popular men of his day. He will be remembered mostly at the Hospital with regard to his work for the Students' Union. The JOURNAL flourished considerably under his Editorship, and the Year Book owes its existence to his initiative.

Further details of Dr. Hogarth's career will be found in the excellently written appreciation we are publishing in this issue.

To Mrs. Hogarth we offer our deepest sympathy.

* * *

By the death on September 9th, 1919, of Mr. W. Soltau Eccles, M.R.C.S.(Eng.), at the age of 76, another member of a medical family long connected with St. Bartholomew's Hospital, the profession has lost an honoured member. After holding a house-surgeoncy under the late Sir James Paget, he proceeded to Bombay as Surgeon to the G.I.P. Railway in 1866. Returning to England in the seventies, he settled in practice in Upper Norwood—then an aristocratic south-eastern suburb. He was the first to use ipecacuanha in the treatment of dysentery, and when Professor of Hygiene in the Grant Medical College, Bombay, he was much interested in the use of oxygen in cases of tetanus, which disease we now know is due to an anaerobic bacillus. Both his sons entered St. Bartholomew's, and one of his grandsons is there as a student at the present time.

We convey to Col. W. McAdam Eccles and to Dr. H. Annesly Eccles and the members of their family our sympathy in their loss.

THE CINEMATOGRAPH IN MEDICAL EDUCATION AND RESEARCH.

By W. MCADAM ECCLES, M.S.(Lond.), F.R.C.S.(Eng.)

TO instruct by means of the eye in addition to the other senses has always been the aim of the educator. From the crude drawings of the ancients to the exact pictures and photographs of the present may seem a long stretch, but there is the same idea in each.

The anatomy of the early artists was hardly accurate, but perhaps more so than some of that of the latest futurists. It, however, served its purpose, it drew attention to form through the medium of the eye. The anatomy portrayed by the rapidly repeated cinematograph representations when viewed singly appears unreal, but it depicts the precise form at the particular moment at which it was taken, and is of great illuminating value.

Illustrations in books, good as they are nowadays, must necessarily be fixed, immobile, and in so far as they represent what is really in motion lose the touch of life. Hence the use of a film in a projection apparatus may be of extreme value both in education and in research.

Since the classical paper by Dr. Rudolph Matas in 1912* considerable strides have been made in the production and use of "medical" films, but the Great War has held up progress considerably. Now that it is happily at an end the matter will undoubtedly develop on all hands. Almost in every part of the medical curriculum the cinema film may be used to impress important "living" facts upon the memory.

* *New York Med. Journ.*, vol. xcvi, 1912, pp. 409 and 483.

In biology, the movements of the pseudopodia of the amœba; in physiology, the circulation of the blood; in anatomy, the correlated motions of the bones of the hand and wrist in flexion and extension; in pathology, the phenomena of phagocytosis; in medicine, the gait of an ataxic patient; in surgery, the methods of amputation, and in obstetrics, the stages of normal parturition, are but a few of the more simple simple films which are obtainable and useful.

The cinematographic representation of normal and abnormal living conditions is capable of almost infinite expansion, and it is, therefore, desirable that a complete list should soon be available of extant "medical" films, so that suggestions can be made for other essential and urgently needed films, and for those which may be termed the non-essential but desirable and not immediately needed films. Negotiations should be opened up with the well-known cinematograph operators for the taking of these films, and money should be forthcoming from the Board of Education, the British Medical Association scientific grants, the more enterprising of the medical schools, or from private sources for the necessary cost of production. A portfolio or cabinet of films should be available for hire purposes, but every large medical school should possess its own projection apparatus, and its own portfolio of "medical" films.

The epidiascope and the cinematograph ere long will be side by side in every up-to-date theatre of a medical school, and the lecturer will pass rapidly from the one to the other for illustration of his theme.

There is a wider public than that in a medical school for which some "medical" films would be most instructive, and the day will come when in public schools, secondary schools, and cinema theatres useful instruction and entertainment will go hand in hand.

The relationship of the film with radiology is in its infancy, but the field here is large. The tracing of the electro-cardiograph shown with the cinematograph reproduction of the actual simultaneous movements of the heart will be an advance of considerable scientific value.

Thus the cinema opens up a field of much value in research work of all kinds.

LIST OF AVAILABLE "MEDICAL" FILMS.

(It is believed that all the following films are available at the present time. The list is necessarily incomplete and the writer will be glad to receive the intimation that others exist, or that others are urgently desirable. The subjects of the films extant or needed may be sent to him care of the Editor of the Journal, St. Bartholomew's Hospital, London, E.C. 1.)

1. *Biological.*

(1) Amœboid movements of leucocyte.
(2) Amœba.
(3) Ciliated infusoria.
(4) Cyclops.
(5) Fresh water hydræ.
(6) Germination of pollen.
(7) Development of blastoderm of chick.
(8) Movements of heart "loop stage" of chick embryo.
(9) Streaming granules in a connective-tissue cell.

2. *Physiological.*

(1) Circulation of blood (tadpole's tail).
(2) Circulation of blood (lung).
(3) Action of water on blood.
(4) Animated diagram of heart.
(5) Isolated heart of rabbit.
(6) Movements of protoplasm.
(7) Spermatozoa.
(8) Movements of the vocal cords.
(9) Radiocinematograph of peristalsis in a guinea-pig after bismuth meal.
(10) Radiocinematograph of movements of the heart in a monkey.

3. *Anatomical.*

(1) Radiocinematograph of extension of fingers combined with supination of forearm.
(2) Radiocinematograph of extension of elbow.
(3) Radiocinematograph of flexion of the knee-joint.

4. *Pathological.*

(1) Human blood-corpuscles forming rouleaux.
(2) Phagocytosis.
(3) *Spirochæta pallida.*
(4) Action of "606" on *Spirochæta pallida.*
(5) Relapsing fever.
(6) Leishman bodies.
(7) Agglutination of the spirochæta of fowls, etc.
(8) Trypanosmes of sleeping sickness.

5. *Medical.*

(1) Ataxic gait.
(2) Hemiplegic gait.
(3) Paraplegic gait.
(4) Athetosis.
(5) Epileptiform seizure.

6. *Surgical.*

(1) Operation for removal of a cyst.
(2) Methods of amputation.

7. *Obstetrical.*

(1) Normal parturition.
(2) Cæsarean section.

MEDICAL NOTES.

By Sir THOMAS HORDER, M.D.

(*Continued from p.* 141, *vol. xxvi.*)

SOME ABDOMINAL CONDITIONS.

(129) In examination of the abdomen careful inspection is probably, of all the methods employed, the most frequently neglected; and yet it is often the most profitable. It should be carried out from the side of the bed, from the foot, and, unless the case be an acute one, with the patient standing up.

(130) When faced with an obscure case of enlargement of the abdomen, it is sometimes useful, in judging the cause, to consider the various anatomical structures that are met with in an imaginary section through the abdomen, and the various pathological changes to which these structures are liable: *the parieties* (fat, œdema); *the peritoneum* (ascites, tuberculosis, disseminate growth); *the mesentery* (tuberculosis, lymphadenoma, disseminate growth); *the omentum* (fat, cyst); *the hollow viscera* (dilatation of the stomach and colon, gastric and intestinal tympanites); *the solid viscera* (neoplasm and special forms of visceral enlargement, such as hepatic, renal and splenic enlargement); *the retro-peritoneal tissues* (neoplasm).

(131) Tympanites, both gastric and intestinal, is sometimes caused by chronic alcoholism. The condition may become so serious after an extra bout of drinking as to raise the question of intestinal obstruction.

(132) There is scarcely anything within the abdomen that may not share in a severe enteroptosis; even the abdominal aorta may be freely moveable and considerably displaced.

(133) Congestion of the liver in dilatation of the heart may be a more acute affair than is sometimes realised. It may lead to such rapid enlargement of the organ, and may cause so much pain and tenderness, that the condition comes to simulate acute inflammation of the organ. It may even lead to puncture or an exploratory laparotomy, in the belief that the patient is suffering from hepatic abscess.

(134) Carcinoma of the colon with ulceration sometimes gives rise to symptoms of toxic absorption: fever, sweats, pains in the joints and fibrous tissues; and this state of things may precede abdominal symptoms or the discovery of an abdominal tumour.

(135) A fairly frequent cause of progressing and severe dilatation of the stomach in elderly patients is old gall-bladder adhesions. The treatment is surgical, not a long dissection designed to remove the effete gall-bladder, but a gastro-enterostomy for the purpose of draining the stomach—an operation which, in expert hands, can often be done in less than half an hour.

(136) An occasional cause of persisting fever without physical signs, and without positive blood cultures, is a slowly developing abscess of the liver due to *S. aureus*. Although the condition may have been preceded by some form of furunculosis, the fact may be overlooked, either because the skin lesions have not been very conspicuous, or because there has been an interval between the complete healing of these lesions and the development of the hepatic focus.

(*To be continued.*)

SOME NOTES ON RELAPSING FEVER.

By J. W. TREVAN, M.B., B.S., B.Sc.(Lond)., M.R.C.P.

RELAPSING fever occurs frequently in the East, and a fairly clearly defined conception of the disease has resulted from long observation (see the description in Osler's *Medicine*). It is still a matter of debate as to whether the organisms found in the blood in the disease occurring in different parts of the world can be differentiated by morphological appearances alone, although the clinical manifestations wherever the disease occurs are strikingly regular. There is one described exception to these statements, namely the African tick fever, in which relapsing pyrexia results from the infection of the blood-stream with a spirochæte by the bite of a tick. The morphology of the spirochæte in these cases is slightly different, and the relapses are shorter and more irregular in occurrence.

In the usual endemic form of relapsing fever in Egypt and the Eastern Mediterranean generally, as well as in India and America, the onset of the disease is sudden, starting with a chill and intense pain in the back and legs. The temperature rises to 104° or 106° F., remains up for four days to a week, and then subsides suddenly with the usual accompaniments of a crisis—sweating and circulatory collapse. Falls of as much as 10° F. in a few hours have been reported. Accompanying the attack there is usually a leucocytosis, mostly polymorphonuclear. Various complications may occur—skin eruptions, jaundice and bronchitic symptoms.

The patient immediately feels better after the crisis and remains apparently convalescent for seven to ten days when the first relapse occurs, differing only in severity from the first. A third relapse usually ends the disease, although in rare cases as many as eleven may occur.

In Cairo, in December, 1917, a series of cases of relapsing fever came under my notice which differed considerably from the usual type. They all occurred in cases sent down from Palestine, and nearly all from a body of troops who had been quartered in caves in a valley just north of Jerusalem reported to have been inhabited by monks. Clinically all these cases were similar, and bore a marked contrast to a few cases of typical relapsing fever which originated amongst troops quartered in the vicinity of Cairo at about the same time. The onset was even more abrupt, generally with a rigor, the temperature rising often to 106° F. or higher and immediately falling again, in most cases reaching normal in less than twenty-four hours. In some cases the temperature rose again the same night and finally subsided on the third day. The attack was repeated at intervals of seven to fourteen days, and as many as eight or nine attacks were the rule if untreated.

Complications were not common, but the repeated attacks led to a progressive debility which resulted in confining the patient to bed between the attacks. Bronchitis was the commonest complication, and slight impairment of percussion-note together with weakening of breath-sounds over various parts of the lungs during the pyrexial period led repeatedly to a tentative diagnosis of pneumonia, which was never confirmed. A polymorphonuclear leucocytosis usually occurred during the attacks up to 10,000 together with small increases of lymphocytes and large mononuclears. Only one case out of about fifty which I saw developed a skin rash, which consisted of round bright red maculo-papules, about 7 mm. across and projecting about 1 mm., thickly scattered over the skin of the back which appeared and disappeared rapidly, the whole life-history of the rash not extending over more than twelve hours. They were not urticarial, there being no formation of colourless wheals either at the site of the rash or elsewhere, spontaneously or after stimulation.

The contrast between these cases and the locally contracted cases was striking, particularly in regard to the length of the pyrexial periods and the number of attacks.

These cases were at first all sent down from Palestine with the diagnosis of malaria, but in only one case could I find anything that could be called a malarial parasite, and in that case after examining two or three slides I found one typical ring form in a red corpuscle. In spite of much quinine this man did not improve, and Capt. Brickwell (an old Bart.'s man), who was in charge of him, was not satisfied, and searched several more slides in the hope of perhaps getting more definite evidence of malaria, and finally found one very large spirochæte.

This set up a search for spirochætes in other cases of "malaria" in which typical rigors occurred at seven to fourteen days' interval. I found that (1) there were cases of malaria in which rigors occur at fourteen-day intervals or thereabouts, whether the patient is on quinine or not—up to 30 gr. a day. These patients are in my experience all infected with *Plasmodium vivax* (Benign Tertian). These were very common in Salonica. (2) There were cases in which rigors occurred weekly in which no organism could be discovered in the blood. (3) There were cases in which, after prolonged search, spirochætes could be demonstrated in the blood.

The method at first used was a modification of the Leishman, which I or my assistants used with some success not only for spirochætes but for malarial parasites. It was evolved during the struggle to make use of some of the early "war finish" Leishman's stain produced by a very prominent English "scientific" supply firm. (I discovered after I had succeeded in getting good results with it that the other laboratories in the country refused to use this particular batch.) I found the method work equally well with other brands of Leishman and with Giemsa (made up without glycerine), and perhaps best of all with that stain which is only one of the components of Giemsa and which was sold as Azur-II-eosin. For searching for parasites I prefer using this method with Giemsa's stain. For obtaining delicate nuclear differentiation when staining tissues, amœbæ, etc., I prefer to use the classical Giemsa method, diluting the stain with about nine volumes of water and staining (*after fixation*) in the incubator at 37°.

The method consists in applying ·5 per cent. Leishman's stain or Giemsa azur-II-eosin in methyl alcohol to the slide. (We never used coverslips; slides cleaned by boiling in lysol are easier to handle, pack and keep clean, and nurses can be taught to make films on slides when not one in ten would master the intricacies of making films on coverslips.) The stain is allowed to *evaporate* and is re-dissolved at any time after the slide is completely dry—best when the slide is just dry—by the application of an amount of methyl alcohol equal in volume to the original stain. When re-solution is complete, about twice the volume of ordinary distilled water is applied and left for half an hour or longer, when the stain is washed off and the film is dried in the air. If care is taken to dissolve the stain completely before diluting with water deposits are rare; if they occur they can be removed by the application of absolute alcohol for a few seconds. The method produces constant colour differentiation in the hands of comparatively untrained assistants and can be used for staining large numbers of slides at one time.

Staining with the Romanowsky stains takes place in two stages. In the first stage, before dilution with water the red cells stain pink, but very little staining of leucocytic nuclear chromatin takes place and none of the blood parasites. After dilution with water the nuclei of the leucocytes become first blue and then a deep reddish-purple. It is not until the purple colour is well established that parasites stain, and spirochætes stain last of all. If the nuclei in a Leishman or Giemsa slide are not stained purple it is useless to search for either spirochætes or malarial rings; adult benign tertian parasites or malignant tertian crescents may be found because of their natural pigment. Spirochætes by this method are stained purple.

Some workers got good results by staining thick films with aniline gentian violet, but by the time I learned of this method I was using the dark-ground method, which is preferable to any staining method.

Dark-ground illuminators are not part of the equipment of an Army laboratory so I had to contrive one from the ordinary Abbé condenser. The illuminant used was sunlight, which was generally available in Egypt. A large central stop for the Abbé condenser was made from cardboard placed centrally below the condenser, the diameter of the stop necessary being found by experiment to be about 1·5 cm. Fairly thin slides were used, and by using the condenser as an immersion condenser, with a drop of cedar-wood oil between the top of the condenser and the slide, excellent dark-ground illumination was obtained. The light is reflected by the concave mirror, and better results are obtained if this is large. The distance of the mirror should be adjusted so that it illuminates the whole of the lower surface of the condenser. The adjustments to be made are:

(1) Centreing of the stop and of the substage if possible.

(2) Adjustment of the microscope so that the light is coming from directly in front.

(3) Focussing the light on the slide by the substage focussing adjusters.

(4) Adjustment of the substage mirror until the maximum dark-ground effect is obtained.

The objective used was the $\frac{1}{6}$th with the highest-power eye-piece available. If the background is not absolutely black the stop is not large enough. The size of the stop necessary varies with the N.A. of the objective. If the objects show "tails" the centreing is defective.

This apparently rather crude arrangement served me excellently. Even *Spirochæta pallida* can be readily recognised with it. All the "official" methods of dark-ground illumination involve the purchase of expensive additional apparatus—immersion condensers or special paraboloids. A piece of cardboard, a pair of scissors and a little patience are the only requisites in this case.

The film was prepared by pressing a coverslip on top of a drop of blood on a slide with a needle until the centre of the coverslip is a clear space free from blood. That part of the blood which exudes around the edge of the slip seals the preparation.

The spirochæte of the particular form of relapsing fever under mention is about 18–20 μ long, with five to six double turns. In stained films they were often twisted into figures of eight or circles, having lost their waves as they died. Some of them were as much as 2 μ broad, showing an appearance suggesting an undulating membrane, and had also deeply staining chromatin dots at intervals along their length. They were very uniform in length; only very few of them showed any of those clear spaces which are said to represent the junction of two spirochætes end to end. The appearance of some specimens, indeed, suggested they were dividing longitudinally. Some of the thicker individuals tapered off to a fine point at each end, suggesting the presence of unstained flagella. In the dark-ground specimens spirochætes show up as regularly waved, brilliantly white lines in very active movement. They set up violent commotion in any collection of red cells with which they come in contact and can be seen worming their way between the cells. They are very much more numerous than in stained specimens. The movements they show are of four kinds at least: (1) A corkscrew movement around a long axis, which is always associated with progression; (2) movements of flexion; (3) movements in which one or the whole of the undulations disappeared and reappeared; and (4) lashing movements very much more rapid than the former, and compared by Andrew Balfour to the movements of a dog shaking himself on leaving the water. These movements only occur just before the death of the spirochæte, and are said by Andrew Balfour (quoted by Manson, *Tropical Diseases*, 1917, p. 231) to be associated, in the liver of the fowl infected with spirochætes, with the shedding of granules which develop into new spirochætes. I could never make out this stage in man.

In blood taken at the beginning of a paroxysm the spirochætes lived for as long as fourteen hours on the slide at 20° C., if not examined too frequently. The intense heat of the sun in the dark-ground illuminator led rapidly to their death. The spirochæte of the typical form of relapsing fever was smaller, narrower, less brilliant, had more turns, was very much more numerous, often present in larger numbers than the red cells, and stained more readily. The spirochæte of the Palestine form was nearly always present in sufficient numbers to find with the dark-ground illuminator in a few seconds, although I often searched as many as six *stained* films for twenty minutes each before finding one. My impression is that the larger spirochæte breaks up in the preparation of the stained slide and I rarely found more than a few in such a film. There are two things which may at first be mistaken for spirochætes in blood. The first is a malarial microgamete. These have, however, only one or two undulations, no corkscrew movement, and have rounded ends. The gametocyte can usually be found from which they are separating. The second is a fragment of a fibrin filament, which will very often be seen, in the first stages of the coagulation of blood, floating about and undergoing rapid undulatory movements. They are, however, much shorter than the spirochætes and much less brilliant, and are generally attached at one end to a brilliantly illuminated platelet.

I am unable to throw any light on the transmission of the disease. A very large majority of the men, especially later on, when some enthusiast on the transmission of the disease by ticks got to work in Palestine, said they had been bitten by fearsome black insects, whose habits, however, were not those of a tick.

Capt. Brickwell, who had charge of them clinically, treated them all with whatever variety of salvarsan was available. Treatment during the paroxysm was more effectual than during the apyrexial period. We found that we had to give 0·4 grm., and even then a few cases relapsed. Temperature reactions always occurred when the salvarsan was given in the paroxysm, no reaction when given in the apyrexial period.

The only case, however, that gave us any anxiety at all was one that had a rheumatic heart. The effect on the clinical condition of severe cases is one of the two most dramatic therapeutic results I have seen, the other being the effect of antidysenteric serum on Shiga dysentery. Having seen these, I shall never again lose faith in the administration of drugs.

EPIDEMIC ENCEPHALITIS LETHARGICA.

By ROWLAND J. PERKINS, M.B., B.S.(Lond.).

WITH the kind permission of Dr. Calvert I am able to publish the following notes of two cases of epidemic encephalitis lethargica.

CASE 1.—M. B—, a female, æt. 19, was admitted to Annie Zung Ward on December 4th, 1918. Her relations said that on December 1st she had a violent headache, felt "ill" and was unable to eat. The following day she was drowsy and did not speak, but seemed to recognise friends. Later in the day she uttered slight moans, continually rolled her head from side to side, and was so drowsy that it was impossible to feed her.

In 1917 she underwent an operation for removal of glands in the neck, probably tuberculous. Neither the patient nor any of her relations ever suffered from fits, and there was no history of cardiac disease.

On admission she was afebrile, unconscious, rhythmically rolled her head from side to side, and occasionally emitted a short groan; there was marked ptosis of the upper eyelids, the palpebral fissures being about $\frac{1}{8}$ in. on each side; on separating the eyelids one could see the eyes rolling from side to side as well as the head. The lower jaw was drooping, indicating weakness of the temporal and masseter muscles; the mouth was dry and the breath offensive. There were scars of a previous operation on her neck. Her lungs were normal, also her heart, with the exception of a soft apical systolic murmur not conducted into the axilla. The abdomen was retracted, moved slightly on respiration, but more so on the right side than the left, was rigid all over and markedly tender on the left side, the patient commencing to groan and writhe when the left side of the abdomen was palpated; it was resonant and the abdominal reflexes were present and equal. *Per rectum* there was tenderness on the left side of the pelvis. The limb reflexes were normal; there was no spasticity or catatonia; the plantar responses were flexor. The patient was very constipated, and the bowels could only be effectually opened by enemata. The urine had a specific gravity of 1029; there was no albumen or sugar; there was a trace of acetone, probably the result of inanition. Lumbar puncture was performed twice and on neither occasion was the fluid under pressure.

The following is the result of examination of the cerebro-spinal fluid:

	First Examination.	Second Examination.
Colour	Colourless	Colourless.
Flakes or clot	Slightly turbid fluid	Slightly turbid fluid.
Blood admixed	None	None.
Cells	None seen	None seen.
Albumen	0·01 per cent.	0·01 per cent.
Globulin	Positive white line appearing in 30 sec.	Absent.
Fehling's reduction	Absent	Absent.
Film (centrifugalised deposit)	No cells seen; Gram-positive bacilli	No cells seen; no organisms seen.
Culture	Pure growth Gram-positive diphtheroid bacilli	No growth.

The diphtheroid bacilli were probably due to contamination. Ophthalmoscopic examination was not possible at this stage owing to the continued movements of the patient's head and eyes.

There was little change in the patient's condition until December 13th, when she became slightly less drowsy, recognised her people, and spoke a few words.

On December 16th she was conscious and could answer questions. She then complained of headache, pain in the left side of the abdomen, and blurring of eyesight, but stated that the sight of her right eye had always been bad. On examination the fundus oculi was normal on both sides. The urine also was normal.

On December 18th she was quite conscious and normal, and no longer complained of abdominal pain or headache.

On January 4th, 1919, the patient left the hospital completely recovered.

CASE 2.—A. H—, a female, æt. 34, was admitted to Annie Zunz on January 13th, 1919. The history was that on December 26th, 1918, she had pains in the limbs, and on December 29th felt "shaky" and had "bad tremblings of the hands and feet."

On admission the patient was afebrile, very drowsy, and had a mask-like expression; there was ptosis of both upper lids, but otherwise there was no facial palsy or ocular palsy, but the movements of the facial and ocular muscles were feebly carried out; the tongue was protruded straight. She could answer questions and carry out instructions, but not so intelligently and quickly as a normal individual. The

breath was foul, the tongue dry and covered with a thick white fur and sordes were present. The abdomen was held very rigid; the abdominal reflexes were absent. The triceps, biceps and supinator jerks were obtained in the right arm but not in the left. There was no paralysis in the arms, but the movements were carried out very slowly and deliberately; there was also some slight indication of catatonia, but nothing marked. In the legs the knee-jerks were obtained with difficulty. There was no ankle clonus, and the plantar responses were indeterminate. The legs seemed stiff, but could be easily moved voluntarily. The patient was very constipated and there was no incontinence. The urine was normal. The fundus oculi were normal. Lumbar puncture was performed. The cerebro-spinal fluid was not under pressure; examination showed:

Appearance . .	Clear and colourless; no clot.
Cells . . .	14 per c.mm.; few red cells present.
Albumen . .	0·01 per cent.
Globulin . .	Absent.
Fehling's reduction	Normal.

The patient's condition improved very gradually, the drooping jaw persisting for a very long time. Ultimately she recovered completely.

The former of the two cases presented considerable difficulty in diagnosis. A history of tuberculous glands in the neck, coupled with a cerebral lesion, made one think of tuberculous meningitis, and the absence of reducing substance in the cerebro-spinal fluid lent support to this. There were, however, no other signs and symptoms, so this was put out of court, and rightly, too, as the subsequent course of the case showed.

Cases of encephalitis lethargica have been described by Kinneir Wilson and others and an examination of the literature on this subject showed some interesting points of difference. In the cases described in this article there was no ophthalmoplegia, the cerebro-spinal fluid was not under pressure and did not contain altered blood—points to which much prominence has been given by some writers. The second case is not unlike the "subthalamic" or "paralysis agitans" type of the disease described by Wilson, in its gradual onset, the mask-like expression of the face, the slow, deliberate movements, and the absence of ophthalmoplegia and the more gradual onset. These cases, like the majority of cases described by writers, were afebrile and showed no sensory changes. As both cases fortunately recovered, it was not possible to ascertain the presence or absence of polioencephalitis, hæmorrhagic or simple.

This disease is evidently epidemic in character; its cause is as yet unknown. Von Wiesner, in search of a causal organism, prepared an emulsion from the brain and cord of a fatal case, and into monkey A he injected some of this intrathecally; into monkey B he injected a filtrate of the emulsion. Monkey B developed no symptoms. Monkey A developed paralysis of the hind limbs, became stuporous and eventually died; post-mortem examination showed hæmorrhagic encephalitis. From the brain and cord of the dead animal he cultivated a diplo-streptococcus from the meninges and inflamed areas, which on injection into another monkey produced a similar sequence of events. These results have not been confirmed by other observers, and as the experiments have been carried out on only a few cases one is not justified inbelieving the matter settled.

A CASE OF SCHLATTER'S DISEASE.

By S. G. GALSTAUN, B.A.(Cantab.), M.R.C.S., L.R.C.P.

THIS case is of interest partly because of the comparative rarity of the condition and partly because of the absence of any traumatism as a causative factor.

W. J—, æt. 15, a carter's boy, came up complaining of a small swelling in front of each knee which occasionally caused pain.

History of present condition.—Eighteen months previously the patient had noticed a slight swelling in the region of each tibial tuberosity. The swellings were tender and on prolonged exercise were painful. He consulted a local practitioner, who "gave him a bottle of medicine." According to the patient the condition now is much the same as when he first noticed it, except that the swellings are slightly larger and more painful on exercise, especially such exercise as walking up stairs.

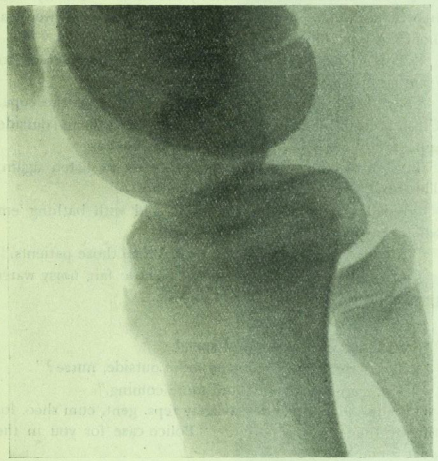
Previous history.—Measles æt. 4, chickenpox æt. 5, rubella æt. 13.

Family history.—There was no evidence of a family history of tubercle, syphilis or congenital defects.

Condition on examination.—A healthy-looking and well-developed boy, of average size for his age, and not in any way "overgrown." Except for the local condition no abnormalities were discovered. No evidence of tubercle or syphilis. In the region of the tibial tuberosities were seen two somewhat pyriform swellings with the small ends of the pears pointing downwards. They measured about 1½ in. × 1 in. each. The overlying skin was very slightly reddened, but moved freely over the swellings themselves. The latter were hard, tender, showed no trace of fluctuation, and presented a somewhat irregular surface under the skin. The swellings were fixed to the underlying tibia and could not be moved at all. Ordinary movements at the knee joints, both active and passive, caused no pain. Extreme flexion of the knees, however, as in kneeling, was painful. Nothing abnormal could be found in the knee-joints themselves.

The skiagrams (reproduced) show the characteristic "tongue" of bone forming part of the epiphysis of the tuberosity and confirm the diagnosis.

The condition is said by most authors to be traumatic in origin—either a knock or violent strain, or constant repetition of smaller strains causing a displacement or rupture of the epiphysial cartilage. In this case careful questioning could elicit no evidence whatever of any such injury or strain. Moreover, if such be the cause, why, then, is the condition usually bilateral? The explanation is surely more probably to be found in some abnormal growth of



SKIAGRAM—RIGHT KNEE.

cartilage in the epiphysis at the expense of bone, and due to some unknown stimulus, not necessarily traumatic. A similar state of affairs obtains in the rare condition variously known as "pseudocoxalgia," "osteo-chondritis of the head of the femur" or "Perthé's disease."

Schlatter's disease is often mistaken for a tuberculous infection of the tibia, both on the clinical and skiagraphic features. The history, characteristic tongue of bone seen in the skiagram, together with the fact that the condition is usually bilateral, should serve to distinguish it from that disease.

The prognosis is always good. Most cases get well without any treatment. Recovery is, however, hastened by fitting the patient up with a splint with a locking device at the knee whereby the amount of flexion can be regulated. Starting with the knees absolutely straight, gradual flexion is permitted till a full degree of flexion can be reached painlessly. The treatment takes from six weeks to six months according to the nature of the case.

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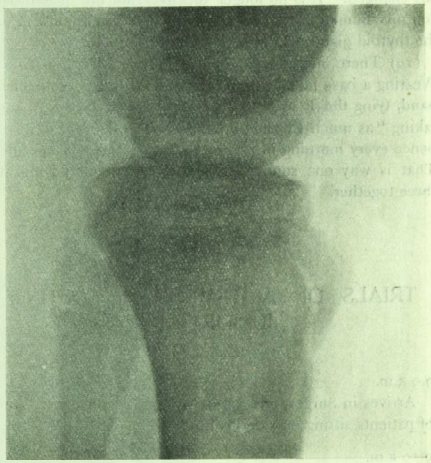


SKIAGRAM—LEFT KNEE.

IN LIGHTER VEIN.

(*With apologies to the authors of "Medical" and "Surgical Notes."*)

(1) Patients get the doctors they deserve as nations get their governments.

(2) Patients are never quite so ill nor quite so well as their nurses think they are.

(3) Some patients take aperients for their bowels' sake and some for the sake of their imaginations.

(4) Belladonna to a baby is like whisky to a Scotsman—you cannot poison him with it.

(5) To have seen one instance of a rare disease is for the beginner oft-times a misfortune; to have seen two instances of it is oft-times a calamity.

(6) The patient who comes saying "I think I want a rest-

cure, doctor," probably doesn't; the patient who resents the advice to undergo it very likely does.

(7) What is a cardiologist? A cardiologist is a doctor to whom a graphic record is the alpha and the omega of his observations and heroic doses of digitalis the limit of his therapeutics.

(8) There are two risks in every operation: there is the risk that the patient may not survive the operation, and there is the risk that it may not do him any good. The latter risk is often the greater of the two.

(9) We sometimes fancy that Medicine has progressed since the days of the Humoral Theory. But fashion only has changed. It is no longer the liver nor the spleen that controls human pathology; it is the ileo-cæcal junction, or the thyroid gland, or the peri-odontal membrane.

(10) There are three popular cures for rheumatism: Wearing a base metal ring on the middle finger of the left hand, tying the E string of a violin round the waist, and taking "as much Epsom salts as will go on the *back* of a sixpence every morning in my tea." Each remedy is specific. That is why one sometimes sees a patient employing all three together.

TRIALS OF A TEMPORARY ACTING JUNIOR H.P.

9.9 a.m.

Arrives in Surgery and views with dismay the serried rows of patients sitting outside his box.

9.10 a.m.

Gets down to it. Signals for first patient.

Enter small girl with enormous bottle.

"Please, doctor, I've got a 'acking corf."

"All right, go behind that screen. Next."

Enter voluble and well-upholstered lady with a tribe of children.

"It's no better, doctor," she says, with the melancholy pride of one who enjoys poor health. This conveys little to the H.P., who has never seen her before, and certainly never wants to see her again.

"What's no better?"

"Why, wot I come 'ere for."

"Yes, but what's that? I haven't seen you before."

"Well, doctor, it's me nerves."

"No, no. What *is* the matter? What are you complaining of?"

"Well, it's like this 'ere, doctor. I goes to a chemist's shop and asks 'im for something for me nerves, and 'e says to me, 'e says . . ."

"I don't want to hear what the chemist said. What brought you up to the hospital? Pain, headache, or what?"

Finally with great difficulty sufficient information is extracted—gent. cum rheo.

"Will you look at 'im too, doctor?" 'Im is a small boy, apparently about five, except for the inherent improbability of anyone getting so inconceivably dirty in five short years.

"What's the matter with him?"

"Pain in the stummick."

Good, thinks the H.P., she is at last learning to give definite answers. "How long has he had it?"

"A long time."

As you were, thinks the H.P.; she isn't. "Do try and answer questions. What *does* a long time mean—a week, a month, a year, ten years?"

Leaves her to think it out and vanishes behind screen to examine first patient, temporarily forgotten.

"Say ninety-nine," he says, with uplifted stethoscope. Crash! crash! bang! The berserk charwoman outside appears to be beating the floor with her bucket.

This disturbance quelled, he proceeds to listen again. This time a strident voice interrupts him—

"Wot I says is this 'ere. I don't 'old with bathing 'em when they're ill . . ."

"Nurse, do go and read the Riot Act to those patients."

Comparative quiet except for an electric fan, noisy water pipes, and the shuffling of feet outside.

11 a.m.

Two hours of it at colossal speed.

"Surely there can't be many more outside, nurse?"

"Three and a-half rows and more coming."

Profane silence as he savagely reps. gent. cum rheo. for the *n*th time. Enter porter. "Police case for you in the next room, Sir."

"!!!" Another twenty minutes spent in seeing it and ringing up wards to admit it. Comes wearily back to find four rows outside. Next patient:

"Please can I have a bottle of medicine for my brother? 'E's got . . ."

"Look here, this isn't a chemist's shop. If you want your brother treated he must come up to be examined."

"What's the matter with the baby?"

"I think he's internally convulsed, doctor." Complete collapse of Junior H.P. Popular symptomatology is not his strong suit.

A girl from the Surgical side with her elbow in plaster is having her chest examined. Plaster is noticed to be cracked.

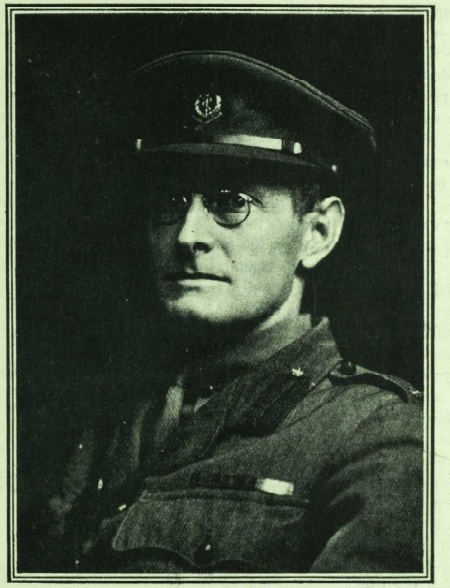
"I didn't know it was cracked, doctor," she explains. "It was all right last Tuesday fortnight when I changed my vest!"

W. S. S.

OBITUARY.

ARCHIBALD HENRY HOGARTH, M.D., D.P.H.

THE news of the death of Dr. A. H. Hogarth has been a shock to many who had seen little or nothing of him during the last five years. His activities were varied, and untiring always; he touched life at points too numerous even to catalogue here. Yet the memory of a personality of rare charm may prove more abiding than of his strenuous career, concentrated as it was into comparatively few years.



MAJOR A. H. HOGARTH, M.D., D.P.H.

Archibald Henry Hogarth was a Queen's Scholar at Westminster 1891–6 and Classical Exhibitioner at Christ Church, Oxford, 1896–9. His University course was interrupted by the South African War, through one year of which he served with the Imperial Yeomanry, winning the D.C.M. After one more term at Oxford he took his Degree in Physiology, and entered St. Bartholomew's in October, 1901, throwing himself heart and soul into all the phases of hospital life. Always a keen football-player, he was captain of the Association team 1903 4, and besides acting for two years as Editor of the JOURNAL, he ardently promoted the formation and organisation of the Students' Union, of which he became the first Vice-President. Few of his contemporaries could have imagined at the time that "Archie's" apparently visionary schemes could result in the Students' Union as we now know it, appreciated as it is by Bart.'s men all over the world.

Throughout his student days he worked indefatigably. From early morning in the Out-Patients' Department till late evening "Archie" was about the Hospital, firmly convinced that medicine and surgery could only be learnt by clinical study. After qualifying in 1903, he was House-Physician to Dr. Gee, whom to the end of his days he regarded with peculiar veneration and affection, and constantly quoted.

His first public appointment in 1905 as part-time Assistant Medical Officer, London County Council Education Department, he combined with a year's residence at St. Luke's as Clinical Assistant, and in 1906 with work for the Port of London Sanitary Authority at Gravesend. By the summer of 1907 he was not only taking a prominent part in the proceedings of the Second International Congress

on School Hygiene, and helping the passage of the Education Act (Administrative Provisions) through the House of Commons, but he had also become an authority on housing problems, and was drawing up a detailed report, subsequently entitled, "The Present Position of the Housing Problem in and Around London," for the Mansion House Council on the Dwellings of the Poor. Meanwhile his work for the London County Council had increased, and he had left Gravesend to establish himself at Toynbee Hall, where he lived for eighteen months, doing pioneer work in the promotion of the Boy Scout movement, and always keeping in close touch with the Hospital. Hogarth's first official connection with Bucks began in the spring of 1908, with his appointment as County Medical Officer, but until 1911 he was still able to live in London, working for the London County Council, his pen always at the service both of school hygiene and of housing. He never found time to prepare a second edition of his book, *Medical Inspection of Schools*, though few days can have passed when he was not writing something to educate public opinion or to arouse interest for some fresh crusade.

In his work for Bucks he was at liberty to apply those principles of organisation of which he had always been so outspoken an advocate. Elasticity of system, careful adaptation to local needs and circumstances, were salient features of his administration. Stereotyped uniformity, red-tape and "officialdom" his soul abhorred. Yet no official was ever more thorough or methodical in his work, or aimed at closer co-ordination of part-time local service with whole-time central administrative control. To every branch of public health activity he gave unremitting care, if the schools, perhaps, were nearest his heart, and as the work increased he overworked himself more and more, though no man was ever served by more devoted colleagues.

The success of Hogarth's methods of organisation was abundantly proved during his enforced absence from Bucks for the latter part of 1914 and at subsequent periods. The tie with his regiment, the Queen's Own Oxfordshire Hussars, had remained unbroken from his hospital days, but of recent years he had seldom been able to go into camp. On the declaration of war he was at once mobilised as Captain in the R.A.M.C. (T.F.), and went with his regiment to France early in September. He came safely through the first battle of Ypres, but after a winter in the trenches was invalided home with pleurisy. He returned to France, but finally left in February, 1916, to be D.A.M.D. to a Division stationed at Bedford. By August he had got his majority and been appointed Sanitary Officer, Southern Army. From the end of January to March, 1917, he was in Switzerland doing special work for the War Office in connection with the interned prisoners of war. In April, 1918, he was attached to the Flying Corps and spent the summer in visits of inspection to home aviation centres. In October he started on a similar tour of naval air stations in the Mediterranean and Ægean, and witnessed *en route* some of the fighting on the Piave. On reaching Lemnos he found the island prostrate with influenza, to which all the medical staff available had succumbed as well as the reliefs sent to their aid. With characteristic energy, utilising experience gained at Shorncliffe where he had been sent in the summer to deal with a less virulent epidemic, he took entire charge, evolved M.O.'s and orderlies out of civilians, spent six weeks working day and night, and—again characteristically gave a cinema exhibition in the midst of it all without the occurrence of a single fresh case. Such were his methods of segregation and control. For his services in the Mediterranean he was awarded the O.B.E.

On leaving Lemnos he continued his tour of inspection, visiting Salonika, Egypt and Palestine, and only came home in April to resume, as was hoped, his work for Bucks. But after an attack of Vincent's angina he never regained his strength, and gradually became weaker and weaker until he died at Quainton on September 5th, aged 42.

There is no need to dwell upon the personal qualities or the charm of manner which endeared "Archie" to so many of his Bart.'s contemporaries. "We were all so fond of him" is his most fitting epitaph. Still less need we refer to the general affection which was felt for him in Bucks. Of his work for his beloved county it can truly be said: "Si monumentum requiris, circumspice."

Dr. Hogarth married in 1915 Margaret Cameron Macdonald, M.B.Aberdeen, and leaves one son.

E. M. N.

STUDENTS' UNION.

ASSOCIATION FOOTBALL CLUB.

At the Annual General Meeting of the Association Football Club the following officers were appointed for the season 1919–20:

President.—Sir Gordon Watson, K.B.E., F.R.C.S., C.M.G.

Vice-Presidents.—Mr. T. J. Holmes Spicer, F.R.C.S.; Mr. Foster Moore, F.R.C.S.

1st XI Captain	Mr. T. Zerolo.
Vice-Captain	Mr. J. Morton.
Secretary	Mr. E. Coldrey.
2nd XI Captain	Mr. G. S. Morgan.
Secretary	Mr. T. R. Davies.

A large fixture list has been arranged for two elevens, including matches with R.M.C. (Sandhurst), Westminsters, Old Westminsters, other hospitals, public schools, and old public school teams.

The first team has entered for three cup competitions: The Inter-Hospital Cup, the Amateur Football Association Senior Cup, and the Metropolitan Amateur Clubs' trophy.

It is hoped that many freshmen will join the "Soccer" club and help us to carry off one or all of these cups.

E. COLDREY (*Hon. Sec.*)

CORRESPONDENCE.

AN UNUSUALLY LARGE LIPOMA.

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

SIR,—I enclose two photos of an unusually large lipoma I found in Baghdad in 1917.

The history is as follows:

The patient, an Arab, I found one night in a palm grove anchored by his lipoma; he had a touch of fever and was unable to get away to his home, his tumour proving too heavy for him, hence my luck in finding him. He stated he had had the lipoma for four years, and during that time it had steadily increased in size until it had reached its present proportions—the size of a sack of oats. The tumour grew out of his right lumbar region and hung down the right thigh. He was covered with several small lipomata, the only other one of size being in the left popliteal space and the size of a hen's egg.

I took him into hospital, and when his general condition had improved we operated and removed the lipoma; it weighed 80 lbs.

I tried to have it preserved and sent to the College of Surgeons' Museum, but meat does not keep for long during the hot weather in Baghdad, so it had to be put on the incinerator instead.

The man was a bit of a humorist, for when I asked if he had any family he pointed to the lipoma and said that it was his only child.

50*a*, PALACE ROAD,
STREATHAM HILL,
S.W.

J. C. JOHN,
Capt. I.M.S.

[We much regret that the photographs were not sufficiently good or reproduction.—ED.]

THE LATE CAPT. A. C. STURDY.

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

SIR,—It was with very great regret that I heard of the death of Temp. Capt. A. C. Sturdy, M.C., F.R.C.S.(Eng.), R.A.M.C. I was closely associated with him in his work at Basra, where he was Surgical Specialist at No. 33 B.G.H., and I feel that it is a duty to express the deep regard we all felt for him.

Though bad health was often his portion in Mesopotamia it did nothing to daunt his energy, and he never spared himself where his patients were concerned. An able surgeon, of unfailing tact and kindness, he was an example to us all in those trying times. It was indeed the irony of fate that he should die at Bombay on his way home after his work was finished.

We who knew him in Mesopotamia offer our sincere condolence to those who loved him at home.

I am, Sir,
Yours faithfully,
F. P. C.

REVIEWS.

THE STORY OF ENGLISH PUBLIC HEALTH. By Sir MALCOLM MORRIS, K.C.V.O. Pp. 166.
FOOD AND THE PUBLIC HEALTH. By W. G. SAVAGE, B.Sc., M.D., D.P.H. Pp. 156.
HOUSING AND PUBLIC HEALTH. By JOHN ROBERTSON, C.M.G., O.B.E., M.D., B.Sc. Pp. 150.
INFANT AND YOUNG CHILD WELFARE. By HAROLD SCURFIELD, M.D., D.P.H. Pp. 166
THE WELFARE OF THE EXPECTANT MOTHER. By MARY SCHARLIEB, C.B.E., M.D., M.S. Pp. 152.
(English Public Health Series, edited by Sir MALCOLM MORRIS.) (Cassell & Co.) Price 5*s.* each.

In recent years there has been a great awakening to the importance of maintaining a high standard of public health. This growing interest has been quickened by the lessons of the war, labour unrest, and the creation of the Ministry of Public Health. The appearance of these volumes is most opportune, and we congratulate the editor and publisher on the excellence of the series.

In the first volume the editor gives an admirable summary of the history of the growth of the public health movement, and shows clearly how administrative measures lag behind informed opinion. Chapters are devoted to the relation of bacteriology to the study of infectious diseases and to the campaign against the ravages of venereal disease. The value of the unification of control of the medical services is urged and lines of future progress are indicated.

Rationing and the shortage of food supplies have brought home to all the need for some knowledge of food values and the importance of "accessory substances" in the dietary. It is a matter of both national and domestic economy that householders should be able to obtain information on these and kindred subjects in a readable form. Dr. Savage's book deals amongst other matters with food values, vitamines, preservatives, storage and the importance of cleanliness in all that appertains to the preparation of food. There are good chapters on milk and its products, meat and vegetable foods, alcoholic beverages, and diseases capable of being communicated by food.

The experiences of Germany under the blockade constitute an experiment on a large scale of the effect on a nation of an inadequate and monotonous dietary. When these have been fully studied the lessons which they teach will be valuable and should be included in future editions.

From his large experience as Medical Officer of Health for Birmingham Dr. Robertson writes with authority on the housing problem. There has seldom been such a good opportunity as the present for establishing a satisfactory housing system. In the past a man has been compelled to house himself according to his means without regard to the probable effect of overcrowding and insanitary conditions on the health of himself and his family. Such an arrangement is unsatisfactory, and results in ill-health and impaired physical and industrial efficiency. The minimal requirements in a house are laid down and do not err on the side of extravagance, and many points which minimise labour in construction and maintenance are emphasised. As a help to those concerned in drawing up schemes for re-housing this book can be recommended.

Dr. Scurfield's book on infant and child welfare is most admirable. The subject is treated with breadth of vision. The doctrine of survival of the fittest is not a suitable basis for producing a healthy community. Factors which remove the weak cannot fail to impair the health of the strong. The science of eugenics cannot be applied to man with full rigour, but the author pleads for public opinion to discourage marriage of the syphilitic, epileptic, alcoholic, mentally defective and tuberculous in the active stage. The influence of environment, feeding and other factors in the life of the infant are dealt with fully and much sound advice is given. We can warmly commend this book to every mother and expectant mother.

Dr. Scharlieb is a strong advocate of education in the care of the expectant mother. Her book is divided into two parts. In the first she deals with the signs and symptoms and hygiene of pregnancy and the chief pathological phenomena associated with it. The duties of midwives and attendants are also discussed. In the second part the administrative side is treated, and chapters are devoted to maternity centres and ante-natal clinics, ante-natal death, the problem of illegitimacy, and the laws and regulations concerning maternity welfare. A strong plea is made for increase in the number and status of midwives, greater hospital accommodation, and research into the causes of ante-natal death.

All these books are clearly written in a style suitable for the lay reader, but there are few medical men who will not find much of interest in their pages.

THE EARLY DIAGNOSIS OF TUBERCLE. By CLIVE RIVIERE, M.D., F.R.C.P. (Hodder & Stoughton & Henry Frowde, Oxford Medical Publications.) Second Edition. Pp. 314. Price 10*s.* 6*d.* net.

The author gives a very complete account of our knowledge of tubercle of the lung at the present time. It has been suggested that the volume is somewhat bulky for an account of a single disease; but it must be remembered that pulmonary tuberculosis is responsible for a high percentage of the death-rate each year in the British Isles.

Considerable attention is given to percussion as a means of detection of the disease. The author's finer differentiations of this aid to diagnosis are somewhat beyond those who are less expert than he is and who possess a less sensitive ear. Notable instances of this are the author's bands of reflex impairment. Nevertheless the Kronig's areas of apical resonance, on which considerable stress is laid by the author, with a fair amount of practice become of assistance in diagnosis.

Specially good features of the book are the descriptions of the technique of the laboratory examination of the sputum and of the X-ray appearances in pulmonary tuberculosis, though the author depreciates these as aids to diagnosis. The various methods of testing with tuberculin receive much attention, and the value of the chapter is enhanced by the fact that the description is obviously written from an unbiassed point of view.

The section on pulmonary tuberculosis and bronchial gland tuberculosis in children is a valuable feature of the book, and is especially useful owing to the differences which exist between this type and that of the adult—a distinction which is not sufficiently emphasised in the text-books.

RECENT PAPERS BY ST. BARTHOLOMEW'S MEN.

ABRAHAMS, ADOLPHE, M.D., M.R.C.P. "A Case of Lymphadenoma with Periodic Pyrexia ('Pel-Ebstein Disease')." *Lancet*, September 6th, 1919.

ARKWRIGHT, J. A., M.D. "A Criticism of Certain Recent Claims to have Discovered and Cultivated the Filter-passing Virus of Trench Fever and of Influenza (with Notes by Sir John Rose Bradford and Captain J. A. Wilson)." *British Medical Journal*, August 23rd, 1919.

BOWLBY, SIR ANTHONY, K.C.B., K.C.M.G., K.C.V.O. "A Sketch of the Growth of the Surgery of the Front in France." *British Medical Journal*, August 2nd, 1919.

BROWN, W. LANGDON, M.A., M.D., F.R.C.P. "Diet in Diabetes and Glycosuria." *Practitioner*, August, 1919.

COLLINS, SIR WILLIAM J., K.C.V.O., M.D., M.S., B.Sc.Lond., F.R.C.S.Eng. "The International Control of Drugs of Addiction. The Present Position of the International Opium Convention, 1912." *British Medical Journal*, September 20th, 1919.

HORDER, SIR THOMAS, M.D., F.R.C.P. "Medical Notes." *Practitioner*, September, 1919.

NOON, C., F.R.C.S. "Five Cases of Spontaneous Fracture occurring in Serving Soldiers." *Lancet*, August 23rd, 1919.

RIDOUT, C. A. S., M.S., F.R.C.S. "Primary Sarcoma of the Ovary at the age of 11." *British Medical Journal*, September 20th, 1919.

VARRIER-JONES, P. C., M.A., M.R.C.S., L.R.C.P. (with Sir G. SIMS WOODHEAD, K.B.S., V.D., M.A., M.D., LL.D.) "Further Experiences in Colony Treatment with After-care." *Lancet*, September 20th, 1919.

WEBER, F. PARKES, M.A., M.D., F.R.C.P. "The Occurrence of Clubbed Fingers in Healthy Persons as a Familial Peculiarity." *British Medical Journal*, September 20th, 1919.

DEATHS.

CLARKE.—On September 19th, 1919, at Newham House, Truro, Huntley Clarke, M.R.C.S., sixth son of the late Henry Booth Clarke.

ECCLES.—On September 9th, 1919, at Upper Norwood, William Soltau Eccles, M.R.C.S.(Eng.), son of the late John Henry Eccles, of Plymouth, aged 76.

HOGARTH.—On September 5th, 1919 at Quainton, Bucks, after an acute illness, Archibald Henry, D.C.M., M.A., M.D.Oxon., D.P.H., Major, Queen's Own Oxfordshire Hussars and County Medical Officer for Buckinghamshire, only son of Edward L. Hogarth, of Westleton, Saxmundham, and dearly-loved husband of Margaret Hogarth, M.B., Ch.B., aged 41 years.

PULZER.—On September 17th, at 10, Teignmouth Road, Cricklewood, N.W., after two days' illness, Walter Frank Pulzer, beloved younger son, aged 23.

RICHARDS.—On August 12th, 1919, at 23, South Park Road, Harrogate (suddenly of heart failure), George Frederick Richards, physician and surgeon.

APPOINTMENTS.

CLARKE, P. SELWYN, M.R.C.S., L.R.C.P., appointed Medical Officer to the West African Medical Staff.

COOKE, R. T., M.R.C.S., L.R.C.P., appointed Medical Officer of Health to Ventnor.

FAWKES, MARMADUKE, O.B.E., M.B.(Lond.), appointed Medical Referee, Ministry of Pensions, Midhurst Area.

KELF, H. D., M.R.C.S., L.R.C.P., appointed Assistant County Medical Officer of Health for Hampshire.

PRENTICE, H. RIDLEY, M.B., M.R.C.P., appointed Medical Superintendent to the Seamen's Hospital, Greenwich.

RYLAND, ARCHER, F.R.C.S.(Edin.), appointed Assistant Surgeon to the Central London Ear, Nose and Throat Hospital.

WITHERS, F. E., M.R.C.S., appointed Medical Superintendent to the Welsh Hospital, Netley.

CHANGES OF ADDRESS.

BAILEY, T. B., "Thorncroft," Harrow.

BURRA, L. T., The Glebe House, Little Kimble, Princes Risborough.

ECCLES, H. A., Waldronhyrst Hotel, S. Croydon.

GARROD, Sir ARCHIBALD E., K.C.M.G., 5A, Montagu Mansions, York Street, W. 1.

HORNER, N. G., 13, Gardner Mansions, Hampstead, N.W. 3. (Tel. Hampstead 912.)

KELF, H. W., Tuberculosis Dispensary, 22, London Street, Basingstoke.

PRENTICE, H. R., The Seamen's Hospital, Greenwich, S.E. 10.

RYLAND, ARCHER, 50, Harley Street, W. 1, and 67A, Marloes Road, Kensington, W.

SPEECHLY, A. J. L., Braunstone House, 70, Braunstone Gate, Leicester.

WADE, R., 89, Alexandra Road, St. John's Wood, N.W. 8. (Tel. Hampstead 4325.)

WITHERS, F. E., Medical Superintendent, The Welsh Hospital, Netley.

BIRTHS.

ATKINSON FAIRBANK.—On Thursday, September 11th, at 58, Digby Mansions, W., the wife of J. G. Atkinson Fairbank, M.B., O.B.E., Surgeon-Lieut. R.N., of a son.

FULLER.—On September 4th, at Priory Cottage, Freshwater, I.W., the wife of Capt. R. Annesley Fuller, M.C., R.A.M.C., of a son.

JAMES.—On August 13th, at 54, Park Lane, Croydon, to Dr. and Mrs. James—a daughter.

WHITEHEAD.—On August 24th, at Rougemont, Salisbury, to Winifred, wife of Brian Whitehead, M.R.C.S., L.R.C.P.—a daughter.

MARRIAGES.

DOUGLAS—VINCENT.—On August 2nd, at All Saints, Ryde, by the Rev. H. Le Fleming, Reginald Inglis Douglas, M.B., M.R.C.S., youngest son of the late Mr. and Mrs. Douglas, of Dulwich, to Margaret Anna, youngest daughter of Mr. and Mrs. Vincent, "The Abode," Ryde, I. W.

KING—OUTHWAITE.—On April 7th, 1919, at Christchurch, Byculla, Bombay, by the Rev. C. F. W. Hatchell, Capt. Harold Holmes King, I.M.S., to Lilian Outhwaite, R.R.C.

LLOYD—BRANDON.—On August 28th, at All Saints, Crondall, Hants, by the Rev. D. Felix, Rector of Aberbeeg, Monmouth (uncle of the bride), assisted by the Rev. W. B. Wickham, Vicar of Church Crookham, Major J. Ross Lloyd, Royal Army Medical Corps, third son of Lieut-Colonel and Mrs. J. Hayes Lloyd, of Streatham Hill, to Elsie Beatrice, third daughter of Mr. and Mrs. A. J. Brandon, of Redfields, Church Crookham, Hants.

PRENTICE—EVANS.—On August 26th, at St. Mary's, Abergavenny, Hugh Ridley Prentice to Margaret, daughter of Mr. and Mrs. J. E. Evans, of Queens House, Greenwich.

SPACKMAN—SMITH.—On August 12th, at St. Michael's Himley, by the Bishop of Stafford, assisted by the Rev. Arden Messiter, Vicar of Kingswinford, Capt. W. C. Spackman, I.M.S., to Audrey H. E. Smith.

St. Bartholomew's Hospital JOURNAL.

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

VOL. XXVII.—NO. 2.] NOVEMBER 1ST, 1919. [PRICE SIXPENCE.

CALENDAR.

Fri., Oct. 31.—Sir Archibald Garrod and Mr. Waring on duty. Clinical Lecture (Dr. Tooth).
Mon., Nov. 3.—Clinical Lecture (Mr. Rose).
Tues., ,, 4.—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., ,, 5.—Clinical Lecture (Mr. Rawling).
Fri., ,, 7.—Dr. Fletcher and Mr. Rawling on duty. Clinical Lecture (Dr. Morley Fletcher).
Mon., ,, 10.—Clinical Lecture (Mr. Elmslie).
Tues., ,, 11.—Dr. Drysdale and Mr. Gask on duty.
Wed., ,, 12.—Clinical Lecture (Mr. Rawling).
Fri., ,, 14.—Dr. Tooth and Sir D'Arcy Power on duty. Clinical Lecture (Dr. Drysdale).
Mon., ,, 17.—Clinical Lecture (Mr. Scott).
Tues., ,, 18.—Sir Archibald Garrod and Mr. Waring on duty.
Wed., ,, 19.—Clinical Lecture (Mr. McAdam Eccles).
Fri., ,, 21.—Dr. Calvert and Mr. McAdam Eccles on duty Clinical Lecture (Dr. Morley Fletcher).
Mon., ,, 24.—Clinical Lecture (Mr. Harmer).
Tues., ,, 25.—Dr. Fletcher and Mr. Rawling on duty.
Wed., ,, 26.—Clinical Lecture (Mr. McAdam Eccles)
Fri., ,, 28.—Dr. Drysdale and Mr. Gask on duty. Clinical Lecture (Dr. Calvert).
Mon., Dec. 1.—Clinical Lecture (Mr. Elmslie).
Tues., ,, 2.—Dr. Tooth and Sir D'Arcy Power on duty.

EDITORIAL NOTES.

THE King of the Belgians has been pleased to grant the Médaille du Roi Albert to Dr. Arthur C. Roper for medical services rendered to Belgian refugees.

* * *

Our congratulations to the following Bart.'s men on being awarded the Croix de Guerre (Belgian):—T/Capt. (Act. Major) W. S. Danks, R.A.M.C., Capt. I. R. Hudleston, D.S.O., R.A.M.C., T/Capt. C. W. B. Littlejohn, R.A.M.C.

* * *

We are pleased to learn that Major (T/Lt.-Col.) J. K. S. Fleming, I.M.S., has been awarded the O.B.E., and that Capt. J. A. A. Kernahan has been promoted to be Brevet Major. The above awards are made in connection with military operations in India and in Persia.

* * *

The following awards for distinguished services are announced, and to these gentlemen we offer our congratulations.

Croix de Guerre (French): Capt. and Brevet Major (Act. Lt.-Col.) G. H. Dive, D.S.O., R.A.M.C., Capt. S. M. Hattersley, M.C., R.A.M.C., Capt. T. R. Kenworthy, M.C., R.A.M.C.T.

Médaille des Epedémies:—*En Argent*: Capt. and Brevet Major (Act. Lt.-Col.) G. H. Dive, D.S.O., R.A.M.C.

* * *

Our congratulations to T/Capt. Gwelym David Watkins, D.S.O., M.C., and T/Capt. William Brockie Wilson, M.C., on being awarded a Bar to the Military Cross, and T/Capt. Gideon Albertyn Beyers the Military Cross. The following are the official details:

Bar to Military Cross.—T/Capt. Gwelym David Watkins, D.S.O., M.C., attd. 2nd Bn. West Riding Regt. During the operations on October 24th, 1918, on the high ground east of Verchain, he displayed great courage and devotion to duty in establishing his aid-post as close as possible behind the front-line troops. Very shortly after the first objective had been gained he proceeded to search for wounded with organised stretcher parties under continuous shell-fire, and by his prompt attention and splendid organisation many lives were undoubtedly saved.

T/Capt. William Brockie Wilson, M.C., attd. 1st Bn. Devon Regt., for gallantry and devotion to duty during the operations near Braistre, October 20th to 23rd, 1918. During this period his battalion came under very severe enemy shell-fire and a very severe gas bombardment. He worked unceasingly for thirty-six hours in his R.A.P., where the gas was strong, and it was absolutely due to his pluck and inexhaustible energy that the evacuation of the casualties of two battalions was carried out without hitch.

The Military Cross.—T/Capt. Gid on Albertyn Beyers, S. Afr. M.C., attd. 1st Bn. S. African Infy. During the operations from October 8th to 19th east of Beaurevoir, and at Le Cateau, he showed great energy and gallantry in attending the wounded under heavy shell- and machine-gun fire. On October 8th he worked incessantly for nearly twenty-four hours attending to a very large number of cases. On October 17th–18th he again did splendid work and did not spare himself in any way, and was the cause of saving a great number of lives.

* * *

The opening address of the Session was delivered by Prof F. W. Andrewes, O.B.E., M.D., F.R.C.P., F.R.S., before the Abernethian Society on October 16th. The subject of the address was "Lessons of the London Life Table." Prevention of disease is occupying much attention at the moment, and we are glad to announce that we have secured Prof. Andrewes' paper for publication in the next issue of the JOURNAL.

* * *

The Lord Mayor of London presided on October 21st at a Mansion House luncheon to open the People's Peace Year Commemoration Fund in aid of the Hospital. He stated that since 1914 the annual cost of maintenance had risen by £30,000, and that the management was now faced with a deficit of £20,000, and the prospect of curtailment of the work of the Hospital.

Telegrams were read from the King and the Prince of Wales, His Majesty expressing his sympathy with the work of the Hospital and the hope that the efforts to promote its interests would be successful.

Dr. Addison, speaking as a member of the Government and a former student of the Hospital, said that the grant in aid of the organisation and support of a medical and surgical unit would be first claimed by Bart.'s.

At the close of the proceedings an inaugural fund of £18,000 was announced.

* * *

A propos of the vigorous efforts which the Hospital is making to increase its funds, we have received a copy of *Bart.'s Chronicle*. This illustrated sixteen-page publication is excellently printed and the pictures exceptionally well reproduced. We congratulate the Appeal Committee on their efforts, and have no doubt that its distribution will materially help to bring in the additional funds necessary to enable the Hospital to carry on.

* * *

Dr. T. W. Shore, Dean of the Medical School, has been appointed a member of the Consultative Council on Medical and Allied Services set up to advise the Ministry of Health.

Dr. Mervyn H. Gordon, C.B.E., has been appointed Bacteriologist to the Hospital, and Lecturer on Bacteriology in the Medical School.

* * *

It is with great regret that we have to record the retirement of Dr. Griffith from the Gynæcological Department. He has been such a familiar figure for so many years, both in the Out-Patient Room and in the Wards, that his absence will be greatly felt by all, and especially so by those of us who have had the privilege of working in close personal contact with him. We who have benefited will always remember how much we owe to him, both for his teaching and for his many acts of kindness, and will miss him greatly.

But although he has retired from active participation in the duties of the Department, yet we are glad to feel that as Consulting Physician-Accoucheur to the Hospital we shall still be able to avail ourselves of his valued advice and help, and we trust to see him in our midst on many occasions in the future.

* * *

It is proposed to revive the dinner of the Cambridge Graduates' Club of St. Bartholomew's Hospital after being in abeyance since 1913.

The dinner will be held at Frascati's Restaurant on Friday, November 21st, at 7.15 p.m., and Sir Walter Morley Fletcher has kindly consented to take the Chair.

Owing to the many alterations in addresses which have occurred recently there has been considerable difficulty in tracing some of the members, and if any Cambridge man, qualified or unqualified, has not received a notice, the Secretaries will be glad if he will kindly furnish them with his address.

It is hoped that all Cambridge graduates who have joined the Hospital since 1913 will make a point of being present to meet the Cambridge men of former years.

There is no entrance fee and no subscription.

The Secretaries are Dr. Williamson, 8, Queen Anne Street, W. 1, and Dr. Burroughes, 35A, Hertford Street, Mayfair.

* * *

ROLL OF HONOUR.

It is with much regret that we have to record the death of Capt. William Davies, 2nd Bn. S. W. Borderers, who was killed in action in France on April 11th of last year. Capt. Davies was a student at this Hospital. To Mrs. Davies we offer our deep sympathy.

MENTAL AND NERVOUS STATES IN CONNECTION WITH THE WAR AND THEIR MECHANISM.

By SIR ROBERT ARMSTRONG-JONES, M.D., F.R.C.P., F.R.C.S., C.B.E., D.L.,

Formerly Lt.-Col., R.A.M.C., and Consulting Physician in Mental Diseases to the London and Aldershot Military Commands.

AT the conclusion of one of my lectures given during the course upon mental diseases the Editor paid me the compliment of asking if I would contribute it to ST. BARTHOLOMEW'S HOSPITAL JOURNAL, and several students thereupon requested me to precede my remarks with some definition or description of the mind, and also some explanation of the terms employed in describing mental and nervous affections, as so few even of the senior students possessed any fixed or adequate ideas upon the subject, a view which was fully confirmed during the more intimate conversation that the students and I had in going to and coming from the demonstrations held at Claybury during the summer. This is probably due to the fact that the terminology in Neurological and Pyschological Medicine is not only embarrassing in its abundance, but confusing and misleading in its connotation, and it is certainly not altogether the fault of the student.

It has been customary to state that an analysis of one's own mind by introspection enables one to confirm that the elements of consciousness may be conveniently arranged into three categories; viz. cognition, under which comes knowledge; feeling, which includes pleasure and pain; and thirdly the will, or conation, which is the tendency to act. These may be illustrated by a person approaching a picture, who, on becoming conscious of it, perceives it to be a composition of a certain colour and form. This is cognition. He then experiences certain feelings, either of gratification if the picture be a masterpiece, or of the opposite feeling if it be of indifferent merit; thirdly, there would be the desire to possess the picture if it pleased and the will would tend towards its acquisition. These three groups of elementary mental units have been compared to the red, yellow and blue rays of the solar spectrum with their three separate special qualities—the red associated with heat, the yellow with light and the blue with the chemical effects. Although each of these acted its part, yet it was the unified whole that operated as active light. The red rays are at one end of the spectrum, the blue are at the other, whilst the yellow is in the middle, and the analogy may then be carried further, giving freedom as predominant at one end of life and during the period of childhood; desire, with its impetuosity and passion, in middle youth; whilst intelligence tended to control and direct the autumn of life. Such an analysis recognises that the building up of the mind from these elements occurs through the laws of mental association, and much stress was formerly laid upon this law by its discoverer Hobbes, as well as by Hartley, who was the first to make use of the law by its application to the whole intellectual system. Thus the varied operations of the intellectual life, of memory, of imagination, of the emotions and of the will are unified through the interaction of sensations and ideas under the law of association. It is held that these various ideas group themselves into "complexes," some of which conflict with others and tend to become repressed, when they may become opposed to the personality or ego, finding an outward expression; being thus sublimated, as the term is, into a sensory, motor, sympathetic or even a mental outlet. Normally the complexes balance each other and tend to equilibrium, or if an emotion is prominent it tends in a normal person to be neutralised by the varied and complicated associations of the daily life. Not so with the susceptible person who is disposed to break down from overstrain: the emotions then become motives to action and bring new ones in their train, each connected with some of the natural instincts, or some new desire. The strongest desires in human beings, and therefore the most forceful as motives to action, are those based upon the instincts, and the most dominant instincts are those of self-preservation, which help to avoid danger; those related to the feelings of hunger and thirst, to the search for warmth, and to that of sex. Associated with these deep-rooted instincts are special feelings and emotions which are themselves springs to action. It is a fact that foreign psychologists tend to base all human action upon those emotions that are connected with sex, a view which is contrary to general experience in this country.

In the normal person the development of the will is acknowledged to be a process of great complexity, yet of growing definiteness. It probably begins with an act of attention and extends gradually so as to exercise a control over bodily movements, and side by side with its growth is that of the reason and the imagination, so that acts may be brought into rational order, and in this way the individual comes to exercise his conduct for permanent ends, and to act on fixed principles, thus developing his definite permanent character. In disease or under some great overwhelming strain or through a stress, of lesser severity if long continued; from fatigue or exhaustion there may be and often is a tendency for groups of ideas or "complexes," as they are called, to become dissociated—such a dissociation or repression tending to occur chiefly and mainly in connection with some past painful idea. These ideas tend to carry with them certain definite emotions, which, however, cannot be ascertained because it is believed that they are only unconsciously active, never themselves arising into consciousness, but being transferred or "sublimated" into some other form of expression, the difficulty experienced in identifying these causative emotions being due to what has

been described as the mental "resistance" of the individual, which prevents the hidden links between conscious and unconscious processes from being reached. One special method of discovering these hidden links of association is stated by its advocates to be by "psycho-analysis," which discovers through the free association of ideas in the mind what the hidden emotion may be and whence it proceeds. This is practised by presenting a series of stimulus words to the patient, such as the word *Europe* for example, to which he responds by calling out what occurs to his mind immediately and without thought—say he replies Germany; then the word *activity*, to which he may reply *war*; and *battle*, to which he replies *Ypres*; then *sound*, to which he says *shell-explosion*. From these replies the questioner, who has measured the reaction-time, concludes that the patient has in his mind the fear experienced at the effect of high explosives in the battle of Ypres.* This is only a crude illustration, for psycho-analysis includes many other points, among them the interpretation of dreams and the exploration of hidden desires lying in the unconscious mind. In this way is discovered the connection between outward symptoms and their inner, deeper meaning with their proximate cause or causes, which when realized are brought before the patient's conscious mind and then reasoned with and put out of the mind so that they cease to act as the unconscious cause of his nervous or mental state. This is the explanation of psycho-analysis, but neither the method nor its justification are universally accepted. There is a very strong opposing school, and we shall refer to the subject later.

It will be seen from the description given above, that mind implies the sum total of all conscious processes experienced by any person; but there are in addition in every individual mind certain tendencies or dispositions which are inherited, and certain others that are acquired through past experiences during infantile and child life. Two aspects therefore enter into the conception of mind; firstly, the immediate conscious processes; and secondly, the various conative tendencies to act. The latter may not involve actual consciousness, so that we have, broadly speaking, subjective consciousness, when everything is conscious; and objective consciousness, viz. things realized by the mind which include the dispositions, inclinations and tendencies that are unconscious, yet which definitely affect the flow of mind and without which the mind would not be what it is. This part of the mind has of late years received unusual attention at the hands of those who practice what is described as psycho-therapeutics. It may be added that the theologians have further and extended views about the mind, insomuch as they add to it the soul or spirit. The former they regard as a permanent immaterial something, some kind of unity behind the phenomena of mind which may be compared to the ether and through which mental processes act, or something like a chair or table yet immaterial upon which mental processes rest. The word spirit is used as either synonymous with soul or as some higher part of the mind, which permits the expression of the religious faculty or the higher ethical ideals and aspirations; but we have no proof of these, and so far as we know, speaking psychologically, there are before us only "mental processes" which are the result of or are dependent upon bodily conditions.

For the student interested in mental problems, the simile has been advanced that the mind is a constant running stream of consciousness, like a mighty river which occasionally flows in a narrow channel, then the current runs faster; and this is the case sometimes with the active human mind. If we could picture for one moment the river Thames as frozen solid from its source to its outlet, and we were to divide it across, say at Blackfriars Bridge, and if we could turn up each divided end and look at it, we should get a view of our own consciousness at a particular time and place; but if we were to contemplate the whole course of the river, then we should have the whole human mind during any one lifetime. This analogy, however, leaves out the tendencies of the mind, but from the above remarks it will be noted that consciousness may not be co-extensive with mind, because there are unconscious phenomena that must also be included in the term. The psycho-analytic school of physicians appeals in treatment exclusively to the unconscious factors of the mind and neglects entirely any bodily condition, any emotional or any cognitive factors, nor does it make any appeal to the conscious will; whilst the other school, and may I add in my judgment the more reasonable, base their treatment upon an appeal to all of the three elementary units through suggestion, persuasion and re-education.

In order to throw some light upon the treatment of mental and nervous disorders a further appeal has been made to philosophy—which is the science that unifies all the others—to explain if possible *the ultimate* nature of the mind and its relation to the body, but this unfortunately is the proverbial appeal to the blind man to look for a black hat in a dark room, the hat in question not being there. At any rate philosophy merely states that mind is something opposed to matter, that it is something outside matter yet able to exercise power over it. Leibnitz believed there were particles of mind (psychical monads) acting everywhere upon material atoms, so that mental states were ultimate units analogous to material atoms—hence the terms mind-dust and mind-stuff formerly in use. In recent philosophy the tendency has been towards an idealistic use of the term mind and to consider actions as caused by psychical antecedents, and that mind was something transcending matter and apart from it yet in it. As to the relationship between mind and body, this has always excited curiosity and wonder, and several theories have been propounded to account for the phenomena. One theory is the dualistic, which assumes that mind and matter

are two real forms of existence, yet connected either through an interaction of one upon the other or as cause and effect; or as a case of pre-established harmony which cannot be further explained. Another theory is the monistic: that mind and body interact as a unity, but in regard to which the ultimate reality may either be mental (idealistic) or material, and the term psycho-physical parallelism has been brought in to explain that the brain or the nervous system is the outer form of the inner unity of consciousness, the world of matter and the world of consciousness being parallel manifestations of one underlying substance.

It is thus seen that we get little help from an appeal to philosophy, there is merely offered to us the statement of a fact and not any explanation of the phenomenon, and we are left in some confusion.

A like confusion attends the terminology of the many disorders that result from affections of the nervous system. Even the term *psychosis* is misunderstood and misapplied. In an elementary text-book upon psychology we find the expression "no psychosis without neurosis," by which the author means to imply that there is no mental action without its corresponding nervous action; in other words, that there is a neural process corresponding to every mental phenomenon. Yet as we know it in neurological medicine the term psychosis has only one meaning, viz. some functional disorder or disease of the mind in contradistinction to the term *neurosis*, generally applied to a functional disorder of the nervous system which is not dependent upon any discoverable lesion, and not associated with mental symptoms although in frequent instances the term is erroneously applied to mental states, as, for instance, when fixed ideas present themselves to consciousness and are described as compulsion neurosis. The two terms neuroses and psychoses are frequently employed indiscriminately, the one for the other. Neurasthenia is the most typical form of the neuroses as psychasthenia is of the psychoses. Epilepsy, chorea, and probably exophthalmic goitre are neuroses. It is not the ætiology but the clinical picture or the form which should be the determining factor, yet in the use of the terms psychosis and neurosis an emotional origin is predicated, hence the difficulty in separating form from cause.

Of the psychoses we meet with two in particular that are common under war conditions: one, (*a*), is described as *anxiety psychosis* (often called anxiety neurosis) which is a functional mental disorder characterised by depression and mental restlessness brought about by anxiety or continued depression; and (*b*) *exhaustion psychosis*, or *psychasthenia*, which results from long-continued insomnia, fatigue, strain, alcohol, or other toxins; the only distinction between them being the agitation and restlessness connected with the one as compared with the more profound asthenia in the other, yet both may have the same factors of causation—an operation, for instance.

Again, students are greatly puzzled by the term *psycho-neurosis*, which should be confined to functional nervous diseases with predominantly mental symptoms and caused by emotional disturbances. The term is mainly applied to hysteria and the various hysterical conditions, which are characterised by lack of control over the emotions and actions. They are generally diseases of mental origin and caused by some prolonged mental strain in predisposed persons. There is a tendency for any abnormal mental experience to be reproduced with all its original mental and physical phenomena, when any idea or emotion related to the original experience is brought back to the mind by association; hence the terms *association psychosis* and *association neurosis*. For instance, I have known eight successive recurrences of puerperal mania in the same person to result, mainly from the recollection of a painful experience connected with the first occurrence, and I have known a repetition of shell-shock to occur each time the sufferer was sent to the front after his convalescence, owing to the revival of former associations or a reproduction of the original conditions.

Psychopathic is a term with a double if not a multiple meaning. Strictly speaking it should only relate to mental disorders; a psychopathic family history is one with a record of insanity or some of the psychoses in one of its members; but a psychopath has been described, not only as a person who is or has been suffering from mental disease, but also a person who has an inborn tendency to develop insanity or who has an instinctive or inherited aptitude to commit grossly immoral or perverted acts. The term *neuropath* should likewise be limited to those who have a history in their family or who themselves have suffered or tend to suffer from functional nervous disease.

I have been greatly struck with the ignorance, or perhaps I should say the lack of precise knowledge, that the senior student exhibits in relation to *hysteria*, and considering its protean symptoms this is not surprising, because the term hysteria is as wide in its connotation as there are functions in the body. It practically covers the whole field of the psycho-neuroses and may be considered to be synonymous with it. It is no help for the student to say that hysteria is a disease characterised by the domination of submerged memory complexes. Few even of the "high priests" of the cult of psycho-therapeutics actually realise what this means, and there is no satisfactory definition of hysteria because it can only be investigated through psychical phenomena which are the interaction of feeling, cognition and conation; nor does its etymology explain its nature or origin (ὑστέρα—the womb) because it affected more men during the war than women. However, it is the simplest and the easiest disease to cure by suggestion, which is moral and psychical persuasion—hence the name Pithiatism (πείθω—to persuade) invented for it by Babinski—yet it may become the most difficult, distorting, deforming, intractable and permanent

condition, as may be appreciated when it is known that one in seven of soldiers invalided from the army was discharged through it, and further when it is known to be one of the standing difficulties of the Pensions Ministry. Hysteria, or rather the hysterias, are better described than defined; they show themselves primarily in a lack of self-control, there is a morbid self-consciousness, and there is either a deficiency, an exaggeration, or a perversion of sensation, motion, of the special senses, of the vasomotor system and of the mind—each or all of them may be disturbed. In regard to sensation there may be hyperæsthesia or anæsthesia; hyperalgesia (increased pain) or analgesia (painless areas); there may be dimness of the vision and contraction of the field; deafness, mutism and aphonia. In regard to motion there is tonic spasm or contractures—the latter being difficult to cure; paralysis; tremor or convulsions; and also vasomotor changes, the hand (more often if previously injured) may swell, the circulation is impeded and the limb becomes blue and cold (acro-cyanosis); and there may be fainting, choking, hallucinations and trance-like catalepsy. Hysteria only occurs in the temperamentally emotional, viz. in those soldiers who were easily open to suggestibility—70 per cent. of these (Wolfsohn) had a neuropathic tendency or family history and it is essentially a disease marked by a "dissociation" of consciousness. Charcot described it as a disease of simulation. Janet, his pupil, regarded it as a weakening of the normal mental synthesis through some overwhelming cause or continuous stress resulting in a "splitting off" of certain factors from the mind; a system of ideas or "complexes" (which are a group of ideas) break away as it were, from the personality, carrying with it certain sensory or motor symptoms. It may be an idea only, but if it be an arm or a leg which becomes affected, or a feeling of fear or anger or disgust that is experienced, it is a distinct area so to speak of the personality and the dissociation is reflected in the part "split off" as well as in the mind which has lost it. Freud, another pupil of Charcot, gives as the psychological explanation of hysteria the principle of mental conflict which occurs when the mind and body are exhausted and weakened through fatigue; repression then takes place, and in the process some of the "floating" nervous energy in the higher mental processes attaches itself to a senseless fear, which then becomes an obsession, or it is converted into a motor inhibition with loss of power over the arm or leg or both, hence the term conversion hysteria, because the dissociated element is thus "converted." It may also be converted into a sensory loss, no feeling being elicited on light touch or deep pressure; or deafness may result through the conflict of emotions connected with the sense of hearing when those connected with danger to self are repressed, and it is a recognized fact that emotions can become separated from a consciousness of their objects and "float loose" for a time, either to appear as bodily symptoms by suggestion or directed to some consciously remembered object. Feelings can persist when their cause has dropped out of the mind. As to the "floating mental energy" referred to, the dynamic view of consciousness assumes that any conscious state is the sum total of this energy, but that any new stimulus from within or from without can shift the total equilibrium from one centre of activity to another.

(To be concluded.)

RECENT DEVELOPMENTS IN GAS AND OXYGEN ANÆSTHESIA.

By H. EDMUND G. BOYLE, M.R.C.S., L.R.C.P.,
Anæsthetist to the Hospital.

IT is now some three years since I began to give gas and oxygen for major surgical operations here in this Hospital, and it is only right that the readers of the JOURNAL should have some account of the developments I have endeavoured to accomplish with it.

I began with a portable "Gwathmey" machine, which I got over from America, but it soon became evident that we needed a larger machine for hospital use, so the authorities of the Hospital kindly allowed me to order one.

It very soon became obvious to me that gas and oxygen was just the thing for our wounded men, and at my request the Governors of the Hospital most kindly placed their machine at my disposal for use at the 1st London General Hospital, where we found it invaluable. I cannot adequately express my gratitude to the Governors for their kindly act, for not only did they bring a great boon to many a wounded officer and man, but they also materially assisted me in developing a method of anæsthesia which has been the means of not only saving a large number of lives, but also of producing a method which robs anæsthesia of most of its terrors.

As a result of the work with the Bart.'s machine at the 1st London General Hospital, and my own portable machine at other hospitals for officers and in my private practice, I wrote a paper which was read before the Medical Society of London in November, 1917, setting forth the main principles of administration.

Soon after this it became apparent that there was a need for a machine with which English cylinders could be used, and so at the suggestion of Messrs. Coxeter & Son, and with their assistance, I devised the machine now known as "Boyle's Nitrous Oxide-Oxygen-Ether Outfit."

Modifications of this machine were sent out to France by the War Office, and I was, and am, greatly indebted to Major Geoffrey Marshall for many valuable suggestions as to what was and was not needed at a C.C.S.

Since then a considerable amount of work has been done, not only on military cases but also in civilian practice, and especially in the development of the method for nose and throat work.

At first it seemed hardly possible that one would be able to get good results with gas and oxygen in this type of work, but eventually a technique has been evolved which gives excellent results.

This technique is by no means a final one, and I have great hopes of improving upon it later on.

At the moment it consists briefly of—

(1) The patient is given a preliminary hypodermic injection of morphia and atropine half an hour before the time of operation. The usual dose is morphia $\frac{1}{6}$ gr. and atropine $\frac{1}{100}$ gr., but this amount can be varied according to the case.

(2) The patient should be carried to the anæsthetic room or operating theatre. He should not be allowed to walk after he has had his injection.

(3) Gas and oxygen is then given, and as soon as the patient is on the verge of true anæsthesia the gas and oxygen is allowed to bubble through a C.E. mixture for a short time to deepen the anæsthesia. The face-piece is now removed and the anæsthetic continued by means of a tube inserted into the mouth.

Given in this way, it will be found that in the majority of cases only a very small amount of C.E. mixture is needed to maintain adequate anæsthesia, and at the end of the operation the patient regains consciousness almost at once and is little if any the worse for the anæsthetic.

The patient's colour must be kept pink all the time.

Whilst working at the development of this form of anæsthesia I have discovered that it is comparatively easy to maintain anæsthesia by what may be termed the endo-pharyngeal method; and this is a method that we now frequently employ in the throat department when we are dealing with cases of carcinoma of the tonsil, or similar cases which are being treated by diathermy. In connection with this it is important to remember that whilst the cautery is at work no ether or ether mixture should be blown into the pharynx, lest there be an explosion. There will be no explosion if the cautery is embedded in the tissues and is not sparking visibly and audibly, but if sparks are about avoid ether.

This endo-pharyngeal method is also being employed in certain plastic operations on the face, and has so far given excellent results.

The conclusions I have arrived at for the moment are:

(1) That gas and oxygen with a little ether or C.E. mixture (when necessary) is from the *patient's* point of view the best anæsthetic combination that we at present possess because—

(*a*) The induction is fairly rapid and not unpleasant.

(*b*) The maintenance of the anæsthesia does not exhaust the patient and put any strain on the organs and tissues.

(*c*) The recovery is rapid, and is as a rule devoid of those unpleasant hours that so many people have to undergo after ether or chloroform.

(*d*) There can be no toxic effects, seeing that both nitrous oxide and oxygen are non-toxic and are rapidly eliminated, whilst the amount of ether or C.E. mixture is so small as to be almost negligible.

(2) That in the majority of cases the surgeon is no inconvenienced in the least. In some cases, such as upper abdominal operations, it is true that a certain amount of gentleness in surgical technique is required, but as this comes easily with practice one need not dwell on it now, but merely add that if the relaxation is not enough for the case in hand then the C.E. mixture can be pushed to produce the temporary relaxation, and when the necessity for this has passed the anæsthetist can resume with the gas and oxygen.

One has therefore come to the conclusion that for the vast majority of surgical cases this combination of anæsthetics is probably better for the patients than ether, chloroform or mixtures thereof.

This conclusion leads one to the question, Do we pay enough attention to the patient's comfort at, during and after an operation? For my own part I do not think that enough attention is given to this important point. It was all very well to neglect it years ago when our knowledge of anæsthesia was even less than it is to-day, and when a surgical operation was an affair "wropt in mystery." But nowadays, when mystery has given way to knowledge, cleanliness and common sense, we should use our best endeavours to make operations as pleasant as possible for the patient, by avoiding those anæsthetics known to be dangerous and those known to leave unpleasant after-effects, and by using those least calculated to damage the patient's health and tissues whilst at the same time they promote their well-being and after-comfort.

THE TREATMENT OF PHLEBOTOMUS FEVER.

By MARMADUKE FAWKES, O.B.E., M.B., B.S.Lond.,
Late Surgeon-Lieutenant R.N.

WHILE on an Active Service cruise in the Eastern Mediterranean, during 1917–18, it was my lot to be called upon to deal with a considerable number of cases of phlebotomus fever. I had no previous experience of this condition, and was impressed with the paucity of the literature concerning this disease and the scanty guidance given regarding treatment. It may therefore be of interest and utility to place on record a short

description of the only form of treatment which proved of real service from the patient's point of view in dealing with the three days of acute suffering which characterises this specific fever.

Phlebotomus fever, commonly known as sand fly, from the minute fly the bite of which conveys infection, can be prevented by avoiding areas where the disease is known to exist, or, if in an affected area, by using a very fine sleeping-net together with the application of turpentine, paraffin oil or eucalyptus to parts exposed during sleep, such as the fore-arms, neck and face, for the sand-fly is only active during the hours of darkness. If these prophylactic measures are not available, or fail to give protection, phlebotomus fever supervenes after three or four days' incubation, irritating bites on exposed parts already suggesting a possible infection.

The onset is sudden, and the absence of a marked rigor and presence of infrequent (slow) pulse throughout enables one to differentiate the case from one of malaria.

The most marked symptoms are: Very severe frontal and orbital headache, accentuated by the least movement of the head, stiffness and pain in limbs and trunk, and constipation with a marked feeling of general irritability; last, but not least, three days' persistent insomnia complete the clinical picture of abject misery to which the unfortunate sufferer is subjected. At this stage the patient, who usually describes himself as feeling "like death itself," may or may not obtain relief from the assurance that his malady will only last for three days, and has no mortality. But it is obviously useless, from the point of view of both patient and doctor, to be told of the futility of administering quinine, and that such drugs as phenacetin, aspirin, salicylates and diaphoretics may prove useful when no relief is obtained after giving these a fair trial.

The following simple routine treatment—first brought to my notice by Surgeon-Commander Wm. Bastian, R.N., to whom I am indebted for any useful knowledge I possess concerning diseases met with in the Eastern Mediterranean—can, however, be recommended in all cases:

As soon as the diagnosis of phlebotomus (or three days' fever) is made, patient is at once placed on sick list, ordered to bed, put on milk diet and given pil. col. co. gr. iv and calomel gr. iij. Pil opii, gr. ½, is given by the mouth every six hours for forty-eight hours, and mist alb. (containing mag. sulph. ʒj and mag. carb. gr. x) three times a day during the same period of two days.

Throughout the patient is allowed a weak pot. chlor. or other suitable mouth-wash two-hourly until the tongue and fauces, which become coated and foul during the first twelve hours, are quite clean.

This treatment does not control the three days' temperature (102°–103° F.), nor does it have any effect on the infrequent (slow) pulse, but the patient remains in a sleepy state of semi-wakefulness, complains of nothing, and when the temperature falls on the third day declares that he is quite fit again and demands to be put on full diet.

In over 100 consecutive cases treated in this way very great relief was obtained, and in no single instance were any of the unfavourable effects usually associated with the administration of opium observed. The patients were allowed to be up and about the day after the temperature became normal—this was the fourth day in the majority of cases—and practically all these were able to report for duty a few days later without any untoward after-effect being noted.

In two comparatively recent additions to the medical literature of phlebotomus fever, the observers admit that their treatment is purely symptomatic by the administration of such drugs as phenacetin, salicylates and diaphoretics, and these writers report that convalescence is sometimes slow, and, for the most part, requires stimulating and liberal diet. To those and to all others who may have to deal with cases of phlebotomus, I would point out that when opium is administered as indicated above, three days' fever of the Eastern Mediterranean Littoral is robbed of all its terrors.

TWISTED OVARIAN TUMOUR COMPLICATING ACUTE PERITONITIS IN A GIRL AGED EIGHT YEARS.

By P. B. KITTEL, M.R.C.S., L.R.C.P.

D. B—, æt 8, was brought to the Hospital on September 25th, complaining of pain in the abdomen. Her mother stated that at 6 p.m. on September 21st the child had been seized with a sudden pain in the stomach and that she then vomited twice. The pain was referred to the neighbourhood of the navel, and it was less severe on the following morning. In the course of the day, however, pain was felt in the right iliac region, and she vomited repeatedly. The vomiting ceased on September 22nd, and the bowels were open after an aperient given by her mother.

Examination on September 25th showed that the abdomen was rigid everywhere, the rigidity being somewhat more marked in the right iliac region. No localised swelling could be felt. The temperature was 100° F. and the pulse 130. The child looked flushed but did not seem to be very ill.

The diagnosis of subacute appendicitis was made and the abdomen was opened the same evening. A bluish globular swelling presented at the lower end of the incision, which was found to be an ovarian cyst with its pedicle twisted four times. The cyst was pear-shaped and measured three inches by two at its broad end. The uterus was infantile and the left ovary was natural in appearance. The cyst was removed and subsequent examination of the appendix showed it to be inflamed. It was removed. Examination showed that it was more inflamed at the base than the apex. It was filled with fæcal material. There were recent hæmorrhages in the mucous membrane and it was slightly œdematus throughout. The appendix did not lie in the neighbourhood of the ovarian cyst nor was it seen until after the cyst had been removed. The child made a good and speedy recovery.

Both innocent and malignant tumours of the ovary are not very rare in children and they may be congenital. It is, I imagine, unusual to get a twisted ovarian cyst as young as eight years, and still more rare to find the condition associated with appendicitis. It is worth while, therefore, to record the case and for permission to do so I have to thank Sir W. Gordon Watson, K.B.E., under whose care the patient was admitted to the hospital.

A PLEA FOR BRIGHTER EXAMS.

TWO SUGGESTIONS.

I. *For Anatomical Tipsters.*

1. Describe the habits of the Four Fat Ladies. What disturbances of vision are likely to result from the abuse of sherry?

2. Who was Salasap? Give a short account of his attempted assassination by the B.N.A.

3. What hereditary influences are recorded in connection with the pelvic circulation?

4. What do you know of Timothy and Pharaoh? Are they at all likely to have met?

5. Discuss the anatomical significance of soft soap and stains. Demonstrate the fact that the latter are referable only to the case of the male.

6. What do you know of the limitations of the more disreputable members of the Peerage? Describe their effects.

7. What surgeon's reputation has been damaged in the knee-joint? What alcoholic beverage is advertised in the arm?

II. *A Medical Paper on the Works of Kipling.*

1. Criticise Dr. Julian B. Emory's diagnosis and treatment of laudanum poisoning. Who was his lady friend?

2. Discuss the protective value of John Chinn's last batch of vaccinations.

3. Who had "wobby-foot hands"?

4. Quote—
   (*a*) Mr. Emanuel Pycroft's references to
      i. Embryological specimens.
      ii. Vertigo in *Cestodes*.
   (*b*) The Colonel's remarks as to the disposal of a skeleton.

5. Describe the effect of *Girardenia heterophylla* on the skin of children.

6. Give the diagnosis, actual and differential, in the cases of—
   Miss Bucksteed.
   Larry Tighe.
   Aurelian McGoggin.
   Ould Pummeloe.

7. What was the true cause of Trejago's "riding strain"?

8. Give the context and explain the following passages:
   "Scar on the head—sword cut and optic nerve."
   "One entered seeking alleviation of a gum boil."
   "You and your membranes got us into a nice mess young man."
   "You're only homesick, and what you call varicose veins come from over-eating."
   "She'll need a lot of carbolic."

9. "The doctor said the trouble was cerebro-spinal meningitis." Where was the nurse for this case obtained from?

10. What was the nature of the injury and the resulting scar in—
   i. Peachey Carnehan's hands.
   ii. Learoyd's chest.

A.B.P.S.

ABERNETHIAN SOCIETY.

THE first meeting of the Abernethian Society was held on October 9th, when Sir Archibald Garrod and Mr. Gask delivered an address on the newly-formed Clinical Units.

Sir Archibald Garrod dealt with the composition and functions of the Clinical Unit, which is to consistof a whole-time director with an assistant director, two assistants of the status of demonstrator, two of the status of house-surgeon, and clerks or dressers. The teaching of the Unit will consist of a weekly clinical lecture and the usual ward and out-patient work.

Research is to be one of the chief functions of the Unit, which will be provided with its own laboratories, thus combining ward work with pathology.

Mr. Gask spoke of the history of the adoption of the Clinical Unit scheme in England. In 1912 Flexner recommended the system as the result of an inquiry into the systems in force in England and America. In 1913 it was recommended by the Royal Commission on University Education in London, but advance was stopped by the outbreak of war. Since the war Sir George Newman again brought forward the idea, and four teaching hospitals in London were invited to submit schemes for the establishment of Clinical Units. St. Bartholomew's was the only one to propose the setting up of both a medical and a surgical Clinical Unit. The units are to be run for five

years with financial aid from the Board of Education, and their future settled from the results obtained.

On October 16th Prof. Andrewes delivered the Sessional address, which is to be printed *in extenso* in a future issue of the JOURNAL.

T. F. ZEROLO
N. S. B. VINTER } *Hon. Secs.*

STUDENTS' UNION.

RUGBY FOOTBALL CLUB.

ST. BARTHOLOMEW'S HOSPITAL *v.* OLD ALLEYNIANS.

In the first match of the season, which was played at Dulwich on October 4th, the Hospital gained an easy victory, though the Old Alleynians had the misfortune to lose their full-back shortly after half time.

In the early stages the play was ragged, but later the Hospital combined well, and their line was rarely in danger. Thomas scored the first try and Moody-Jones the second, Kindersley converting both.

In the second half the Hospital pressed from the start, and tries were scored by Llewellyn (2), Thomas and Moody-Jones, Johnstone converting 2, the Hospital winning by 4 goals and 2 tries to *nil*.

Parkes had very little to do at back and made no mistakes. T. B. Thomas played a very good game at the base of the scrum and should prove of considerable service to the Hospital. The rest of the backs all tried to do too much individually and what real combination there was always ended in a try. The forwards were good in the loose but were badly in need of scrum practice, and should later in the season develop into quite a useful pack.

St. Bart.'s: A. E. Parkes, *back*; C. Griffith-Jones, E. E. Llewellyn, J. G. Johnstone, W. Moody-Jones, *three-quarters*; D. H. Cockell, T. B. Thomas, *halves*; C. Shaw (captain), S. Orchard, C. E. Kindersley, A. D. Wall, H. V. Morlock, C. A. Horder, F. W. Capps, D. C. Fairburn, *forwards*.

ST. BARTHOLOMEW'S HOSPITAL 2ND XV *v.* OLD ALLEYNIANS' "A."

2nd XV 19 pts., Old Alleynians 14.

ST. BARTHOLOMEW'S HOSPITAL *v.* U.C.S. OLD BOYS.

Played at Osterley Park on October 11th. The game was commenced very late owing to many of our team getting lost in the wilds of Isleworth. The ground was remarkably uneven and the ball on the soft side, the resulting game was a very poor one, and the final score implies a Bart.'s superiority which did not exist in fact. At the first the Old Boys rushed down in the Bart.'s "25" and stayed there so long that the spectators on the touch line began to get nervous. Then the game scrambled back to mid-field and Hendley was sent away down the line; he passed inside again to Llewellyn, who shook off several attempts to get a "pick-a-back" and scored between the posts. Both wings made fruitless efforts, and then a piece of pretty passing among the forwards—Morlock, Shaw and Kindersley, each handling in turn—enabled Johnstone to score. Half time, 2 goals to *nil*.

At half-time a slight re-arrangement of the outsides was made and then Griffith-Jones got away down the wing, passed in to Johnstone, who drew the back and passed to Griffith-Jones who scored wide out. Next Cockell and Griffith-Jones nearly got the ball across the line again; then Cockell received a blow on the head which left him "guessing" for the rest of the game. Llewellyn next manœuvred for a drop at goal but the kick just failed. The only time in the second half that the Old Boys looked like scoring was when an intercepted pass allowed their left wing to get away. Parkes stopped him, but the ball had gone to a forward who had a clear field and raced for the line. Orchard, showing an unwonted turn of speed, overtook him on the goal line and succeeded in robbing him of the ball. Two offside kicks were given to the Old Boys but both failed. Cockell kicked, followed up and smothered the back, and from the scrum Morlock was able to dribble over and touch down. In the last minutes Griffith-Jones was again able to run round and score again. The game ended in a win for Bart.'s by 3 goals and 2 tries (21 points) to *nil*, but the U.C.S. Old Boys had nearly as much of the game. Kindersley kicked two goals and Johnstone one.

N.B.—The pack cannot carry a "winger" yet.

St. Bart.'s: A. E. Parkes, *back*; C. Griffith-Jones, J. G. Johnstone, E. E. Llewellyn, H. A. Wright, *three-quarters*, D. H. Cockell, H. J. Hendly, *halves*; C. Shaw, S. Orchard, C. E. Kindersley, A. D. Wall, H. V. Morlock, C. A. Horder, F. W. Capps, R. Hunt-Cooke, *forwards*.

ST. BARTHOLOMEW'S HOSPITAL 2ND XV *v.* LONDON WELSH "A."

2nd XV 15 pts., London Welsh 3 pts.

ST. BARTHOLOMEW'S HOSPITAL *v.* R.N.C. GREENWICH.

The third match was played at Winchmore Hill on Wednesday, October 15th, and resulted in a win for the Hospital by 12 points to 3. Although they won the Hospital gave a very disappointing display behind the scrum, and should have piled up a large score. Nearly every pass was knocked on and too much individual work was attempted, with the result that the wings never got a chance. The forwards were well together, especially in the first half, and gave the backs many chances, and with a little more practice should develop into a useful pack.

Practically the whole of the first half the ball never left the visitors' half, and the Hospital always had the measure of their opponents, and should have set up a commanding lead. Neville opened the scoring with a try in the corner following some individual work by Llewellyn, and this was followed by a second by Llewellyn. Just before half-time Cockell added a third. All the shots at goal failed, and a half-time the Hospital led by 9 points to 0.

In the second half the visitors had more of the game, but should never have scored, bad mistakes by the Hospital leading up to their try, Bart.'s winning by 12 points to 3.

St. Bart.'s: A. E. Parkes, *back*; C. Griffith-Jones, E. E. Llewellyn, J. G. Johnstone, L. C. Neville, *three-quarters*; D. H. Cockell, J. B. Thomas, *halves*; C. Shaw, S. Orchard, A. D. Wall, H. V. Morlock, F. W. Capps, A. B. Cooper, R. E. R. Sanderson, J. L. Potts, *forwards*.

ST. BARTHOLOMEW'S HOSPITAL *v.* OLD BLUES.

Played at Winchmore Hill on October 18th. Bart.'s got going at once and within two minutes of the start Griffith-Jones went down the right wing in the Old Blues' "25," passed inside to Cockell, who, when tackled, passed back to Griffith-Jones, who scored. Johnstone's attempt at goal failed. An over early tackle gave Bart.'s a free kick, but Johnstone's attempt went wide. From a scrum following a line-out Griffith-Jones went round the scrum, worked very cleverly through the opposing three-quarters, and on reaching the back passed to Shaw, who scored, and taking the kick himself, converted. The three-quarters were showing the very poorest combination during the first half and the sides changed over with the score 8–0 in our favour.

The second half opened in startling fashion, the Old Blues rushing down to our line, and Cooper was over for a try in less than a minute from the re-start and a goal was kicked. The Bart.'s forwards got together again and Shaw and Orchard were prominent in several rushes. Cockell got away from a scrum and scored, for Shaw to convert. Then a clever run of Johnstone's enabled Anderson to score and Shaw converted again. Parkes was unable to get in a kick and the Old Blues were over our line again, but were held up, and Morlock was prominent in rushing the ball back to the half-way line. The best three-quarter movement of the day enabled Luggard to score for the Old Blues wide out on the left, but the angle was too difficult. A very fine run by Neville on the left was unluckily robbed of reward, as he put a foot into "touch in goal." The last try of the game was scored by Cockell forcing his way through the scrum and managing to get the ball just over the line as he was tackled. Shaw's kick was not successful. Result, 21 points to 8.

The forwards played a much better game, especially during the second half; the two new-comers to the pack worked hard, but the three-quarter line still lacks cohesion.

St. Bart.'s: A. E. Parkes, *back*; C. Griffith-Jones, J. G. Johnstone, E. E. Llewellyn, L. C. Neville, *three-quarters*; D. H. Cockell, T. B. Thomas, *halves*; C. Shaw, S. Orchard, A. D. Wall, H. V. Morlock, F. W. Capps, A. B. Cooper, H. G. Anderson, R. E. R. Sanderson, *forwards*.

ST. BARTHOLOMEW'S HOSPITAL 2ND XV *v.* OLD BLUES "A."

2nd XV 15 pts., Old Blues 11 pts.

CORRESPONDENCE.

THE HOSPITAL'S APPEAL FOR FUNDS.

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

DEAR SIR,—I have recently received a very handsomely printed appeal for funds towards helping the old Hospital. As an old Bart.'s man I appreciate the training I had and the associations I formed while there, and intend to contribute in proportion to my humble means. In doing so, however, I should like to point out to the Governors and originators of the appeal that if they realise the change in social conditions brought about by the war and subsequent legislation, they will extend this appeal to other classes of the community. The professional class is not the one with much money to spare at present, and no charitable cause can expect much help from them. Those who have money beyond their needs are the working class and and those who have made money out of war conditions. The centre of gravity of money to spare has undoubtedly shifted. Of the upper middle class depending on their earnings for a livelihood, many have nothing left them for an asset but their brains.

I suggest as a further means of raising money for the Hospital, and one which should have been instituted before, that each patient treated should pay a minimum of 6*d*. By so doing an income of about £1500 a year would be assured for the upkeep of the Hospital.

Retrenchment, of course, will be necessary. The financial state of the country indicates reduction of standards of life, and hospitals will have to do likewise.

Many people, politicians, and those whom the war has not touched, maintain a pre war attitude towards present problems. I think many of our profession do too, and anticipate the same progress as in the past twenty years. I am afraid I do not share their optimism. Progress in medicine depends largely on expensive apparatus and specialisation. As to the former there will be no money to buy it. As regards the specialists there will be fewer with sufficient cash to employ them and they will dwindle in numbers.

After all specialists are a type of luxury. These facts are not grasped by most, but it will be the inevitable result of the coming depression.

As the "appeal" rightly says, Bart.'s is a national institution, but the nation is nearly bankrupt, and national institutions must suffer similarly. The only consolation that those responsible for the finances of the Hospital can have is that as most of the former patients can now afford to pay a doctor of their own the numbers attending will be less and the strain of maintenance will be relieved in proportion, though the effect will be detrimental to good clinical teaching

Yours faithfully,
MURRAY BARROW.

CHELVESHAVES,
CLYST HYDON,
NEAR EXETER;
October 20th, 1919.

REVIEWS.

THE PRACTITIONER'S MANUAL OF VENEREAL DISEASES. By A. C. MAGIAN, M.D. (William Heinemann, Ltd.) Pp. 215. Price 10*s*. 6*d*. net.

This excellent little volume gives a concise outline of the diagnosis, symptoms and treatment of venereal diseases as we are acquainted with them to-day. It is intended for the use of the general practitioner, and makes no pretence of going into elaborate details which can only be advantageously carried out by the pathological and surgical expert.

The study of venereal diseases has advanced enormously during the last few years, and the introduction of clinics for the treatment of these conditions is undoubtedly a step in the right direction. To be entirely successful, however, the co-operation of the medical profession is essential.

This manual will do much to refresh the memory of practising medical men with the advances which have been made during the last few years, and we heartily commend the book to our readers.

MANUAL OF ANATOMY. Originally written by the late A. M. BUCHANAN. Fourth Edition. Edited by a Committee of Anatomists in London. (Baillière, Tindall & Cox.) Pp. xii + 1743. Price 30*s*. net.

Buchanan's "Anatomy" is one of the few works on the subject which all along has adhered to the old terminology—a feature of the book which should at once commend it to students of anatomy. This all-important subject is the key to surgery, and it has always been inexplicable to us why the student should be burdened with B.N.A. terminology, with which the surgeon with whom he will come into contact at a later period in his studies knows nothing, and in the great majority of cases wants to know nothing.

The present edition does not materially differ from the last. A few new illustrations have been added (the total now amounts to 677), and some alterations have been made in the text, for the most part in the section dealing with development.

The book is excellently printed, and we congratulate the editors and the publishers on the production of a volume which can certainly be regarded as a standard work on the subject.

SHELL SHOCK. By ANDRÉ LÉRI. (Hodder & Stoughton, University and London Press.) Price 7*s*. 6*d*. net.

Works on shell-shock and allied subjects are at the present time open to two reproaches; the nomenclature and classification are often confusing, and the tendency is for authors to invent new names to suit their individual ideas; also the Great War is over, and its accompanying occupational maladies may be considered to have, for the time being, lapsed.

In the present work, however, Prof. André Léri combines clarity of expression with exactness of terminology and accuracy of clinical observation.

He distinguishes cases of commotional and contusional disturbance from those in which the change is purely emotional. The first two are closely allied and due entirely to actual lesions, microscopical and macroscopical, as proved by autopsy, by examination of the cerebrospinal fluid and by the definite presence of organic nervous lesions. The second corresponds with hysteria, neurasthenia and the various phobias.

Not only will the book be of inestimable value in the case of future wars; in the case of neuroses occurring in private practise it will by its clear and concise thought throw a flood of light upon cases loosely labelled "psychosis" or neurasthenia.

The style is good; the matter is excellent. Nobody could read the book and fail to reap advantage from its pages.

It is to be recommended to the physician for the freshness of outlook, to the psychiatrist as a model, and to the surgeon as an education.

Messrs. E. & S. Livingstone have in preparation for publication in the autumn two new books, viz.: *Handbook of Anæsthetics*, by John Stuart Ross, M.B., F.R.C.S., and *Handbook of Skin Diseases*, by Frederick Gardiner, B.Sc., M.D., F.R.C.S., and about the same time they expect to issue the second edition of Dr. Jas. Burnet's *Manual of Diseases of Children*. In each case they hope to publish at about 7*s*. 6*d*. net.

NOTES ON PREPARATIONS, ETC.

We have received from Messrs. J. G. Ingram & Son, Ltd., of the London India Rubber Works, Hackney Wick, E. 9, a neat little book containing specimens of their "Satinette" Rubber Bed-Sheetings. To handle and examine samples of the actual goods is always more convincing than a written description, and in the present case one cannot help being convinced of the high quality of the materials used and the wide range of sheetings available—suitable apparently for every conceivable purpose for which such sheetings would be required. Buyers at hospitals, infirmaries and other institutions where considerable quantities of rubber bed sheetings are used, cannot do better than obtain a copy of this little book, which should prove of great assistance to them in selecting the colour, thickness and substance of sheetings desired for various purposes. The sheetings are all impervious to acid, alkali and ether, and are guaranteed not to peel, crack, harden or discolour. They are easily cleansed, and may be sterilised by boiling without injuring the fabric.

Messrs. Genatosan, Ltd., have forwarded us a specimen of Sanatogen Chocolate. The manufacturers claim that the preparation is attractive in flavour and free from "muddiness"; also that the high food-value of the chocolate and its body-building and sustaining powers are appreciably increased by the addition of Sanatogen.

We certainly found the sample to be extremely palatable, and have no doubt that medical men will soon learn to appreciate its value.

RECENT PAPERS BY ST. BARTHOLOMEW'S MEN.

ARMSTRONG-JONES, Sir ROBERT, M.D., F.R.C.P., F.R.C.S., C.B.E. "The Treatment of Incipient Mental Disease." *British Medical Journal*, October 18th, 1919.

CHRISTOPHERSON, J. B., M.A., M.D., F.R.C.P., F.R.C.S. "The Cure of Bilharzia Disease by Intravenous Injections of Antimony Tartrate: The Prophylactic Action of the Drug." *British Medical Journal*, October 18th, 1919.

DAVIS, HALDIN, M.B., F.R.C.S. "Notes on Skin Conditions." *Practitioner*, October, 1919.

HORDER, Sir THOMAS, M.D., F.R.C.P. "Medical Notes." *Practitioner*, October, 1919.

JAMISON, R., F.R.C.S. "Two Cases of Traumatic Aneurysm of the Common Carotid." *British Medical Journal*, October 18th, 1919.

PRIESTLEY, J. G., M.C., B.M.(Oxon.) (H. W. DAVIES, M.B., B.S., and J. G. P.). "Relation between the General Nervous System and Symptoms of 'D.A.H.' in Neurasthenic Patients." *British Medical Journal*, October 4th, 1919.

SODEN, Capt. W. S., R.A.M.C.(T.) (Capt. H. G. SPARROW, R.A.M.C.(T.C.), and W. S. S.). "A Case of Co-existent Supra-renal and Renal Disease of Uncertain Origin." *British Medical Journal*, October 11th, 1919.

SOLTAU, H. K. V., M.B., B.S.(Lond.). "A Case of Ankylostoma Duodenale with Pyloric Obstruction." Introductory Note on the Case by Col. Sir CHARTERS SYMONDS, K.B.E., M.D., M.S., F.R.C.S. *Lancet*, October 18th, 1919.

STANLEY, E. GERALD, M.S.Lond., F.R.C.S.(Eng.). "Four Cases of Traumatic Rupture of Intestine without External Injury." *Lancet*, October 25th, 1919.

WATSON, Sir C. GORDON, K.B.E., C.M.G., F.R.C.S. "Internal Derangement of the Knee." *Clinical Journal*, October, 1919.

WILLOUGHBY, W. M., M.D.(Cantab.), D.P.H. "The Course of Plague on Ships." *Medical Officer*, October 18th, 1919.

DEATHS.

CLARKE.—On September 19th, 1919, at Newham House, Truro, Huntley Clarke, M.R.C.S., L.R.C.P., sixth son of the late Henry Booth Clarke.

ROWORTH.—On September 30th, 1919, at St. David's, Chelston, Torquay, Alfred Thomas Roworth, M.R.C.S.(Eng.), L.R.C.P., St. Bartholomew's, aged 77.

APPOINTMENTS.

ADRIAN, E. D., M.B., B.C.(Cantab.), M.R.C.P., appointed Junior Demonstrator in Physiology, Cambridge University.

ARMSTRONG, R. R., M.B., B.C.(Cantab.), M.R.C.P., appointed Physician to Children's Department, Charing Cross Hospital.

BARNES, H. W., M.B., B.C., D.P.H.(Cantab.), appointed Medical Officer of Health, and School Medical Officer for Yeovil (Somerset).

CLEVELAND, J. W., M.R.C.S., L.R.C.P., appointed Senior Assistant Hon. Medical Officer to the St. Albans and Mid. Herts Hospital.

GRAHAM, Lt.-Col. J. H. P., R.A.M.C.T., M.R.C.S., L.R.C.P., appointed D.C.M.S. for the Manchester Area, Ministry of Pensions.

PAULLEY, J., M.B., B.S.(Lond.), appointed Medical Officer and Public Vaccinator to the 4th District of the Depwade Union.

RAMSAY, R. A., M.C.(Cantab.), F.R.C.S., appointed Assistant Surgeon to the Belgrave Hospital for Children.

SELWYN-CLARKE, P. S., M.C., M.B., B.S.(Lond.), M.R.C.S., L.R.C.P., appointed Medical Officer, Gold Coast, West African Medical Staff.

SMITH, Sir T. R. H., Bart., M.B., B.C.(Cantab.), F.R.C.S., appointed Hon. Surgeon to the Torbay Hospital, Torquay.

CHANGES OF ADDRESS.

ARMITAGE, B. W., St. John's College, Cambridge.

HARVEY, F., Barclay House, Yately, Hampshire.

JOHNSON, H. J., Heathgate Corner, N.W. 4.

KEYNES, G. L., 10, Boundary Road, St. John's Wood, N.W. 8. (After December.)

LAMBERT, P. REDROOF, Hatch Hill, Churt, Surrey.

MORFORD, A., 51, Kidderminster Road, Croydon.

ROBINSON, C. A., 35, Welbeck Street, W. (November to March); Brookside, Llandrindod Wells (March to November).

SELWYN-CLARKE, P. S., c/o Post Office, Secconder, West African Medical Staff.

STANLEY, E. G., 51, Rue des Belles Feuilles, Paris.

SPACKMAN, Capt. W. C., I.M.S., c/o Grindlay & Co., Bombay.

TRINDER, A. P., Theale, nr. Reading.

WADE, R., 89, Alexandra Road, St. John's Wood, N.W. 8. (Tel. Hampstead 4335, *not* 4325 as in the October issue of the JOURNAL.)

WALKER, K. M., 43, Queen Anne Street, W. 1 (temporary). (Tel. 2034 Mayfair.)

WALLIS, R. L. MACKENZIE, 55, Townshend Road, N.W. 8. (Tel. Hampstead 2961.)

Capt. CHARLES MAITLAND TITTERTON, R.A.M.C., has changed his name to Capt. CHARLES TITTERTON MAITLAND, R.A.M.C. Address, c/o Grindlay & Co., Bombay.

Mr. HAROLD BURROWS, C.B.E., F.R.C.S., late Consulting Surgeon to His Majesty's Forces, has been demobilized, and has resumed his consulting practice in Portsmouth.

BIRTHS.

CUMBERBATCH.—On October 20th, at 22, Gordon Road, Ealing, to Dr. and Mrs. E. P. Cumberbatch—a son.

CUNNING.—On October 3rd, at 3, Upper Wimpole Street, the wife of Joseph Cunning, F.R.C.S., of a son.

EBERLI.—On October 20th, at 55, Granada Road, Southsea, to Winifred, the wife of Dr. W. F. Eberli—a son, John, who survived only twenty-four hours.

ELMSLIE.—On October 8th, at a nursing home, Ventnor, I.W., the wife of R. C. Elmslie, M.S., F.R.C.S., of 1A, Portland Place, W. 1, of a son (James Reginald Carrington).

GRIFFITH.—On October 7th, at Roydon, Torquay, to Helena and Harold Griffith, F.R.C.S.—a son (Geoffrey).

HAMILTON.—On September 26th, at Calcutta, the wife of Major W. Gavin Hamilton, I.M.S.—a son.

PLOWRIGHT.—On October 10th, at King's Lynn, the wife of Charles T. MacL. Plowright, M.B., B.C., of a daughter.

PRALL.—On September 28th, at Family Hospital, Ahmednagar, Deccan, the wife of Capt. S. R. Prall, R.A.M.C., of a daughter (stillborn).

SAVORY.—On September 28th, at 31, Aberdare Gardens, S.W., to Dr. and Mrs. C. H. Savory—a son.

SLADDEN.—On October 11th, at Cheltenham House, Eaton Grove, Swansea, to Dr. and Mrs. Arthur Sladden—a daughter.

MARRIAGES.

CLARK—HAZELL.—On September 30th, at St. Thomas's Church, Rondebosch, Cape Town, Alfred Joseph Clark, M.D.(Camb.), M.R.C.P., M.C., elder son of Mr. and Mrs. Francis J. Clark, Netherleigh, Street, Somerset, to Trixie, elder daughter of the late Dr. Hazell and of Mrs. Hazell, Rondebosch, Cape Town.

FAIRLIE CLARKE—BALMER.—On September 20th, at St. Mary Magdalene's, Munster Square, by the Rev. C. Balmer, the Rev. C. Erskine Clark, and the Rev. R. E. Giraud, Allan Johnston, youngest son of the late W. Fairlie Clark, M.D., of Southborough, and Gwendolen, only daughter of the late J. Percival Balmer, H.M. Inspector of Schools.

MORFORD—BESLEY.—On October 1st, 1919, at Littlehampton, Arthur Morford, M.B., F.R.C.S., eldest son of Mr. and Mrs. P. R. Morford, "Southwood," Park Crescent, Worthing, to Marian Emma, elder daughter of Russell Besley, Esq., "Melrose," Crescent Road, Worthing.

SPACKMAN—SMITH.—On August 12th, at St. Michael's, Himley, by the Bishop of Stafford, William Collis Spackman, Capt., I.M.S., to Audrey Helen Eden, second daughter of the Rev. and Mrs. Harold Smith, Himley Rectory.

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.*

St. Bartholomew's Hospital Journal.

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

VOL. XXVII.—No. 3.] DECEMBER 1ST, 1919. [PRICE SIXPENCE.

CALENDAR.

Fri., Nov. 28.—Dr. Drysdale and Mr. Gask on duty. Clinical Lecture (Dr. Calvert).
Mon., Dec. 1.—Clinical Lecture (Mr. Elmslie).
Tues., ,, 2.—Dr. Tooth and Sir D'Arcy Power on duty.
Fri., ,, 5.—Sir Archibald Garrod and Mr. Waring on duty. Clinical Lecture (Dr. Calvert)
Mon., ,, 8.—Clinical Lecture (Mr. West).
Tues., ,, 9.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., ,, 12. Dr. Morley Fletcher and Mr. Rawling on duty.
Tues., ,, 16.—Dr. Drysdale and Mr. Gask on duty.
Fri., ,, 19.—Dr. Tooth and Sir D'Arcy Power on duty.
Tues., ,, 23.—Sir Archibald Garrod and Mr. Waring on duty.
Fri., ,, 26.—Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., ,, 30.—Dr. Morley Fletcher and Mr. Rawling on duty.
1920
Fri., Jan. 2.—Dr. Drysdale and Mr. Gask on duty.

EDITORIAL.

THE Great Silence was duly observed in the Hospital on the occasion of the first anniversary of the Armistice. In the Wards, the Out-Patient Departments, and, in fact, every department of the Hospital the two minutes' halt in our busy life was kept in company with English people the world over. For a few seconds our minds went back to those the Hospital has given up for the great cause of Liberty. They are not forgotten. They have added undying fame to the Hospital's greatness, and their memory will remain for all time.

* * *

The Distinguished Service Medal of the United States of America has been conferred upon Sir Anthony Bowlby, to whom we extend our heartiest congratulations.

Our congratulations to Capt. (Act.-Major) A. S. Cane, O.B.E., R.A.M.C., and Capt. E. G. S. Cane, R.A.M.C., on receiving the D.S.O. In each case the order was conferred for services rendered in connection with the defence of Kut-el-Amara.

* * *

We are pleased to congratulate Major-Gen. E. G. Browne, C.B., C.M.G., late R.A.M.C., on being made Officier, Légion d'Honneur, and Capt. and Brevet-Major T. J. C. Evans, M.C., I.M.S., Chevalier, Légion d'Honneur.

* * *

Mr. Cairns Forsyth, Surgeon to the French Hospital, London, has been awarded the Cross of Chevalier of the Legion of Honour for services rendered in France as Médicin Chef of a mobile English hospital attached to the armies of the Argonne and Verdun during the war.

* * *

Dr. Williamson has been appointed Physician-Accoucheur, Dr. Barris Physician-Accoucheur with Charge of Out-patients, and Dr. Donaldson Temporary Assistant Physician-Accoucheur to the Hospital.

* * *

Dr. Bernard H. Spilsbury has been appointed Lecturer on Morbid Anatomy and Histology, and will take charge of the post-mortem work. We heartily congratulate the Hospital on Dr. Spilsbury's appointment. Such an eminent pathologist is a decided acquisition to the staff, and his work is bound to enhance the Hospital's reputation.

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We understand that in May of this year Mr. B. F. W. Armitage, M.R.C.S., L.R.C.P., was elected to a Fellowship at St. John's College, Cambridge, and appointed Tutor. We congratulate Mr. Armitage on his appointment.

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We note with much interest that at the recent election for four direct representatives for England to be members of the General Medical Council, Sir T. Jenner-Verrall, M.R.C.S. (Bath), was returned at the head of the poll.

The following gentlemen have been nominated to House Appointments commencing November 1st, 1919:

House-Physicians—		
Dr. Tooth.	H. A. Bell.	Senior.
	T. G. Clegg.	Junior.
Sir A. Garrod.	G. S. Trower.	Senior.
	G. C. Linder.	Junior.
Dr. Calvert.	C. Herington.	Senior.
	H. W. Maltby.	Junior.
Dr. Fletcher.	S. M. Cohen.	Senior.
	L. W. Batten.	Junior.
Dr. Drysdale.	E. I. Lloyd.	Senior.
	E. B. Verney.	Junior.
House-Surgeons—		
Sir D'Arcy Power.	G. B. Richardson (to 31st January)	Senior.
	H. J. McCurrich (to 31st January, and then senior).	Junior.
	P. C. Collyns (from 1st February).	
Mr. Waring.	F. D. Marsh.	Senior.
	C. Griffith Jones.	Junior.
Mr. Eccles.	C. Dunscombe.	Senior.
	F. H. Young	Junior.
Mr. Rawling.	T. G. Evans.	Senior.
	N. J. Macdonald.	Junior.
Mr. Gask.	R. Coyte.	Senior.
	A. D. Wall.	Junior.

These appointments are made for a period of six months. Juniors will automatically become Seniors.

Intern Midwifery Assistant	R. G. Morgan.
House-Surgeon to Ophthalmic Department	D. D. Evans.
House-Surgeon to Throat, Nose and Ear Department	K. B. Bellwood.

These appointments are for six months.

House-Surgeon to Orthopædic Department	E. E. Llewellyn.
House-Surgeon to Venereal and Skin Departments	C. F. Beyers.
Extern Midwifery Assistant	W. S. Sykes.

These appointments are for three months.

Resident Anæsthetists	S. G. Galstaun.
	M. V. Boucaud.
	B. M. G. Thomas.

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We regret to have to record the resignation of Sister John (Miss J. R. Gibson), whose retirement leaves a gap in the life of the Hospital which will be hard to fill. A physician has said of her that she was the ideal sister for a women's medical ward—a statement with which we are in entire agreement. Her sense of justice and cheerful common sense endeared her to everyone, and we wish her every happiness in her retirement.

It is also with much regret that we learn of the resignation of Sister Faith (Miss G. M. Mew), whom, we understand, is joining a Sisterhood. As the *Nurses' League News* says, she has been identified so long with Faith that it will be difficult to imagine the ward without her. She was undoubtedly one of the best-known and best-loved sisters in the Hospital, and will have the best wishes of a wide circle of friends. Sister Faith was Gold Medallist in 1901.

* * *

Dr. Waldo, the well-known Coroner for the City of London and Borough of Southwark, calls our attention to the following cutting from a recent issue of the *Morning Advertiser*. We shall be glad to have our readers' views on what is undoubtedly an absurd miscarriage of justice:

"When a hospital doctor attends an inquest he is paid a fee if death occurs before the patient reached an institution to which he is being removed. If he dies on the hospital doorstep or inside the building the doctor gets no fee. Dr. Waldo, the City Coroner, had cases of both descriptions before him yesterday, the doctors being both at St. Bartholomew's. The Coroner characterised the law as a 'most wicked arrangement.'

"'Why don't you get the law changed?' he asked the doctor who got no fee. 'It is not so easy; but they have been talking about changing the Coroners' law for years.'

"It was stated that the doctor would have been paid a fee in a police-court."

* * *

The second British Medical Association lecture under the scheme adopted by the Council on the recommendation of the Science Committee was given by Sir Thomas Horder to the Southern Branch at Southampton on November 13th. The subject of the lecture was "Preventive Treatment in Influenza," and was printed in the *British Medical Journal* of November 29th.

* * *

In these days of reconstruction and change, when even the most venerable of our institutions are showing a disposition to adapt themselves to modern requirements, it is not surprising to learn that the youngest of the Hospital special departments, the Venereal Department, is evolving new schemes for increasing its work and efficiency. This department, although it is housed in Golden Lane and not in the Hospital premises, is none the less a St. Bartholomew's institution. Started under Mr. Girling Ball more or less in the nature of an experiment it has more than justified its inauguration. With the increased staff now working in it and the great addition to its equipment which the Corporation of the City of London has recently sanctioned, the Department should now be able to offer far better facilities for research and for education in the treatment of venereal diseases than it has been able to do in the past. We trust that under its new head, Mr. Kenneth Walker, it may continue the excellent work initiated by its former chief, and that the Venereal Department, although the youngest, will not be the least efficient of the Bart.'s special departments.

Intending subscribers to the Blakeway Memorial Fund are kindly requested to send their subscriptions either to Dr. Macphail, Anatomy Department, or to Mr. Vick, Pathology Department, *in the course of this month*, as it is desirable to close the Fund by the end of the year.

* * *

We have indeed been living in stirring times. Recent events have clearly demonstrated that the Hospital is not only getting back, but has actually got back to pre-war conditions. The Freshmen, at any rate, cannot complain that Bart.'s is dull. Details of the capture and re-capture of the Gun, which incidentally looks like becoming as famous as the renowned "milk-can," will be found on another page of this issue. On the day following the great "rag" the Hospital was visited by reporters, photographers and sight-seers galore, not the least important of our visitors being two charming ladies from the rival Hospital demanding the return of some of the trophies. Later, preparations were made to defend the Hospital against a rumoured attack from the U.C.H. Fortunately, or unfortunately, this did not take place, and the police summoned by the Hospital Authorities were left to bemoan their inactivity.

* * *

We note with pleasure that the Musical Society is meeting regularly for choral practices in the Great Hall at 8.30 p.m. on Tuesdays. This term some part-songs by Vaughan Williams have been practised, and also, latterly, some old Christmas carols.

It is asked that supporters will send their subscriptions of 2*s.* 6*d.* per annum to the Secretary, c/o the Editor of this Journal: this will entitle them to receive tickets for concerts and to perform if they will. Voices are needed more urgently than funds. Any members of the Nursing Staff or any gentlemen connected with the Hospital are invited to attend.

There is also a Hospital String Quartette. A concert of chamber music has been provisionally arranged for December 16th, to which will be invited the Medical Staff, the Sisters, and all subscribers.

* * *

The Rugger team this year is, without doubt, a good one, but it seems to have struck a bad patch, as four consecutive reverses have come its way. But it is better to have the "off time" now than in February. Only the most extraordinary series of misfortunes can keep the Hospital out of the Final on March 11th. Before they reach that stage, however, Bart.'s have to meet U.C.H., Middlesex and London, but as form is at present none of those teams should prove superior. Guy's have not won yet, and *now* is the time for every Bart.'s man—Rugger enthusiast or not—to mark his next year's calendar, and make the resolution that nothing shall keep him away from Richmond Athletic Ground on March 11th.

Up to the present Bart.'s have never had a really representative team in the field, but it is hoped that things will settle down now. The three-quarter line is good enough, the centres are clever and (except at odd moments) reliable, the wings are fast and good in both attack and defence. The team has been troubled at half for want of a suitable man at the base of the scrum; that trouble should be gone now, and there are seven thoroughly sound men in the pack, with four or five quite good men to fill the last place.

The teams the Hospital met at the beginning of the season were not quite as strong as those met in the last four games, but they were quite good average sides. Of the four games lost those at Cambridge and Sandhurst were lost to superior combinations, while the teams which went to Coventry and Aldershot were below strength. Specially was this so in the Aldershot game, which had been scratched once because the Hospital could not raise a mid-week team, but was ultimately played with a very weak fifteen at the urgent request of the opposing side.

* * *

An effort is being made to establish a Debating Society in the Hospital. For this purpose a meeting was held on November 14th, at which Sir Thomas Horder had been asked to preside. Amidst considerable enthusiasm it was definitely decided to establish such a society, with the proviso that no medical subject should be debated without the sanction of the Abernethian Society.

Sir Thomas Horder was unanimously elected President, and Mr. Girling Ball and the present President of the Abernethian Society, Mr. Gregson Williams, Vice-Presidents. Mr. Frost, to whose initiative the formation of the Society is due, was elected Secretary.

It is proposed to hold the debates monthly, and the first of these will take place on Tuesday, December 9th. The President will move: "That this House does not consider the principle of Prohibition to be in the best interests of the British Nation." Col. McAdam Eccles will oppose.

* * *

We regret to have to record the death of Mr. Frederick Skaife, which occurred at Chichester on October 23rd. Educated at this Hospital, he took the L.S.A. diploma in 1871, and proceeded to the L.R.C.P.(Edin.) and M.R.C.S. He settled at Chichester shortly afterwards, where he soon gained an extensive practice, and was for very many years on the Medical Staff of the Royal West Sussex Hospital. Early this year the toll of years began to tell, and owing to failing health he retired in March from practice, to the regret of a large circle of patients and friends.

* * *

We also regret to have to announce the death of Dr. Albert John Venn, of the Junior Carlton Club, which occurred on November 13th of heart failure, after a brief illness, in a nursing home at Harrogate. Born in 1840 in Ceylon, he was the second son of John Whatley Venn, the first municipal magistrate of Colombo. He was educated

at Bath Rectory School, City of London College, Aberdeen University, and at this Hospital. He was a Fellow of the Royal Society of Medicine, and was during his active career Senior Physician for Out-Patients at the Victoria Hospital for Children, Obstetrical Physician at the Metropolitan Hospital, and Physician for the Diseases of Women at the West London Hospital. During the years 1889 to 1894 he lived in Harley Street and practised as a specialist in Grosvenor Street. He was the author of several medical works and the editor of numerous well-known publications. In 1913 he went to America and worked there for a year, becoming a graduate of the University of Chicago. On his return to England in 1914 he became a research student at the Marcus Beck Laboratory, Royal Society of Medicine, London.

MENTAL AND NERVOUS STATES IN CONNECTION WITH THE WAR AND THEIR MECHANISM.

By SIR ROBERT ARMSTRONG-JONES, M.D., F.R.C.P., F.R.C.S., C.B.E., D.L.,

Formerly Lt.-Col., R.A.M.C., and Consulting Physician in Mental Diseases to the London and Aldershot Military Commands.

(*Concluded from p. 22.*)

THE modern French school represented by Babinski attributes all hysterias (and most "shell-shock" cases come under the category) to increased suggestibility; the ideo-motor theory that either from within (auto-suggestion) or from without—by seeing others or hearing others talk (hetero-suggestion)—some suggestion gets full play, *e.g.* the thought of loss of power in the legs may take place and they give way or become paralysed. Dr. Rivers, if I interpret him correctly, believes the psycho-neuroses arise from "suggestion," for he refers to the training of the soldier as entirely preparing him to react quickly to suggestion. Babinski states that all hysteria being caused by suggestion may be only cured by the same means, and we have witnessed many sudden "miracles" in this way, suggestion being either direct, such as the word of command, or indirect by way of persuasion. It is through the practice of suggestion that light hypnosis has proved helpful, and all hysterical subjects are easily hypnotised. Dejerine offers a very different picture of hysteria and states that suggestion has very little to do with it, everybody is suggestible; and he believes that the neurasthenic patient is much more suggestible than the hysteric, whose condition—he states—is entirely due to an emotional shock, and he asserts that unless suggestion is reinforced by emotion it cannot produce hysteria. These are the theories advanced at the present moment, and the present-day view of the pathology of hysteria is a compromise, for it has its origin in the emotions, whilst its treatment is based upon suggestion. As is well known, "shell shock" did not occur in the front lines, but mostly at the base or at home and in the military hospitals.

As illustrating its emotional origin, and also the contagiousnes of a hysterical emotion, may be mentioned the result of fear in the case of soldiers suffering from so-called "shell-shock" which occurred at one of the large military hospitals some three miles from Silvertown at the time of of the great explosion in 1917. An entertainment was proceeding at this hospital when the sudden appalling detonations were heard and believed to be enemy air raids. Out of about 30 patients thus affected many of them ran out of the hall, some fled down the corridors, others tried to conceal themselves under chairs and tables, whilst a few of the men stood their ground but gave way to violent motor convulsions of the *major crisis* type, in which "it took five or six men to hold one down." I saw several of these men afterwards who said they could not help themselves. Hysteria is no light complaint. It is a pathological mental complaint and it needs the strongest mind to deal with it, and to prevent the fixation of the emotional reaction from becoming a habit, which then means that the stigma or outward expression has passed from conscious control into the unconscious part of the mind, whence it is most difficult to be ejected. I have not referred to the dreams of hysterical persons, for it has been shown without doubt that all dreams have an emotional association, and it is assumed that in the soldier they are mostly connected with fear or some other failure of the defensive reactions of self-preservation; but the key of interpretation of dreams presented by the pyscho-analyst does not accord with my experience.

In regard to the classification of the pyscho-neuroses, this is not easy, because the symptoms of one class merge into those of another and only marked types are definite. Some have suggested (i) a scheme based upon the condition of their occurrence, *i.e.* whether on mobilisation or active service, and if so, whether in the firing line or at the base, at rest or as a prisoner; some also have suggested (ii) a classification according to the clinical form, and others base their classification (iii) upon ætiology. The latter recognises, in brief, three causes: firstly, a pyscho neurosis from an actual shell explosion or "a true commotion," but if there is an organic lesion the term pyscho-neurosis no longer applies, so that this group forms a special class, to which reference will be made; secondly, the effect of a strong emotion connected with the instincts and mainly that of self-preservation; and thirdly, exposure, fatigue, strain, terrific sounds and horrible sights, irregular meals, toxins either of infectious diseases or of alcohol, and insomnia, yet many of these are not without their emotions. The classifications based upon conditions of service and upon causation are rejected in favour of the "form" of the disorder.

IN AID OF "BART.'S."

Mr. Punch.—"YOU'RE NOT USED TO BEGGING, MY DEAR, AND I AM. MAY I HAVE A BOX LIKE THAT, AND HELP?"

[*Reproduced by permission of the Proprietors of Punch.*]

A clinical picture of the pyscho-neuroses, of necessity functional, involves two presentations, (*a*) the pyschoses on the one hand, viz. abnormal mental states which have no definitely ascertained organic basis; mania, melancholia, pyschasthenia (which Janet separated from hysteria), confusional and obtusional states, dementia præcox, paranoia, and the rhythmic or alternating types, the so-called manic-depressive mental types, and (*b*) the neuroses on the other. Epilepsy has been included among the neuroses, but the two main groups of the neurosis are (i) the great class of neurasthenics, most of them showing preoccupation and anxiety, and the (ii) still larger class of hysterical cases, characterised mainly by sensori-motor disturbances and mental heedlessness when contrasted with the neurasthenic; indeed, so marked have the opposed mental states been that the hysterical patient has been called the optimist and the neurasthenic the pessimist. The now disused term "shell-shock," without any clear connotation, forms a wedge between the two with its point in the neurasthenic class and its base well into the hysteric. The neurasthenic person gives the immediate impression that he has no storage of nervous energy, mentally and bodily he is readily fatigued on the slightest effort. His nervous storage either leaks or is used up as soon as made, *i. e.* latent is immediately converted into kinetic energy, and so rapidly it was assumed by some, that "diathermic oil" was applied to prevent its evaporating and diffusing; also electricity was vicariously substituted to keep up the storage and presumably prevent tremors, fatigue, palpitation and headache! It is a curious fact that although neurasthenia is a disease of civilisation and evolution, the officer suffered less than the private from it. Probably his responsibility for order saved his suffering from the pent-up and repressed energy which induced "shell-shock" symptoms and converted this energy into some sensory, motor, mental or vasomotor form of hysteria. A true physical or commotion shock rarely had mental symptoms alone without some motor symptoms; but if mental symptoms were present, constituting a pyschosis, then headache was fairly constant, there was also marked sensory hyperæsthesia, insomnia was a frequent symptom with dreams, but there was often marked depression and the patient readily cried, his will-power seemed to have gone and he jumped up at any unusual sound.

It is hysteria which is the all-pervading and sensational psycho-neurosis characteristic of the war, and in delimiting it as a clinical concept, one must remember its tripartite symptoms expressed (*a*) in the voluntary system as sensori-motor disturbances, (*b*) in the involuntary system as trophic, vasomotor and secretory disturbances, and (*c*) in the psychical system as amnesias, suggestibility, emotional instability and loss of will-power. These are described to the student as the stigmata of hysteria, which have been regarded by some as symptoms of exhaustion and by others merely as exaggerated normal reactions, the hysterical person being regarded as in a chronic state of auto-hypnosis ready to be acted upon by any suggestion.

It may be interesting to discuss very briefly how hysterical symptoms arise. It will have been seen how "suggestibility" and "subconsciousness" play the chief *rôle* in the production of hysteria, and as is well known repressed and unconscious wishes colour and control our normal acts, much more is this the case in hysteria, which is really closely allied to hypnotism. In hypnotism, a person is sent into a light sleep by suggestion. He is told, for instance, to gaze and attend to a small fixed object, such as a ring or the head of a large, bright pin, thus limiting his consciousness to the narrowest possible point. His mind is in this way withdrawn from all other objects, no environmental stimuli come in from without and the suggestion to sleep causes him at once to obey. Any fresh order or suggestion now given enters directly into his unconscious mind, to which he gives expression and makes an immediate reaction, uninhibited by the conscious mind. Hypnotism is thus a complete dissociation of the personality, hysteria an incomplete one, for in this disease the conscious mind is not asleep. Some repressed idea or a group of ideas (complex) with its emotional side occurs to the conscious mind from within (auto-suggestion), or from without (hetero-suggestion), but it is rejected, repressed or submerged into the unconscious mind because it is unconventional or unethical or disapproved of. There, after an interval (latent period, period of incubation, meditative period, contemplative period), it begins to give rise to a reaction and forces itself in an outward expression, again uninhibited by the conscious mind. This outward expression is the hysterical stigma, and it is an epiphenomenon or an accident of the emotional feeling. The father of a family earning good wages is conscripted and joins his depôt. He is inoculated twice against typhoid, the second time followed by severe cellulitis, and he is invalided. He realises that if he is in impaired health he need not be sent out and may not have to serve, and moreover may get a pension. He develops paraplegia, secures a pension, gets marked sympathy, is supplied by friends with a perambulator and crutches, and the disease which is functional becomes fixed; but he is persuaded he will get better if he attends a special hospital. He does this and rapidly improves. The idea of the disability enters his conscious mind but is repressed because it is unethical and wrong and even dishonest to receive a pension and to stay at home whilst others are serving, so the group of ideas is repressed and relegated to the unconscious mind, where it causes the symptoms which result in paraplegia, thus fulfilling a repressed wish which the conscious mind refused to accept as wrong and immoral and dishonest. The man is unconsciously deceived, the wish to obtain sympathy and be excused military service was originally a conscious one, but was repressed on being disapproved of, but in the unconscious mind it became elaborated and after a time crystallised out so that he obtained unconsciously

the end desired and wished for—although the conscious mind rejected it.

When the symptoms observed fulfilled the desired wish, they were regarded as a "defence mechanism" against the condition feared in the mind, and the method of securing them unconsciously then became the "defence reaction." The same mechanism is at work when a man loses the use of a hand or arm, of a leg or a foot, as also when he is mute, or deaf, or becomes temporarily blind. The paralysis is a dissociation from consciousness of the power to move a limb, in the same way that blindness is a dissociation of the power to see retinal impressions, and aphonia a dissociation of the faculty of vocal expression. It is most difficult to discover in many hysterical cases the origin of the stigma, and it is often a hard task to ascertain the nature of the wish the patient desired to fulfil; hence the use of what has been described as the process of psycho-analysis in order to reach the "submerged memory complex." If a sufficiently strong emotion can be introduced to consciousness, the symptoms may disappear like magic, and I have seen reasoning and persuasion and suggestion fail when the faradic current at once effected a cure. I have seen wonderful results from hypnotic suggestion, but I have seen equally striking cures without it, so that no one method can command success, so much depends upon the personality and individuality of the physician and the suggestibility or impressionability of the patient. Perhaps a word or two more may be permitted about psycho-analysis? And firstly from the standpoint of its advocates. Psycho-analysis purports to deal with the cause of the neurosis and not with its symptoms; it thus deals with the deep fundamental conditions of the mind, which are analysed, and the analysis alone constitutes the treatment. It is believed by its disciples that psycho-analysis discovers the "unfulfilled desires" which they state are at the root of every psycho-neurosis and out of which they all arise. The contrast between the psycho-analyst and the ordinary physician is that the replies given by the patient to the physician are only a part of the history; the other part which is essential is concealed and only the psycho-analyst is able to reach this. It is concealed owing to the fact that it represents painful experiences which are forgotten and remain in the unconscious mind which only the psycho-analyst can reach. It is these experiences, which are active forces in the unconscious mind, that are the real causes of the hysteria, and if they can only be revived into consciousness with their emotional accompanying state and thus worked off the mind (*ab* reaction and catharsis) relief is obtained. To some extent hypnosis can affect this revival, because, as was seen, an appeal in this state is made directly to the unconscious mind; but suggestion is no part of psycho-analysis and hypnosis is never used in the procedure. The opponents of psycho-analysis assert that the theory which regards all the psycho-neuroses as arising from a sexual cause is not correct; they deny that the chief repression relates to sexual matters, nor do they believe it is ignorance of sexual matters which needs to be enlightened that is at the root of the neuroses. They assert that this practice is injurious to the patient and they deny that the conclusions and records of cases presented by the psycho-analyst are either logical or correct. Finally they deny the "œdipus complex" and assert that the nursery is not noted for admonitions and rebukes as to incest and they are struck with the failures of psycho-analysis, a process which has taken many months to carry out and should have been abandoned if reason and not prejudice had governed the treatment. They resent the excuse given for failures, viz. the mental resistance of the patient and inadequate "transference." Also they attribute the improvement to the relief afforded by auricular confession and the unburdening of the mind, which always occurs in the hysteric.

The psychoses of the war are usually divided into (i) those which have been actually caused by stress, strain, fatigue or exhaustion consequent upon active service, and (ii) those which were latent but have been kindled into activity because of the war; such are general paralysis, dementia præcox, some of the milder forms of amentia, ordinary mania, melancholia, as some of these and epileptics, having been previously ill, were passed into the army on recovery where the strain only aggravated their previous mental weakness. As to the incidence of mental and nervous conditions during the war, it has been enormous. Before the armistice the number of cases presenting mental symptoms numbered over 20,000, and every form of mental disorder except those incident to senility has been met with. In particular may be mentioned the milder confusional type with sluggish ideation, mental torpor and forgetfulness. The chief symptom in these mild cases has been inability to fix the attention (a-prosexia), associated with loss of memory, which is probably the next most common symptom; the latter being of the anterograde amnesia or recent loss and rarely a loss for remote events or the retrograde type. Some cases of mental confusion when disorientated both in time and place were described as suffering from obtusion—an aggravated form of confusion. Some of the milder cases of delirium, which wandered into danger and had a loss of the sense of reality, were described as suffering from oneiric delirium. They resembled those in the somnambulistic state, they acted their hallucinations as if carrying out a dream. Both these types recover quickly with rest, quietness and isolation with regular food. My experience of these cases has been limited to those presenting symptoms of bodily disease in this country, such as pneumonia, malaria, dysentery and influenza. Alcohol both overseas and in this country was the cause of delirium and mental confusion in some of the cases I saw. General paralysis has been less common in my experience in the

London Command and Aldershot than I should have anticipated; mainly, no doubt, because there are now exact methods of diagnosis and because also specific instructions were issued as to their disposal, so that I would not be consulted in clear cases of this disease. My opinion is that there have been more remissions than usual resulting in their discharge from the military hospitals sooner than would be effected if they had been resident in the different county or borough asylums. Not only have the remissions been more frequent, but they were of longer duration, again probably because there was less reason to worry about financial affairs under the army pension than in civil life. The duration of the disease, certainly in the older cases, appeared to be longer than among civilians. Some cases of "shell-shock" had many symptoms in common with general paralysis and sometimes an Argyll-Robertson pupil. The form dementia præcox became a favourite diagnosis when in doubt about the mental state of a young soldier, and some of the psycho-neuroses were so labelled and *vice versâ*. In one instance, in the case of an officer who was not suffering from it, the proceedings and records had to be expunged after a special Court of Enquiry. I found the passivity of the limbs, the dilated pupil, the absence of tachycardia and mental neutrality to be the most constant signs of true dementia præcox, but in several instances—a fair percentage—the symptoms improved. A careful diagnosis had to be made from some cases of "shell-shock." Melancholia was more frequent in my experience than the excited form and I regret to say I am aware of several suicides. The depression was acute and sudden, and the attention of the hospital-trained nurse to mental cases was most helpful, but in the ordinary sick wards such cases when they occur throw a great responsibility upon the staff as well as terrifying the other patients. Their removal, even when urgent, was not always immediately possible owing to the great pressure upon the accommodation provided. Cases of paranoia were always very difficult to manage, as they were so logical and did not generally convince those in charge of them that they were insane. They would be found first in one hospital and then in another before final disposal to the military mental hospital, but the chief difficulty was in deciding what was epilepsy, more especially as I was not able to see the patients in an attack. Many were doubtless examples of hysterical "fugues," temporary convulsive attacks without, in most instances, complete loss of consciousness. I should like to conclude this paper by stating that the care and treatment of mental cases without incurring the stigma of certification has been of incalculable help not only to the sick soldier, who broke down in the service of his country, but also to his family. To the Director General of the R.A.M.C., who made this possible, the thanks of the community are due. I trust he has made it possible for the civilian to enjoy the same privileges and consideration.

MEDICAL NOTES.

By Sir THOMAS HORDER, M.D.

(*Continued from p. 6.*)

ON SOME NERVOUS DISEASES.

(137) Despite all that we know about the toxic agents causing multiple peripheral neuritis, it is not uncommon to meet with well-marked cases of the disease in which no adequate cause can be found. To attribute such cases to "auto-intoxication from the bowel" is a harmless guess provided that we keep an open mind as to other possible sources of poisoning.

(138) Asthenopia of a fairly marked degree is sometimes present in the eye on the affected side in cases of Bell's palsy, even when there is no overfilling of the conjunctival sac with tears nor any conjunctival irritation as the result of paralysis of the orbicularis. The condition is more likely to occur in nervous patients than in others, and it is difficult to convince them that the sight is not really affected by the disease. As might be expected, glasses do not help, and it is probably bad treatment to order them.

(139) Subacute combined sclerosis is a more common disease than is usually taught. Although frequently associated with severe anæmia, this is by no means always the case. The onset may be abrupt—a fact which sometimes leads the observer astray. The character, and the diffuse nature, of the paræsthesiæ present in the early stage of the disease may lead to the diagnosis of fibrositis.

(140) If we exclude its occurrence in certain cases of optic atrophy which are not due to syphilitic disease, the Argyll-Robertson pupil is probably always indicative of past syphilis. It is not, however, necessarily indicative of either tabes or general paresis; it sometimes exists alone—a permanent sign that the patient has had syphilis but not part of a progressive nerve degeneration.

(141) Four diseases of the central nervous system tend eventually to general paralysis: Tabes dorsalis, general paresis, paralysis agitans and insular sclerosis.

(142) The presence of a latent insular sclerosis is frequently revealed first by trauma or by shock. If, on examination, the signs of the disease are then found to be very manifest, the onset is sometimes spoken of as being "acute." Under treatment the signs in such a case may recede very considerably, so much so that now, for the first time, doubts may be raised as to the diagnosis from hysteria.

(143) In any obscure case of disease of the central nervous system the presence of asymmetry in the signs found is strongly suggestive of insular sclerosis. Thus, spasticity in one lower limb and ataxia in the other, in a doubtful case of disseminate sclerosis, makes the diagnosis almost certain.

(144) (i) If there is no loss of consciousness with the onset of hemiplegia, this fact does not help in the differential diagnosis between cerebral hæmorrhage and arterial obstruction. If, however, loss of consciousness occurs, the form it takes helps considerably. (ii) If the loss of consciousness is sudden the hemiplegia is probably due to arterial obstruction. (iii) If it is of the type called "ingravescent coma" the hemiplegia is certainly due to cerebral hæmorrhage. By "ingravescent coma" is meant a gradually increasing loss of consciousness, beginning at any time from a few minutes up to a few hours after the onset of the hemiplegia, and ending in a deep coma.

(145) When hemiplegia appears suddenly this fact is thought to indicate hæmorrhage or embolus rather than thrombosis; but the conclusion is fallacious, for hemiplegia due to thrombosis may be sudden also; but if hemiplegia comes and goes and then comes and stays, or if it takes some hours or days to become complete, it may be said with great confidence to be due to thrombosis.

(146) When aphasia accompanies hemiplegia the cause of the hemiplegia is not cerebral hæmorrhage. The reason of this is that aphasia is always due to a cortical lesion, whereas cerebral hæmorrhage causing hemiplegia takes place in the basal ganglia. Aphasia does, however, accompany the hemiplegia of arterial obstruction (when the obstructed vessel is on the left side), because the lesion, though situated primarily in the middle cerebral artery, is, in effect, a cortical one, the brain substance being rendered ischæmic and therefore functionless.

(147) If, from other considerations—age, mode of onset, presence of aphasia, etc.—a hemiplegia is considered to be due to arterial obstruction, the argument proceeds as follows: Is there present a likely cause of embolus (mitral stenosis or ulcerating endocarditis)? If there is, the cause of the hemiplegia is probably embolic. If there is not, the cause is probably thrombosis. If, now, the patient is under forty, and is the subject of syphilis, the cause of the thrombosis is syphilitic arteritis. If he is over forty and is the subject of arterial degeneration, the cause of the thrombosis is atheroma.

THE MARRIAGE TEST IN GONORRHŒA.

By KENNETH WALKER, F.R.C.S.,
Medical Officer in charge of Venereal Department,
St. Bartholomew's Hospital.

NO question in medicine has been more neglected than that of cure in gonorrhœa. Before a convalescent case of diphtheria is allowed to mix again with his fellows his medical adviser will insist on pathological reports with regard to his throat, and on careful disinfection of every article he has handled during his illness. The same medical adviser will often dismiss lightheartedly a patient he has treated for a "mild dose of gonorrhœa" after no more than a glance at the urine and at the patient's meatus. Yet, regarded purely as a potential danger to the community, the man incompletely cured of gonorrhœa is to his fellow as an anarchist with a tube of aminol is to a child with a pea-shooter.

Noeggerath, who investigated this question of latent gonorrhœa in 1872, maintained that in New York 800 out of 1000 husbands had suffered from gonorrhœa, and that 90 per cent. of them had not been cured. Their disease had become latent, and thus nearly all married women had become infected. Although the situation in England at the present moment is very far from being as bad as this, it is nevertheless sufficiently serious to warrant more attention than it is at present receiving. Thousands of cases of gonorrhœa are being discharged as cured after an absolutely inadequate test of freedom from disease. Many of them find their way back to other clinics after a few weeks' freedom, and are admitted as cases of relapse. Statistics of relapse are therefore difficult to obtain. The stricter the test of cure the fewer will be the relapses, and the smaller the danger to the community.

There are two facts to be borne in mind with regard to gonorrhœal infections. The first is the longevity of the gonococcus when within the tissues. Cases are on record of patients who have suffered from gonorrhœa for a period of forty or fifty years. The second fact—which is but a corollary of the former one—is the frequency of relapse. A patient relapses because he still has gonococci within his tissues, and these gonococci have renewed their activity. He has never been cured.

To avoid the disasters resulting from the above, it is absolutely essential to establish a definite standard of cure for all cases that have suffered from gonorrhœa. For this purpose a special "Marriage Test Department" has been opened in the Venereal Clinic. Through this department all gonorrhœal cases must pass before they are considered cured. Three separate examinations are made at intervals of a week or a fortnight, and during the period of probation candidates for a certificate of cure are encouraged to infringe the rules that have regulated their conduct during the days of treatment. Beer-drinking, bicycle riding and hard

exercises are encouraged. Rules of diet are thrown to the winds, and only the rule of sexual continence maintained. Teetotallers are encouraged to relapse by means of injections of silver nitrate or of larger doses of gonococcal vaccine.

To be regarded as cured the following standard must be attained :

(1) Complete absence of signs of active disease after a careful clinical investigation, including urethroscopy.

(2) Absence of gonococci in films and cultures taken from—

(*a*) Meatus.

(*b*) Expressed prostatic and vesicular secretion.

(*c*) Centrifugalised urine.

In obtaining secretion from the prostate and seminal vesicles for examination the prostatic massage employed is sufficiently energetic to empty as far as possible these organs of secretion. It is not uncommon to fail to find gonococci in the first secretion obtained from this source but to find them in samples expressed later. Hence the necessity for energetic massage.

Plates are used in making cultures, and as medium, trypsin-agar enriched with blood. Culture methods are advisable because of the difficulty often experienced in making a diagnosis based on films alone. The presence of epithelial cells in the films is not considered of moment. The presence of large numbers of pus-cells, even although gonococci have not been found, renders the case suspect. A few pus-cells and organisms other than gonococci are permitted if present only in small numbers.

The complement-deviation test, and the injection of doses of gonococcal vaccine sufficiently large to provoke a reaction, are under trial. Their value as a criterion of cure has not yet been determined.

It is hoped by the employment of these means to avoid some of the disasters that result from so-called latent gonorrhœa. The educational value of such a department is as great as its medical value. Gradually the public is beginning to realise that gonorrhœa is not the harmless necessary evil it has always seemed. If such elaborate examinations are instituted to discover whether they are free from infection the trouble can be no trifle. When medical men and public alike realise the gravity of the disease and the necessity for a final test of cure conducted with the greatest thoroughness and skill a great advance will have been made in the combating of a great scourge. The *Marriage Test Department* at the Golden Lane Centre is a humble effort in this direction. A similar and very efficient department has been running for several months at the London Hospital. The still more difficult question of the standard of cure in the case of women will be considered on some other occasion.

QUAINT FIND IN AN APPENDIX.

By GEORGE F. ALDOUS, F.R.C.S.(Edin.),
Plymouth.

MRS—, æt. 40, was admitted into a private ward at the Tavistock Hospital with symptoms of acute appendicitis, under the care of Dr. Horace Brown. He was a well-developed man, and had a "dark brown drooping moustache," with a brief history of eighteen hours' acute pain in the appendix region, for which Dr. Brown very rightly gave morphia, after having made the diagnosis, and to lessen his pain during the journey to the Hospital.

I removed the appendix, which appeared only slightly congested ; no adhesion or pus ; the abdomen was closed.

On opening the appendix I found about twenty-five hairs corresponding with his moustache, in a clump, forming a small brush, at the distal end of the lumen. On questioning him a few days later he stated that his moustache has been falling out, and there is not the slightest doubt, in my opinion, that the moustache hairs adhered to food and had found their way into his appendix.

I am indebted to Dr. Horace Brown for assisting me at the operation.

THE GREAT "RAG."

"Bart.'s patients never die,
Never die,
Never die,
Bart.'s patients never die,
They only fade away."

THE above was the most popular musical item on the occasion of the Great "Rag," to which we make reference in our editorial columns. But our readers will no doubt like to have the story from the beginning, and we cannot do better than quote from the picturesque report which appeared in the *Star*. We have taken the liberty of modifying the details somewhat :

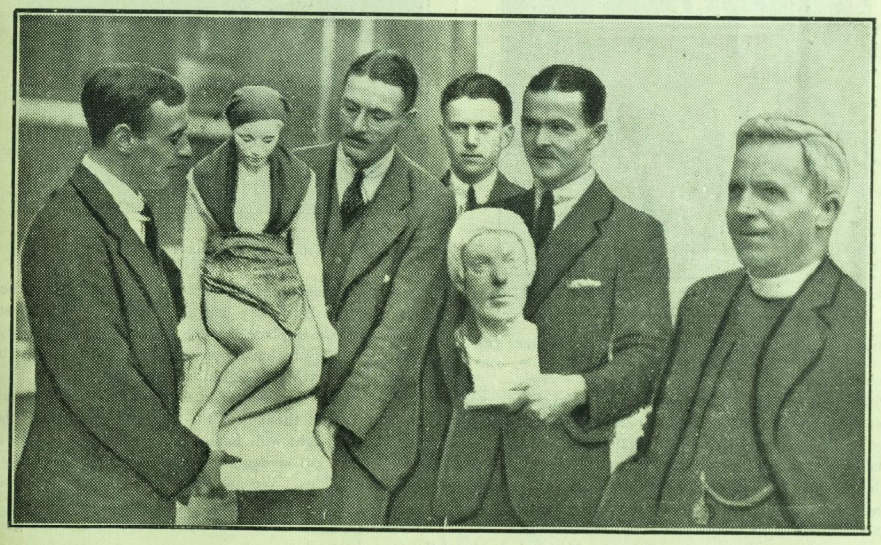
An exciting "rag" took place on Armistice Day between the students of St. Bartholomew's Hospital and University College.

The contest centred round the possession of the German gun presented to Bart.'s last year by the War Office, and the result, so far as Bart.'s is concerned, was a complete triumph for the Hospital.

They regained possession of their gun and "bagged" other trophies, including a gate, a fire extinguisher, and two plaster statues.

About 400 students from University College took the initiative at 2.30 in the afternoon. They marched in a body from Gower Street to St. Bart.'s and "captured" the gun. They met with little or no opposition till the Assistant Matron gave the alarm.

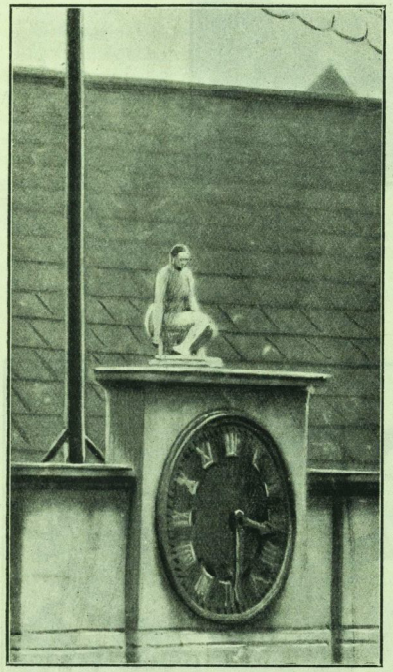
THE BOLD BOYS OF BART.'S.



SPOILS OF THE FIGHT.

Then over 80 of the St. Bart.'s men rushed from the "theatres," lecture rooms and Hospital in an effort to rescue their trophy. But the gun was safely lodged within the gates of the University College, the gates were locked, and the entrances barred to all on-comers.

The medical students, however, rushed round to a side entrance, and reached the quadrangle, where Sir Gregory Foster, the Provost, appealed for order.



ONE OF THE TROPHIES CONSPICUOUSLY MOUNTED OVER THE CLOCK IN THE HOSPITAL SQUARE.

"We want our gun," sang the students in chorus, and the collegians rushed at them, ten men collecting round one opponent, carrying him to gates and putting him outside. At least three attempts were made by Bart.'s, but owing to superior numbers and the use of fire extinguishers they had to retire on each occasion. Eventually the gate was wrenched off its hinges and taken as a trophy.

The medical students returned to the Hospital, held a meeting, and decided to recapture the gun at 7.30.

Over 200 men "mobilised" for the second counter-attack, prominent amongst the leaders being a well-known international Rugby football player and several ex-Artillery officers. They marched to Gower Street, and at the entrance to the College about 80 police, under an inspector, met them and appealed for order. This the students promised.

They formed a "gun team," which mounted the steps to the main entrance, and brought the gun out to the cheering crowd.

With the pride of victors the students paraded Tottenham Court Road, Piccadilly, Leicester Square, the Strand, and Holborn, displaying the trophies.

It appears that the University, to the number of some 400, visited "Bart.'s" at 2.30 in the afternoon. The

THE CAUSE OF THE TROUBLE.

students and house-surgeons were then doing duty in the wards, and the University had an easy task. They just took the gun from its place near the Pathological Laboratory and dragged it away, having posted two phalanxes on each side of the Henry VIII Gate in case of a surprise.

"Ten minutes later," one of Bart.'s said, "we followed them, and caught them near the College. We had a big fight. They fought with bones, and I had a smash with a spade. Their girl students joined in, but the Hospital nurses cheered us. We got the gun to the gate, but we were outnumbered 6 to 1, and had to retire.

"We regret that the University did not defend the gun the second time."

The report concludes by saying that a skull played a prominent part in the raid, being used alternately as a missile and as a rallying "standard."

Both the *Star* and the *Daily News* made an error by stating that the statue of Phineas, which the U.C.H. regard as their mascot, was smashed during the recapture of the gun. The inaccuracy of this statement was very disturbing to the University men, who went in a body the following afternoon, and publicly burnt the newspapers in Bouverie Street.

Several Bart.'s men joined in the fun, and it was then that the rumour came through that the U.C.H. were preparing to attack the Hospital. Hence the hasty preparations made for defence, the unnecessary alarm of the Hospital authorities, and the disappointment of the police, who had been summoned to "quell any disturbance."

We desire to express our thanks to the *Evening News*, *Daily Mirror* and *Daily Express* for permission to use the photographs which appeared in their respective papers.

SPEEDING UP THE OUT-PATIENT DEPARTMENT.

IN view of the stress of modern times it is felt that the Out-Patient Department should be "speeded up," and it is suggested that the following system should be adopted. Each new patient to be provided with a card—on the lines of the Field Post-card—to be filled up before his or her case is investigated. Much time at present wasted in "getting at the history" could thus be obviated. With further improvements—in the way of cards of different colours and various terms for special departments—a system might be developed of which a Geddes would be proud. On the other hand it might not.

SPECIMEN.

Name..... Age..... Occupation.....
(in BLOCK letters).

I've got a { terrible / large / awful / small / funny sort of } { pain / lump / hole } in my { head. / chest. / stomach. / right—left—arm. / right—left—leg. }

It is { worse / larger / unchanged / better / smaller } after { eating. / night. / a job of work. / stooping. / Bank holidays. }

I haven't had a { drink / decent night's rest / day's illness / bath } for ..... (insert number) { days. / weeks. / months. / years. }

I have been { operated on / treated / X-rayed } ..... times for..... write in BLOCK letters.
The last doctor I saw said it was .....

The last medicine I had was { white / brown / pink / yellow / black } and I tried it on the { cat / husband / baby .... / wife } with { good / alarming / fatal } results.

STRIKE OUT what does not apply.

A. B. P. S.

CAMBRIDGE GRADUATES' CLUB OF ST. BARTHOLOMEW'S HOSPITAL.

THE Thirty-ninth Annual Dinner of the Club was held at Frascati's on November 21st, Sir Walter Morley Fletcher K.B.E., in the chair. After the usual loyal toasts had been honoured, the Chairman proposed "the toast of the evening"—the Club. This was a joyous occasion, he said, but it was fitting at this, the first *post-bellum* meeting, to dwell for a time upon the irreparable losses which they had sustained, no fewer than thirty-three members having made the supreme sacrifice. He would not refer individually to all, but he would like to point out that they represented all generations of Cambridge men—from Michell and J. K. Murphy, to Don and Drew whose association with the Hospital had been a few days only. Among them one found names like Brunton, Garrod and Drysdale, names of the deepest significance to Bart.'s. Some had actually fallen as combatants, and among these he must mention Grandage, who in addition to his own professional ability, had been in command of a brigade of artillery at an exceptionally early age. One name in addition he felt he must select for special mention, for although A. E. Stansfeld did not figure on the Roll of Honour, his unremitting services and his whole-hearted devotion to duty had contributed to his regrettable end, so that his place on that list was as deserved as if he had actually fallen on the field of battle. Apart from the war, they had lost since their last meeting, Lewis Jones, Howard-Marsh, and Batten—all household names wherever Bartholomew's men congregated. On this unique occasion he asked that his toast of "The Club" should be drunk in silence, *in piam memoriam*.

The toast of "The Guests" was, as usual, entrusted to Sir NORMAN MOORE, who, happy always in an after-dinner speech, is happiest of all in biography. The President of the Royal College of Physicians rose to an ovation in which could here and there be distinguished an encouraging reference to the entertainment to which he is traditionally committed later in the evening. With a twinkle in his eye Sir Norman deplored the impossibility of doing justice to the occasion, for he understood that a long list of guests had been invited, whilst he had not been informed who had found an opportunity to attend. He addressed those present, in true Celtic fashion, with a hundred thousand welcomes. First he welcomed his former Assistant Physician, Sir Archibald Garrod, and if he singled him out it was from the pardonable pride which any and everybody feels at having been associated with the great, and being able to assume and suggest a sort of responsibility for his eminence.

Another son of the older University, Dr. Thursfield, he welcomed back from his military career of distinction. He could not adequately express his admiration for a University which was provided with two rivers, one of which he was given to understand was utilised by the Dark Blues for their own purpose, the other, a smaller and narrower stream, being reserved in order to entertain visitors from Cambridge who might otherwise be overwhelmed by a contemplation of the wider river. Turning to Surgery, Sir Norman welcomed Mr. Gask, worthy representative of Paget and Abernethy, chief of the new surgical organisation, the companion of Sir Archibald Garrod's professorial unit; Mr. Girling Ball, fortunate in having resided in the Warden's House with all its historical associations, and Mr. Roberts. At this point Sir Norman was observed in a somewhat animated if *sotto voce* discussion with Dr. Tooth, and on resuming he proceeded with a certain evidence of spirit to protest that, in answer to Dr. Tooth's obvious professional solicitude, he had *not* forgotten Sir Anthony Bowlby. But he confessed to a difficulty in remembering that Sir Anthony was actually not a member of the Club. And so uncertain still did he feel, that while he coupled with the toast the names of Sir C. Gordon Watson and Dr. Thursfield, he included Sir Anthony as a sort of super-Cambridge graduate in the hope that when the others had responded he would speak in a new *rôle* as Apostle of the Western Nations.

Sir GORDON WATSON asserted that although an attempt had been made to spoil his enjoyment of the dinner by thus making him pay for it he did not hesitate to say that the attempt had been a complete failure. He could not help remembering that on the last occasion he was present he had been the guest of one who had in his day been the very life's breath of the Club, our beloved "Ethel," who was surely with them this evening in spirit.

Dr. THURSFIELD said that he was there this evening as representative of Sir Wilmot Herringham, who was unavoidably prevented from

attending. He referred in flattering terms to the proverbial hospitality of Cambridge University, which might be said to rival even that of Oxford.

Sir ANTHONY BOWLBY, despite Sir Norman Moore's difficulty in believing that he is not a member of the Club, is surely an Oxford man, for his highly entertaining little speech—all too short—began with a quotation and ended with an epigram. True, the quotation (from Holy Writ) had much of the Baron and little of the Patriarchs about it, but the applause was sustained until he brought down the House again by his apt comparison of the dinner with the gift of chocolate in the South African War. Put crudely and vulgarly, it was not so much the gastronomic element of the feast as the underlying idea which was the vital principle.

Sir HUMPHRY ROLLESTON proposed the health of the Chairman. He felt that he possessed a sort of family appointment in that on a previous occasion he had performed a similar function towards Dr. Herbert Morley Fletcher. In graceful terms Sir Humphry depicted the man and his work. His physiological career with all its distinctions had been a stepping-stone to his present activity in the organisation of research, whilst as a man his many-sided character and the versatility of his interests had brought him into relation with every member present.

Sir WALTER MORLEY FLETCHER replied with pleasing reminiscences of University life, and generously reminded his audience that the credit of the evening's success was entirely due to the Secretaries, whose health he thereupon proposed.

Dr. WILLIAMSON, who was greeted with the usual professional war-cry, partly admonitory, partly instructional, said that their secretarial task was so much of a sinecure that response to the toast was the most difficult part of it. It was impossible to express his delight at being enabled to assist in the re-establishment of the Dinner and he wished to say that in certain respects the Club was unique. It was surely unique for any club to possess simultaneously as members the President of the Royal College of Physicians, the President of the Royal Society of Medicine and the Secretary of the Medical Research Committee. The Club was, moreover, unique in demanding neither entrance fee nor subscription; and it was further unique in requiring that the more important part in responding to the toast should devolve upon the Assistant Secretary.

Mr. BURROUGHES then made the hit of the evening. In addition to his many other claims upon the admiration of posterity, Mr. Burroughes earned an undying reputation for the manner in which he anagrammatically acknowledged the *encomiums* to his fellow-secretary and himself, further definition of which acknowledgment the ordinary limitations of cold print render impossible.

A large number of members and guests then proceeded as usual to 98, Harley Street, to enjoy the hospitality of Dr. Morley Fletcher, and, all being comfortably seated, a spontaneous universal appeal for the life-history of Hairy Rouchy was promptly answered by Sir Norman Moore. And although six years have elapsed since last we followed the fortunes of that captivating "best of girls," once more like children who anticipate word by word a favourite narrative, jealously guarding its accuracy and resenting the slightest infringement of the official rendering, we listened enthralled, and so observed the inevitable war influence upon the original in that the giant's servant, though originally A1 and very much in a combatant unit, succumbed to the desire for a position immune from responsibility and danger by aspiring to a soft job in the cook-'ouse. (The original text is, "he was always hanging about the kitchen.")

There is such a wide-spread and many-sided appeal by Hairy Rouchy. She is a stimulus to enterprise, an encouragement to face and overcome difficulties by cheerful acquiescence in the inevitable and by inexhaustible resourcefulness. She invites speculation upon her pathological peculiarity, she invokes admiration for her matrimonial Machiavellism, sympathy for her prolonged self-abnegation and exemplary unselfishness, and amazement at her athletic super-excellence. Long may she flourish to inspire many generations of Cambridge graduates.

With the orthodox "Twelve Apostles" a truly happy reunion ended.

A. A.

STUDENTS' UNION.

RUGBY FOOTBALL CLUB.

ST. BARTHOLOMEW'S HOSPITAL *v.* LONDON IRISH.

This game at Winchmore Hill on October 25th resulted in a win for the Hospital by 23 points to *nil*. The score was opened by Thomas, who came up from "back" and joined the three-quarter movement; Morlock got across, and then Johnstone just missed a drop at goal, and at half-time Bart.'s were leading by 2 tries to *nil*. Parkes cleared with a long kick into touch by the corner-flag, and from the line-out Wall scored. Thomas scored again; then Shaw went over and Kindersley converted. Further tries were added by Thomas and Morlock.

ST. BARTHOLOMEW'S HOSPITAL *v.* R.M.A. (WOOLWICH).

The game at Woolwich, played on November 1st, resulted in a win by many points for Bart.'s, but it was only during the last twenty minutes that the score was piled up. The "Shop" went to pieces half-way through the second half. At first the game was very even, and the "Shop" opened the score with a dropped goal. Griffith-Jones was the first to score for us. Then Hendley scored, and Kindersley converted. Half-time came with the score 8—4 in our favour. For a while the R.M.A. held us fairly well, then Griffith-Jones cross-kicked for Johnstone to score. Next Wall put Llewellyn across the line. Orchard scored from a scrum close up. From the drop-out Llewellyn gathered the ball, ran across, and put Johnstone in at once, and Wall kicked a goal. Then Griffith-Jones, Morlock, Hendley and Llewellyn scored in turn, and Kindersley converted the last one. Final score: 36—4 (3 goals 7 tries to 1 dropped goal).

ST. BARTHOLOMEW'S HOSPITAL *v.* CAMBRIDGE UNIVERSITY.

At Cambridge on November 5th we sustained our first and biggest defeat—3 goals and 5 tries to *nil*. The first half was well contested, Bart.'s having as much of the game as the 'Varsity. We were nearly in several times, one effort of Cockell's being only inches short. Just before half-time Cambridge scored wide on the right, and Saxon kicked a magnificent goal against the wind. In the second half the superior weight of the 'Varsity forwards began to tell (that extra weight averaged 1¼ stone per man), and their outsides were able to get the ball much more frequently, with the result that 7 more tries were registered, 2 of which were converted.

ST. BARTHOLOMEW'S HOSPITAL *v.* COVENTRY.

We took a rather weak team to Coventry on November 8th, and a very good game was lost by 1 goal and 3 tries to 2 tries. The forwards were evenly matched, but one or two of the home team's outsides were remarkably good, and the extra points were due to their individual efforts. The tries for Bart.'s were scored by Evans and Shaw.

ST. BARTHOLOMEW'S HOSPITAL *v.* R.M.C. (SANDHURST).

Another defeat on November 15th by 2 goals 2 tries to 1 try. We had a fair amount of ill-luck, but the Sandhurst team was out to win. From start to finish they went "all out,"; their forwards were keen and fast, and their outsides, well served by Worton at the base of the scrum, handled the ball extremely well. Bart.'s were the first to score, though Moody-Jones, and Butterfield replied for Sandhurst, and Maxwell converted. In the second half Watson scored three times and Maxwell converted once.

REVIEWS.

DISEASES OF WOMEN. Edited by COMYNS BERKELEY, H. RUSSEL ANDREWES and J. S. FAIRBURN. (London: Edward Arnold.) Pp. 650. Price 30*s.* net.

This work, written by "Ten Teachers" under the direction of Comyns Berkeley, M.A., M.D., M.C.(Cantab.), F.R.C.P.(Lond.), forms a companion volume to *Midwifery* by Ten Teachers.

Gynæcology is a subject which lends itself to more diversity of opinion than does midwifery, and a book of this description has certain disadvantages. Fortunately, these are more conspicuous by their absence. The book is singularly free from ambiguity, and at the same time covers the ground very fully and completely. The opening chapters are devoted to the anatomy of the part, methods of examination and symptomatology. These are followed by a detailed description of the numerous diseases to which the female sex is liable. The chapter on uterine displacements simplifies the study of this question by explaining the causes operating in each case. Extra-uterine pregnancy, urinary disorders and intestinal affections each form the subject of an excellent monograph, while the concluding section deals with gynæcological operations.

The pathology of the various conditions receives special attention—a point which will specially commend the book to the student.

We were particularly struck with the chapter dealing with "Chronic Ill-health from the Psychological Aspect." This difficult feature of gynæcology has never been put forward more clearly. It indicates how such a case should be investigated and what line of treatment should be adopted in the absence of any definite physical signs of organic disease.

The book is well illustrated, the coloured plates being exceptionally well done. Such a valuable treatise is bound to become a standard work on gynæcology, and the editors and their collaborators, together with the publishers, are to be congratulated on their efforts.

AIDS TO OPHTHALMOLOGY. By N. BISHOP HARMAN, M.A., M.B., F.R.C.S. (Baillière, Tindall & Cox.) Sixth edition. Pp. viii + 226. Price 3*s.* 6*d.* net.

We have always regarded this book as quite one of the best of the "Aids" series. For examination purposes it is excellent. The present edition has been carefully revised and now contains much fuller chapters on glaucoma, squint, and malingering. The chapters on muscle balance and on ocular therapeutics have been extended, and one on disease of the vitreous introduced. The section dealing with refraction forms an admirable epitome of the subject.

We have every confidence in recommending the book.

VICIOUS CIRCLES IN DISEASE. By JAMIESON B. HURRY, M.A., M.D. (J. & A. Churchill.) Third edition. Pp. 377. Price 15*s.* net.

In the third and enlarged edition of this monograph the author shows in a very able manner the adverse effect of one disease on another, and also how a pathological process in one organ may set up a pathological process in another.

The chapters devoted to the digestive and urinary systems are especially valuable, the subject of the vicious circles receiving very little mention in text-books.

An interesting feature of the present edition is the chapter on vicious circles in plant and veterinary diseases, and though of less interest to the medical profession, demonstrates the author's wide grasp of the subject.

One or two of the circles would appear to be somewhat laboured, particularly that appearing on Plate 1, viz. cardiac failure, insomnia, lowered resistance, cardiac failure. At the same time it is only fair to say that the other vicious circles illustrated in the diagram of cardiac failure are very aptly and concisely expressed.

On the whole the book is one which may be read with considerable advantage by those who have an interest in medicine.

TIMES OF ATTENDANCES IN THE OUT-PATIENT AND SPECIAL DEPARTMENTS.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Medical Out-patients	Dr. Hartley 9 a.m. to 10 a.m.	Dr. Langdon Brown 9 a.m to 10 a.m.	Dr. Hinds Howell 9 a.m. to 10 a.m.	Sir Thomas Horder 9 a.m. to 10 a.m.	Sir A. Garrod 9 a.m. to 10 a.m.	Dr. Thursfield 9 a.m. to 10 a.m.
Surgical Out-patients	Mr. Gask 9 a.m. to 10 a.m.	Sir C. Gordon Watson 9 a.m. to 10 a.m.	Mr. Wilson 9 a.m. to 10 a.m.	Mr. Gask 9 a.m. to 10 a.m.	Mr. Roberts 9 a.m. to 10 a.m.	Mr. Girling Ball 9 a.m. to 10 a.m.
Diseases of Women	Dr. Barris 9 a.m. to 10 a.m.	—	Dr. Donaldson 1.30 p.m.	—	—	Dr. Donaldson 9 a.m. to 10 a.m.
Ante-natal Clinic	—	—	—	Dr. Barris 12.30 p.m.	—	—
Orthopædic Department	Mr. Elmslie 1 p.m. to 1.30 p.m.	—	—	Mr. Elmslie 1 p.m. to 1.30 p.m.	—	—
Throat and Nose Department	Mr. Harmer 1 p.m. to 1.30 p.m.	Mr. Rose 9 a.m. to 9.30 a.m.	—	Mr. Harmer 9 a.m. to 9.30 a.m.	Mr. Rose 1 p.m. to 1.30 p.m.	—
Aural Department	Mr. West 1 p.m. to 1.30 p.m.	Mr. Scott 9 a.m. to 9.30 a.m.	—	Mr. West 9 a.m. to 9.30 a.m.	Mr. Scott 1 p.m. to 1.30 p.m.	—
Ophthalmic Department	Mr. Holmes Spicer 1 p.m. to 1.30 p.m.	Mr. Foster Moore 1 p.m. to 1.30 p.m.	—	Mr. Holmes Spicer 1 p.m. to 1.30 p.m.	Mr. Foster Moore 1 p.m. to 1.30 p.m.	—
Skin Department	—	Dr. Adamson 9 a.m. to 10 a.m.	Dr. Adamson 9 a.m. to 10 a.m.	—	Dr. Adamson 9 a.m. to 10 a.m.	—
Dental Department	Mr. Fairbank 9 a.m. to 10 a.m.	Mr. Fairbank 9 a.m.	Mr. Coleman 9 a.m. to 10 a.m.	Mr. Fairbank 9 a.m. to 10 a.m.	Mr. Coleman 9 a.m.	Mr. Coleman 9 a.m. to 10 a.m.
*Electrical Department	Dr. Cumberbatch Males 1 p.m. to 1.30 p.m.	Mr. Ackland 10 a.m. Dr. Cumberbatch Females 1 p.m. to 1.30 p.m.	—	Dr. Cumberbatch Males 1 p.m. to 1.30 p.m.	Dr. Austin 10 a.m. Dr. Cumberbatch Females 1 p.m. to 1.30 p.m.	—
Psychological Department	—	—	—	—	Sir R. Armstrong-Jones 2 p.m.	—
*X-Ray Department	9.30 a.m. and 1.30 p.m.	9.30 a.m. and 1.30 p.m.	9.30 a.m.	9.30 a.m. and 1.30 p.m.	9.30 a.m. and 1.30 p.m.	9.30 a.m.
Diseases of Children	Dr. Thursfield 1.30 p.m.	—	Dr. Morley Fletcher 1.30 p.m.	—	—	—
*Exercises and Massage	9 a.m. and 1.30 p.m.	9 a.m. and 1.30 p.m.	9 a.m. till 1 p.m.	9 a.m. and 1.30 p.m.	9 a.m. and 1.30 p.m.	9 a.m. till 1 p.m.
Tuberculosis Dispensary	5 p.m.	12.30 p.m.	—	5 p.m.	12.30 p.m.	—
Venereal Department, Golden Lane	Females and Children 12 to 2 p.m.	—	Males 12 to 2 p.m.	Females and children 12 to 2 p.m.	Males 5 p.m. to 7 p.m.	—

* Patients are not seen in these Departments unless recommended by the Medical Staff.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

ARMSTRONG-JONES, Sir ROBERT, C.B.E., M.D., F.R.C.P. "Mental and Nervous States in Connection with the War." *Practitioner*, November, 1919.

GURNEY-DIXON, S., M.D.(Cantab.), M.R.C.S., L.R.C.P. *The Transmutation of Bacteria.* (Cambridge University Press.)

HERRINGHAM, Sir WILMOT, K.C.M.G., C.B. *A Physician in France.* (Edward Arnold.)

HORDER, Sir THOMAS, M.D., F.R.C.P. "Medical Notes." *Practitioner*, November, 1919.

HUME, J. B., M.R.C.S., L.R.C.P. "Enlargement of the Thyroid Gland in Malaria." *British Medical Journal*, November 22nd, 1919.

KLEIN, BERNARD G., M.D.(Oxon.). "Notes on the Serum Treatment of Bacillary Dysentery and on Dysentery Arthritis." *Lancet*, November 1st, 1919.

MAPLES, E. E., M.D.(Lond.), F.R.C.S.(Eng.). "Large Splenic Cyst." *British Journal of Surgery*, October, 1919.

NANKIVELL, A. T., M.D.(Lond.), D.P.H.(Camb.). "Influenza." *The Medical Officer*, November 15th, 1919.

NEVE, C. T., M.B., B.S., F.R.C.S.(Eng.). "Herpes zoster of the Glosso-pharyngeal Nerve." *British Medical Journal*, November 15th, 1919.

POWER, Sir D'ARCY, K.B.E., F.R.C.S.(Eng.). "Two Clinical Lectures on Prognosis in Surgery." Delivered at St. Bartholomew's Hospital on October 8th and 15th, 1919. *Lancet*, November 15th, 1919.

POWER, Sir D'ARCY, K.B.E., F.R.C.S.(Eng.), editor of *The Practitioner's Surgery*, 3 vols. (Frowde & Hodder & Stoughton.) (The following St. Bartholomew's men have also contributed to this work: E. W. Hey Groves, M.D., F.R.C.S., H. D. Gillies, F.R.C.S., H. E. G. Boyle, M.R.C.S., H. J. Gauvain, M.D., M.C.(Cantab.), H. J. Waring, M.S., F.R.C.S., the late J. Keogh Murphy, F.R.C.S., P. L. Giuseppi, M.D., W. Langdon Brown, M.D., W. McAdam Eccles, M.S., F.R.C.S.)

EXAMINATIONS, ETC.

ROYAL COLLEGE OF PHYSICIANS.

At an ordinary Comitia of the Royal College of Physicians held on October 30th, 1919, the following candidates, having passed the necessary examinations, were admitted *Members*:

F. G. Chandler, W. B. Knobel, R. M. Ranking, F. A. Roper.

ROYAL COLLEGE OF SURGEONS.

The following candidates were successful at the Special and Ordinary examinations for the *Primary Fellowship*, held November 5th to 14th:

E. M. Atkinson, J. H. Cobb, E. A. Crooke, P. D. Debono, J. F. Gill, J. V. Landau, W. E. M. Mitchell, A. E. Roche, W. Shaw, J. L. Shellshear, L. R. Shore, N. S. B. Vinter, H. M. Wharry.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.D.—R. G. Canti.

M.B., B.Ch.—L. Firman Edwards.

UNIVERSITY OF LONDON.

Second Examination for Medical Degrees, July, 1919.

Part II.—C. J. Donelan, B. Dous, F. T. Evans, W. E. M. Mitchell, C. S. C. Prance, H. Tothill.

Third (M.B., B.S.) Examination for Medical Degrees, October, 1919.

Pass.—S. M. Cohen, H. N. Hornibrook, H. J. Levy, R. G. Lyster, J. E. Pearce, A. D. Wall, W. R. White-Cooper.

Group I.—B. M. G. Thomas.

Group II.—C. F. Beyers, C. E. E. Herington, C. L. Hewer.

CONJOINT EXAMINING BOARD.

First Examination, October, 1919.

Practical Pharmacy.—J. L. M. Brown, F. P. de Caux.

Second Examination, October, 1919.

Anatomy and Physiology.—H. B. Flooks, W. Laing, H. W. Needham, A. E. Parkes, P. D. Richards, K. E. Shellshear.

Final Examination.

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

O. T. J. C. de H. Clayre, C. Griffith-Jones, E. P. Hicks, N. J. Macdonald, T. F. Zerolo.

R. W. Jameson, M.D.(Brux.), D.P.H.(Cantab.), has passed the Bar Final Examination.

CHANGES OF ADDRESS.

ABRAHAMS, A., 50, Rodney Court, Maida Vale, W. (Tel. Pad. 1566), and 15, Cavendish Place, W. (temporary) (Tel. Mayfair 1460).

BURSTAL, E., Tantallon, Madeira Road, Bournemouth.

CLINDENING, F. T. D., Shanghai Club, Shanghai (temporary).

DUNN, T. W. N., Newlands, Salisbury.

HEWER, C. LANGTON, 51, Leigh Road, N. 5.

LINDSAY, A. W. CRAWFORD, "The Downes," Eling, near Southampton.

LONG, Major W. C., I.M.S., 13, Lansdowne Road, Tunbridge Wells.

MAXWELL, J. P., Union Medical College, Peking.

NEVE, C. T., 49, Addiscombe Road, Croydon.

PAULLEY, LEGGE, Egerton, Ashford Road, Cheltenham.

BIRTHS.

BARNETT.—On November 17th, at Bishops Stortford, Herts, the wife of Dr. Burgess Barnett, of a daughter.

CATFORD.—On October 29th, at Crouch Hall Road, Crouch End, N., the wife of Eric Catford, Captain (acting Major), R.A.M.C., of a son.

JAMESON.—On November 18th, at 11, Philbeach Gardens, S.W. 5, to Phyllis, wife of Capt. G. D. Jameson, R.A.M.C.—a son.

LEATHART.—On November 15th, at 11, Tollemache Road, Birkenhead, the wife of P. W. Leathart, M.B., B.C., of a son.

RIDOUT.—On October 30th, at St. Elmo, Clarendon Road, Southsea, to the wife of C. A. Scott Ridout, M.S., F.R.C.S.—a daughter.

ROBERTS.—On November 8th, at Shawford, Hants, the wife of G. Marsden Roberts, M.R.C.S., L.R.C.P.—a son.

SMUTS.—On November 20th, at Holyport House, Holyport, Berks, Dorothy (Mélisande d'Egville), the wife of Phineas Alex. Smuts, of a son.

SILVER WEDDING.

ELLIOT—HUTCHINSON.—On November 14th, 1894, at St. George's Cathedral, Madras, by the Ven. Archdeacon Elwes, assisted by the Rev. H. D. Goldsmith, Robert Henry Elliot, I.M.S., to Eva Catherine Isabella Hutchinson.

DEATHS.

BETTS.—On November 4th, 1919, after a long illness, at the residence of his sister, Mrs. G. Perceval Wyatt, 56, Tulse Hill, S.W. 2, Edward Hetley Betts, M.R.C.S., late of the P. & O. Service, aged 50.

BORROW.—On November 16th, 1919, at Alexandria, Frederick Charles Borrow, M.B.(Lond.), Surgeon, His Majesty's Transport "Tagus," youngest son of the late Richard Borrow, of Lloyd's, aged 43.

CAMPBELL.—On September 25th, 1919, at Swiss View, Yercaud, Madras Presidency, India, George Gunning Campbell, M.R.C.S., L.R.C.P., youngest son of the late James Campbell, Esq., aged 42.

LAWRENCE.—On November 9th, 1919, at 5, Lyndhurst Road, Exeter, Henry Cripps Lawrence, M.D., aged 78.

SMUTS.—On November 22nd, 1919, at Holyport House, Holyport, Berks, Dorothy (Mélisande d'Egville), the wife of Phineas Alex. Smuts, daughter of Louis Hervey d'Egville, of 6, Finchley Road, N.W.

STEVENS.—On November 18th, 1919, at Lyncourt, Paignton, Cecil Robert Stevens, Lt.-Col. I.M.S., eldest surviving son of Lady Stevens and the late Sir Charles Stevens, I.C.S., aged 51.

VENN.—On November 13th, 1919, at a nursing home in Harrogate, after four days' illness, Albert John Venn, M.D., of the Junior Carlton Club, London, aged 79.

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.*

St. Bartholomew's Hospital Journal.

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

VOL. XXVII.—No. 4.] JANUARY 1ST, 1920. [PRICE SIXPENCE.

CALENDAR.

Tues., Dec. 30.—Dr. Morley Fletcher and Mr. Rawling on duty.

1920

Fri., Jan. 2.—Dr. Drysdale and Mr. Gask on duty.
Tues., ,, 6.—Dr. Tooth and Sir D'Arcy Power on duty.
Fri., ,, 9.—Sir Archibald Garrod and Mr. Waring on duty.
Tues., ,, 13.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., ,, 16.—Dr. Morley Fletcher and Mr. Rawling on duty.
Tues., ,, 20.—Dr. Drysdale and Mr. Gask on duty.
Fri., ,, 23.—Dr. Tooth and Sir D'Arcy Power on duty.
Tues., ,, 27.—Sir Archibald Garrod and Mr. Waring on duty.
Fri., ,, 30.—Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., Feb. 3.—Dr. Morley Fletcher and Mr. Rawling on duty.

EDITORIAL NOTES.

ONCE again it is our privilege to wish Bart.'s men the world over a very Happy and Prosperous New Year. It cannot be denied that 1919 has not lived up to expectations. Never, perhaps, in the history of the country has there been more strife and disturbance. In a great measure this condition of affairs is the expected aftermath of a great war. But we are optimistic enough to believe that 1920 will prove to be a time of real progress and harmony. We indeed hope so, and that our readers may enjoy to the full all the good things which the year may bring forth is our sincere and heartfelt wish.

* * *

It is a real pleasure to congratulate students, staff and patients on the highly successful manner in which they celebrated our first real peace-time Christmas. By Christmas Eve all wards had been decorated with great taste and skill. "Medical Outs" with carpets, armchairs, small tables and the usual evergreens made a charming salon, whilst the other departments made very effective show with holly, ivy, lanterns and fairy lights. Even mistletoe was not wanting, though it was naturally not very prominent! On the morning itself a typical Santa Claus went round the wards with his hobby-horse, and such seasonable fare was afterwards provided that many patients had the "Boxing Day stomach"—by no means confined to hospitals. By 2 p.m. all patients were in the front wards, and it was impossible to find one who looked really ill!

Five troupes then went round, sharing the whole building amongst them. Where all were so good it would be invidious to make distinctions, but the grand *finale* of the "Optimists'" operetta, by Signor Acro Megalico, went with great gusto. Their two cases—of suicide and murder—having been successfully revived with castor oil, everyone joined heartily in the concluding refrain, "Bart.'s patients never die. . . . They simply fade away." Two charming ladies and an aristocratic dame of this troupe caused much disappointment to the male portions of their audience by the premature revelation of the fact that they were students.

With the exception of the "Roland Ramblers," who have visited us all through the war, the troupes were entirely organised and mainly formed by members of the Hospital. Their skill was shown by the hearty applause of nurses, patients, and many of the Staff who were present, and the lively appreciation of our child patients would alone have recompensed their efforts. We others can do no more than heartily thank them all for their admirable and arduous endeavours, again congratulate them on their memorable success, and acknowledge that no remarks of ours can do justice to their efforts.

* * *

Dr. Mervyn Gordon has been appointed Lecturer on Bacteriology to the Medical School.

Dr. Mackenzie Wallis has been appointed Chemical Pathologist to the Hospital and Lecturer on Chemical Pathology to the Medical School.

Mr. C. Langton Hewer, M.R.C.S., L.R.C.P., has been appointed Assistant Administrator of Anæsthetics.

* * *

The Medal for Military Merit (Fourth Class) has been conferred on the late T/Capt. J. C. M. Bailey, O.B.E., by the King of the Hellenes.

* * *

We note with interest that Dr. J. B. Christopherson has

received the C.B.E. (Civil Division) for services rendered in the Soudan. Dr. Christopherson is well known as Director of the Khartoum and Omdurman Civil General Hospitals and others.

* * *

Among the final list of War Decorations we are pleased to note the following Bart.'s men, to whom we offer our congratulations:

C.B.E. (Military Division):
T/Lieut.-Col. C. S. Myers, R.A.M.C.
Lieut.-Col. H. G. Cook, R.A.M.C.
T/Lieut.-Col. A. B. Ward, S.A.M.C.
Major and Bt.-Lieut.-Col. A. Wright, R.A.M.C.
T/Major H. D. Gillies, R.A.M.C.

O.B.E. (Military Division):
Major J. H. Gurley, R.A.M.C.
Major (acting Lieut.-Col.) H. C. Sidgwick, R.A.M.C.
T/Major C. D'O. Grange, R.A.M.C.
Major C. A. Morton, R.A.M.C.T.
T/Major C. Noon, R.A.M.C.
T/Major A. O'Neill, R.A.M.C.
T/Major H. Robinson, R.A.M.C.
Capt. H. E. G. Boyle, R.A.M.C.T.
Capt. (T/Major) F. A. Hepworth, R.A.M.C.

To be Brevet Major:
T/Capt. E. A. Aldridge, R.A.M.C.

* * *

It is with much pleasure that we notice that Surgeon-Commander D. W. Hewitt, C.M.G., R.N., has been awarded the C.B. (Military Division) for valuable services as Senior Medical Officer on the Staff of the Senior Naval Officer in the White Sea; and that Surgeon-Lieut. L. F. Strugnell, R.N., has been mentioned in Naval Despatches.

* * *

A Pan (masked) Ball in aid of the Funds of the Hospital is announced to take place at the Royal Opera House, Covent Garden, on Thursday, January 15th, 1920.

Tickets and full particulars may be obtained from the Organiser, Miss Margaret Chute, "Pan" Office, 91, Long Acre, W.C. 2.

* * *

We learn from the *Eastbourne Chronicle* that Alderman C. O'Brien Harding, J.P., M.R.C.S., L.R.C.P., has been presented with the Freedom of the County Borough of Eastbourne.

* * *

Mr. Charles Heath, F.R.C.S., has been elected a Governor of the Hospital.

* * *

The death of Sir William Osler, Bart., on December 29th, 1919, removes one of the pillars of medicine from our midst. Ever since the publication of his *Medicine* in 1892 his name was a "household word" in the medical world. No man in the last fifty years has done so much to advance the teaching of medicine, and his impetus will be greatly missed.

It is to be hoped that the scheme for Post-Graduate Teaching in London inaugurated by him as one of the points of reconstruction after the war will not suffer by his death, but will receive a fresh stimulus in memory of him.

* * *

As from January 1st an innovation will take place in the non-professorial clinical units of the Hospital. The posts of Medical and Surgical Registrars will no longer be in existence, but the place of these officers will be taken by chief assistants, one of whom will be attached to each unit. The duties of these chief assistants will consist in carrying out the registration of the firm, the performance of post-mortem examinations, supervision of the routine clinical pathological work required in the investigation of the patients, and also to act as assistant in out-patient departments.

These posts should prove extremely valuable, not only to the unit, but to the men themselves. It appears to be an advance in the right direction, for such men should go out well qualified in the particular branch for which they are working.

We wish the new scheme great success.

* * *

The Hunterian Society's Oration in its centenary year will be delivered by Professor Leonard Hill on January 14th, 1920, at 9 p.m. The subject of the oration is "Blood-vessels as Viewed by Hunter, and to-day." Prof. Starling will also speak. By kind permission of the Master and Court the meeting will be held in the Hall of the Society of Apothecaries.

Dr. Langdon Brown, who is president of the Society, will be in the Chair, and a warm welcome is extended to Bart.'s men.

* * *

Mr. George Robey's concert at the Coliseum on behalf of the Hospital was a great success. The amount to be handed over will, we understand, be well over £4500.

The artists included Mrs. Langtry, Miss Marie Nordstrom, Misses Norah Blaney and Gwen Farrar, Mr. Rupert Hazel, the A.I.F. H.Q. Band under Mr. W. O. Copp, and Mr. Edmund Gwenn, who, dressed as a wounded Tommy, recited a monologue, especially written for the occasion, entitled, "The little V.A.D. Girl from Bart.'s."

Mr. George Robey also contributed to the programme in addition to which he conducted an auction sale. Explaining that he was "out to get a bit," Mr. Robey combined business and pleasure with such skill that he soon obtained £815. The success of the auction was in no small measure due to Miss Barbara de Selincourt, who was a most persistent buyer. Her amusing bout with Mr. Robey for possession of "Billie," the Shetland pony, enriched the Hospital by £220, and she paid £275 for a bronze statue by Sir Hamo Thornycroft, R.A.

Bart.'s students bought a Teddy bear for £40, and Guy's, not to be outdone, paid a similar amount for another.

In order to show that there was no ill-will intended towards other hospitals, Mr. Robey also raised 5000 shillings for the Middlesex Hospital.

Mr. Robey is nothing if not original, and a day or two before the concert he sent out an S.O.S. to all ships at sea through the Marine Wireless Stations. Beginning with the famous distress signal, the message appealed to passengers and crew for donations towards the Hospital.

* * *

On Wednesday, December 18th, in the Library, Messrs. Hilton, Galstaun, Bourne and Winton gave a classical concert, the items being chosen from Bach, Brahms, Mozart and Cervetto.

The concert commenced with a Bach concerto for two violins and pianoforte (in D minor). Mr. Galstaun (first violin) had not yet entered into his stride in the first movement, and Mr. Bourne seemed at the beginning a little nervous. In the middle movement the trio were able to get a grip, which was maintained up to the end of the concerto. Mr. Hilton played the pianoforte part with taste and ensured success by keeping a perfect rhythm from start to finish. A Brahm's sonata for the violin and pianoforte (A major, Opus 100) followed, in which Mr. Galstaun displayed the good tone both of his playing and of his violin. Mr. Hilton, again at the piano, kept the balance well adjusted between the two instruments. After an interval of a few minutes Mr. Winton played a sonata for the violoncello (in C major) by Cervetto. The fault lay with Cervetto, who composed so short a sonata. The two small movements were beautifully played as regards both technique and interpretation. In the last item, the Mozart string quartette (in D major), Mr. Hilton played the viola. The four movements gave plenty of scope for execution and reading. Here Mr. Bourne displayed more confidence and deliberation. Mr. Winton played about with the 'cello descents as if enjoying himself, and yet never destroyed the symmetry of the parts.

The four make a good quartette, although a little more light against which to contrast the shade would not be amiss. Of the quartette, as of the concert as a whole, it may be said that each member played with taste and restraint, always conscious of the essential rhythm and never forgetting that each individual is a part of a whole. The Hospital owes a debt of gratitude to Mr. Hilton and those who helped him to get up so thoroughly good a concert.

* * *

The Students' Union Annual Dance will be held on January 28th, 1920, at the Hyde Park Hotel, Knightsbridge, in aid of the Hospital Appeal Fund. Tickets can be obtained from the Secretaries, Messrs. N. G. Thomson and J. L. Potts. Gentlemen's tickets, £1 1s.; ladies', 15s. 6d.

* * *

Dr. Waldo recently concluded an inquiry at the City Coroner's Court regarding the death of a patient æt. 69, who died at this Hospital while under the influence of stovaine, which had been administered for an operation for hernia.

Arising out of the Coroner's remarks at the first hearing as to the giving of anæsthetics by young students and nurses (this system does not exist at St. Bartholomew's Hospital, where there are three resident and four visiting anæsthetists), Dr. Waldo said that a medical correspondent had written to *The Times* saying it seemed a pity that more scientific attention had not been devoted to the subject. If, he added, the Medical Research Committee would take the matter up, a service to the community would be performed.

The jury returned a verdict in accordance with the medical evidence, and added a rider that no general or local anæsthetic should be administered by any but a duly qualified medical man except in most exceptional circumstances, and that the Medical Research Committee and the Ministry of Health be requested to inquire into all matters connected with anæsthetics given for operations.

THE PLACE OF PREVENTIVE MEDICINE IN THE MEDICAL CURRICULUM.

The training of the medical student is receiving now a far greater amount of attention than has been the case during the past generation or so. Methods and practices which have remained unchallenged for many years are being regarded with critical attention, with the general result that reforms which previously would have received no attention are now possible and practicable.

A criticism which is being advanced with persistence is that the student is taught only the theory and practice of the treatment of diseased conditions, and that he receives little or no instruction upon prevention. It is alleged, in fact, that he is launched into a course of instruction, investigation and experiment which tends to concentrate attention almost entirely on the treatment and cure rather than on the prevention of disease, while the study of the earliest signs of oncoming illness and the investigation of the conditions leading up to it are passed over and neglected, if not actually discouraged.

The reason for this restricted condition of the curriculum is obvious. The training of the medical student at the present time is, for all practical purposes, entirely in the hands of eminent physicians and surgeons who have specialised in their particular departments, the result of whose excellent teaching is naturally to give the student the conviction that his life's work lies entirely among diseased persons. Such a state of affairs is inevitable under the existing arrangements in the medical schools, and it is not to be expected that the clinical teachers, who

are experts in the treatment of diseased conditions, can alter their point of view and begin to teach prevention. Obviously they must continue to teach their speciality, *i. e.* curative medicine and surgery.

The general practitioner is the main product of the medical schools, and if he is to take any important part in the prevention of disease in the future he must be taught prevention systematically and thoroughly as a student. His point of view must be altered entirely, for instead of viewing the diseased portion of humanity as his special and only province, he will be expected to regard disease as something which ought to, and usually could, be avoided. Such an altered point of view is not likely to be achieved without considerable innovations into the curriculum. A system which has for generations concentrated on the later stages is not likely, as the result of some small change in, or addition to, a lecture syllabus, to pay sufficient attention to the investigation of predisposing conditions and the earliest stages of disease. In the interests of efficient teaching, in fact, it is necessary for each part of the instruction to be in the hands of experts—clinicians to teach diagnosis and treatment together with investigations in those subjects, with experts in preventive medicine in charge of prevention and investigation into the factors leading to disease.

Prof. Andrewes sums up the present position exactly in his address to the Abernethian Society, published in this issue, when he says: "I ask qualified men to look back upon their medical education and reflect how small a part the *prevention* of disease has occupied in what they have been taught as compared with the diagnosis and treatment of disease already existing. . . . I verily believe that if but half the energy and effort which we now put forth in endeavouring to cure those already ill were devoted, with equal intelligence, to preventing people from being ill, the effect upon the total sum of human suffering and death would be vastly greater." Few teachers have had such a wide experience as Prof. Andrewes, and his considered opinion, thus expressed, should have great weight. He has expressed concisely what many others are thinking, and what the public is now beginning to demand, namely, that medical energy and effort, although of enormous value and importance in carrying out the work which possesses what Prof. Andrewes aptly describes as "dramatic appeal," must also be directed, to a constantly increasing extent, towards prevention. This can only be achieved by an alteration in the training of the general practitioner.

The aim of medical education should be not only to turn out expert clinicians, but also to produce a great body of medical practitioners with enthusiasm for prevention, with sound ideas upon predisposing and exciting causes of disease, and with sufficient knowledge and interest to make certain that a considerable proportion of them will contribute to the future progress of preventive medicine. The immediate dramatic appeal may be lacking as compared with the successful treatment of some urgent case, but viewed in proper perspective it is at once obvious that where the treatment of diseased persons deals with units, successful prevention affects thousands, and at the same time has an enormous effect upon human happiness and progress by eliminating that worst of handicaps—disease. This point is emphasised in Prof. Andrewes' excellent address, the publication of which is singularly opportune at a time when the organisation of medical schools and the curriculum are both in the melting-pot. After reading this address we shall surely all agree with him that "it is our duty no less than our privilege to take a leading part in the prevention even more than in the cure of disease."

LESSONS OF THE LONDON LIFE-TABLE.

Abernethian Society Sessional Address, October 16th, 1919.

By F. W. ANDREWES, M.D., F.R.C.P., F.R.S.

THE Sessional Address delivered before this Society takes the place, at St. Bartholomew's, of the more formal opening functions at most other medical schools, and it is a serious responsibility to accept the honour which you have done me, not for the first time, in asking me to deliver it. In substance these addresses often take the form of a sermon in which new-comers to the School are apostrophised about the noble profession which they are entering, urged to be diligent in their studies, and exhorted to maintain the great traditions of this ancient foundation. Although my discourse will not be quite of this type, I have no objection to your regarding it as a sermon, for, frankly, it is meant to be one and to have a text. It is intended to put before you certain ideals of medicine to which we may attain when our knowledge is sufficiently advanced, and to point out, even at this early stage in your careers, what each one of us can do in the direction of realising the ideals.

The text of the sermon is provided by the London life-table, a curve from which is placed on the wall, and I must first explain to you what a life-table is. You know that every ten years a census of the population is taken, and that every year the death-rates from different diseases are calculated and published by the Registrar-General, for different ages and for the two sexes. Now these crude data require the most elaborate correction before we can get at the real truth about the health of a community. It is not an easy thing to be sure about the population of London and its age and sex-constitution during the intercensal period. Londoners go away and die elsewhere; people come from the country and die in London; families emigrate from and into London. There is a great war which

kills off the young males, or an epidemic of influenza which works havoc. When old-age pensions were introduced there was a sudden jump in the number of people over seventy. Amongst their other activities the suffragettes tried to hamper and mislead the authorities at the last census. You can see that the life of a statistician is not a happy one. It is his job to ascertain the nature and extent of all these disturbing factors, to apply the requisite mathematical formulæ, and to produce a correct estimate of the actual population year by year, how many of each sex there are in it, and how many are living at each age. He does it somehow; it requires acres of arithmetic and, I believe, the integral calculus, but on the whole he does it very well. That is the beginning. Next he has to apply the known death-rates to this population and ascertain how many of each sex, at every year of life, have died. He goes on to calculate the curve along which the population dies off, what is the expectation of life at each year of age, *i. e.* the betting as to how many more years the person is going to live, and this separately for each sex, and many other things too. This constitutes a life-table and it is stated in this form. You take a hypothetical million newborn babies and follow their careers. You find out how many are left alive at each birthday, and watch them tailing off till the last survivor dies at 107 and is immortalised in the *Daily Mail*. A life-table gives you pages and pages of figures about this and other details I have mentioned, and on this extended scale it is a formidable undertaking. It is worth doing from time to time because it offers the best basis we have for comparing the health of different districts, or of the same district at different periods. It is the basis on which life insurance offices calculate their premiums. It can be done for the whole country, or for a big town. In London it is intended to be done every ten years, based on the data for the whole decennium. The first was published for the decade ending in 1900 and the next and latest for that ending in 1910.

Now let us see what this table has to tell us about the actual facts. The curve hung on the wall shows the number of persons left alive at each birthday out of the million newborn babies we start with. By the end of the first year there are only 860,000 odd surviving: 140,000 have died. That is "infant mortality." The first year is far the most dangerous; after that matters mend, but by 5 years old there are only 791,000 left. Then things get much better, and at the age of 11 years the mortality reaches its lowest point—that is to say, that of 1000 persons 11 years old fewer die than of 1000 persons of any other age. After 11 years the mortality rises, slowly at first, then at middle age more and more steeply, so that from 50 to 80 years it is great and very uniform. After 80 the curve begins to flatten out again because the numbers left to die are so small.

It is not till the age of 33 that the number of survivors of our million babies has fallen to 700,000. At 50 they have dropped to 600,000, at 58 to 500,000, at 65 to 400,000, while at 81 only 100,000 are left. At 90 there are 15,000 left, but only 154 live to be 100. The last survivor dies at 106, but if the million babies had all been females, one would have lived to 107, for women have the advantage all through and die a little later than men.

The expectation of life—that is, the average future lifetime—is 46¾ years at birth for a male and 51·4 years for a female. If the baby survives the dangerous first year and reaches 3 years, the expectation rises to 57 or 58 years and then falls pretty regularly up to old age.

There is another way of looking at the figures. You can add together all the expectations of life for the individuals of a population and call it the "life-capital" of the community—that is, you can look at it from the national point of view instead of the individual. Calculation from the life-table shows that the population of Inner London, rather more than 4½ million, has a life-capital of just over 171 million years, most of them good useful years for work. This capital, which is the most important asset of a nation, is constantly being squandered by deaths, but constantly reinforced by births, and at present the births more than counterbalance the deaths: for every 100 years of life-capital lost by deaths, 134 years are added by births—in London, that is, during the period covered by the present life-table. This is where you see the national importance of the birth-rate. The total life-capital of a community can be increased by a rise in the birth-rate or by a fall in the death-rate, and especially by a reduction in infantile mortality, because early deaths mean a much greater loss of life-capital than deaths at higher ages. At present our birth-rate is unhappily falling seriously, but our death-rate is falling too, and our life-capital in London so far shows a slight increase on the whole. But in 1918, chiefly owing to the influenza outbreak, the deaths for the first time actually outnumbered the births.

The virtue of the life-table is that we can calculate the total life-capital in exact terms by its aid, and further, we can get a numerical expression of the ravages of individual diseases upon a community. If you are told that of every hundred children born 1·7 die of measles, 8·1 of phthisis and 8·4 of pneumonia, it only conveys a general impression of the relative frequency of deaths from these diseases. But when you learn that measles is responsible for the loss of nearly half a million years, and phthisis and pneumonia for more than a million years of life-capital apiece, per million children born, you begin to get a glimpse of what these diseases really mean to the nation.

So far I have only set forth the text of my sermon, and tried to convey to you what a life-table is and what is the nature of the facts which it reveals. It is not a fancy picture, but the nearest approach that we can arrive at as to what is going on around us. We cannot feel satisfied with the revelations of the table. If you review the causes of

death in detail you will find that very few of them can be classed as "natural causes," and most of them are from what are nowadays termed "preventable diseases," and this is the more true the earlier the age at which death takes place. Consider the mortality in the first year of life. In some recent figures given by Newsholme, later than those of the London life-table, and relating to the whole of England and Wales, in which the infant mortality was only 122 per 1000 births, we find that out of the 1000, roughly, 20 died of prematurity, 15 of atrophy and marasmus, 20 of diarrhœa, 20 of bronchitis and broncho-pneumonia, 10 of convulsions, 5 of tubercle, 5 of whooping-cough, 2 of measles.

And it is not much better later on in life. People don't come to hospital to die natural deaths, but I looked the other day at the index of our Medical P.M. book for 1918 to get a general idea of what they did die of here. There were 117 cases indexed: 64 of these were from infective disease, largely tubercle, *i.e.* from causes which we now know to be preventable.

Everyone, of course, has got to die at some time, but the point here is that most people die much too soon, with a corresponding waste of life-capital. It is the exception at the present time for them to die peacefully at a good old age, whereas it ought to be the rule. One can imagine an ideal community in which avoidable illness and death were banished. I have ventured to add to the life-table curve on the wall another curve in red, purely imaginary, representing what the fate of the million babies might be under perfect conditions. I cannot prove its correctness, but no one can disprove it because the necessary data are lacking.

I have no wish to draw any impossible picture of a world where untimely death is unknown. I have not made the curve horizontal till it drops vertically at a hundred years. Out of my million babies 25,000 shall be born prematurely or die of congenital defects. They shall fall into the fire and drink scalding water from the kettle, or drink carbolic acid out of the ginger-beer bottle just as they do now. I will let a thousand or two be run over in the street and killed in railway accidents. When they grow up they shall get entangled in machinery, fall out of windows and die other violent deaths. And all this would be only a drop in the bucket of our present mortality. It is only a guess, but I doubt whether 50,000 out of the 1,000,000 would have died from such causes at the end of fifty years.

For my 1,000,000 babies would be properly clothed and fed and looked after. They would live in decent surroundings, with plenty of fresh air. And, above all, in my imaginary life-table there would be no infectious diseases, no tubercle or syphilis, no specific fevers.

But after fifty years we shall begin to expect some of the lives to show signs of wearing out. The arteries begin to show evidence of this even at forty years. Senile changes will be slower in onset under the perfect conditions I am imagining. We must leave cancer amongst the diseases we cannot as yet prevent because we do not know its cause. Insidious kidney troubles will arise; people will still die of cerebral hæmorrhage and thrombosis. There will be lots of ways in which I shall not be able to prevent death before the ripe old age which I should like to see. So that after 50 my curve begins to fall more rapidly, only the fall is put off beyond that shown in the London life-table.

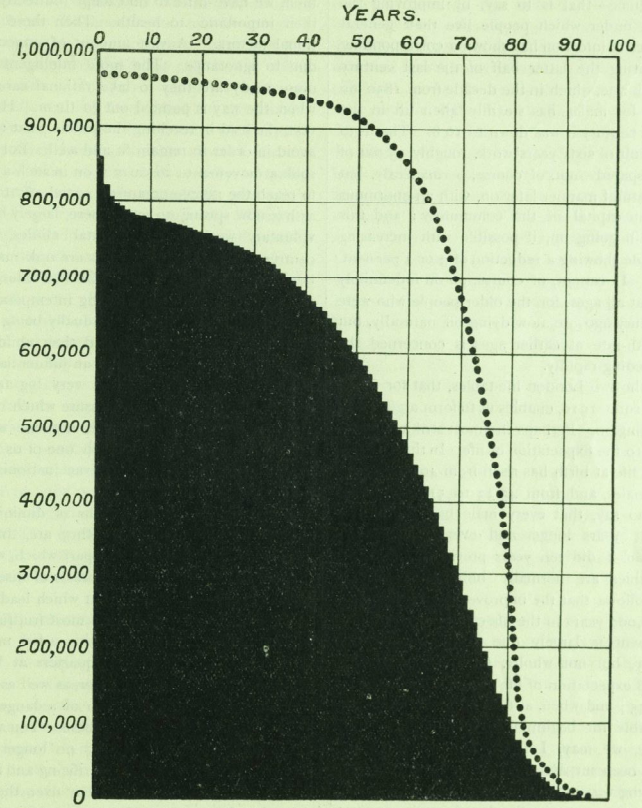
The interval between the actual curve of mortality and my imaginary red line represents the amount of preventable disease amongst the life-table population. Whether my red line is a just one doesn't matter much; I have only put it in for the sake of argument. Anyhow, no one will dispute that the disease is there, shortening life, and that much of it could be prevented; and were it prevented, consider what a gigantic addition would be made to the life-capital of the community. I am not a mathematician, and I have not attempted to compute it, but it would certainly run to many millions of years.

Now this is the problem I want to put before you to-night: it is that of "preventive medicine," and I am quite sure that it is one which is going to occupy a much bigger place in the medicine of the future than it does at present. Many here present have already passed through their medical curriculum and are qualified men. I ask them to look back upon their medical education, and reflect how small a part the *prevention* of disease has occupied in what they have been taught as compared with the diagnosis and treatment of disease already existing. To the public the ideal doctor is the calm, strong, silent man who divines at a glance the trouble from which his patient is suffering, and under whose skilful treatment the disease vanishes. The nurse, with her golden hair and plain but attractive uniform, exists to soothe the aching brow with the touch of her cool white hand; and this, of course, is very fine and admirable, and when we are ill we are very glad to avail ourselves of the comfort and relief which doctor and nurse can so often bring; but I verily believe that if but half the energy and effort which we now put forth in endeavouring to cure those already ill were devoted, with equal intelligence, to preventing people from being ill, the effect upon the sum total of human suffering and death would be vastly greater.

Unfortunately preventive medicine makes no such immediate appeal to us as the treatment of existing disease. It lacks the dramatic element. What a glow of pleasure we feel when by our skill we know that we have saved a life! How justly gratified is the house-physician who wrestles all night with a case of hyperpyrexia, wrapping him in wet sheets and rubbing him with blocks of ice till his temperature comes down! How well does the house-surgeon merit congratulation when he has dealt promptly and successfully with a dangerous hæmorrhage! You can't get that sort of satisfaction by preventing a hundred babies from getting measles and whooping-cough; yet the man who could do this would serve the State far better.

And so, for lack of this immediate dramatic appeal, preventive medicine gets pushed rather on one side in medical education. We are given a short course of lectures on public health, and get signed up for them by attending as few as we can, and come away with a few ideas about ventilation and water-closets which seem to bear little relation to medical or surgical practice. There is a sort of feeling that the prevention of disease is not our job, for, to put it bluntly, we expect to make our living out of it. Prevention is left to the State and the public health services, and now that we have a Minister of Health we expect that a great deal more will be done in this direction; and it is certain that a great deal more will be done, and that more and more men will be needed to devote themselves to preventive medicine.

Let us consider now what has been done and how it has been done, as some kind of clue to what we may hope to achieve in the future. We are now within sight of the control of some of the specific fevers. Smallpox we have long had under complete control, if we choose to employ the means at our command. Typhus and relapsing fever are things of the past so far as London is concerned. The late war has shown how enteric fever can practically be abolished in an army. Even in such a disease as scarlet



NUMBERS SURVIVING YEAR BY YEAR OUT OF 1,000,000 CHILDREN BORN IN LONDON.
THE DOTTED LINE ABOVE IS IMAGINARY.

fever, where we have no means of specific control, the death-rate has fallen from 1200 per million in 1840 to 77 per million in 1914.

Much of the improvement which has been brought about has, in fact, not been effected by any definite means of checking this, that or the other disease, but by what is termed general hygiene—that is to say, by improving the sanitary conditions under which people live their general health and resistance to infection has shown a corresponding improvement. During the latter half of the last century and since, the death-rate, which in the decade from 1850 60 was 25·7 per 1000 for males, has steadily fallen till in the first decade of this century it was down to 16·8. That is to say that, as the result of sixty years' work, roughly 35 out of 100 lives are now spared—not, of course, permanently, but to die in a more natural manner later on, with an enormous addition to the life-capital of the community; and this improvement is still going on, if possible with increasing rapidity, each decade showing a reduction of 3 or 4 per cent. in the death-rate. It cannot, of course, go on indefinitely for the death-rate at all ages, for the older people who were spared half a century ago are now dying off naturally, but so far as the death-rate at earlier ages is concerned the reduction is proceeding rapidly.

Comparison of the two London life-tables, that for 1890–1900 and that for 1900–1910, enables us to form a good estimate of what is going on. Perhaps the most striking figures are those relating to the expectation of life. In the ten years the expectation of life at birth has risen from 40·98 years to 46·74 years for males, and from 45·33 to 51·41 years for females—that is to say, that every male baby born lives on an average 5¾ years longer and every female baby 6 years longer than it did ten years previously. Now, at least 100,000 babies are normally born every year in London, and it follows that the improvement represents a yearly gain of 600,000 years in the life-capital of London.

The improvement is largely due to the decrease in infantile mortality, but not wholly, for the same figures show an increased expectation of life of more than two years up to the age of 35; and when, at the end of next year, the figures are available for beginning to compute the third London life-table, we may, I fancy, find that even this improvement has been surpassed. For the infantile death-rate has been falling very rapidly during the present decade. Whereas it was 140 per 1000 for the decade ending in 1910, it was 112 in 1915, and only 89 in 1916. In 1917 it had gone up again to 104, and last year it was 108, owing principally to an epidemic of whooping-cough. These are the figures for London only.

Plainly, then, a great deal has been done and is being done to shift the mortality curve in an upward direction, but there remains a great deal yet to accomplish. How is it to be done? And what can we do to help in the work? Much, of course, depends on factors which are in a sense non-medical. Everything which tends to improve the standard of living in a community is a potent influence for good. Increased wages, diminution of overcrowding, better housing, good food—all these increase the vitality of a community and the resisting powers of the individuals composing it. These are all "economic factors," with which, as medical men, we have little to do except indirectly in pointing out their importance to health. Then there are the "educational factors." A vast amount of unnecessary disease is due to ignorance. The more intelligent people are, the more ready are they to take rational care of their health when the way is pointed out to them. Here it is for us to take the lead in teaching the public what to do and what to avoid in order to remain fit and well. But we can only start such a movement: to carry it on in such a manner as really to reach the people organised social effort is required, such as has now sprung up everywhere, largely by the devotion of voluntary workers. Ante-natal clinics, infants' welfare centres and similar institutions are now numerous and most beneficent in their effects. Of like educational value are the organisations for combating intemperance and venereal disease. The people are gradually being educated in the art of preserving their own and their children's lives. We can all of us, as doctors, take an influential part in forming public opinion, and that is a very big factor in hygienic reforms. The collective pressure which can be exerted by a united medical profession is not one which in the long run can be disregarded. Each one of us can do his bit in exposing the fallacies of anti-vaccinationists and such-like faddists.

But it is not of these means of diminishing death and disease, vastly important as they are, that I chiefly wish to speak to-night, but of the part which we, and we alone, can play in determining the *causes* of disease. Of all the forms of medical research, that which leads to the discovery of the causes of disease is the most fruitful in good results. Sir Arthur Newsholme, speaking a few months ago at the American Red Cross Headquarters at Washington, very aptly observed that it was wiser, as well as more humane, to erect a parapet along the top of a dangerous cliff than to provide an ambulance at its base. You will all agree that medicine and surgery should no longer be content with efforts, however noble, self-sacrificing and intelligent, merely to assist those who have fallen over the cliff. It is our bounden duty to try and stop their falling over at all.

Now until we are in a position to say why they fall over—that is, until we know the causes of disease—we are more or less helpless. Once we know the cause we are at least on the highway to prevention and can begin to build our parapet.

Really to fathom the cause of a disease and to trace the way in which it is brought about is a very long and laborious business. The chain of cause and effect is often highly complex. Let me take one instance, fully worked out, as an illustration, viz. that of malaria in a temperate climate such as that of Europe. The ultimate cause of the disease is known to be a certain small group of blood-parasites. That discovery in itself did little or nothing to prevent malaria in man because we did not know how he was infected. Then came the discovery of the relation of the malarial parasite to the mosquito, and the completion of its life-cycle in that insect. Experiment came in to complete the proof that it was the mosquito which conveyed the disease, and now we know that this is the only way in which the disease arises. But in Europe the temperature is only sufficiently high to allow of the development of the parasite in the mosquito during the warmest months of the year. Only during these three months can new cases of malaria arise; the bridge of nine months is formed by relapsing cases, for there must be active malarial cases for next year's mosquitoes to bite if new cases are then to arise. Thus the chain of cause and effect in malaria is a long and complicated one, but now that we know it fully we can control the disease, at least in theory, and largely in practice. If we can cut any one link in the chain we can prevent malaria. If we could cure all malaria cases before they were bitten by gnats or if we could prevent the gnats from biting them malaria would automatically become extinct. If, in Europe though not in the tropics, we could prevent relapses, the same result would follow. Equally, if we could exterminate all the gnats of the species which convey malaria the disease would cease. These possibilities which have been tried and found successful in many tropical regions, nowhere more notably than in building the Panama Canal, depend simply and solely on our precise knowledge of cause and effect in malaria. The credit belongs to no one man, important as the work of Sir Ronald Ross was, but is to be distributed amongst a host of patient workers all over the world.

One could readily parallel this sort of thing in many other infective diseases. I have taken malaria merely as one striking instance of the importance of knowing not merely the primary cause of a disease, but how it is brought into action. And, indeed, the latter may, from a preventive point of view, be more important than the former. We do not certainly know the cause of typhus fever, which is probably an organism much smaller than ordinary bacteria, but we do certainly know that the disease is transmitted by the louse, and apparently in no other way. Thus the path was open for the triumphant campaign against typhus in Serbia at one stage during the war.

We may easily think we have found out how to prevent a disease, when our knowledge is, in truth, imperfect. A curious instance of this has lately been brought to light, and I mention it because it shows how observation alone may lead us astray unless it is controlled by careful experiment. It is an old story that scurvy can be prevented by lemon-juice or lime-juice. The introduction of this remedy into the Navy at the beginning of last century practically abolished scurvy. The supply of juice came from the Mediterranean, mainly from Malta and Sicily, and it was chiefly lemon juice from *Citrus limonum*, but partly juice of the sweet lime, *Citrus limetta*. There was never any question as to the efficacy of this juice in preventing scurvy. Towards the middle of last century lime-juice began to be produced in the West Indies, but it was from the fruit of sour lime (*Citrus medica*). In 1846 this was tried for ships stationed there, and it seemed satisfactory, and in the sixties the Admiralty derived its whole supply of lime-juice from the West Indies, abandoning the Mediterranean sources. The only test used was a chemical one—the degree of acidity—and nobody doubted that this West Indian juice was as good as that previously in use. Now it so happened that at this period the introduction of steam had so shortened voyages that sailors were no longer cut off from fresh meat and vegetables for months at a time. The risks of scurvy had become so greatly lessened that the effect of the change of juice was not detected. But Arctic exploration still presented great danger of scurvy. The various expeditions in search of Sir John Franklin, up to that of Sir L. McClintock in 1859, which settled the question of his fate, had been furnished with the old Mediterranean lemon-juice and suffered little from scurvy—at all events for two years from sailing. It was not until Sir George Nares sailed in 1875 on the "Alert" and the "Discovery" that the West Indian juice was really put to the test, and it failed; the expedition suffered severely from scurvy in spite of the lime-juice. There was, of course, an official inquiry, but the Committee appointed quite failed to discover the cause of the failure to prevent scurvy. Even on Scott's Antarctic Expedition in 1901 West Indian lime-juice was taken, and serious trouble from scurvy occurred.

Nowadays we put these matters to the test of carefully controlled animal experiment on guinea-pigs and monkeys. No more valuable piece of medical research has been carried out than that at the Lister Institute during the war on vitamines in food-stuffs. We now know that the juice of the sour lime has only one quarter of the antiscorbutic value of lemon-juice, and the whole thing is satisfactorily explained. More than this, it has been proved that whereas dried peas have no antiscorbutic value, if they are moistened and begin to germinate they at once become rich in the necessary vitamine—a piece of knowledge which saved the situation for our troops in North Russia last winter.

All this seems to have taken us a long way from the London life-table. It hasn't, really. I have only been giving you rambling illustrations of what research has done in the prevention of individual diseases. My aim has been to point out the vast importance of ascertaining the exact cause of a disease if we are to prevent it.

But let us take some examples from the life table itself:

let us consider tuberculosis and measles. More than 100,000 out of our 1,000,000 babies are going to die of tubercle and more than 17,000 of measles.

We are fairly well acquainted with the cause of tubercle. We know the infecting agent intimately; we know about the human and bovine tubercle bacilli and their relations to the human disease. We know how the tubercle bacillus gets into the human body, and what it does when it gets there. We can even begin to talk about cure in favourable cases taken early. The pathologists have done their bit and the physicians are doing theirs. Why, then, do 100,000 persons out of every 1,000,000 babies born die of tubercle? It is pretty certain that a strong and intelligent autocrat, armed with the knowledge which we already possess about tubercle, could abolish the disease in no long time if he disregarded every other consideration. If he sought out every tuberculous person and shut him up in some sequestered part of the north of Scotland, if he slew and burnt every tuberculous animal, and kept such vigilant guard over the community that each new case was detected and eliminated in the earliest stages, the disease would automatically vanish in a generation. There seems no reason on paper why it could not be done. We actually dealt with leprosy on such lines in the middle ages and got rid of it.

Why, then, is it not done? The answer is plain. It would be outside the range of practical politics. Most people have tuberculosis at some time in their lives, if we may judge from post-mortem evidence. There would be more people to shut up than people to shut them up. There is not that immediate apparent urgency which confronts us in presence of an outbreak of plague or smallpox. After all a vast number of people recover from tubercle, many without knowing that they have had it. It is difficult to frighten people about tubercle, and until people are thoroughly frightened they are unwilling to submit to restrictions. It is largely a question of public opinion. To deal adequately with tubercle by direct attack would in any case, at the present time, more or less dislocate the life of the nation, and would from its mere monetary cost prove impracticable.

And so we have to be governed by expediency. This does not mean that we are to despair of overcoming tubercle, only that our attack has to be indirect instead of direct. The mortality from tubercle has already been reduced enormously by indirect means such as improved housing and sanitation. A further great improvement can certainly be brought about by education—by gradually training people to perceive that it is a crime for anyone with tubercle of the lungs to spit in public places or kiss his children. When once the British public really believes that tubercle is an infective disease the way will be open for all sorts of restrictions and penalties which to-day are impracticable. Early diagnosis and treatment will augment the number of cures and so gradually and very slowly the mortality from tubercle will decrease. When it has fallen sufficiently and public opinion has been properly awakened some policy of compulsory segregation of the tuberculous may be feasible. But not till then.

In the case of tubercle, then, we have the knowledge necessary to eradicate it, but lack the practicable means for taking direct advantage of our knowledge. How is it with measles? If we examine our knowledge of this disease we find the following state of affairs. We do not know the causal agent; we cannot see it or grow it as we can an ordinary bacterium. We cannot prepare sera to combat it or vaccinate against it. Nevertheless, we know something about the infecting agent. We are sure that it is not an ordinary bacterium or protozoon, but a filter-passing organism. We know that it is killed easily. We are pretty clear as to how the virus spreads from case to case, though we have no means of telling whether there are such things as measles carriers. We know, too, that measles rarely kills of itself; its high mortality is due to secondary complications due to infection with streptococci and pneumococci. There are however serious gaps in our knowledge as regards measles, gaps which will doubtless be filled up, but which are at present sufficient to prevent us from being able to take direct action against the disease even if public opinion were to demand it.

Most preventable diseases come under one or other of the two categories I have illustrated by tubercle and measles. Either we know their pathology or we do not, or but imperfectly. Where we know it we have the power of prevention if we could only find some practicable means of using it. Where we do not know it or only suspect it we lack that power.

Contrast what happened during the late war in the cases of enteric fever and dysentery. The difference between these two intestinal infections was this: that in enteric fever we possessed a definite means of prophylactic inoculation which was pretty thoroughly carried out, while in dysentery this was not the case. Both these diseases spread in exactly the same manner; both are known scourges of war. The facts are known to you all: enteric fever prevailed to but a negligible degree amongst our forces, whereas the incidence of dysentery was fairly high in spite of careful sanitation.

So it was with tetanus and gas gangrene. In the one we had an efficient antidote systematically administered, in the other no antidote at all till towards the close of the war. And relatively few men died of tetanus, but very many of gas gangrene.

There are certain infectious diseases for which we have remedies so prompt in their action that the danger of spread to others can be almost abolished. The most striking example of this is syphilis. An untreated or badly treated case of this disease is a source of infection not only in the primary, but during the whole of the active secondary stage of the disease—we may fairly say for a year. We now know that a single effective dose of one of the arsenobenzol preparations will destroy all spirochætes in the surface lesions in twenty-four hours or less; the patient is not cured in this time, but as a source of danger to others he is sterilised and can be kept so. Of what immense importance is it, then, that every medical man should learn the use of dark background microscopic illumination so that he can diagnose the earliest lesion and bring about this happy result.

But I have said enough about the importance of knowing the cause of a disease and the mechanism of its action if we are to be in a position to prevent it. The fact is so obvious that the illustrations I have given, rambling and disjointed as I fear they have been, are hardly needed to enforce it. So let me sum up the matter, as I want to put it to you to-night, in a few words.

You see in the diagram on the wall a representation as faithful as can be offered of the way in which the life-capital of the nation is being squandered—much of it unnecessarily. You are entering a profession the very *raison d'être* of which is graphically presented to you in that picture, and I want you to look on the profession from that point of view. It is our duty no less than our privilege to take a leading part in the prevention even more than in the cure of disease. Much of the prevention must rest with the economists and legislators, but even here it is for us to point the way. Much must depend upon the education of public opinion and here every one of us can exert influence in the right direction, but do not forget that the extent of your influence will depend upon your own knowledge of disease and upon your capacity for reasoning correctly from it.

Many of you will enter the public health service and devote your whole lives to the prevention rather than to the cure of disease. And those of you who choose the more ordinary path of curative medicine and surgery will have abundant opportunity in your dealings with the sick of doing much in a quiet way for preventive medicine.

And lastly, there are those to whom research into the nature and causation of disease makes a special appeal. The appeal is often one for its own sake—the thirst for knowledge without necessary reference to its immediate practical application. Let such be well assured that theirs is the path which, though perhaps unpaved with gold, will lead the most surely in the end to the overcoming of preventable disease.

MEDICAL NOTES.

By Sir THOMAS HORDER, M.D.

(*Continued from p.* 37.)

ON POLIOMYELITIS AND MENINGITIS.

(148) The fact that waves of incidence of influenza and of acute poliomyelitis are frequently superposed makes it important to criticise very carefully all cases of so-called "influenza of cerebral type," and also all cases of "influenzal neuritis," as to whether these may not be cases of poliomyelitis. Small outbreaks of poliomyelitis have synchronised with larger outbreaks of influenza in schools. To remember the fact is to guard against error in diagnosis.

(149) Retention of urine may be the first symptom in acute poliomyelitis. The occurrence of this symptom during the invasion period of an acute illness should arouse suspicion of this disease. The symptom is rare during the onset of cerebro-spinal fever, unless the patient is comatose. And it is probably unknown in the toxæmic states of influenza and typhoid fever.

(150) An invasion symptom frequently seen in both cerebro-spinal fever and poliomyelitis, and quite unconnected with the headache which is so commonly present, is pain referred to certain nerves or nerve-roots. This focal pain may precede by some hours the headache or the more general aching which are such frequent associations of these diseases. The pain is often very intense, and is usually confined to one region. It may be referred to a branch of the trigeminal, to the great occipital, to an intercostal, or to one of the lumbo-sacral nerves. Two other diseases share with cerebro-spinal fever and poliomyelitis this tendency to neuralgic pain as an invasion symptom—typhoid fever and influenza. Care must therefore be exercised not to deduce the presence of disease of the central nervous system rather than a general toxæmia when this symptom occurs during the early stage of an acute illness.

(151) The differential diagnosis of cerebro-spinal fever from the "meningitic" form of poliomyelitis is sometimes extremely difficult. Definite muscular rigidity, both of the neck and of the hamstrings (*i. e.* Kernig's sign), may be present in poliomyelitis; so also may pain, referred to certain nerve areas (see § 150). The pulse in poliomyelitis, again, may be infrequent in relation to the degree of fever, as it not uncommonly is in cerebro-spinal fever. A leucopenia is by no means constant in poliomyelitis. Even the result of lumbar puncture may not be decisive, for there may be considerable lymphocytosis, with increase in protein content of the cerebro-spinal fluid in poliomyelitis, whereas in cerebro-spinal fever the meningococcus may fail of demon-

stration both in films and in cultures. There are, however, two very helpful points in any doubtful case *of marked severity*: if there is no leucocytosis and if the cerebro-spinal fluid is clear, free from polymorphous cells, and meningococci are not demonstrated in it, the case is almost certainly not cerebro spinal fever.

(152) True relapses are distinctly uncommon in cerebro-spinal fever, provided the word "relapse" is used as distinct from "recrudescence." Recrudescences are very common—indeed they are a marked feature in the disease. A return of the fever with fresh signs of meningitic irritation, happening to a patient in whom Kernig's sign was still present, or in whom the pulse-rate had not settled to its normal frequency, should not be termed a relapse. The point is of considerable importance because a true relapse raises the question of re-infection; and this may be by a strain of meningococcus of a different group from that causing the original disease.

(153) Except in the case of adults, and by no means always then, signs of tuberculosis elsewhere in the body are not often found in cases of tuberculous meningitis. The source of the disseminate tuberculosis in children is nearly always a softened caseous gland, bronchial in the great majority of cases, mesenteric in a few; and the child usually gives no sign of this focus, nor of any other, during life.

THE ANTE-NATAL DEPARTMENT.

By J. BARRIS, M.B., M.R.C.P., F.R.C.S.

FOR many years past it has been the custom on one of the Gynæcological out-patient days to supervise every pregnant woman about to be confined either in Elizabeth Ward or on the Extern Midwifery District. Owing to the increasing numbers and to the better recognition of the importance of the subject it has now been found necessary to set apart one out-patient session entirely for this purpose and to establish a special Ante-Natal Department. This Department has been held on Thursday afternoons since October 1st of this year and already over 500 new patients have been investigated in this time.

Ante-natal work has been so much under discussion recently, that it may interest old and present Bart.'s men to know that their *Alma Mater* is not behind the times in this matter, and to have a brief account of the work that is being carried out.

The consideration of but a few facts will demonstrate the importance of this matter from the national point of view. It has been estimated that the number of notified stillbirths—that is to say, deaths after the 28th week of gestation—is about 3 in every 100 for the whole of England and Wales; the figure is almost certainly higher as the unnotified cases must also be included. Adopting the moderate estimate of 1 abortions to each stillbirth, it is probable that the ante-natal deaths are at the lowest possible estimate in the proportion of 1 to every 9 births. When to these figures is added the number of infants who die within their first year, which for England and Wales is 95 per 1000 births, and the potential loss due to the artificial prevention of conception, the loss to the nation is seen to be enormous.

A very large proportion of the dangers to which the unborn babe is exposed during its nine months of intra-uterine life and of the subsequent risks during its birth are preventable.

Further than this, from the point of view of the mother many dangers which she incurs during childbirth, such as arise, for example, from eclampsia, from malposition of the fœtus, or from contracted pelvis, are in many instances also avoidable. The aim of the ante-natal department is to provide opportunities both for the teacher and the student of investigation for the early evidence of pathological conditions, which if allowed to continue may act as causes of fœtal disease or death or of danger to the mother, and to help the mother and child in order to minimise these risks as much as possible. From this standpoint ante-natal treatment is to be regarded as a part of preventive medicine.

It is the duty, therefore, of a medical practitioner, on being asked to undertake a confinement case, to point out the necessity of examining his patient and of keeping her under supervision prior to the actual labour in the interest both of the mother and of the child. Any objections that may be raised by the patient can be dispelled easily by a few words of explanation kindly expressed, and if, as frequently happens, we can assure her that there is no evidence of any abnormality and that she can expect an uncomplicated confinement, she will feel relieved and amply repaid for any inconvenience to which she may have been subjected. If, on the other hand, some abnormality is found to be present, as, for example, in the condition of the urine, the position of the fœtus, the size of the pelvis, or in the presence of a purulent vaginal discharge, *then* is the time to put matters right, and in many cases this can be done, thus avoiding a possible disaster later on.

ROUTINE.

The patients are told to arrive at the Women's Out-patient Department on Thursday afternoons between the hours of 12.30 to 1, when the nurse enters their names and addresses, and sorts out the primigravidæ from the multiparæ.

From 1 to 1.30 the primigravidæ, and as many of the multiparæ as desire, receive instruction by the kindness of Sister Surgery in such matters as the importance of personal hygiene and the preparation of the home both for the mother and the infant. The opportunity is taken of emphasising the enormous importance of the effects of proper sanitation and ventilation on the health of the mother during pregnancy and after, as well as the great advantages of breast-feeding. The mothers also are instructed in the care of the newly-born child and are told to notify us in the event of scanty micturition, persistent headache, disturbances of vision, swelling of the face or ankles or of bleeding from the vagina.

The patients are then sent into the clerks' room, where their medical case-sheet is written up and an examination made of the urine (previously obtained by the nurse in charge). The patients are then undressed, after which—at 2 o'clock—they are examined by the Visiting Physician, with the help of his Clinical Assistants, and instruction is given to the clerks, who examine each patient upon whom they have taken notes. After the examination of the patient a decision is reached as to whether she ought to be confined within the Hospital or upon the Extern Midwifery District, due care being taken that not more than a certain fixed number of in-patient Elizabeth Ward cards are issued for each month, and as each patient leaves the Department her name and particulars are entered in special "Elizabeth" or "District" books kept for this purpose. After the birth of the child and when the lying-in period has been completed the patient is put in touch with the children's out-patient department, where a special post-natal day has been instituted.

It may be of interest and of possible help to provide a copy of the medical case-sheet in use:

LEAF 1.

Previous Pregnancies

Children born alive { At term — Date of last
{ Premature — Date of last

Children born dead — Date of last — at — week

Miscarriages — Date of last — at — week

Complications during previous

Pregnancies

Labours

Puerperia

Weight at birth of previous children

Were children breast fed? — How long?

Date of weaning last child

Previous important illnesses of mother:

LEAF 2.

Last regular period (first and last day)

Estimated stage of gestation in weeks

Expected date of confinement

History of present pregnancy.

URINE CHART.

Date.	Sp. gr.	Reac.	Alb.	Pus.	Sugar.	Bile.	Acetone.

LEAF 3.

Clinical Examination.

Height — General development

Temp. — Pulse-rate

Heart

Lungs

Breasts

Abdominal and Vaginal Examination

Pelvic measurements.

Interspinous

Intercristal — Lie and position of Fœtus

Ext. Conjugate — Fœtal Heart

Diag. Conjugate — Presentation

True Conjugate (estimated)

LEAF 4.

Date.	*Treatment.*	*Progress.*

Every prospective mother in the first place is questioned with regard to the details of former pregnancies and labours. A general examination of the patient is then made as to the condition of the heart and lungs or the existence of any deformity. The urine is also examined to determine the absence of albumen, sugar or pus.

Special attention is given to the condition of the breasts, the position of the fœtus and the size of the pelvis. It has been stated justly that the physician who neglects pelvimetry is comparable to one who attempts to treat pulmonary diseases without the aid of auscultation and percussion. As a general rule external measurements suffice, but the pelvis should be examined internally if these are smaller than the average, and even if the measurements are normal whenever the head does not engage during the last month of a first pregnancy.

A vaginal examination is also made to exclude any abnormal discharge. On making a vaginal examination in the later weeks of pregnancy the same technique should be followed as at the time of delivery, for labour might come on earlier than is expected and neglect might give rise to puerperal infection.

STUDENTS' UNION.

RUGBY FOOTBALL CLUB.

ST. BARTHOLOMEW'S HOSPITAL *v.* OLD HAILEYBURIANS.

This game was played at Broxbourne on November 22nd, and resulted in a win for the Hospital by 22 pts. to 3 (2 goals and 4 tries to 1 try).

ST. BARTHOLOMEW'S HOSPITAL *v.* LONDON WELSH.

Played at Herne Hill on November 29th, the Hospital winning by a try to *nil*.

ST. BARTHOLOMEW'S HOSPITAL *v.* CATFORD BRIDGE.

Played on our opponents' ground on December 6th, and won by a goal and two tries to *nil*. Bart.'s kicked off, and the defence mishandling, Orchard gathered the ball and scored a try which Cooper converted. Llewellyn got away from the scrum and Thomas, Parkes and Hendley handled in turn, and the latter scored wide; the kick failed. Cooper just failed with a penalty kick, and then Cockell, picking up well, put Parkes across for the third—and last—try. The second half was a wretched scramble in which Bart.'s scrambled a little better than their opponents, but just as unsuccessfully

ST. BARTHOLOMEW'S HOSPITAL *v.* WASPS.

Played on December 13th at Winchmore Hill, the first game at home since October. As appears to be the usual thing when the opposition is not very strong the Hospital did not play good football though they won by 32 points to *nil*. Johnstone opened the scoring with a dropped goal. As the result of some forward play in which Shaw was prominent Capps got a try, and then Neville went in on the right and Cooper converted. Shaw broke away, and cutting in, passed to Thomas, who scored, but the kick failed. (At this point H. D. Llewellyn arrived.) Good passing by the three-quarter line enabled Neville to score again, and then Johnstone broke through about the half-way line and scored in a good position and converted the try himself, and we crossed over with the score 2 goals, 1 dropped goal and 3 tries to *nil*. The scoring in the second half was opened by Shaw (playing wing three-quarter in this match), and then Thomas and Johnstone put in tricky runs which resulted in Shaw scoring again. Following some loose forward play Orchard picked up and scored, the final result being 2 goals, 1 dropped goal and 6 tries to *nil*.

ST. BARTHOLOMEW'S HOSPITAL *v.* RICHMOND.

Played on the Athletic Ground at Richmond on December 20th, and resulted in a win for Bart.'s. The Hospital had the better of the opening exchanges and the game settled down the Richmond half for the first quarter of an hour; much of the play was in the Richmond "25," and it was only by strong defensive play that the home team kept us out. Then the ball was got away from the scrum to open some good passing by E. E. Llewellyn, Johnstone and Griffith-Jones, the last-named going over for a try which was not converted. Then Richmond attacked and Pantlin cut through and only a sure tackle by Smuts saved the line. From the scrum the ball was back to the Richmond three-quarters, but Mudge smothered the attack and Morlock and Anderson took the game back to half-way. Just before half-time Rivett Carnoe scored a try for Richmond which was easily converted.

In the second half Bart.'s began attacking, but the game was carried up and down the field. A long-range drop of H. D. Llewellyn's hit the post and dropped back into play. At this time the forwards on both sides were gaining much ground by loose play. Richmond were nearly in on the left but Smuts brought his man down, and by one of the sudden transformations of the Rugby game Thomas got away in his own "25," and running very strongly down the left wing eluded the defence and scored a try—again unconverted. Bart.'s kept up the pressure and Cockell, "selling a dummy," was nearly in but was unsupported. Immediately afterwards E. E. Llewellyn cut through and forced himself over for another try, and the game ended in a win by 3 tries to 1 goal.

This is the first time Bart.'s have put a full-strength team into the field and the play was much better than usual in all departments, the forwards being particularly good, and Mudge the best of them.

CORRESPONDENCE.

THE LIFE-CAPITAL OF THE COMMUNITY.

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

SIR,—Prof. Andrews in his lecture suggested that, speaking from the economic standpoint, our efforts should be directed towards maintaining and increasing the life-capital of the community. But is it not extremely doubtful whether more advantage than disadvantage would accrue from successful efforts so directed? It is true that with an increase in the population there is an increase in the number of people who do work of economic value. At the same time these workers represent only a proportion of the community. Therefore, when the workers are increased by one the total requirement of the community is increased by the requirements of more than one. We are not ants or bees, able by taking thought to control the life-capital of the workers apart from the life-capital of the community. Even if a worker's output were to be equivalent to the total requirement of himself and of those who must be reckoned with him, there would be no economic advantage gained from this indiscriminate wet-nursing of life-capital. And is it self-evident that the work of the average worker approaches this standard?

If, instead of by a plane chart, life-capital had in this lecture been figured by a solid of three dimensions, the third dimension representing the more important but less easily measured sum of health and happiness, this objection would have been forestalled.

Yours faithfully,

October 20th, 1919. D. W. WINNICOTT.

REVIEWS.

ELECTRICAL TREATMENT. By WILFRED HARRIS, M.D., F.R.C.P. (Cassell & Co.) Third edition. Pp. 354. 9*s*. net.

This book deals chiefly with treatment which can be carried out by means of faradic and galvanic batteries, and as such should prove especially useful to general practitioners. It is well written, well printed, and has a good index.

There has been an attempt to group together those conditions which are best treated by faradic and galvanic currents respectively, and this we regard as rather unfortunate, as frequently both types of current are useful in the same case.

Considering the size of the book we think that rather too much space is taken up with "pathology and symptoms," which can easily be read in a clinical text-book. Thus, of twelve pages dealing with "hysteria" less than three are concerned with electrical treatment, but on the whole precise instructions as to position of electrodes, type of current, etc., are given.

Owing to the rapid progress of electrical treatment it is difficult to refer to all the recent improvements of apparatus, but we regret that there is no mention of the Tripier type of coil, as this is so very superior to the old-fashioned faradic coil, and should certainly form part of the outfit of the modern medical electrician.

THE CAMBRIDGE NOTE-BOOK FOR PRACTICAL BIOLOGY (ZOOLOGY). Edited by J. STANLEY GARDINER, M.A., F.R.S., and L. A. BORRADAILE, M.A. Sixth Edition. (London: Henry Froude and Hodder & Stoughton, 1919.) Price 5*s*. net.

We are pleased to observe that the new edition of this well-known practical note-book is well up to standard in every particular. In these days, when inferior paper is still so much in evidence, it is a satisfaction to handle this book and find that the student has been provided with paper quite fit for the drawings he has to make.

The principle of providing the student of elementary zoology with an annotated laboratory drawing-book has much to commend it, for we find ourselves quite in agreement with the remark in the introduction that "A student must from the beginning learn to work mainly for himself. . . ." The notes and instructions given at the head of each page should go some way towards realising that ideal.

The names of such experienced teachers as Prof. Stanley Gardiner and Mr. Borradaile are sufficient guarantee that the information is accurate and the matter chosen with a due regard to its educational importance.

INGUINAL HERNIA. By PHILIP TURNER, M.S., F.R.C.S. (J. & A. Churchill.) Pp. 104. Price 9*s*. 6*d*. net.

The expanded title of this monograph by Mr. Philip Turner, of Guy's, is "Inguinal Hernia: The Imperfectly Descended Testis and Varicocele." The author has added a valuable contribution to the literature on these three subjects. In the first chapter on some of the anatomical and pathological points in connection with hernia, it is rightly said that the term "rupture" has little or nothing to warrant it in the ætiology of hernia. It seems unfortunate in describing the inguinal canal that the writer still persists in using the old nomenclature of the "external abdominal ring" rather than the more modern one of the "superficial inguinal aperture," an aperture which is certainly not "external" and has no pretence to being a "ring." Similarly "internal abdominal ring" should be replaced by "deep inguinal aperture." The description of the exact anatomy of the superficial inguinal aperture is excellent, but this aperture has little importance, particularly in congenital inguinal herniæ. In passing, it may be asked whether it is not still preferable to use the spelling "herniæ" rather than "hernias"—the word employed by the author. The considerations in this chapter lead the writer to the proper determination that operation is the ideal treatment for inguinal hernia. The six conclusions set out on page 20 are worthy of careful perusal of every student of the subject of hernia.

The next chapter presents a detailed description of the modern-day method of operation for inguinal hernia, with such modifications as the author considers desirable. The illustrations in this section of the book are particularly good.

In the third chapter the author gives an instructive account as a special surgeon in the field of his experiences of operations performed upon soldiers on active service. This should be carefully studied. The following chapter deals with some developmental, anatomical and pathological considerations in connection with the imperfectly and abnormally descended testis. Two statements occur which are almost certainly inaccurate. The imperfectly descended testis does not *atrophy*; it has never been fully developed, and in fact imperfect descent accompanies imperfect development. The scrotum even on the side of the imperfect descent of the testis is *always* developed, as is seen by the corrugation and the dartos tissue, but it has not been distended; it is capable of containing a testicle, but it has never held the organ. In his discussion of the treatment of the imperfectly descended testis the writer makes an important suggestion, namely, that when scrotal transplantation is being carried out the arrested testis should be carried into the opposite half of the scrotum, the half which already holds one testis in many instances. This manœuvre well deserves a more extended trial.

The last chapter is on the treatment of varicocele by excision. Here again it is recorded that operative treatment on soldiers has given results which are of great interest. The author does not tie together the ligatured ends of the spermatic veins, but seeks to raise the testis by suturing the sheath of the cord, which has opened longitudinally, in a transverse direction. Altogether this monograph is readable and instructive.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

BAINBRIDGE, F. A., M.A., M.D., D.Sc., F.R.C.P., F.R.S. *The Physiology of Muscular Exercise.* (Longmans, Green & Co.)

BATTEN, RAYNER D., M.D., B.S. "Ophthalmic Physicians and the Advancement of Ophthalmology." *Lancet*, November 29th, 1919.

BROWN, W. LANGDON, M.D. *Physiological Principles in Treatment.* Fourth edition. (Baillière, Tindall & Cox.)

CAMMIDGE, P. J., M.D. "Boiled Vegetables for the Use of Diabetics." *Lancet*, December 27th, 1919.

CAMPBELL, HARRY, M.D., F.R.C.P. "Observations on the Vasomotor Conditions of the Skin." *Medical Press and Circular*, December 3rd, 1919.

——— "The Savill Memorial Lecture on Mental Personality: Its Integration and Disintegration." *Lancet*, December 27th, 1919.

DONALDSON, MALCOLM, M.B., F.R.C.S. "Pregnancy Complicated by Volvulus of the Sigmoid Flexure, causing Intestinal Obstruction." *British Medical Journal*, December 13th, 1919.

FEARNLEY, ALLAN B., M.D. "Fatal Cerebral Hæmorrhage at 34." *British Medical Journal*, November 29th, 1919.

FORBES, J. GRAHAM, M.D., M.R.C.P. "Filarial Infection in Macedonia: Report of Two Cases of Filaria Conjunctivæ (Addario) in Man with the first recorded Discovery of the Male Worm." *Journal of the Royal Army Medical Corps*, November, 1919.

HORDER, Sir THOMAS, M.D., F.R.C.P. "Preventive Treatment in Influenza." A British Medical Association Lecture. *British Medical Journal*, November 29th, 1919.

PAGET, STEPHEN, F.R.C.S. *Sir Victor Horsley: A Study of his Life and Work.* (Constable & Co.)

SCOTT, T. BODLEY, M.R.C.S. *Modern Medicine and some Modern Remedies: Practical Notes for the General Practitioner.* (H. K. Lewis & Co.)

SOLTAU, H. K. V., M.B., B.S. "Delayed Tetanus, with an Unusual Complication." *Practitioner*, December, 1919.

STIDSTON, C. A., D.S.O., M.D., B.S. "A Rare Case of Left Inguinal Hernia." *British Medical Journal*, December 20th, 1919.

VERRALL, P. JENNER, M.B., F.R.C.S. "Three Cases of Reconstruction of the Thumb." *British Medical Journal*, December 13th, 1919.

WEBER, F. PARKES, M.A., M.D., F.R.C.P. "Health Resorts for the Diagnosis and Treatment of Chronic and Functional Diseases." *British Medical Journal*, December 20th, 1919.

APPOINTMENTS.

ABRAHAMS, A., O.B.E., M.D.(Cantab.), M.R.C.P., appointed Physician to Out-patients, Hampstead General and North-West London Hospital, Haverstock Hill, and to the Royal Hospital for Diseases of the Chest, City Road, E.C.

AKMILAGE, B. F. W., M.R.C.S., L.R.C.P., elected (in May, 1919) to a Fellowship at St. John's College, Cambridge, and appointed Tutor.

CONNOR, F. P., D.S.O., F.R.C.S., Bt. Lt.-Col. I.M.S., appointed Officiating Professor of Surgery, Medical College, Calcutta, and Surgeon to the Medical College Hospital.

CRONK, H. L., M.B., B.Ch.(Cantab.), M.R.C.S., L.R.C.P., appointed Assistant School Medical Officer to the County of Cornwall.

DAVIS, K. J. A., M.Ch.(Camb.), F.R.C.S., appointed Assistant Surgeon, East London Hospital for Children, Shadwell.

GOSSE, P., M.R.C.S., L.R.C.P., appointed Deputy Commissioner of Medical Services, Ministry of Pensions, South-Eastern Region Headquarters.

HAYNES, G. S., M.D.(Cantab.), appointed Assistant Physician to Addenbrooke's Hospital, Cambridge.

HEWER, C. L., M.R.C.S., L.R.C.P., appointed Assistant Administrator of Anæsthetics to St. Bartholomew's Hospital, London.

MATHER, E. F., M.B., B.Ch.(Oxon.), appointed Medical Officer to the Bournville Works, Birmingham.

PASCALL, D. B., M.B., B.S.(Lond.), appointed Assistant Tuberculosis Officer for Somerset.

ROBERTS, J. E. H., O.B.E., M.B., B.S.(Lond.), F.R.C.S., appointed Surgeon to Brompton Hospital for Consumption and Diseases of the Chest.

SANDILANDS, J. E., M.C., M.D.(Cantab.), Medical Officer of Health, Royal Borough of Kensington, appointed Executive Health Officer, City of Bombay.
SCOTT, H. H., M.D.(Lond.), D.P.H., appointed Bacteriologist and Pathologist to the Government of Hong-Kong.
VINER, G., F.R.C.S., appointed Ophthalmic Surgeon to the Hospital for Epilepsy and Paralysis, Maida Vale, W.
WELLER, C. A., M.R.C.S., L.R.C.P., appointed House-Surgeon to the General Hospital, Birmingham.
WILLIAMS, E. COLSTON, M.D.(Lond.), F.R.C.S.(Edin.), D.P.H. (Camb.), appointed Medical Officer of Health to the Glamorganshire County Council.

CHANGES OF ADDRESS.

BUTCHER, C. B. DEANE, Warwick, Queensland, Australia.
CANE, A. S., Maj., R.A.M.C., c/o Holt & Co., 3, Whitehall Place, S.W.1.
FRENCH, R., 23, Newbold Terrace, Leamington.
GOSSE, P., Savile Club, Piccadilly, S.W.
GRIFFITHS, H. E., 11, Weymouth Street, W.1 (Tel. Mayfair 5304).
HEWER, C. LANGTON, 51, Leith Road, N.5 (Tel. North 1357).
HINE, T. G. M., O.B.E., Coleshill House, Berkhamsted.
LESCHER, F. G., 48, Kedleston Road, Derby.
MATHER, E. E., Bournville Works, Birmingham.
MOUATT-BIGGS, C. E. F., Temp. Maj. R.A.M.C., 1, Coronation Road, Basingstoke.
PEARCE, J. E., The Coppice, Reigate, Surrey.
PRETTY, K., 72, Berners Street, Ipswich.
RANSOM, P. W., Thatcham, Newbury, Berks.
ROBERTS, J. E. H., O.B.E., 26, Harley Street, W.1 (Consulting Rooms. Tel. Mayfair 4818).
SCOTT, H. H., Government Pathologist, Hong-Kong.
STOCKER, E. G., Maj., R.A.M.C.(T.F.), 7, Windsor Crescent, Mannamead, Plymouth.
WAY, A. O., 17, St. Cross Road, Winchester, Hants.
WHITEHEAD, F. E., S.M.O., Berbera, British Somaliland, *viâ* Aden.
WIGHTMAN, J. P., Melrose Villa, Scalby, nr. Scarborough.
WILLETT, EDGAR, Spyways, Hartfield, Sussex.
WILLIAMS, F. S., Bolton House, Wednesfield, nr. Wolverhampton.

EXAMINATIONS, ETC.

UNIVERSITY OF CAMBRIDGE.

M.D.—R. L. Mackenzie Wallis.
M.B., B.Ch.—S. L. Higgs, F. T. Burkitt, N. Rumboll.
M.B.—L. R. Shore.
R. W. Mellor has satisfied the Examiners in both parts of the examination in Sanitary Science.

UNIVERSITY OF LONDON.

First Examination for Medical Degrees, December, 1919.
(For Internal and External Students).
Pass List.—S. Brest, T. S. Cochrane, F. R. Corfe, T. D. Deighton, H. S. Gordon, F. Heckford, D. V. Hubble, J. T. Hunter, H. P. Lehmann. D. G. Martin, B. A. J. Mayo, N. Moulson, H. A. Nicholls, C. E. Pearsons, W. A. Robb, C. R. Steel, A. F. Taylor.

ROYAL COLLEGE OF SURGEONS.

The following candidates were successful at the *Final Fellowship* examination held in November, 1919:
R. N. Cooper, A. G. T. Fisher, E. T. C. Milligan, A. B. Pavey-Smith, W. A. Pocock, R. D. Shirwalkar.

CONJOINT EXAMINING BOARD.

First Examination, October, 1919.
Chemistry.—H. V. R. T. Lander.
Physics.—T. E. M. Jones, H. V. R. T. Lander.
Elementary Biology.—W. R. E. Marrison.

BIRTHS.

DANKS.—On November 29th, at York Lodge, Sutton, Isobel (*née* Aikman), the wife of Dr. W. S. Danks, of a son.
DAVIS.—On December 21st, to Vera, wife of K. J. Acton Davis, F.R.C.S., at 24, Upper Berkeley Street, W.—a son.
EASTWICK-FIELD.—On December 6th, at Hurst House, Midhurst, the wife of C. Eastwick-Field, of a son.
GIBBONS.—On December 13th, at St. Anthony's Hill, Desborough, to Donalda, the wife of Capt. G. F. P. Gibbons, O.B.E., R.A.M.C. (S.R.)—a son.
GREEN.—On December 15th, at Kawa Kawa, New Zealand, to Mabel, wife of Samuel Lionel Green, F.R.C.S.(Edin.)—a son.
ILES.—On December 26th, at 17, Victoria Square, Clifton, Bristol, the wife of Arthur E. Iles, O.B.E., F.R.C.S., of a daughter.
LINDSEY.—On December 20th, at "Beaumont," Portman Crescent, Bournemouth, to Lucie (*née* Longstaff), wife of Dr. Mark Lindsey—a son.
NEVE.—On December 5th, at 49, Addiscombe Road, Croydon, to Elsie, the wife of Clement Treves Neve, F.R.C.S., of a daughter.
POWER.—On December 8th, at Whoberley, Wendover, Bucks, the wife of Capt. D'Arcy Power, R.A.F. Med. Serv., of a daughter.
WATERHOUSE.—On December 10th, to Dr. and Mrs. Rupert Waterhouse, 25, the Circus, Bath—a daughter.
WILSON.—On December 9th, at 91, Harley Street, W., to Mr. and Mrs. H. W. Wilson—a daughter.

MARRIAGES.

BRAIMBRIDGE—SOUTHWELL.—On December 2nd, at Baxter Church, Kidderminster, by the father of the bridegroom, Capt. C. V. Braimbridge, R.A.M.C., son of Rev. E. D. and Mrs. Braimbridge, St. Aubyn's, Kidderminster, to Jane Murray, daughter of Mr. and Mrs. E. Southwell, of Mazoe, Southern Rhodesia.
CATHCART—CALCOTT.—On November 27th, at St. Andrew's, Worthing, by the Rev. Christopher Gregory, uncle of the bride, assisted by the Rev. Harbert Tanner, Major George Eliott Cathcart, R.A.M.C., to Pauline Berkeley Calcott, daughter of the late Lewis Berkeley Calcott, M.R.C.S., L.R.C.P., of Oundle, Northants, and Mrs. Berkeley Calcott, of 11, Heene Terrace, Worthing.
COLLINGRIDGE—THOMSETT.—On November 29th, at St. Simon's, Chelsea, by the Rev. W. M. Selwyn, William Collingridge, M.D., to Ada, second daughter of the late Capt. H. G. Thomsett, R.N., C.M.G., of Hong-Kong and Shirley, Southampton.
FEILING—HAWKINS.—On December 10th, at Holy Trinity Church, Brompton Road, Anthony Feiling, M.D., M.R.C.P., younger son of the late Ernest Feiling, Esq., of the Stock Exchange, to Helga Hope, only daughter of Geoffrey Grahame and Inga Hawkins.
FRENCH—TURNER.—On September 1st, at St. Mary Magdalene's, Enfield, by the Rev. A. King, Vicar of Holy Trinity, Winchmore Hill, Robert French, M.B., eldest son of the late Robert Faulder French and Mrs. French, of 6, Chatsworth Square, Carlisle, to Dorothy Mary, youngest daughter of the late C. T. Turner, of Lowestoft, and Mrs. Turner, of St. Mary's, Chase Court Gardens, Enfield.
WHARRY—BLES.—On November 27th, at St. Mark's, North Audley Street, by the Rev. W. G. Pennyman, Harry Mortimer, only son of Dr. and Mrs. A. J. Wharry, to Cicely Henriette, only daughter of Mr. and Mrs. Joseph Bles, of Alderley Edge, Cheshire.

DEATHS.

OLDFIELD.—On November 27th, 1919, at 3, Paper Buildings, Temple, E.C., suddenly, Frank Oldfield, Physician, of the Cottage, Dulwich Village, dearly loved and loving husband of Lily E. Angel Oldfield, aged 69.
POOLE.—John Alexander, dearly loved husband of Muriel Poole, and son of Mr. and Mrs. Poole, Uplands, Ilminster. (Bart.'s, 1907–1912.)
RICHMOND.—On December 4th, 1919, at Heronscourt, Rustington, Sussex, William Stephenson Richmond, M.R.C.S., late of 39, Elvaston Place, Queen's Gate, S.W., aged 62.
ROYDS.—On December 24th, 1919, at West View, Sidcup, William Alexander Slater Royds, M.R.C.S. (formerly of Reading, and of St. Mary Bourne, Hants), third son of the late Rev. Thomas Royds, aged 76.
SKAIFE.—On October 23rd, 1919, Frederic Skaife, M.R.C.S., L.S.A., of Chichester.

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.

St. Bartholomew's Hospital Journal.

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

VOL. XXVII.—NO. 5.] FEBRUARY 1ST, 1920. [PRICE SIXPENCE.

CALENDAR.

Tues., Feb. 3.—Dr. Drysdale and Mr. Rawling on duty.
Wed., „ 4.—Clinical Lecture (Surgery), Mr. Waring.
Fri., „ 6.—Sir Archibald Garrod and Mr. Gask on duty.
Clinical Lecture (Medicine), Dr. Tooth.
Tues., „ 10.—Dr. Tooth and Sir D'Arcy Power on duty.
Wed., „ 11.—Clinical Lecture (Surgery), Mr. McAdam Eccles.
Fri., „ 13.—Dr. Calvert and Mr. Waring on duty.
Clinical Lecture (Medicine), Dr. Drysdale.
Tues., „ 17.—Dr. Fletcher and Mr. McAdam Eccles on duty.
Wed., „ 18.—Clinical Lecture (Surgery), Mr. McAdam Eccles.
Fri., „ 20.—Dr. Drysdale and Mr. Rawling on duty.
Clinical Lecture (Medicine), Dr. Morley Fletcher.
Tues., „ 24.—Sir Archibald Garrod and Mr. Gask on duty.
Wed., „ 25.—Clinical Lecture (Surgery), Mr. Rawling.
Fri., „ 27.—Dr. Tooth and Sir D'Arcy Power on duty.
Clinical Lecture (Medicine), Dr. Calvert.
Tues., Mar. 2.—Dr. Calvert and Mr. Waring on duty.
Wed., „ 3.—Clinical Lecture (Surgery), Mr. Rawling.

EDITORIAL.

WE desire to remove any misunderstanding which may have arisen from a statement which recently appeared in *The Times*, to the effect that the draw for the Inter-Hospital Rugby Cup ties had been so "*arranged*" that the two strongest teams ("*Bart.'s*" and "*Guy's*") should meet in the Final Tie at Richmond on March 11th. While thanking our mighty contemporary for their high estimation of our prowess—it must be well remembered that we have yet to beat U.C.H., the Middlesex and the London before we get to the Final)—we wish to point out that whatever *The Times* may really mean, it implies most certainly that the draw was a "put-up job." We desire to state at once, and to state it as emphatically as possible, that the result of the draw (which was superintended by those who have no interest whatever in any particular hospital) was entirely the result of "luck"; as the draw was conducted Bart.'s and Guy's might have met in the first round as easily as any other two hospitals. We know that the various London hospitals play Rugby football of the keenest description, and we maintain that it is also of the cleanest in every way. There was *no* "arrangement" in the draw.

The game at Oxford was typical of what Bart.'s can do against a strong team. The Hospital was defeated but not disgraced, and showed again that the better the opposition the better the game it can put up. There will be some pretty tough opposition in the Cup Ties, and our team will put up a good show right through. We hope that all Bart.'s men will remember that any team plays with far better heart when it knows that its Hospital is "behind it." A "helping roar" at critical moments goes a long way towards turning a good movement into a successful one, and we would say, here and now, that it is the duty of every Bart.'s man who can possibly get there to be at Cup Ties to cheer on the Hospital team.

* * *

Lady Norman Moore, Hon. Secretary of St. Bartholomew's Hospital Women's Guild, asks us to state that Queen Alexandra, together with other members of the Royal Family, has promised her patronage to a bazaar to be held on March 4th for the benefit of the Hospital.

Mr. George Robey is adding another kindness to those he has already done the Hospital in promising to give an entertainment on that occasion.

The Committee of the Guild would be thankful for contributions for the stalls. Hardly anything short of live stock would come amiss! There are to be stalls for baskets, fancy articles, *bric-à-brac*, fancy work, toys, country produce, including butter, eggs and cheese, a white stall, a bookstall, to include old and new books, and a cake and

sweets stall. There will also be a tea room. Contributions should be addressed to

Mrs. W. G. LOVELL,
The Matron's Office,

not later than a week before, except in the case of perishable articles. These will be acknowledged week by week.

* * *

Capt. A. B. Pavey Smith, M.C., R.A.M.C.(T.), late of 2/6th London Field Ambulance, 60th Division, has presented a Union Jack to St. Bartholomew's Hospital to be sold in aid of Hospital funds.

The flag is the first Union Jack flown over the city of Jerusalem after its capture by the British. It was hoisted (with the Geneva flag as usual) by the 2/6th London Field Ambulance shortly after noon on December 9th, 1917, the day on which the city surrendered. The authenticity of the flag is vouched for by Capt. Pavey Smith, who brought the flag back to England, and by a written certificate signed by Major-Gen. Sir John Shea, K.C.M.G., G.O.C. 60th Division.

* * *

Our heartiest congratulations to Dr. H. J. Gauvain on receiving the honour of Knighthood. In the capacity of Medical Superintendent of the Lord Mayor Treloar Cripples' Hospital and College, Alton and Hayling Island, Sir Henry has done most valuable work, and we can quite endorse Lord Burnham's remarks, made at a complimentary luncheon recently, that as the result of this magnificent work the whole community has benefited.

* * *

It also gives us much pleasure to congratulate Dr. F. S. Lister, Research Bacteriologist, South African Institute for Medical Research, on being made a Knight Batchelor.

* * *

Bart.'s has played a big part in securing State Registration for Nurses: (1) A former Matron initiated the reform; (2) a one-time Professor of Anatomy, as Health Minister, introduced legislation and placed the Nursing Acts on the Statute Book; and (3) the Treasurer of the Hospital carried them through the House of Lords. Truly an extraordinary coincidence.

* * *

At a meeting of the Trustees of the Beit Memorial Fellowships for Medical Research, Dr. Ivan de Burgh Daly was one of the elected Fellows. The general character of Dr. Daly's proposed research is a comparison of the results on the electrical changes and mechanical response in the heart, and of controlled changes in its mechanical conditions as effected in the heart-lung preparation; the influence of artificial cardiac lesions on heart-sounds and electrical response; an investigation of the applicability of Fleming valves (as used in wireless telephony) to the investigation of electrical changes in living tissues.

The work is to be carried out at the Institute of Physiology, University College.

* * *

It gives us great pleasure to announce the arrival in our midst of Dr. Fraser, who comes to take up the post of Assistant Director of the Medical Clinical Unit. His appointment forges another link in the bonds which already exist between Cambridge and St. Bartholomew's. After spending a few years at Edinburgh, he responded to an invitation from the Rockefeller Institute, proceeding thence to be Instructor in Clinical Medicine at Columbia University.

When the war came he returned to Europe with the Harvard unit to join the R.A.M.C., and reached the rank of Lieutenant-Colonel as Consulting Physician to the Army of the Rhine.

With the arrival of Dr. Fraser the staff of the Medical Clinic is now completed, and stands as follows:

Director: Sir Archibald Garrod, K.C.M.G.
Assistant Director: Dr. F. R. Fraser, F.R.C.P.(Edin.).
First Assistant: Dr. A. E. Gow, M.D., F.R.C.P.
Second Assistant: Dr. G. Graham, M.D., M.R.C.P.

* * *

We note with interest that Dr. E. Colston Williams has been appointed Medical Officer of Health for Glamorganshire, and that Dr. C. W. Hutt, of Dudley, has received a similar appointment for Richmond, Surrey.

* * *

It is with much regret that we learn of the resignation of Sister Darker (Miss Roberts), better known to recent Hospital men as Sister Colston. Miss Roberts, we understand, is taking up an important nursing appointment in British Honduras.

* * *

Amongst the list of Foreign Honours and Decorations recently conferred by the Allied Powers we note the following Bart.'s men, to whom we offer our heartiest congratulations.

President of United States:
Distinguished Service Medal.—Hon. Major-Gen. Sir A. A. Bowlby, A.M.S.

President of French Republic:
Croix de Guerre.—Lieut. A. B. Cowley, R.F.A.
Médaille des Épidémies (En vermeil).—T/Capt. (Act. Major) A. W. D. Coventon, R.A.M.C.

Sultan of Egypt:
Order of the Nile (Third Class).—Capt. (Act. Lieut.-Col.) H. S. Beadles, R.A.M.C.(T.).

Shah of Persia:
Order of the Lion and the Sun (Third Class).—Capt. C. J. Stocker, I.M.S.

The names of the following officers have been added to the list of those brought to notice for gallant and distinguished services and devotion to duty:

France.—By Field Marshal Sir Douglas Haig, Kt., G.C.B., etc., late Commander-in-Chief of the British Armies in France, in his despatch of March 16th, 1919:

R.A.M.C.:
Gurley, Major J. H., 44th Casualty Clearing Station (T.F.).
Body, T/Capt., attd. 4th Brigade, R.G.A.

East Africa.—By Lieut.-General Sir J. L. Van Deventer, K.C.B., C.M.G., Commander-in-Chief, East African Forces, in his despatch of January 20th, 1919:
Illius, Major H. W., I.M.S.

Egypt.—By General Sir G. H. H. Allenby, G.C.B., G.C.M.G., Commander-in-Chief, Egyptian Expeditionary Force, in his despatch of March 15th, 1919:

R.A.M.C.:
Maingot, Capt. R. H.
Williams, T/Capt. H. G. E.

R.A.M.C. (S.R.):
Ransom, Capt. P. W.

Indian Army.—Medical Service:
Macmillan, Major (Act. Lieut.-Col.) J. McA.

Egyptian Army.—Miscellaneous:
Phillips, Dr. L. C. P.

Mesopotamia.—By Lieut.-General Sir W. R. Marshall, K.C.B., K.C.S.I., Commander-in-Chief, Mesopotamian Expeditionary Force, in his despatch of February 7th, 1919:

R.A.M.C.:
Batt, T/Capt. B. E. A.
Candler, T/Capt. A. L.
Gray, T/Capt. N.
Mackenzie, T/Capt. M. D.

R.A.M.C. (S.R.):
Braun, Capt. I.
Ledger, Lieut. L. K.

Indian Army.—I.M.S.:
Boulton, Lieut.-Col. H., I.M.S.
Bradfield, Major (Act. Lieut.-Col.) E. W. C., O.B.E.
Hugo, Lieut.-Col. (T/Col.) E. V., C.M.G.
Kernahan, Capt. J. A. A., I.M.S.

* * *

T/Capt. R. E. Smith, R.A.M.C., has been mentioned in despatches for valuable services rendered on Hospital Ships during the War.

* * *

We have pleasure in publishing the official details for which the following decorations have been awarded:

Bar to Military Cross:

Temp. Capt. (acting Major) Arthur Richmond, M.C. 19th Field Amb.

For conspicuous gallantry and devotion to duty near St. Aubin during operations on November 7th and 8th, 1918. Hearing that another medical officer had become a casualty and that nearly seventy other casualties had occurred in the battalion, he led a party of stretcher-bearers through heavy shell fire and direct machine-gun fire to succour and remove them to a place of safety. Through his indefatigable efforts all casualties were brought back.

Military Cross:

Lieut. Edgar Richard Batho (S.R.), attd. 16th Bn. Lancs. Fus.

As medical officer to the battalion during the attack on the Oise-Sambre Canal on November 4th, 1918, he displayed conspicuous gallantry and devotion to duty in dressing wounded under heavy shell fire. To enable the rapid evacuation of wounded he had established his aid-post in close proximity to the line, and in this exposed position he dealt with a great number of cases, working for many hours under very great pressure.

Temp. Capt. Trevor Howell, attd. 246th (W. Riding) Bde., R.F.A. (T.F.).

For conspicuous gallantry and devotion to duty near Cambrai on October 13th, 1918. When one of the batteries of the brigade sustained heavy casualties, and it was impossible to get enough stretchers to clear away the wounded, he rode through a heavy barrage and attended the wounded in the open, under heavy fire, utterly regardless of personal danger. He invariably displayed the greatest courage and skill and set a splendid example to all on any dangerous work.

Capt. (acting Major) Henry Wingate Maltby (S.R.) attd. 22nd Field Amb.

For conspicuous gallantry, zeal and devotion to duty. He was acting D.A.D.M.S., and during the operations of October 23rd–24th, 1918, personally superintended the evacuation of wounded from the Lido bridge-head. His arrangements throughout showed the greatest initiative. Subsequently he personally supervised the arrangements for evacuating the wounded across the Grave di Papadopoli, and on both occasions he was frequently under heavy shell fire. Throughout the course of the operations his services were invaluable, and it was largely owing to his untiring efforts that the wounded were evacuated so successfully.

Lieut. Arthur Vernon Pegge (S.R.), attd. 15th Bn. Lancs. Fus.

During the attack on the Oise-Sambre Canal, November 2nd–4th, 1918, his aid-post came under very heavy shell fire, and was also gassed at intervals. The casualties were very heavy, and he carried out his work in the open, working unceasingly and with untiring energy. By his personal example and zealous devotion to duty under fire the task was carried out successfully, and an absolute block prevented.

* * *

Sir William R. Smith has been appointed an Officier de Légion d'Honneur, a Commander of the Order of Leopold II of Belgium, and a Knight Commander of George I of Greece.

VAGOTONIA.

An abstract of an Address given to the Abernethian Society on December 11th, 1919.

By GEOFFREY EVANS, M.B., M.R.C.P.

VAGOTONIA is the name given by Eppinger and Hess of Vienna to a clinical syndrome whose signs and symptoms are explainable in terms of increased activity of the autonomic nervous system. They first recognised this syndrome in patients suffering from various neuroses, especially among cases of neurasthenia and less often in cases of hysteria. In its more limited sense vagotonia is a neurosis without a known pathological basis, dependent on a condition of increased tone or irritability of the autonomic nervous system, and occurring in individuals who exhibit an idiosyncrasy to the drug pilocarpine. Eppinger and Hess have expressed the opinion that it is a constitutional condition possibly related to a ductless-gland group abnormality.

Although this symptom-complex has now been isolated for many years as a clinical entity it is hardly yet established. Some are unaware of the condition, others with enthusiasm find in it the answer to the riddle of the most varied and obscure complaints, while yet other students of medicine regard it as a mare's nest—a poor form of speculation without basis in fact.

The signs and symptoms of vagotonia are as well known as are the effects of autonomic activity. Our knowledge of autonomic activity is based on anatomical, physiological and pharmacological evidence. The main division of the nervous system into central or psychomotor and involuntary or vegetative is anatomically possible up to a point. In certain particulars the neurones of which these two systems are composed can be recognised histologically particularly with regard to their motor neurones. The sensory neurones of the vegetative nervous system are recognisable in their association with vegetative nerve-tracts though histologically they belong to the psychomotor system.

Whatever their origin and histological appearance the visceral sensory fibres in their function belong to the vegetative nervous system, and that system may be regarded as built up of unit areas, each of which consist of an afferent neurone making peripheral or central connection with an efferent neurone. The central connections of vegetative and psychomotor systems are as intimate as their functional inter-relation demands. They are in fact anatomically indistinguishable, and it is a matter on which opinion is divided whether or not the vegetative nervous system has direct cortical representation.

The vegetative nervous system is itself divisible into two main parts; the sympathetic system includes all fibres with their peripheral and central connections that make connection with the first dorsal to third lumbar spinal segments; the autonomic system includes all other vegetative neurones with their connections. While the sympathetic system has a very uniform anatomical arrangement, of which the vertebral chain of sympathetic ganglia is the most characteristic feature, the autonomic system is irregularly distributed in its outflow from the central mass of nervous tissue. A midbrain outflow is comprised in fibres that run with the third nerve to the ciliary ganglion to supply the ciliary muscle, iris and levator palpebræ muscle. A bulbar outflow travels with the seventh and ninth nerves to the geniculate, spheno-palatine and otic ganglia supplying the lacrymal gland, salivary glands and vaso-dilator fibres to the head and neck. The most important autonomic outflow is in the vagus nerve, through which fibres pass to supply the larynx and respiratory tract, the heart, and perhaps a part of the vascular system, the digestive tract from œsophagus to transverse colon and fibres to the liver and pancreas. The last region from which there is an autonomic outflow is the sacral region of the cord, in particular from the first two sacral segments, from which roots the pelvic nerve is formed. It makes connection with the pelvic and hæmorrhoidal plexus and supplies the genito-urinary system, a part of the transverse colon, descending colon, sigmoid and rectum.

The function of these several parts of the autonomic system has been determined by physiological experiment and it corresponds in general with experimental results obtained by drug action. There are one or two notable inconsistencies, as, for example, the stimulation of the sweat glands by pilocarpine, though there is no anatomical evidence for the supply of these glands by autonomic fibres. There is also conflicting evidence on the subject of vaso-dilator fibres, and on minor points such as the path of motor impulses to the pyloric sphincter. In the face of such conflicting facts Eppinger and Hess disregard anatomical and physiological evidence in favour of pharmacological results. This assumption must be accepted with reserve, and bearing it always in mind we may now pass to the examination of their symptom-complex styled "vagotonia."

The second postulate is a condition of tone in the autonomic system, this assumption being fundamental to their definition of vagotonia as a condition of increased tone in the autonomic system. There is ample evidence that such tone is present. It rests on such observations as the increased rate of cardiac action that follows vagal section or paralysis of the vagal endings with atropine. They make no clear distinction between increased tone and increased irritability though such distinction should rightly be emphasised; but it is unnecessary to enlarge on this distinction since, though germane to the subject, it is no weighty argument for or against the theory.

Their third postulate is the assumption that an increased tone in the autonomic system is associated with an inhibition of tone in the sympathetic system. They find that individuals showing an increased susceptibility to pilocarpine and atropine exhibit a relative tolerance to adrenalin; also that in general signs or symptoms of increased activity of the two systems are not simultaneously present in the same individual. For the cases in which there are signs of simultaneous activity of both systems they are led to an explanation in terms of an associated psychosis.

This postulate would be of more importance were the two systems truly antagonistic. Increased activity of sympathetic and autonomic systems leads to salivary secretion, the former viscid, the latter fluid. This it but one example of the fact that the two systems are not exactly antagonistic in their functions. Nor is the postulate true in fact. There are individuals who are susceptible to all three drugs—pilocarpine, atropine and adrenaline—and there are many conditions in which it is simpler (in fact, necessary) to realise a simultaneous activity of both systems. Some cases of exophthalmic goitre show this condition of increased vegetative tone.

Clinically the evidence for vagotonia depends on the recognition of cases in which the main symptoms complained of by the patient, such as salivation or sweating, are explainable in terms of increased autonomic activity, and in which on more careful inquiry signs and symptoms are elicited of increased activity in other viscera supplied by the autonomic nerves, as, for example, bradycardia, sinus arrhythmia or constipation. Another group of cases make complaint of attacks of asthma—a frank sign of vagotonia—and in these an attack of asthma may be elicited by pilocarpine injection. There is a third group in which a variety of signs and symptoms indicate a widespread increase in autonomic tone, and in such cases a presumed hypersensitiveness to pilocarpine may be confirmed by injection of the drug. A fourth group is illustrated by a patient who is admitted to a surgical ward with a fractured arm. An experimental injection of pilocarpine reveals hypersensitiveness to the drug, and now on close inquiry the patient gives a history of nocturnal enuresis, laryngismus stridulus or convulsions in childhood.

These facts are capable of clinical demonstration, and if they are rightly regarded as due to increased vagal tone it is to be expected that they would be cured by atropine. This is the case in a proportion of cases, and it is for this simple reason, if for no other, that vagotonia demands recognition in clinical medicine. As an example a case may be cited of a man, æt. 32, who complains of always having had a weak stomach. He is perfectly well in himself, only that an hour after breakfast each day he has a burning pain in the pit of the stomach accompanied by a feeling of inertia and distress, that has led him to stay at home in the morning till 11 a.m. until the attack is past. He is a man who needs to be at his office at 10 a.m., and it seems to him absurd that this slight discomfort should incapacitate him while he feels otherwise in perfect health. Physical examination showed no sign of disease, and the only abnormality noted was a slight eosinophilia and excess of urinary phosphates. Several small points in the history, such as transitory afebrile attacks of diarrhœa, not accompanied by any feeling of illness and not associated with any definite ætiological factor, were in favour of diagnosis of vagotonia based on a condition of hyperchlorhydria, eosinophilia, the absence of a definite pathological basis and associated with good health. It was noted that the indisposition dated from childhood. $\frac{1}{200}$ gr. of atropine sulphate was given the patient. No suggestion was used. He was told the nature of the drug and was told that it was a clinical diagnosis, and that if treatment failed further investigation would be required. After a short period of taking the drug twice daily symptoms were completely relieved and he has remained in perfect health now for six months. This patient showed no sign of constitutional inferiority, nor was he in any way neurotic or neurasthenic.

In general Eppinger and Hess are no doubt correct in regarding vagotonia as a sign of inferior constitutional make-up. They describe as a typical case a pale-faced woman, with thick lips and plump nose, who complains of some trivial symptom such as palpitations or fear of heart failure. She may be diagnosed sometimes at sight by her flushed face quickly fading to a blotchy complexion, greasy skin, cyanosed clammy hands, bright eyes, slightly staring and constantly swallowing saliva while speaking. The tonsils are enlarged, evidence of adenoid overgrowth, a narrow high-arched palate and large coarse tongue. It is rather a curious picture in all its details as they sum all and sundry into a single clinical case. Suffice it to say that, apart from the appearance of any or many of the frank signs of vagotonia, they look in the case for evidence of lymphoid hyperplasia and inferiority in physique.

We pass now from vagotonia—a neurosis—to vagotonia in its association with other pathological conditions.

There is evidence for a relation between lymphoid hyperplasia and vagotonia. Both occur more commonly in childhood and adolescence. Vagotonia is frequently associated clinically with tonsillar hypertrophy, and in post-mortem examination of patients who have shown signs of vagotonia during life Eppinger and Hess have noticed persistence of the thymus, or its delayed involution and general excess of lymphoid tissue.

Mention has already been made of the close association between disease of ductless glands and vagotonia. It is, in fact, difficult to separate these two aspects of internal integration either physiologically or clinically. Eppinger and Hess recognise two types of Graves's disease, the one sympathicotonic and the other vagotonic. They are in some difficulty in this complaint on account of there being evidence of simultaneous activity

of both systems in some cases. In Addison's disease, which causes a suppression of sympathetic activity, they find the clearest pathological picture of vagotonia. This part of their argument is not conclusive but another aspect of the subject requires notice. Graves's disease is associated with pathological changes in the thyroid gland. There are cases in which the onset of this disease may fairly be ascribed to emotional shock. It is in such cases that we are on the borderland of pathologica and functional disease. These cases emphasise the intimate connection between psychomotor and vegetative systems; and in that a harmful mental influence seems effective in causing the onset of disease there would seem to be a possibility in the future of curing such disease by a benign mental influence. The effect of simple suggestion and more advanced suggestion, termed "psychotherapy," finds some material explanation in terms of vegetative control of chemical integration.

Eppinger and Hess are explicit in their views as to the relation of vagotonia to pathological conditions. They consider that the type of vegetative activity, whether vagotonic or sympathicotonic, gives its own colour to the picture of disease. A gastric ulcer occurring in a sympathicotonic patient may exhibit no signs of hyperchlorhydria, may in fact not indicate its presence. They thus explain the fact of some gastric ulcers remaining unrecognised until they perforate or bleed. A gastric ulcer occurring in a vagotonia, on the other hand, will emphasise the constitutional tendency to increased gastric mobility, hyperchlorhydria and pyloric spasm, and will exhibit classic signs in a pronounced form. They go further than this and suggest that vagotonia may, in a certain case that they quote, have been the cause of a gastric ulcer found at operation. Lastly, in diseases that exhibit a varied clinical picture, the signs of disease tend to show themselves in terms of that system whose tone is above normal. Thus, if a vagotonic contracts tabes, laryngeal, gastric and rectal crises will be a prominent feature in the disease, while a sympathicotonic so afflicted is likely to escape these particular symptoms.

Eppinger and Hess in their application of vagotonia to pathological disease wander over the whole field of medicine. They so enlarge their original conception of the disease that the simple statement with which they first define their idea is no longer sufficient. The protean nature of its application becomes in fact a strong argument against the identity of vagotonia in the nomenclature of disease.

And yet if we remember that the autonomic system is but one part of the vegetative nervous system, and that the vegetative system works hand in hand with a system of chemical integration in effecting internal integration, we gain a wider view of functional activity in health and disease. Without over-emphasising the antagonism of the autonomic and sympathetic system, which is still unproved in detail, without allotting to glandular activity too definitely limited a function as stimulator or inhibitor of autonomic or sympathetic system, the broad fact is clear that the autonomic system is the anabolic factor in internal integration. Thus the vagus is chiefly concerned in digestion and assimilation while sympathetic activity sets the digestive tract at rest. The autonomic system is active in sleep, for it is in sleep that there is a tendency to respiratory arrhythmia, to sweats, to attacks of asthma, laryngismus stridulus, colic, enuresis and pollutions. The pupils are pinpoint and bradycardia is common. All these signs are explainable in terms of vagotonia. We have already noted that vagotonia is more common in childhood and adolescence—that the autonomic system is in fact more active in growth. Finally, in recovery from disease, in the sweating that occurs in the crisis of pneumonia, in the bradycardia that occurs in convalescence from fevers and in the anaphylactic state there are examples of vagotonia or autonomic activity.

From this larger point of view vagotonia ceases to be a certain type of neurosis or single aspect of this or that disease. It appears rather as an accentuation of one arm of the balance which is internal integration. When the two arms of this balance are equally poised there is a dull level of physiological activity. If one balance is weighted with a *materies morbi* the other must exert a greater weight by activity to maintain equilibrium. In short, disease has two aspects. On the one hand there is the morbid agent, its effect on physical structure and resulting variation in function; on the other hand the body's reaction to the morbid agent and its effects. This reaction is expressed in terms of cellular and integrative activity. That is to say, in every disease we should expect to find evidence of sympathicotonia or vagotonia, and more likely some combination of both. Either condition may be accentuated by increased activity of the one mechanism or inhibited activity of the mechanism that antagonises it in internal integration. There is a definite application here to clinical medicine. Could we but recognise in every case the signs and symptoms of disease due to reaction to the morbid agent, we would be on surer ground in combating that reaction when excessive, or reinforcing it by our remedies when it appeared too weak. Our minds, too, would be cleared for the discovery of the morbid agent by allowing all attention to be focussed on the signs of its presence. Complex cases would appear in a simpler light. For instance a carcinoma of the pylorus, obvious as a tumour in the abdomen, with signs of cachexia and gastric disturbance, occurring in a patient with a blood-count characteristic of pernicious anæmia and who yet in pigmentation and a general adynamic state suggested Addison's disease, would appear simply and consecutively as a morbid agent, a destructive effect and a physical reaction to both. This thesis leads back to a long-accepted view that there is no difference but that of degree between physiological and pathological processes. Half medicine is learnt in physiology, and disease is a key to the interpretation of physiological processes. The study of medicine makes but a simple addition to the study of physiology in the introduction of a morbid agent and its direct effects on the human frame.

A CASE OF LIPODYSTROPHIA.

By H. L. CRONK, M.B., B.C.(Cantab.)
Late House-Physician and Clinical Assistant in the Children's Department, St. Bartholomew's Hospital.

DR. Parkes Weber has recently brought this peculiar condition of lipodystrophia into prominence by his articles in the *Quarterly Journal of Medicine* (1) and the *Clinical Journal* (2), and in the *British Journal of Children's Diseases* (3), with Gunewardene, has described another case. In the above-mentioned articles he has collected all the cases recorded in the literature up to the time of writing from the first description of the disease by Simons in 1911, and gives a full bibliography. He mentions (1) that "the fat atrophy seems first to attract attention in the face. . . Perhaps in some cases it remains limited to the face and neck, or face, neck and thorax," and says that "though the disease is called *progressive* lipodystrophia it is really not progressive in all senses of the word. . . ." As regards ætiology there is nothing known, "but an endocrinic origin has been suspected." To my mind it rather resembles a tropho-neurosis, and the atrophy of the fat appears to be analogous to the well-known trophic atrophy of the skin. On the theory of an endocrinic origin there seems no explanation of the limitation of fat atrophy in some cases to the face, and in others to the face and thorax. The pathology has been investigated by Hermann (4) and others by biopsies and autopsies; the former gives photographs of Simons' case and of his own, with sections of the skin from the latter, and points out that "it is interesting to note that in this disease the subcutaneous fat is lost in a location in which in infantile atrophy, even when extremely marked, it is retained, namely as the fat or sucking pad of the cheek." He also gives photographs contrasting the fat-wasting in a case of tuberculosis with that in lipodystrophia, and emphasises the difference in distribution and greater completeness of the loss of fat in the latter condition. The disease has been chiefly noticed to occur in females, although Dr. Parkes Weber considers that it is not confined to that sex. The age at onset is early as a rule, and usually about the age of seven years.

The case, A. P—, here described, first came to St. Bartholomew's Hospital on March 4th, 1906, when æt. 5, complaining of debility and wasting following whooping-cough twelve months previously. At that time it was noted

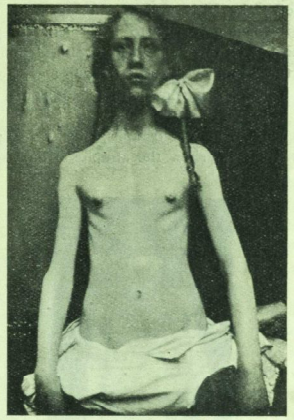


FIG. 1.—CASE A. P—.

that the child had "very emaciated features," double otorrhœa and some anæmia. Her tonsils and adenoids

FIG. 2.—CASE A. P—.

were removed and the otorrhœa cleared up, but although her general condition improved and she gained steadily in weight coincidently with considerable increase in height,

her features remained emaciated. Her weight increased from 2 st. 2 lb. on March 14th, 1906, to 5 st. 13½ lb. on February 10th, 1915. Beyond this peculiar facial condition she seemed to be fairly well save for recurring attacks of bronchitis which gave rise to a suspicion of pulmonary tuberculosis. Of this there was no confirmation except an X-ray picture of the chest taken March 11th, 1908, which was said to show enlargement of the bronchial lymphatic glands.

The accompanying photographs, taken in 1914 when the patient was æt. 13, show the atrophy of fat especially in

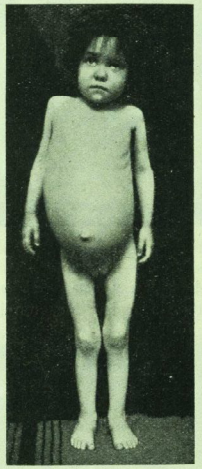


FIG. 3.—CASE OF CŒLIAC DISEASE.

the cheeks but also to a less extent over the thorax. A photograph of a child emaciated from long-standing cœliac disease is also shown to contrast the rotundity of the face still persisting with the wasting of the rest of the body-fat. This is the converse of the condition seen in lipodystrophia.

There is no family history of any similar condition. She was one of three children; a brother ten years older was quite normal, but a sister eight years older than the patient suffered with infantile hemiplegia and convulsions, eventually dying in 1917. Her mother had one miscarriage but there was no suspicion of syphilis. Two of the mother's sisters died of phthisis.

In this case there was no excess of fat on the buttocks as occasionally described.

I am indebted to Dr. H. Morley Fletcher for permission to publish this account.

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AN UNUSUAL CASE OF ACUTE STRANGULATION OF AN IMPERFECTLY DESCENDED TESTIS.

By G. B. RICHARDSON, M.R.C.S., L.R.C.P.

H. E. C—, school-boy, æt. 12, was admitted on November 17th, 1919, complaining of an exceedingly painful lump in the right inguinal region.

The patient was quite well till November 16th, 1919, when he experienced a sudden and severe pain in the right groin. He noticed a hard oval mass in that situation about the size of a hen's egg. There was no vomiting, and no action of the bowels that day. He was given a dose of liquorice powder, and sent to hospital the following morning with a diagnosis of strangulated hernia.

The past history showed that an exactly similar attack had taken place three months previously, following what was said to be an inguinal hernia. "Spontaneous reduction" had occurred, with complete disappearance of the symptoms.

On examination, immediately after admission, a hard oval mass with definite outline was observed in the right inguinal canal. The mass was slightly movable, exceedingly tender, and protruded a little from the external abdominal ring. The left testicle only was evident in the scrotum. The bowels were opened twice just after admission, and no vomiting had taken place since the onset of the symptoms. The temperature was 98·4° F., pulse 90, respirations 20. No attempts at reduction of the "hernia" were made previous to operation.

The operation was performed by Sir D'Arcy Power in Theatre B. The right inguinal canal was opened and the coverings of the testicle exposed. On opening the tunica vaginalis a little clear fluid escaped, and the testicle was found to be very deeply congested. It was of a deep chocolate-brown colour shading into black, and was definitely malformed, in that the epididymis was separated from the body of the organ by a mesorchium about ½ in. in width. The epididymis itself formed a U-shaped mass, equal in bulk to the testis. The spermatic cord was twisted on itself three or four times, and was still further

constricted by the edge of an abnormal opening in the back of the tunica vaginalis. The cord measured less than ⅛ in. in diameter at this point. Further examination showed that the testicle had passed through the opening in the back of the tunica vaginalis, which was much thickened. This opening was of long standing with rounded edges, and appeared to be too small to enable the testicle to pass through. By exerting some pressure, however, it was pushed back through the aperture, and removed with about 2 in. of the cord attached. The thickened portion of tunica vaginalis bearing the abnormal foramen was then carefully excised, and the whole specimen sent to the Museum for preservation. The gubernaculum testis was a clearly-defined structure, running down into the scrotum from below the lesion. No sign of a hernial sac was observed.

The case is one of unusual interest, because it represents two factors in acute strangulation of the testicle which are not often found in combination, viz.:

(1) Acute torsion of the cord, and
(2) Prolapse of the testicle through an abnormal opening in the wall of an unclosed tunica vaginalis.

The testicle, as is usual in acute torsion, was ectopic and malformed. The body of the testicle had clearly rested upon the lower edge of the foramen in the tunica vaginalis, whilst the unravelled epididymis had been carried down to a lower level. The torsion of the cord, by raising the testicle, had brought the body opposite the foramen, through which it had subsequently passed. Congestion of the testicle then occurred, and it needed some degree of pressure to make the organ pass back through the hole, which it must have entered easily.

I have to thank Sir D'Arcy Power for permission to publish this account, and the dresser, Mr. Simaika, for the accurate notes which he made on the case.

THE SNAKE FARM AT BUTANTAN.

In the course of a somewhat extensive peregrination round the surface of the globe during a commission of two and a half years, one was afforded the opportunity of visiting the Snake Farm at Butantan, which is situated a few miles outside the city of San Paulo in Brazil. It has occurred to the writer that an account of such an experience might prove of interest to readers of this JOURNAL, and more especially to those who are working in a land where the question of snake-bites and their treatment is one of somewhat vital import.

In the early part of the year 1917, when the submarine menace was serious and the question of the food supply of Great Britain and her allies was more than urgent, H.M.S. "Edinburgh Castle" was ordered to Santos, on the coast of Brazil, to load a cargo of flour and beans, prior to escorting a convoy of ships carrying grain and meat to this country. Whilst our ship was so engaged the "yachting party," consisting of medical officer, padres and paymasters, was able to spend a considerable amount of time ashore, part of which was spent in a visit to San Paulo. This city is the capital of the state of the same name and lies some 3000 ft. above sea-level, directly inland from the port of Santos. After several visits, some lengthy, to Rio de Janeiro, one was greatly surprised by the aspect of San Paulo. In the former city one was confronted by the abundance of wealth, ease and luxury. True this was also present in San Paulo; but here is a town planted in the highlands in the midst of a great agricultural area, the chief products of which are coffee and the black bean, which forms a large portion of the natives' diet. Furthermore, in San Paulo itself is a very extensive manufacturing area. Here, as in the hillmen of other lands, grit and stamina show themselves more than in those who inhabit the plains. The people of San Paulo work, and are not content to allow any of their fellow-citizens to subsist in positions which entail no work save that of endorsing a fat cheque at the end of the quarter. One can see the result at once. There is more go in the whole life of the people in San Paulo, and when one looks from the upper part of the town, the many large chimney-stacks all hard at work explain the difference between this city and Rio.

The train journey up from Santos to San Paulo is enchanting from beginning to end. It does not allow one's attention to stray for a moment. The changes in contour and actual nature of the ground, from the swamps of Santos, through the gorges of the hills to the agricultural uplands, provide a series of changes which occupy the eye continuously. On another occasion we made the journey by motor, and though still beautiful it is not so impressive. Starting early in the morning we were able to devote the forenoon to seeing the town itself. After a sumptuous lunch we motored some miles out to the Institute of Butantan. Here, through the good services of the British Consul, we were entertained and shown round by the Director, Dr. Vital Brazil.

The farm consists of a number of laboratories together with a library and museum. These occupy the main building, whilst another smaller one houses the horses and mules used for experiments and in the production of the protective serum.

Outside in the grounds are the two "serpents' parks." These are enclosed areas of grass in which the snakes are kept. They are surrounded by a concrete wall about 3 ft. 6 in. in height, whilst immediately within this is a moat filled with water some 3 ft. wide by 2½ ft. deep. This makes it quite impossible for any snake to escape from the

enclosure. Scattered about over the grass are many small, oval, concrete structures. I think one can give the best idea of their appearance by describing them as miniature native huts or kraals. They have each of them two openings in the ground through which the snakes enter for the purpose of hibernating, or to protect themselves from the inclemencies of the weather. One feature which surprised us here was the ease and rapidity with which all snakes can swim. The attendants, who go amongst the serpents with impunity, wear thick leather gaiters up to the knee, and to show their efficacy rattlesnakes were prodded and irritated until they attacked. Several times we saw one coil up and lash out at a man's leg with great force, judging by the sound of impact, but they rapidly gave it up when they found that their fangs could not penetrate the leather.

The museum contains a complete collection of the snakes of Brazil together with a large number of educational models and pictures. The most interesting specimens from the medical point of view were those which illustrated the very extensive gangrene which often ensues in the bitten limb, even though the patient himself recovers. After our visit to the museum we were taken into the lecture-room, where several varieties of poisonous snakes were brought in, and the method of extracting the venom was demonstrated. The snake was placed on the floor at our feet, which was rather terrifying until it suddenly dawned on one that the tiles beneath us were of a highly glazed nature, which did not allow the snake to propel itself along. The animal was then pinioned to the ground by its head, which was quickly seized just behind the jaws between the thumb and forefinger of the attendant's left hand, whilst with his right he controlled the body. The bottom of a Petri dish was then placed by Dr. Brazil in the animal's mouth so that the two poisonous fangs projected into it. With his right forefinger and thumb he exerted gentle pressure on the poisonous gland from the outside of the head and the venom trickled out of the openings in the side of the teeth. The amount obtained varies with the size of the snake, and also depends upon the date of his last biting anything. Secretion is a slower process in cold-blooded animals, and it will take fifteen days in summer for the full amount to be re-secreted, whilst in the winter a month may be necessary. The venom is an acid, semi-viscous fluid, either colourless or of a pale yellow tint, whilst in some of the rattlesnakes it has a somewhat milky appearance. To keep it for experimental purposes the fluid is filtered and dried at 37° C., when it appears as fine brilliant crystals, either white or yellow in colour. When required for injection with a view to preparing the serum it is treated with glycerine in order to disinfect it. After the demonstration, the Director then announced that he would show us a fight between a poisonous and a non-venomous snake. There is in Brazil a snake called the "Mussurana," which is colloquially often known as "The Friend of Man." The derivation of the name "Mussurana," which is quite a non-scientific one from the vernacular, is somewhat obscure, and several explanations are put forward. To enable the reader to appreciate these it is necessary to describe the nature and habits of the snake.

The Mussurana is 2–3 metres in length, and is covered with well-marked scales which, on its back, have a pleasing dark greyish-blue tint, whilst its ventral aspect is of a dirty cream colour. It is of a very retiring disposition, and is not often seen by man. When this does happen it is generally in or near water. The snake is perfectly harmless as regards man. This coloration and liking for water is supposed by some to have given the animal his name, whence the derivation of Mussurana is described as *muçú*, an eel, *rana*, resembling.

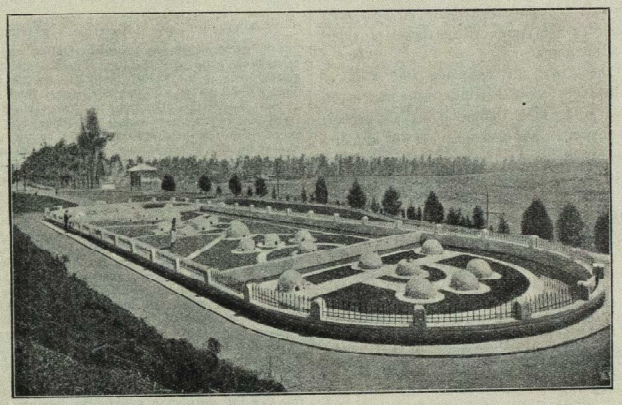
The other likely explanation is afforded by his mode of attack. When he is hungry he goes in search of a poisonous adversary. Having found him he travels alongside until the poisonous snake strikes him, but in vain, since he is immune to the venom. This is its undoing, for as quick as lightning the Mussurana whips round and, seizing his opponent's head between his jaws, he ties his own body in a knot round that of his adversary, holding him thus till dead. This completed he proceeds to devour the body, invariably commencing head first.

The term "Muçurana" in the local dialect, is used to designate a special type of cord with which prisoners were fastened just prior to their execution. Hence, it is argued, comes the name "Mussurana" for the snake, which pinions with his own cord-like body the victim he is about to slay. The probability is that of the two the former is the more likely, since it is a common practice amongst the Indians of South America to name a creature on account of its resemblance to some animal which is more familiar to them.

Unfortunately our lust for blood was not destined to be satisfied, much to the disappointment of our entertainer. It was easy enough to rouse the poisonous party to the attack, which he did several times, but the Mussuranas which were produced were fat and sleek. They evidently required no meal, and not apparently being in the habit of killing for killing's sake, they treated the onslaughts with the most profound indifference.

Another interesting snake, from a zoological standpoint, is the so-called Coral Snake of Brazil. There are venomous and non-venomous types which are very similar, though, on close examination, they can be distinguished by the size of the scales on the head. They are frequently quoted as examples of so-called mimicry. When one sees them living in the thick undergrowth, one realises that the markings are the direct physical outcome of the effects of light and shade, and that the question of mimicry, as often understood, has nothing to do with it at all.

The Snake Farm at Butantan has been in existence for several years and highly gratifying results are claimed. People in this country, accustomed as they are to medical treatment and research run on a charity basis, do not realise the extent to which government aid is used in other climes. In South America the asylums and hospitals are all paid for to a large degree by the government out of the percentage which is taken from the amounts subscribed for the public lotteries. These are drawn every day for small amounts, but when one realises that the Buenos Ayres Christmas Lottery alone is worth a quarter of a million pounds, one can see in these lotteries a large source of revenue. The people get their amusement, whilst solid gain for all and sundry results, and I cannot see that any harm is done, either to individuals or to the community at large. Outside Rio is a large research laboratory, to which is attached a first-class hotel for the medical officers. The Government of Rio paid half a million pounds to build and equip this place. So also is the Institute of Butantan aided, in addition to which they are granted free railway conveyance for all material going to or leaving the Snake Farm.



A VIEW OF THE SNAKE PARK.

When one sees the number of snakes kept one naturally asks how they are all obtained, since breeding in captivity is a failure. The farmers are instructed to catch snakes and send them to the Director. For each snake received a tube of serum is sent, whilst a syringe for injection follows the receipt of every six snakes. From a comparatively negligible number the list has mounted until now 5000 snakes are received in the course of a year.

Attempts are made to cope with the danger, which is a very real one in a large agricultural district such as San Paulo, by educational methods and by specific treatment. Education aims at teaching the workers to cover their feet and legs in thick leather, and also to recognise the type of snake which has bitten. The specific serum for the type in question is proved to be of greater value than the polyvalent serum which is also used. Also there is a large amount of ignorance and superstition which has to be combatted amongst the countryfolk of the State. They have been so long accustomed to relying on prayers to the saints, and the quack snake-bite curer with his absorbent stones and obnoxious distillations, that in many cases they are with difficulty persuaded to submit to the injection of serum. There is no doubt that a large saving has ensued in human and animal life as a result of this institution.

To prepare the serum is a lengthy procedure. It takes about a year before the horse's serum contains sufficient anti-venom to be efficacious. If necessary, this can be cut down by some months by giving the horse anti-venom serum prior to the injection of snake-venom, whilst in subsequent injections the serum is reduced whilst the dose of venom is increased. Dr. Brazil is strongly against the efficacy of any chemical agent such as permanganate. He says it works in a test-tube, but that all animal experiments in the laboratory have proved it futile. He claims that within two and a-half hours from the bite he can save a case with his specific serum.

The signs and symptoms of a snake-bite have been carefully recorded in the case of the assistant at Butantan. On one occasion, whilst extracting poison, the snake suddenly freed its head and drove one of its fangs into his finger. So firmly was it implanted that the tissue had to be lanced to extract it. Soon after the accident acute pain was felt at the entrance of the poison, and this rapidly spread up the

entire limb. Simultaneously with the pain fibrillary twitchings made their appearance, first in the tendon of the affected finger and then in other groups of muscles. In half-an-hour a sensation of cold throughout the limb was rapidly followed by general malaise, vomiting, paralysis of the swallowing muscles, sleepiness, disturbances of vision, together with free hæmorrhage from the wound and nose. As he was alone, save for the attendant, he had to give himself an injection of serum. Within an hour and a-half the symptoms had greatly diminished. Two further injections were necessary in the course of the next day. In this case the gangrene was local and did not extend beyond sloughing of the tendon in the wounded digit. By the eighth day all symptoms, both local and general, had completely disappeared.

This history is repeated over and over again in the carefully kept records of cases treated by medical men throughout the State of San Paulo, with material provided by the Institute of Butantan.

These records show that the existence and work of Butantan is fully justified. The Director, who was manifestly keen on his work, took infinite pains to explain everything and to answer all our questions. It was in many ways quite a unique experience, and we were most grateful to Dr. Brazil and also to the British Consul, through whose kindness we were able to be shown over the Institute by the Director himself, and so spent what certainly proved itself an enjoyable as well as most instructive visit.

R. ST. L. B.

STUDENTS' UNION.

RUGBY FOOTBALL CLUB.

ST. BARTHOLOMEW'S HOSPITAL *v.* OLD LEYSIANS.

This game was played at Winchmore Hill on January 10th. During a great part of the play there was a torrential rain, and in the closing stages the playing of anything like normal Rugby was impossible. Soon after the kick-off the Hospital forwards worked the ball down to the O. L.'s "25," and C. F. Krige (at scrum half) slipped round and got as far as the line; as he was tackled he passed to Cockell, who scored the try. The kick failed. Play was fairly even for a while, and then a pass, which was not of the best, was well gathered by Moody-Jones, who made a fine run, but was stopped just short of the line. Then a well-executed rush by the forwards looked as though it would produce a try, but was also stopped. A round of passing, in which Cockell, Johnstone and Thomas took part, enabled Thomas to score a try, which was not converted. Krige put a long dribble from the neighbourhood of the half-way line and almost scored, but the ball went over the dead-ball line.

Early in the second half the Old Leysians had to touch down twice, and then Krige dribbled up to the line and Cockell was able to touch down; though the try was rather wide out Krige kicked a goal. The rain and hail became so heavy that it was hard to see exactly what was going on. What seemed like a good try by Cockell was disallowed. Shaw and Orchard each got over successfully but both the kicks failed. Bart.'s won what was, considering the weather, a good game by 1 goal and 4 tries (17 points) to *nil*.

ST. BARTHOLOMEW'S HOSPITAL *v.* OLD WHITGIFTIANS.

Played at Winchmore Hill on January 17th, and resulted in a win for the Hospital by 45 points to 5. The visitors started two short and went perilously near to the Bart.'s line, but following some loose play by the forwards Llewellyn made much ground, and Morlock was able to pick up and score. Then Llewellyn went over for another try. At this point the Old Boys were brought up to full strength, but soon after Orchard got a try from a line-out. Then the Old Whitgiftians had a successful movement and Badcock got a try, which Smith converted. Thomas got going on the left wing, and when brought down was just able to reach out and ground the ball over the line, and the Hospital crossed over leading by 12 points to 5. In the second half Bart.'s had most of the game their own way. Llewellyn decided to make use of his wings' pace and tries came quickly, Johnstone, Moody-Jones and Thomas going in in turn. Then Smuts, getting the ball in his own "25," looked as though he was going to get a try, but was brought down a few yards short of the line. An unfortunate accident deprived the "O. W.'s" of their full-back, and tries came faster than ever. Cockell put Orchard in and then Johnstone was in again. Tries were added by Cockell, Thomas, Morlock and Johnstone. Thirteen tries were scored and three were converted, Shaw, Johnstone and Cooper getting one goal each.

ST. BARTHOLOMEW'S HOSPITAL *v.* OXFORD UNIVERSITY.

This game, which was played at Oxford on January 21st, was a remarkably good one; the day was ideal and "the fortune of the game" hung in the balance until the whistle went for "no side." The 'Varsity played with the very helpful wind first half, but at the kick-off Bart.'s took the game into the Oxford half and a 'Varsity three-quarter movement took it back. Such was the run of the game generally during the first half—attacks by the Oxford outsides and replies by the Hospital forwards. The 'Varsity right wing three-quarter got going, and, running very cleverly within inches of the touch-line, got over and came well round to the posts, scored a try, which was easily converted. The ball was then worked well in the 'Varsity "half" and Cockell broke away, and "selling" a beautiful specimen of his stock "dummy" left Llewellyn, who was backing up well, little to do but go over for a try, which Johnstone converted easily. The next score fell to Oxford, the left centre cutting through and scoring between the posts. A successful kick followed it, and the teams crossed over—'Varsity 10 points, Hospital 5.

With wind behind them, Bart.'s, as their opponents during the first half, had much the best of the game. Oxford very quickly scored an unconverted try and afterwards put in several very strong three-quarter attacks, but each time the game was brought back out of the Hospital territory. Thomas got possession, and using weight and pace forced his way close up to the line. Llewellyn was again well up for the pass and scored another try, which Johnstone converted. After that Bart.'s, on the whole, were on the attack. A free kick for obstruction might have brought the scores level, but too much was allowed for wind and the ball went wide. A well-contested game finished with Oxford winning by 2 goals and a try to 2 goals.

ST. BARTHOLOMEW'S HOSPITAL DEBATING SOCIETY.

THE first meeting of the Debating Society was held in the Abernethian Room on December 9th, 1919. There was a very large attendance. Sir THOMAS HORDER, in his opening remarks as President, said:

"Unlike Bart.'s patients, who, though they never die, the chronicler assures us, 'fade away,' the social life of St. Bartholomew's Hospital is tending to show more and more virility of diverse sorts—physical and intellectual." Sir Thomas explained that it devolved upon the members more than the Committee to decide whether this new society should fade away or live. The first meeting was an exceptional one, the President remarked, in that the debate was to be opened by the President and opposed by another member of the staff. On future occasions the debates would be opened and opposed by the students themselves and not by members of the Staff, unless a subject for debate should be chosen in which it is known that a particular member of the Staff is specially interested.

Sir Thomas announced the subject of the debate—"That this House does not consider the principle of prohibition to be in the best interests of the British Nation." Mr. GIRLING BALL then took the Chair, and briefly announced the procedure of the debate, calling upon the President to put the motion before the House.

Sir THOMAS HORDER said there were two aspects of the important question of alcohol which he considered to be outside the scope of this motion, and he intended therefore to refer to them only in passing. The first was the extent of the evils which result from the abuse of alcohol as a beverage, and the second was the urgency of the need of reforms which will check or abolish these evils. He took it for granted that the House was cognisant of the evils and desirous for reform, and proceeded to a brief consideration of the principles which have from time to time been proposed by honest men desirous of dealing with the abuse of alcohol—principles which have underlain various schemes and efforts towards reform. When exactly these principles began to be mooted it was impossible to say; certainly very early in the history of the human race. He regarded the debate in which they were engaged as dealing with a subject of vital importance, and said they should accept the matter in the most serious possible spirit; with reconstruction in the air it was time that something more definite was attempted in the way of combating the evils due to drink.

The first of these principles was that of individual temperance. "Temperance" was a much-maligned word, and concerning it he might say at once that it appeared to be the soundest of all the principles which had ever been applied to this subject. In his opinion temperance offered a solution of all the problems connected with alcohol as also with most other human activities. It may be said that this is an ideal very difficult to reach, that human nature is too weak to reach it; he was not so pessimistic of the possibilities of human attainment as that.

In the second place there was the principle of total abstinence—again an individual affair. He regarded this principle as optional on the part of the individual, but not of very much help to the community. An individual might decide to abstain from alcohol from one or more of three reasons. He might find that, in the words of Samuel Johnson, it is easier to abstain than be abstemious: then let him abstain. Secondly, he might decide, in order to help a weaker brother, that it is his duty to abstain: again, let him abstain. In the third place he might find from experience that he was a healthier man and did better work, and that he was a better neighbour to his fellows, if he took no alcohol: once more, let him abstain.

The third principle was that of control, and here for the first time the matter became one which concerned the community rather than the individual. The principle of control was exercised by the responsible government of a country or by any corporate body of individuals, and by it the supply of alcohol was limited in quantity, in time, and in place. This principle was commonly recognised as beneficial, not to say imperative, in the good government of any country. Sir Thomas then dwelt with the principle underlying the motion, namely, the principle of prohibition. He drew attention to the very essential and fundamental difference underlying the first two principles mentioned (and even the third to a large extent), and this fourth principle of prohibition. The first two principles involved no sacrifice of individual freedom of choice; the last-named principle abolished it entirely. If a man were temperate he was temperate by choice and by the exercise of his free will. If he decided to abstain he did so after deliberation and for a purpose which he himself had chosen. He was under no compulsion. At first sight the principle of control did seem to interfere with the individual's cardinal privilege of choice, but if looked at closely it did not really do so; the interference was not more than any individual must submit to in order to live amicably with his fellow men; it was the subscription he made to the community for the benefits he derived from citizenship and social union; it was an interference rather with his power of libertinism rather than with his liberty; it was the sort of interference which closes the public gardens or the museum at sunset, and imposed penalties if an individual ran over the flower-beds or attempted to unravel the mummy. (A man could walk over his own bed of geraniums if he had one, and unwrap his private mummy—if he possessed one—and no one would say him nay.) This other principle of prohibition—what did it really mean? It meant that virtue had to be manufactured by Act of Parliament—if indeed it could be termed virtue to deprive a man of the means of falling a victim to a vice concerning which he had no temptation. He could not believe that any thinking Bart.'s man could consider the operation of such a principle conducive to public welfare. He had started by saying that he took it for granted that the House was agreed as to the evils of alcohol and the need for reform. It was difficult not to be topical and say they agreed as to the signs and symptoms of the disease and the desire for the remedy. The question before them was whether the reputed remedy of prohibition was not a quack one rather than a rational one. What was the pathology of the disease? In other words, why did people drink? People did not all drink for the same reason. There were different factors in the ætiology of the disease. Some people drank because they had nothing else to do: the cure for them—their salvation—lay in work: exigency must be brought into their lives. A much bigger class drank because they had too much to do: the cure for them was a reasonable amount of leisure and something to fill that leisure. Others drank because of the general drabness and monotony and squalor of life quite apart from the work they had to do; a muddled brain was their only relief to the grinding anxiety of daily life. They wanted light and air and exercise, and they wanted play. Some people drank from reasons of inheritance. Statisticians found it very difficult to estimate the relative number of cases of alcoholism to be put under that head. Everybody was agreed that in such individuals the craving was in their blood; it always had been and always would be. There was no doubt that the disease could be cured, but he could not see that it could be cured by prohibiting the drink: the treatment must begin a generation or two earlier. It might be advanced that our experience of the great measures of public control of alcohol during the war, both here and in France—prohibition actually in Russia—was a big argument in favour of prohibition. He thought that a very doubtful conclusion. War was a crisis in the history of nations, and the crisis called for measures of emergency; things that were good during national emergency were by no means good at other times; in fact at other times they might be perfectly intolerable. Witness the medical profession; at the beginning of the war, and during the war, fourteen to sixteen thousand medical men were mobilised; they joined up, paraded, did their best to be soldiers. Some of them succeeded (a study of the successful ones made him wonder whether the Army was not their real vocation). The profession gave its time, its knowledge and its skill because it was wanted. The wastage, the compulsion, and the sacrifice underlying the whole of that huge offering to the nation for a specific purpose and during a dire emergency were all justified. But the emergency over, they were back at their real work with new vigour.

Russia—what had happened in Russia? Vodka was put down by the ruling classes. It was open for serious consideration whether prohibition in Russia had not been a factor in the revolution and in the rise and dominance of Bolshevism. He did not state it as an opinion to which he had given very serious consideration, but it was a question whether prohibition in America was not largely responsible for the strikes in the United States.

The motion, however, referred to the British nation. He had not time to compare the psychology of the Yankee with that of the Britisher. He asked the House to remember that the experiment of prohibition in America had only just begun. He did not consider that because the U.S. had chosen—perhaps he should not say chosen, for he did not think the serious part of the U.S. had chosen; he would rather say because prohibition had been thrust upon the U.S.—let them not conclude hurriedly that it was a good thing for them or for any other country. It was a dangerous experiment at best. The temper of the British working-class was very touchy at this moment and would be for many months. Were they going to succeed in persuading the British working man that prohibition, if introduced into this country, would hit the rich man as it would hit him? Would he not rather take it resentfully, as one more effort to curtail his privileges? Were they prepared to say that this would not be the case? Secret drinking—that worst form of all alcohol abuse—must increase if prohibition were introduced, and he believed it to be a fact that the worst criminal aspects of alcoholism were to be traced to secret drinking rather than to the open drinking of the public-house.

In conclusion, he would prohibit those things which he referred to as being responsible for the abuse of alcohol. Prohibit such anomalies as they had recently seen: industrial companies making 350 per cent. profit and their employees struggling for existence. Prohibit slums; prohibit them, do not let them be. They had heard that this was going to be a country fit for heroes to live in, but there was evidently some drag upon the wheels of social reform at present. Prohibit the gin palace as they sometimes saw it; and he thought perhaps the American saloon—he had never seen it, but from all

accounts it must be a much viler thing than any gin palace they had ever seen in this country—was no doubt a big factor in causing the prohibition experiment. Prohibit the filthy stuff that is sold in public-houses under the name of alcoholic beverage. When these things were done he really was optimistic enough to say that there would be no need for the violation of the cardinal and sacred principles of reason and liberty which would be sacrificed if the motion before the House were lost.

Col. McAdam Eccles rose to oppose the motion. He said:

This was a free land, and a democratic country, and every man had a right to do as he considered best, always provided that his acts did not clash with the best interests of the State and of the individual.

Prohibition was a state, not a process to obtain a state. Prohibition, when applied to alcohol, was the state in which the manufacture and sale of alcohol for human consumption was prohibited by statute.

Britain was not yet ready for the state of prohibition. Other countries had been and are, and, therefore, had decided by law to be in such a state.

If Britain were ready, would prohibition be in the best interests of the nation? If so, the sooner the state of prohibition came about the better. If not, then the longer it was postponed the better.

This question must be reviewed from its fundamental points. Time did not permit of more than a few of those being dealt with.

There were *four self-evident propositions*—

(1) Every human being started as a total abstainer from alcohol.
(2) If alcohol were ever drunk, there must be a given time of starting to do so.
(3) A man could never become a drunkard unless he was a moderate drinker first.
(4) No total abstainer, who remained a total abstainer, could ever become a drunkard.

There were *four physiological propositions*—

(1) Alcohol was not essential for a healthy human being.
(2) Alcohol might do harm to the healthy human body.
(3) The taste for alcohol was an acquired taste.
(4) The taste for alcohol once formed may become a crave.

There were *four economic propositions*—

(1) Money spent on an article of diet which was *not a necessity* was money spent on a *luxury*.
(2) Money spent on a luxury which tended to limit the output of necessities and comforts was money spent on a *menace*.
(3) £350,000,000 spent this year (1919) on a luxury which was a menace was a serious economic problem.
(4) All the alcohol now produced for human consumption could be used for industrial purposes, thereby helping, not hindering, the production of useful commodities.

Why, then, does the adult human being spend so much money—probably £15 per head per annum—on alcoholic beverages?

Because he likes the taste of, and the effects produced by, alcohol.

What were these effects?

They were summed up in the interim report of the special committee appointed by the Central Control Board (Liquor Traffic). This committee was composed of the following representative men:

Lord d'Abernon, C.M.G. (Chairman).
Sir George Newman, K.C.B., M.D. (Vice-Chairman), Principal Medical Officer to the Board of Education; Member of the Central Board (Liquor Traffic).
Prof. A. R. Cushny, M.D., F.R.S., Professor of Pharmacology at University College, London.
H. H. Dale, M.D., F.R.S., Head of the Department of Biochemistry and Pharmacology under the Medical Research Committee, National Health Insurance.
M. Greenwood, M.R.C.S., Statistician to the Lister Institute of Preventive Medicine, and Reader in Medical Statistics in the University of London.
W. McDougall, M.B., F.R.S., Reader in Mental Philosophy in the University of Oxford, and Fellow of Corpus Christi College, Oxford.
Sir F. W. Mott, K.B.E., M.D., F.R.S., Pathologist to the London County Asylums; Consulting Physician to Charing Cross Hospital.
Prof. C. S. Sherrington, M.D., F.R.S., Waynflete Professor of Physiology in the University of Oxford, and Fellow of Magdalen College, Oxford.
W. C. Sullivan, M.D., Medical Superintendent of the Rampton State Asylum for Criminal Lunatics.

They came to the conclusion that alcohol was a "narcotic drug" (*see* "Alcohol: Its Action on the Human Organism," p. 38).

America had come to the conclusion that she could not hold her place as a world power for good if the masses of her people imbibed a narcotic poison, and the experiment she was trying was already proving that she at any rate was better off in every way without alcohol.

Prohibition would mean that all the total abstainers—children and adults—would merely remain as they were, that all those who were doing themselves and others harm by taking alcohol in excess would be prevented from doing so, and that all the moderate drinkers would find themselves freed from that "tired feeling," those "rheumatic" pains, etc., and would be capable of doing their work as well and better than before.

Col. Eccles concluded by saying that it was his contention that the state of prohibition of the manufacture and sale of alcohol for human consumption would be in the best interests of the British nation, and for these reasons he opposed the motion and invited the House to vote against it.

Mr. Gallop supported the motion on the grounds—

(1) That you could not legislate for small minorities to the detriment of the great bulk of the people.

(2) Prohibition was palliative in the treatment of symptoms due to other causes, mainly economic, which should themselves first receive consideration.

In any event this is the wrong time for prohibition. It should be a time of conciliation and compromise, for fear of creating industrial trouble. He pointed to the labour troubles in U.S.A. as a result of such hasty legislation.

Mr. Sackett opposed the motion on the ground of national efficiency. The proposer had urged the necessity for individual freedom, but in all civilised lands such freedom was limited for the common good, and this was the very basis of civilisation.

All desired the national supremacy of Great Britain, and to this end every statesman was urging rigid economy and national efficiency. America challenged us at every point, and yet this year we were spending £350,000,000 on a luxury which at its best afforded a pleasing sensation to the palate, was often associated with inefficiency, and at its worst led to disease and crime.

The speaker believed that it was neither right nor wise to give legal protection to a traffic which tended to increase crime and to waste the human and material resources of the nation.

Messrs. Vinter, Telfer, Bellingham, Cozens, Tracey, White, Sanderson, Frost, Cohen, Denham, and Ross took part in the discussion which followed, and Sir Thomas Horder briefly replied.

On the motion being put to the House by the Chairman it was carried by 94 to 30.

CORRESPONDENCE.

THE LATE DR. CRACE CALVERT.

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

Dear Sir, It may interest some of your readers to know that on December 20th last a stained glass window was dedicated to the memory of Dr. G. A. Crace Calvert in Llanbedr Church. The service was conducted by the Rector and the Rev. Lewis Pryce, Vicar of Colwyn Bay.

The window was designed and erected by Mr. Arthur V. Wix, of Gower Street, London, and shows in one light the figure of St. Luke, the Beloved Physician, and in the other that of St. Paul. Beneath is the inscription on brass: "To the Glory of God and in Grateful Memory of Dr. George A. Crace Calvert, of the Vale of Clwyd Sanatorium, Llanbedr Hall, J.P. of the County of Denbigh and Churchwarden of this Church, who died May 9th, 1918, aged 46. This window is erected by a number of his old patients."

I believe the Committee have already forwarded to St. Bartholomew's Hospital some £12 odd, the balance over after the expenses of the window were paid.

I am, dear Sir,
Yours faithfully,
Stanley B. Adams.

10, Raymond Road,
Wimbledon, S.W. 19;
January 17th, 1920.

REVIEWS.

X-ray Observations for Foreign Bodies and their Localisation. By Capt. H. C. Gage, A.R.C., O.I.P. (Heinemann.) Price 6*s*.

Capt. Gage can be congratulated on having produced an excellent little book dealing fully with several methods of localisation. Pains have been taken to make the various systems intelligible by a proper consideration of their theories.

Included in the book is the method of localisation by three intersecting lines as devised by the author, and the introduction consists of a note of appreciation of this method by Col. J. A. Blake, of the U.S. Medical Corps.

Even without reading the preface the subject-matter of the book betrays the author's association with French radiologists, and it is a pity that several excellent methods of localisation devised by British radiologists find herein no mention—in fact the only one of our systems which is described is that of the late Sir James Mackenzie Davidson.

Due attention is given to the necessity for protection of the operator from the beam of X rays, but a somewhat important omission from the book is that no mention is made of the necessity for protection from scattered radiation.

Excellent and detailed instructions are given for centering the tube in its holder both from above and below the couch and the importance of stereoscopic radiography is duly emphasised, but not all radiologists will agree with the dictum that stereoscopic plates always give more information than a pair taken in planes at right angles with each other, nor with the statement that a coil is to be preferred to a transformer, this latter assertion, however, being somewhat modified in a footnote.

The interesting method of localising foreign bodies in the eye devised by Belot and Fraudet is fully described, and the book concludes with notes on the Bergonie vibrator, the telephone probe and direct radiography on bromide paper.

The general get-up of the book is good, but some of the diagrams are spoiled by the reference lettering being so small as to be illegible, and it is a pity that some of the radiographic illustrations are printed upside down.

Medical Science Abstracts and Reviews. Vol. I, Nos. 1, 2 and 3. (Oxford University Press.) 2*s*. net per month.

This is a monthly publication produced by the Medical Research Committee. It was forecast several months ago when the "Medical Supplement" to the *Daily Review of the Foreign Press* was discontinued. It was felt in many quarters that when the latter was no longer obtainable a gap existed in medical literature, and this monthly *résumé* of current medical publications fills in peace time that gap which many medical officers found so usefully filled in time of war.

Each number is divided into two parts, the first consisting of reviews of the present position of different subjects, a few being taken each month and bibliography appended, and the second part gives reviews of individual papers on medical, surgical and pathological subjects.

In the first number will be found useful reviews of typhoid and lethargic encephalitis. In No. 2 cerebrospinal fever, tuberculosis and diphtheria of wounds are given a prominent place, while a long review of gastric and duodenal ulceration is worth reading. An abstract on influenza will be found in each number. Among the surgical subjects under review are malunited fractures round the ankle, infected knee-joints, recurrent dislocations of the shoulder, and blood-transfusion in civil practice.

The choice of papers for abstraction recalls the object of the "Medical Supplement" in furnishing officers with an account of medical matters within the enemy's lines. A good many more papers are reviewed from German sources than from any other. Perhaps it would be less irritating if fewer of these and more from our allies were included, as those who have served abroad really long to get clear of German influence, and though much of the matter abstracted is of use, surely allied writers have produced just as much and just as good work.

The numbers themselves are of the same size as the now well-known Special Report Series published by the Medical Research Committee, and consequently would bind into useful volumes of reference uniform with them.

We congratulate the Medical Research Committee on the production of the first series of abstracts and reviews in this country dealing with medicine in the broader sense.

A Manual of Physics. By J. A. Crowther, D.Sc. (Henry Frowde & Hodder & Stoughton. Oxford Medical Publications.) Pp. xx + 528. Price 16*s*. net.

This book is primarily intended for students working for the First Medical Examination. A text-book avoiding the minuteness of detail of numerous advanced treatises, and yet at the same time free from the "kindergarten" style of the very elementary books, fills a real need.

Dr. Crowther has admirably succeeded in his attempt to produce such a text-book. The principles of physical Science have been presented to the student in a brief, clear and orderly manner, and nothing which is likely to be included in the "First Medical" has been omitted.

The illustrations are excellent without being elaborate, and the value of each chapter is enhanced by a series of very complete and searching examination questions. It is a book which should be extremely popular with first-year men.

A Manual of Surgical Anatomy. By Charles R. Whittaker, F.R.C.S.(Edin.), F.R.S.E. (E. & S. Livingstone.) Second Edition, revised and enlarged. Pp. viii + 342. Price 7*s*. 6*d*. net.

The second and enlarged edition of this well-known book has been reprinted and is again available. While not so large as some other works on surgical anatomy, it is undoubtedly much more readable, and quite one of the best, if not the best small book on the subject. It must be a matter of considerable difficulty to condense all the surgical details of importance—for example, in the arm—into fifty pages, and yet this is what the author has contrived to do, and, what is more, done it extremely well. The various relations of important structures are set out in strikingly clear fashion. All through the book the illustrations are excellent.

A Physician in France. By Major-Gen. Sir W. P. Herringham, K.C.M.G. (London: Edwin Arnold.) Price 15*s*. net.

This volume of reminiscences and experiences by Sir Wilmot Herringham is very welcome. The reader is struck by the keen observation and wide scholarship of the author. In the opening chapters he gives an analysis and contrast of the national characters of the English and Germans, which form a valuable introduction. He deals with a wide range of topics, from the organisation of an army to the uniforms of the sisters and V.A.Ds., and from the physical features of the country to its agriculture and educational methods. The chapters on the chief epidemics and the methods of investigating and combating them cannot fail to appeal to the layman, and arouse in him an appreciation of the fascination and national importance of medical research. In dealing with cerebro-spinal fever Sir Wilmot gives the impression that our treatment is still unavailing; however true that may have been in 1915–16, surely the position greatly improved during the last two years of the war.

On his title-page Sir Wilmot Herringham quotes from Montaigne, "Que péult on espérer d'un médecin traictant la guerre?" We expected from him what we have got—a book full of interest and anecdote with fascinating touches of humour.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

Bowlby, Sir Anthony, K.C.B., K.C.M.G., K.C.V.O. "An Address on Gunshot Fracture of the Femur." *British Medical Journal*, January 3rd, 1920.

—— "An Address on the Application of War Methods to Civil Practice." Delivered before the Clinical Section of the Royal Society of Medicine on January 9th, 1920. *Lancet*, January 17th, 1920.

—— Introduction to "Treatment of Malunion in Fractures of the Femur." By W. Etherington Wilson, M.R.C.S., L.R.C.P. *Lancet*, January 17th, 1920.

Broughton-Alcock, W., M.B.(Cantab.). "Canvas destroying Fungi and their Investigation in Malta and Italy." *Journal of the Royal Army Medical Corps*, December, 1919.

Carson, Herbert W., F.R.C.S. "A Case of Ileo-cæcal Tuberculosis." *Clinical Journal*, January, 1920.

CARVER, ALFRED, M.A., M.D., D.P.M.(Cantab.). "Forgetting: Psychological Repression." *British Medical Journal*, January 10th, 1920.
CATES, JOSEPH, M.D., D.P.H. "The Welfare of the School Child." (English Public Health Series, vol. vi. Edited by Sir Malcolm Morris, K.C.V.O.)
FORRESTER, A. T. W., M.D. "Malaria and Insanity." *Lancet*, January 3rd, 1920.
MCDONAGH, J. E. R., F.R.C.S. "Venereal Diseases as we see them To-day." *Practitioner*, January, 1920.
MORTIMER, J. D., M.B., F.R.C.S. "After-Effects (and So-Called After-Effects) of Anæsthetics." *Medical Press and Circular*, December 24th, 1919.
RAWLING, L. BATHE, F.R.C.S. "The Surgery of the Skull and Brain." *Clinical Journal*, January, 1920.
ROLLESTON, Sir HUMPHRY, K.C.B., M.D., F.R.C.P. "The Aims and Methods of Graduate Study." *British Medical Journal*, January 17th, 1920.
—— "Grave Familial Jaundice of the Newly Born." *Practitioner*, January, 1920.
STRETTON, J. LIONEL, L.R.C.P., M.R.C.S. "Three Acute Abdominal Cases." *British Medical Journal*, January 17th, 1920.
WALKER, KENNETH, M.B., F.R.C.S. "Sterility in the Male." *British Medical Journal*, January 3rd, 1920.
WATERHOUSE, RUPERT, M.D., M.R.C.P. "Meningitis Treated by Intrathecal Injections of the Patient's Blood-serum." *British Medical Journal*, January 10th, 1920.
WHALE, H. LAWSON, M.D., F.R.C.S. "Four Cases of Foreign Body in the Œsophagus." *Practitioner*, January, 1920.

EXAMINATIONS, ETC.

UNIVERSITY OF OXFORD.

Second M.B. Examination, December, 1919.

Materia Medica and Pharmacology.—H. K. Denham, W. S. Tunbridge.

Forensic Medicine and Public Health. D. B. Pauw.

Medicine, Surgery and Midwifery.—B. G. von B. Melle.

The following degree has been conferred:

B.M.—B. G. von B. Melle.

Diploma in Public Health.

The following has completed the examination for the Diploma in Public Health:

G. K. Bowes.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.B., B.Ch.—H. W. C. Vines.

M.B.—R. St. L. Brockman.

UNIVERSITY OF LONDON.

M.D. Examination, December, 1919.

Branch I.—Medicine.—R. H. Simpson.

M.S. Examination, December, 1919.

Branch I.—Surgery.—R. D. Shirwalkar.

First Examination for Medical Degrees, September, 1919. (For Internal and External Students).

Pass List.—H. J. C. Balfour, J. Parrish, R. T. Payne, R. W. Taylor, G. E. Ellis, A. R. Macdonald.

UNIVERSITY OF LIVERPOOL.

Diploma in Tropical Medicine.

C. H. Bowle-Evans, C. F. Krige.

Diploma in Public Health.

A. J. W. Cunningham.

CHANGES OF ADDRESS.

ABRAHAMS, A., 24, Park Crescent, W. 1. (Tel. Mayfair 3619.)
BARNETT, B., 45, London Road, Bishop's Stortford.
BARROW, R. M., Chelveshayes, Clyst Hydon, nr. Exeter.
CRONE, H. L., 2, Carwinion Terrace, Liskeard, Cornwall.
CROOK, E. A., The Metropolitan Hospital, Kingsland Road, E. 8.
DIXON, S. GURNEY, Whitley Ridge, Brockenhurst, Hants.
JONES, G. P., "Woodroyd," 299, Eglinton Hill, Plumstead, S.E. 18.
PERL, A. F., Brockton, Shaftsbury Road, Bridlington.
ROBERTS, W. E., Surg.-Lt.-Commander, R.A.N., Commonwealth Naval Dockyard, Cockatoo Island, Sydney, N.S.W.
ROPER, F. A., 12, West Southernhay, Exeter. (Tel. 777.)
WEAKLEY, A. L., Carlton Villas, Bulkeley, Alexandria, and 28, Rue Cherif Pacha, Alexandria, Egypt.
WILLIAMSON, W. T., 53, Hartley Road, Nottingham.

APPOINTMENTS.

CHANDLER, F. G., M.B., B.C.(Cantab.), appointed Physician to Out-Patients, City of London Hospital for Diseases of the Chest, Victoria Park.
CROOK, E. A., M.B., B.Ch.(Oxon.), M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Metropolitan Hospital.
HAINES, R. L., M.R.C.S., L.R.C.P., appointed Assistant Surgeon to the Gloucestershire Royal Infirmary and Eye Institution.
HUTT, C. W., M.D., B.C.(Cantab.), D.P.H.(Oxon.), appointed Medical Officer of Health for Richmond, Surrey.
ROBERTS, W. E., M.R.C.S., L.R.C.P., Surgeon-Lt.-Commander, Royal Australian Navy, appointed to H.N.A.S. "Penguin," additional for duty as Medical Officer to Commonwealth Naval Dockyard, Cockatoo Island, Sydney.
THACKER, C. R. A., M.B., B.Ch.(Cantab.), Fellow of Sydney Sussex College, appointed additional Demonstrator of Physiology at the Cambridge University.
VEIRLAND, C. J., M.D.(Durh.), M.R.C.S., L.S.A., appointed Medical Officer of the New Clinic for the Treatment of Venereal Disease at the Royal Devon and Exeter Hospital.
WAYLEN, G. H. H., B.Ch.(Cantab.), L.R.C.P., M.R.C.S., appointed Medical Officer of the Third District and Workhouse Infirmary by the Devizes (Wilts) Board of Guardians.

BIRTHS.

COLLINGRIDGE.—On January 13th, at the Manor House, Goudhurst, Kent, the wife of W. R. Collingridge, M.R.C.S., of a daughter.
DALE.—On December 3rd, at Swatow, China, the wife of Dr. W. C. Dale, of a son.
DIXEY.—On December 31st, at Goodrest, Malvern, to Dr. J. C. Dixey, M.B., and Mrs. Dixey—a daughter, who only survived her birth a few minutes.
MCCALL.—On January 27th, at "Glenwood," Eltham Road, Lee, S.E., the wife of H. Dundas McCall, M.R.C.S., L.R.C.P., of a son.
TOWNSEND.—On December 29th, at Franshams, Bushey Heath, the wife of Capt. R. S. Townsend, M.C., Indian Medical Service, of twin sons.
TREWBY.—On Saturday, January 3rd, at 4, Duchess Street, W. 1, to Mr. and Mrs. Trewby—a daughter.
TYLOR.—On January 11th, at Long Melford, Suffolk, the wife of Christopher Tylor, M.D.—a daughter.

MARRIAGES.

SKELDING—ASHFORD.—On December 11th, at St. Pancras Church, London, Henry Skelding, T.D., M.B., B.C., M.R.C.S., Lt.-Col., R.A.M.C., of Bedford, to Mary Ashford, only daughter of the late Reynolds Ashford of Pinhoe, Devon.
STANGER—BIRKLEY-FORRESTER.—On January 29th, at Fairford Church, by the Rev. Canon Jones, Vicar of Fairford, Geoffrey Stanger, M.B., of Olveston, Bristol, only surviving son of His Honour Judge Stanger, K.C., and Mrs. Stanger, of Winterbourne Park, Bristol, to Muriel, third daughter of the Rev. R. Birkley-Forrester, formerly Vicar of Coven, Staffs, and St. John's, Wolverhampton, and Mrs. Birkley-Forrester, of Fairford.

DEATHS.

CLAPHAM.—On January 4th, 1920, at Madeley House, Park Road, Peterborough, Lawrence Clapham, M.R.C.S., L.S.A., late of Thorney, near Peterborough, aged 73 years.
DOWSON.—On December 27th, 1919, after a brief illness, Dr. Walter Dowson, of "Crosslee," Woking, aged 63.
HOOLE.—On January 21st, 1920, at Brookfield House, Uxbridge, Middlesex, suddenly, Dr. John Hoole, late of Parwich, Derbyshire, aged 71.
MATTHEW.—On January 3rd, 1920, at 19, Iverna Gardens, Kensington, Charles Mordaunt Matthew, M.B., aged 80.
SPILSBURY.—On October 11th, 1919, at "The Rise," Hogsthorpe, Alford, Francis James Spilsbury, from pneumonia.

St. Bartholomew's Hospital Journal.

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

VOL. XXVII.—No. 6.] MARCH 1ST, 1920. [PRICE SIXPENCE.

CALENDAR.

Tues., Mar. 2.—Dr. Calvert and Mr. Waring on duty.
Wed., ,, 3.—Clinical Lecture (Surgery), Mr. Rawling.
Fri., ,, 5.—Dr. Fletcher and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine), Dr. Calvert.
Mon., ,, 8.—Special Subjects Lecture, Mr. Elmslie.
Tues., ,, 9.—Dr. Drysdale and Mr. Rawling on duty.
Fri., ,, 12.—Sir Archibald Garrod and Mr. Gask on duty.
Mon., ,, 15.—Special Subjects Lecture, Mr. Scott.
Tues., ,, 16.—Dr. Tooth and Sir D'Arcy Power on duty.
Fri., ,, 19.—Dr. Calvert and Mr. Waring on duty.
Tues., ,, 23.—Dr. Fletcher and Mr. McAdam Eccles on duty.
Fri., ,, 26.—Dr. Drysdale and Mr. Rawling on duty.
Tues., ,, 30.—Sir Archibald Garrod and Mr. Gask on duty.
Fri., Apr. 2.—Dr. Tooth and Sir D'Arcy Power on duty.

EDITORIAL NOTES.

ON February 19th the Prince of Wales came to the Hospital to take up his position as our President. The afternoon seemed like a fine summer evening, and but for a number of placards arranged in conspicuous positions the old Hospital would have looked her best. The crowd of nurses and students in the Square amused itself before the Prince's arrival by applying famous names to the physicians and surgeons as they assembled, and whilst the Prince was in the Great Hall by inspecting the beautiful Rolls-Royce in which he had come. After the ceremony the Prince won his way through a phalanx of cold-hearted cinematographers to the Abernethy block, where he inspected Theatre "A" and the wards of Sir D'Arcy Power. The ground floor wards in each block, the Dispensary and the Surgery were in turn visited by the Prince, who, each time he emerged from a building, was cheered until he had again disappeared from view. After another onslaught by the movie-fiends His Royal Highness paid a final farewell and escaped in his car.

* * *

The Hospital and Medical School of St. Bartholomew have already expressed a wish that a memorial shall be set up in honour of those that served in the Great War, and especially in memory of the 125 who fell. Up to the present we have not heard of any definite scheme. We would suggest a memorial tablet with the names inscribed, and a Scholarship at the Medical School of, say, £150 a year value, closed to men from Epsom College and of medical parentage. Correspondence on this subject is invited.

* * *

We learn that the College is to lose Mr. Girling Ball, who has decided to retire from the position of Warden at the end of the month. Mr. Girling Ball has held this important position for nearly seven years, and will be greatly missed. During the war the post was unusually arduous, as, in addition to responsibilities connected with air raids, he was also Medical Officer in charge of the Military Wing.

We have no hesitation in saying that Mr. Girling Ball was one of the most popular Wardens which the Hospital ever had. He possessed an unusual amount of tact, and could always be relied upon to do the right thing.

One of the duties of the Warden is to act in the capacity of official Censor of the JOURNAL, a duty which he always carried out in an eminently satisfactory manner.

Mr. Girling Ball will, however, continue to hold a position on the Senior Staff and so his unique teaching ability will not be lost to Bart.'s students.

* * *

We have been informed that Miss Cutler, who since 1907

has held the position of Assistant Matron, is about to resign. The loss to the Hospital of her invaluable services and personality will be a very great one.

Miss Cutler has had a varied and honourable career, amongst the positions she had held being that of Superintendent of the Medical School for Girls at Cairo (a training school for Egyptian nurses), Inspector of Pilgrims at El Tor, and Matron of the Much Wenlock Hospital. She was one of those who went out to Brussels in the first days of the war, and was in charge of the International Nursing Corps Unit under the authority of the Order of St. John of Jerusalem. She saw the German Army march into Brussels, and was deputed to nurse German soldiers. Miss Cutler has been awarded the 1914 Star, and is entitled to other war decorations. After thirty years' work she well deserves the rest and freedom to which she is naturally looking forward, and we wish her long life and happiness in her retirement.

* * *

We have pleasure in noting that Mr. L. Bathe Rawling has been appointed as one of the Examiners in Surgery for the University of Cambridge.

* * *

The Surgical Clinical Unit of the Hospital will be completed by the appointment of Mr. T. P. Dunhill to the post of Assistant Director. Mr. Dunhill is Surgeon to St. Vincent's Hospital, Melbourne, and has during the war acted as a Consulting Surgeon to the British Army in France.

We extend to him a hearty welcome, and have no doubt that his skill and ability will enhance still further a system which we are proud to think originated in our own Hospital.

* * *

The Order of the British Empire has been awarded to the following Bart.'s men for valuable services rendered in connection with Military Hospitals, Territorial Hospitals, War Hospitals, Auxiliary and Civil Hospitals, Command Depôts, Convalescent Camps, or on other duties of a similar nature in the United Kingdom in connection with the Army during the War:

C.B.E. (Civil Division):
E. P. Furber, M.R.C.S., L.R.C.P.
H. J. Paterson, M.B., F.R.C.S.
Sir T. R. H. Smith, Bt., M.B., F.R.C.S.

O.B.E. (Civil Division):
T. Baker, M.R.C.S.
C. T. T. Comber, M.D., M.R.C.S., L.R.C.P.
G. C. Garratt, M.D.
H. W. Gell, M.B., M.R.C.S.
K. R. Hay, M.B., M.R.C.S., L.R.C.P.
H. J. Johnson, M.B., M.R.C.S., L.R.C.P., D.P.H.
T. G. Prosser, M.R.C.S.
R. de S. Stawell, M.B., F.R.C.S.

M.B.E. (Civil Division):
T. W. Chaff, M.R.C.S., L.R.C.P.
C. F. Hadfield, M.D., M.R.C.S., L.R.C.P.
J. Stirling Hamilton, M.B., M.R.C.S., L.R.C.P.
J. B. Hughes, M.B., M.R.C.S., L.R.C.P.
S. J. Palmer, M.D., M.R.C.S.
J. Rust, M.R.C.S., L.R.C.P.

* * *

Our congratulations to the following Bart.'s men whose names are included in recent Army Honours Lists:

M.C.—T/Lieut. D. J. Cowan, 5th Battn. Connaught Rangers.

For valuable services rendered while a Prisoner of War.—O.B.E. (Military Division): T/Lieut. D. J. Cowan, M.C., 5th Battn. Connaught Rangers.

Mentioned in Despatches.—Capt. R. C. Clifford, D.S.O., I.M.S.; T/Capt. H. M. Gilbertson, R.A.M.C., attd. 6th Battn. Somerset Light Infantry.

For escaping or attempting to escape from captivity.—Mentioned: T/Lieut. D. J. Cowan, 5th Battn. Connaught Rangers.

British Army in Russia.—Recommendations and awards on the recommendation of the General Officer Commanding-in-Chief Allied Forces for services rendered in connection with military operations in N. Russia (dated November 11th, 1919):

Archangel. — C.B.E. (Military Division): T/Capt. (A/Major) E. S. Marshall, M.C., late R.A.M.C.

Bushire. — C.B.E. (Military Division): Lieut.-Col. (T/Col.) C. H. Bowle-Evans, C.M.G., I.M.S.

Mentioned in Despatches by Gen. H. S. Lord Rawlinson, G.C.B., G.C.V.O., K.C.M.G., A.D.C., General Officer Commanding-in-Chief Allied Forces in N. Russia for valuable services rendered in connection with the operations in N. Russia, March 25th to September 26th, 1919:

R.A.M.C.—Capt. (A/Major) L. E. Hughes, M.C., R.A.M.C.T.; T/Capt. (A/Lieut.-Col.) R. Jamison, M.B., F.R.C.S.; T/Capt. (A/Major) E. S. Marshall, M.C.

Mentioned in Despatches for valuable services with the Bushire Forces in Persia during period April, 1918, to March 31st, 1919: Lieut.-Col. C. H. Bowle-Evans, C.M.G., M.B., I.M.S.

Mentioned for War Services—to be added to those brought to notice of the Secretary of State for War for valuable services rendered in connection with the War published in the Press *Communique* dated August 28th, 1919:

Southern Command.—Capt. E. C. Bradford, R.A.M.C.T. Mentioned for valuable services rendered during the military operations in Kurdistan (dated November 15th 1919):

Central Kurdistan.—Capt. (A/Major) J. M. Weddell, R.A.M.C.; Capt. (A/Major) C. J. Stocker, M.C., I.M.S.

Brought to notice for gallant and distinguished services rendered at Aden during the period from September 1st to December 31st, 1918:

Lt.-Col. T. H. Foulkes, I.M.S.

* * *

We note with interest that the Minister of Health has promoted Dr. R. J. Reece, C.B., M.D., to be a Senior Medical Officer of the Ministry.

* * *

ST. BARTHOLOMEW'S HOSPITAL PHARMACOPŒIA.—The long-delayed new edition of this little book is now approaching completion. Mr. Langford Moore would be glad to receive *not later than May 1st* any formulæ or suggestions from members of the Staff and other readers of the JOURNAL which would add to the established usefulness of the compilation.

* * *

The Peace Commemoration Fund Appeal, commenced in October of last year, has resulted in upwards of £100,000 being received to date, whilst in addition the amount received or promised to date towards the fund for erection of a new Home for the Nurses is rather over £71,000.

* * *

The Boxing Club, members of the Hospital will be glad to learn, has been re-started, and a room has been engaged in St. Bartholomew-the-Great Parish School. The room will be open on Wednesday afternoons from 2 to 6 p.m., and one evening (to be specified on the notice-board in the A. R.). The school is on the right at the end of Red Lion Passage, which is a turning off Cloth Fair.

The Captain (Mr. D. D. Evans) desires to know the names of those willing to enter for the Inter-Hospital Competitions, which will be held in the second half of April, and for which weights will be as for A.D.A. Championships. Attention is drawn to the Universities, Hospitals and Cadet Schools Championships, which will be held on the 23rd of this month, and for which names must be entered by the 13th. Particulars may be obtained from the Hon. Sec. (S. G. Harrison).

* * *

It is with very deep regret that we have to announce the death, which occurred at Cambridge on February 5th, of Dr. Laurence Humphry. Dr. Humphry was exceedingly well known at Cambridge, both in the Medical School and also at the Addenbrooke's Hospital, where he was Physician. He was mobilised at the 1st Eastern General Hospital at the beginning of the war, and there is no doubt that his death was the outcome of his hard work and untiring devotion to his duties there. By no means a strong man, the strain of the long period of the war told upon him, and in his weakened state he was an easy victim to the obscure septic virus which caused the illness from which he died. Details of Dr. Humphry's career appear in the obituary which we publish on p. 89.

* * *

We have also to record the death of Dr. John William Hembrough, which took place on January 13th after an operation had been performed. A native of Lincoln, he studied medicine at St. Bartholomew's Hospital, London, where he held several residential posts. He qualified L.S.A. in 1865 and M.R.C.S.(Eng.) in the following year, and was Health Officer to the Tynemouth Rural Sanitary Authority before becoming County Officer, later obtaining the M.D.(Durh.) and the D.P.H. Dr. Hembrough has been Medical Officer of Health for Northumberland for the past twenty-six years.

* * *

We much regret that through an oversight under the List of Appointments in the last issue of the JOURNAL Dr. Chandler's qualifications were given as M.B., B.C. Dr. Chandler, of course, is a Doctor of Medicine of Cambridge University and a Member of the Royal College of Physicians of London, and we tender our apologies for any inconvenience the announcement may have caused.

MEMORIAL TO R.A.M.C. FALLEN IN THE WAR.

A COMMITTEE representing all branches of the R.A.M.C., under the Presidency of the Director-General Medical Services, has decided to erect a memorial bearing the names of all R.A.M.C. fallen in the war. It is proposed to place the monument in a prominent site in London, and, if funds permit, to erect replicas in Edinburgh and Dublin. Any surplus will be devoted to the provision of grants to assist the families of fallen R.A.M.C. At present some ten thousand pounds have been collected; it is estimated that a sum of at least thirty thousand will be required. The amount already collected has been obtained by the various units contributing in the proportion of one day's pay for privates, two days' for N.C.Os., and three or more days' pay for officers. Contributions should be sent to Lieut.-Col. R. J. W. Oswald, O.B.E., The First London General Hospital, Cormont Road, Camberwell, S.W. Further information can be given by Lieut.-Col. Sir D'Arcy Power, K.B.E., and by Major Gask, C.M.G., D.S.O. The subscription list will be closed on March 31st, 1920.

SOME NOTES ON AURICULAR FIBRILLATION.

By GEOFREY BOURNE, M.B., B.S., M.R.C.P.

THESE notes must begin with an apology to those readers to whom their contents are already familiar. They have been written, however, in an attempt to put clearly and shortly some of the known facts about a malady whose essential simplicity is continually being lost in a fog of mystery and inaccuracy.

Definition.—Auricular fibrillation exists where the ventricular contractions are completely irregular in force and frequency.

MECHANISM.

The normal heart-beat runs a definite and regular course. An impulse arises in the sino-auricular node, passes through the auricle, which it excites to contraction, reaches the auriculo-ventricular node, traverses the bundle of His and the fibres of Purkinjè, and end in the ventricular muscle, which in its turn also contracts.

In fibrillation the auricle no longer contracts rhythmically. Pathological changes have permeated its muscle. The sino-auricular node is deposed from its position of "pace-maker to the heart," and numerous "soviets" have sprung up throughout the auricle. Each of these sends out its little impulse irrespective of its neighbour's efforts.

The result is that a shower of impulses, varying in power and rate and totally deficient in rhythm, strike upon the long-suffering auriculo-ventricular node. This transmits them as well as it is able; the resulting rhythm is totally and irregularly irregular.

Lewis has produced fibrillation experimentally upon dogs by faradism of the auricular muscle. In these cases of course the hearts were healthy. As a result the condition usually ultimately gave place to the normal rhythm again. He found, however, that in the same heart each successive production of the disorder was followed by a longer period of irregularity until finally this might become permanent.

GRAPHIC EVIDENCE.

The sphygmograph shows total and complete radial irregularity. In fibrillation alone is there no ratio between the length of the pauses and the size of the beats. In other conditions a pause is followed by a stronger beat, and the strength of the beat is proportional to the length of the preceding pause.

The polygraph shows in the jugular curve absence of the "*a*" wave, for there is no co-ordinate auricular contraction, a well-marked "*c*" wave, for the dilatation of the right auricle is often accompanied by slight tricuspid insufficiency and a normal "*v*" wave. The radial curve is similar to that of the sphygmograph.

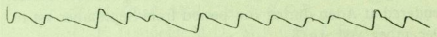


Fig. 1

The electro-cardiograph shows absence of the *P* (auricular) wave; instead there are many irregular fibrillary oscillations,

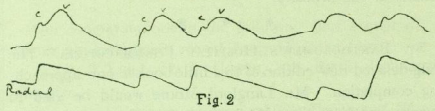
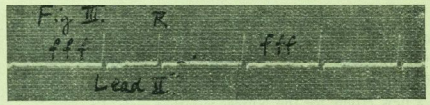


Fig. 2

which are particularly prominent in cases of mitral stenosis; an unusually high *R* wave; evidence sometimes of preponderance of the right side of the heart; and of course a totally disorderly ventricular action.



PATHOLOGY.

The post-mortem appearances of the hearts of cases of auricular fibrillation have as a rule three characteristics:

(1) Evidence that the heart has been gradually overburdened by a slowly progressive disease, as shown by dilatation and hypertrophy of both chambers.

(2) Signs of great stress upon the auricular muscle in particular. Hypertrophy is often present, but the characteristic sign is great dilatation, the chamber being ballooned out to perhaps twice its natural size.

(3) Mitral stenosis is very frequent.

Microscopically the commonest change is a patchy fibrosis. This is best marked in the auricular wall, but the ventricles are also considerably affected. In the rheumatic cases fibrosis of the bundle of His is frequent. This change is a displacement fibrosis and apparently follows upon chronic myocarditis, which appears microscopically as localised round-cell infiltration and degeneration of the muscle-fibres.

Although these pathological findings seem to afford a ready explanation of the phenomena of fibrillation, it must be remembered that not infrequently cases of undoubted fibrillation reach the autopsy chamber whose heart-muscle microscopically is normal.

The ultimate cause of the condition must therefore probably be sought in investigations into the bio-chemistry of cardio-muscular contraction.

CLINICAL PECULIARITIES OF FIBRILLATION.

The ventricular and therefore the radial rhythm is utterly irregular. The slower the heart-rate the less marked is the irregularity; the more rapid the rate the greater this is. Any irregular rhythm of above 120 is probably due to fibrillation.

All the beats heard occurring at the apex are not sufficiently powerful to lift the aortic valves. There is often therefore a higher apical than a radial rate. In cases of serious heart failure accompanied by fibrillation a large number of the beats fail to reach the wrist; thus the apical rate may be 160, and the radial 90. When compensation is established the apical and radial rates may be identical.

The presystolic thrill and murmur, present when the auricle is contracting, disappear in cases of fibrillation with mitral stenosis. Their place is taken by a diastolic thrill and a diastolic murmur.

Exercise, in this alone of all irregularities of the heart, causes an increase of the irregularity of the rhythm. This point is of great diagnostic importance.

The irregularity, once present, is usually permanent. A fibrillating auricle is a bankrupt auricle. It fibrillates because it is incapable of co-ordinate contraction.

HEART FAILURE IN FIBRILLATION.

As in other conditions, heart failure is manifested in fibrillation by great dyspnœa, palpitation, pain in the præcordium or over the site of the liver, by swelling of the feet and legs, albuminuria, enlargement of the liver, ascites or pleural transudate, increase in the size of the heart and in the rapidity of its rate.

The apical rate is usually raised above 100 in heart failure in cases of fibrillation.

The aim of treatment, therefore, is to keep the apical rate in check below that figure.

Since the length of systole does not vary much it follows that the more rapid the rate the less resting time will the heart have; if, therefore, by slowing the apical rate rest can be given to the heart, the organ will have a chance of recovery.

The three mechanical reasons of failure in fibrillation are:

(1) The pathological changes are not restricted to the auricle. The ventricular muscle shares in the pathology of the condition and suffers under its disability.

(2) A series of rhythmic muscular efforts is mechanically superior in result to an irregular sequence. The irregularity of the rhythm is therefore an embarrassment to the heart.

(3) Starling has shown that stretching of the ventricular muscle is, up to a point, productive of its more efficient action as regards output. This may be regarded as part of the normal auricular function. When the auricle fibrillates the ventricular muscle is no longer slightly stretched by the preceding auricular systole.

The ultimate result of the above causes is as a rule manifested as heart failure.

CLINICAL TYPES.

There are, broadly speaking, two types of fibrillation:

(1) The rheumatic type.

(2) The arteriosclerotic type.

(1) The patient is usually below fifty years of age, often only in the twenties.

There is frequently evidence of mitral stenosis.

Microscopically there is indication of disease of the bundle of His, in addition to that occurring throughout the rest of the heart-muscle.

(2) The patient is generally above fifty years of age. The commonest valve lesion is mitral regurgitation.

The importance of distinguishing between these two clinical types lies in their very different response to treatment.

The cause of this difference is to be sought in the fact that in the rheumatic cases the bundle of His is usually diseased, whereas in those cases due to arteriosclerosis the bundle usually escapes injury.

Lewis observed that cases who before fibrillation had a prolonged P.R. interval were the most benefited by digitalis treatment when fibrillation had set in, whereas cases who had had a normal state of conduction reacted disappointingly to digitalis treatment.

Mönkeberg, moreover, has observed, even in advanced arteriosclerosis of the heart, that the buudle of His, thanks to the immunity of its nutrient artery to disease, may remain healthy.

These observations help to explain the different response to treatment of the two types.

THE ACTION OF DIGITALIS.

Digitalis is said to act upon the vagus, upon the bundle tissue and upon the ventricular muscle.

It acts on the vagus centrally and at the nerve-endings.

The vagus when stimulated experimentally has two actions on the heart:

(1) Moderate stimulation causes slowing of the sino-auricular rhythm.

(2) Stronger stimulation causes, first, delay, and then inhibition of conduction from auricle to ventricle.

Clinically the central action of digitalis is negligible; peripherally it acts probably upon the vagal nerve-endings and upon the junctional tissues themselves.

In a normal individual it is not possible to cause heart-block by digitalis administration, but in cases where the bundle is injured by disease an increase of the amount of existing block is easily produced.

Thus in fibrillation, digitalis, by its action on the vagal nerve-endings and upon the bundle itself, diminishes the conductivity between auricle and ventricle. This diminution is only enough to produce considerable decrease in rate where there already exists disease of the bundle, namely, in the rheumatic cases.

The ventricle is thus, in these cases, shielded from being over-driven by the large number of auricular responses.

The amount of digitalis required to produce this result will vary; it should, in obstinate cases, be pushed

Indications of over-administration are headache, vomiting, anuria and coupling of the ventricular beats.

TREATMENT.

Thus the treatment of the condition may be shortly summed up in the word "digitalis."

For convenience from the point of view of treatment fibrillation patients may be said to have two stages of life:

(1) The predigitalis period.

(2) The digitalis period.

Fibrillation, provided that the apical rate is below 90, is compatible with a useful if restricted activity. When this figure becomes exceeded, however, signs of failure are not long in becoming manifested. The degree of failure and the speed of its onset are of course dependent ultimately on the condition of the myocardium.

Bearing these two points in view, it will be seen that in cases where the heart muscle is not very unsound and where the apical rate is not high, a patient may without treatment have an unbroken compensation.

When, however, the muscle, owing to pathological changes, fails, or when the apical rate rises and thus throws increasing work on a muscle only capable of limited exertion, heart failure will result.

Treatment, therefore, consists in resting the heart to enable it to recover its lost compensation. If rest in bed alone is not sufficient a drug of the digitalis group should be given in adequate doses.

By careful observation of the pulse-rate and its reaction to the added work of getting up and of walking about, it will be found that digitalis may or may not be required to maintain this rate below 90; if not, so much better for the patient.

The usual instructions as to avoidance of undue exercise or of over-eating and over-drinking must be given. Watch must be kept upon the patient, and the dose of digitalis increased or decreased to fit in with any deterioration or improvement of his condition.

To recapitulate, fibrillation is present where total irregularity of the heart-rate is found; increase of irregularity on exercise is caused by fibrillation; the rheuamtic type, owing to the coexistence of disease of the bundle, is most amenable to treatment; digitalis reduces the apical rate by increasing the heart-block and thus blocking many of the auricular impulses.

There is no claim that any original information is contained in these lines. Their object is to emphasise a few cardinal points in the diagnosis and treatment of a very common condition.

A CASE OF HYDATID CYST OF THE UTERUS.

By L. J. FORMAN BULL, Capt. R.A.M.C. (S.R.),
Assistant Civil Surgeon, Basrah.

AN Arab woman, æt. 25, married, was admitted to the Civil Hospital, Basrah, complaining of a lump in the abdomen, which had been getting larger for five years. She gave a history of a miscarriage at the fourth month five years ago, but apart from the lump had had no discomfort and stated that her periods were regular and normal in quantity and duration.

Condition on admission.—A well-nourished, healthy-looking woman.

Chest.—Heart and lungs natural. Breasts not active.

Abdomen.—There was a swelling the size of a small football rising from the pelvis. This was pyriform, but bulged slightly to the right in its upper part, which extended to just above the umbilicus.

It was freely mobile from side to side in the abdomen, dull to percussion, tense and cystic, a definite thrill being obtained. Nothing further abnormal was felt.

Per vaginam.—The cervix was high up, elongated, narrow, and directed backwards. Movement of the swelling per abdomen caused the cervix to move. Neither uterus nor ovaries could be felt, the fornices being out of reach of the fingers.

The provisional diagnosis of ovarian cyst with adhesions to the body of the uterus was made.

Operation.—Under $CHCl_3$ a laparotomy was performed, a median subumbilical incision being employed.

On opening the peritoneum what looked like a typical ovarian cyst presented. Manual exploration of the pelvis failed to reveal the uterus, the cyst apparently being continuous with the cervix, which was much elongated and narrow. Examination of the cyst-wall showed the two Fallopian tubes arising from its sides about 1½ in. from its junction with the cervix. The right ovary contained a retention cyst; the left one was natural.

The cyst was delivered through the abdominal wound, and was about 8 in. long by 5 in. broad by 4 in. antero-posteriorly. The wall was very thinned out and had many veins coursing over it. The cyst was then tapped with a Spencer-Wells trocar and a quantity of clear water-like fluid escaped. It was then laid open and found to be unilocular and to contain an inner cyst-wall of a creamy-white colour and the consistency of boiled macaroni, smooth on its outer surface and studded with sago-like grains on its inner surface. This was quite avascular and not attached to the outer wall and came away entire. The cyst was then seen to arise from the posterior surface of the body of the uterus, which was dimpled in the centre (see figure).

There was no connection between the cyst and uterine cavity.

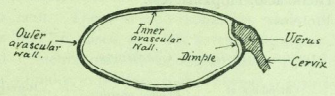


DIAGRAM SHOWING POSITION OF CYST AS VIEWED FROM THE SIDE AND ITS TWO WALLS.

As it now seemed certain that this was a sterile unilocular hydratid cyst, redundant adventitious cyst-wall was removed and the inner surface of the remainder was well rubbed with gauze. The cut edges were united by a continuous catgut suture. The retention cyst in the right ovary was punctured and a single catgut suture inserted. Finally the abdomen was closed in the usual way.

For a few days after the operation the patient had some pyrexia, which was controlled by quinine and was most probably malarial. Otherwise her recovery was uneventful.

Owing to an accident the fluid from the cyst was not measured nor kept for examination.

The pathological report on the two cyst-walls was to the effect that the outer vascular wall contained unstriated muscle and mucous glands in addition to connective tissue and many blood vessels. The inner avascular wall consisted of grey, translucent, gelatinous, structureless material, probably of a mucinous nature. This report shows that the cyst arose in the wall of the uterus and not subperitoneally. The description of the cyst as seen by the naked eye answers almost exactly to that of a hydatid cyst in Spencer and Gask's *Practice of Surgery*, 1910, p. 157.

The case is of interest owing to the rarity of hydatid cysts of the uterus and this one's unilocular and apparently sterile condition. Books of reference are not numerous here, but out of five books on gynæcology to which I have had access only one mentioned the occurrence of the condition but gave no statistics.

Before operating it was impossible to diagnose the condition from ovarian cyst, the only suspicious signs being the transmitted movement of the cervix and the inability to palpate the uterus. These signs were regarded, as mentioned above, as due to inflammatory adhesions binding an ovarian cyst to the body of the uterus. Taking into consideration the history, the only other diagnosis which might have been considered by one is cystic degeneration of a fibromyoma, but the tenseness of the swelling and the marked thrill were against it.

Hydatid disease does not appear to be prevalent in Mesopotamia, this being the only case I have seen during nine months' work among the civil population.

My thanks are due to Capt. W. Buchan, R.A.M.C., for the pathological examination, and to Major A. H. Napier, I.M.S., Civil Surgeon, for permission to publish the case and for his assistance at the operation.

THE CHEMICAL PATHOLOGY OF GASTRO-INTESTINAL DISEASES.*

By R. L. MACKENZIE WALLIS, M.A., M.D.

THE title of this paper comprises such a vast field for discussion that it is doubtful whether the subject could be dealt with adequately even in a course of several lectures. It however enables me to give you a short review of the present state of our knowledge, particularly with reference to my own personal observations.

Needless to say the ideal aimed at is an exploration of the whole of the alimentary tract, and a study of the various secretions and excretions, and the alterations which they undergo as a result of disease. The present paper deals more particularly with the changes observed in the chemical composition of the gastric contents under various pathological conditions, and also the influence of disease of the pancreas on metabolism, some of the changes thus observed forming the basis of tests for functional activity of this organ. The chemical changes in the saliva in disease are at present receiving attention, as also the possible functions of the large intestine, especially in relation to fat metabolism. The figures and conclusions derived therefrom, and quoted in this paper, are based upon my own records, which have now become voluminous.

All the tests and analytical methods adopted have been subjected to the most rigorous criticism and trials, and, needless to say, carried out with every precaution. Even under these conditions every test has its fallacy, and this

* A paper read before the Abernethian Society, November 13th, 1919.

applies more particularly when we are dealing with living material and biochemical tests.

The Chemical Composition of the Gastric Contents after a Test-Meal.

The object of a test-meal is to excite the secretion of gastric juice, and determine by actual analysis the composition and changes that have taken place within a certain definite period of time. The acquisition of such details requires the most refined and accurate methods of analysis. It follows, therefore, that every test-meal should be obtained under uniform conditions, so that the results may be of value in the diagnosis of diseases of the stomach.

The test-meal should consist of 2 oz. of dry toast and 1 pint of weak tea without milk or sugar. Such a meal is preferably given in the morning on an empty stomach and removed after exactly one hour, without the use of any water in syphoning off the gastric contents. The addition of water entirely invalidates percentage results, and its use can generally be dispensed with. Many test-meals have often to be discarded owing to this plan being followed. In cases where dilatation of the stomach or delayed motility is suspected, it is advisable to wash out the stomach the previous evening and to give the test-meal on an empty stomach. Generally when a test-meal is given in the morning the stomach has had time to empty itself of its contents during the night, and so the preliminary gastric lavage is avoided. The patient is instructed to thoroughly masticate the toast, so that the gastric contents can be easily withdrawn by means of the stomach-tube without plugging the openings in the tube. The actual quantity of gastric contents removed should be noted, since it depends not only upon the skill of the operator, but also upon the condition of the stomach. The usual amount recovered when a Senoran's aspirating bottle is used is about 50 c.c., a lower amount indicating increased motility. With dilatation of the stomach, diminished motility or hypersection, as much as 200 to 250 c.c. may be obtained.

The analysis of the gastric contents now resolves itself into laboratory methods, many of which are time-consuming and can only be carried out after much practice.

The observations include:

The general naked-eye appearance, colour, odour and consistency.

Microscopical examination of the residue for starch, yeasts, and abnormal elements, such as Sarcinæ, Oppler-Boas bacillus, blood-cells, pus-cells and fragments of tissue.

Reaction:

Free HCl by Congo red and Gunzberg's test.

Lactic acid, Hopkins' test.

Proteins.

Albumoses and peptones.

Mucus.

Sugar.

Dextrin.

Bile.

Blood.

Total acidity—phenolphthalein as indicator.

Acidity to dimethylamidoazobenzene.

Physiologically active HCl.

Mineral HCl (inorganic chlorides).

Total chlorides.

Organic acids.

Ferment activity—rennin content.

This list appears at first sight quite formidable, yet it shows that a complete analysis can be carried out, and we shall see by reference to the results obtained whether this thorough examination is justified. The foregoing table will give details of the results obtained in various diseases of the stomach when compared with the normal values.

Table showing Average Values found under various Pathological Conditions.

Test-meal.	Normal.	Gastric ulcer.	Carcinoma of stomach.	Chronic gastritis.	Regurgitation test-meals.
Microscopical:					
Blood-cells	0	0	0 or +	0	0
Starch	+	+ +	⊕	+	+
Sarcinæ	0	0	+ or 0	0	0
Yeast	+	+	+	+	+
Oppler-Boas bacillus	0	0	+	0 or +	0
Remarks	...	...	...	...	...
Chemical:					
Total acidity	0·18–0·2	above 0·2	below 0·15	0·15	0·15–0·2
Lactic acid	0	0	+	+ or −	0
Chlorine calculated as HCl:					
Per 100 c.c.					
Free HCl } Active HCl	+ } 0·15–0·23	+ + } 0·23 and above	0 } below 0·1	+ or 0 } below 0·14	+ } above 0·14
Protein HCl }					
Metallic HCl	0·08–0·09	0·09	0·145–0·2	0·09	0·1–0·2
Total HCl	0·2–0·32	above 0·32	0·19	0·23	0·2–0·3
Blood	0	+ or 0	+	0	0
Volume	50 c.c.	60–70	50–90 c.c.	80 c.c.	60 c.c.

To simplify the results, I need only ask you to remember two figures for the physiologically active HCl, viz. 0·15 and 0·22. This is the normal range, and any figure below 0·15 indicates hypochlorhydria, whereas any figure above 0·22 points to hyperchlorhydria. Hypochlorhydria is present in a variety of conditions not necessarily directly connected with the stomach, but we require to differentiate between chronic gastritis and carcinoma of the stomach. If we refer to the table and examine the figures for the mineral HCl (the inorganic chlorides), we note at once the difference. In carcinoma of the stomach the mineral chlorides are always high—above 0·1 per cent.—whereas in chronic gastritis and many other conditions the mineral chlorides never exceed 0·09 per cent. There is one condition where mineral chlorides may be raised, and this is when regurgitation of intestinal contents into the stomach takes place. The necessary stimulus to produce such a change is provided in every case by an excessive secretion of hydrochloric acid. In regurgitation cases, therefore, we find free hydrochloric acid and an increase in physiologically active HCl, mineral HCl, and the total chlorides. Such results are quite distinct from those found in carcinoma of the stomach. Further, ferments are absent in carcinoma, whilst they are present in regurgitation test-meals. These latter test-meals are of unusual interest since they occur in a variety of conditions, especially cases of chronic gastric ulcer, duodenal ulcer, gall-stones, renal calculi and appendicular gastralgia.

It is thus possible to differentiate between carcinoma of the stomach and chronic ulcer and also chronic gastritis and gastric ulcer—conditions which clinically often present a marked similarity.

My statistics, based on a large number of cases investigated by the above methods, show that in cases of early carcinoma of the stomach diagnosed by operation, and subsequently at autopsy, the test-meal results were correct in 70 per cent. of the cases. If one includes the cases where clinically there was no doubt as to the diagnosis, which was confirmed by operation or autopsy, then the percentage would be considerably raised. The changes which I have mentioned are very characteristic, and an early manifestation of malignant disease. The increased mineral chloride is due, in my opinion, to the secretion of salts of organic acids from the growth itself. The hydrochloric acid secreted by the stomach attacks these substances, liberating various organic acids, and sodium chloride is formed. This would account for the presence of an increased mineral chloride, and a much diminished hydrochloric acid content. There is very little evidence to support other views which have been put forward.

The difficulties of collecting reliable statistical data are immense, but I have abundant data as regards test-meal analysis all collected together, with the diagnosis, as far as this can be ascertained. An exploratory laparotomy is not always conclusive, and it often fails to clinch the diagnosis. As far as possible all cases where the test-meal findings and operation diagnosis do not agree are followed up. Unfortunately it often requires an autopsy to settle whether the test-meal findings are correct or not in any given case. These remarks apply more particularly to cases of suspected malignant disease.

The results of an analysis of the gastric contents in gastric and duodenal ulcer are fortunately much more convincing. In these cases there is nearly always an excess of physiologically active hydrochloric acid and an excess of free hydrochloric acid. The mineral chlorides are generally normal in amount, with the exception of chronic gastric ulcer, where regurgitation occurs as already described.

Chronic dyspepsia is associated with very definite changes in the composition of the gastric juice, and we find a diminished amount of free hydrochloric acid, and the physiologically active hydrochloric acid is always below 0·15 per cent. The mineral chlorides in this condition are generally on the low side—0·06–0·08 per cent. This condition of hypochlorhydria is met with in a variety of diseases, particularly pernicious anæmia, rheumatoid arthritis, etc.

Time will, I fear, not permit me to dwell on the variations in test-meal results in different diseases, but it is of interest to note that they correspond to two classes—hyperchlorhydria and hypochlorhydria. Many of the symptoms noted in disease can be explained by such variations.

In every case of chronic dyspepsia in persons over forty years of age, however, I should say that if it does not yield to appropriate treatment then a complete and thorough investigation is advisable. It is in such cases that a test-meal analysis should be made. This is still more urgent where there is secondary anæmia, and wasting without any definite cause.

I will now pass on to discuss the tests that should be applied in all abdominal cases where the diagnosis is at all obscure. It becomes almost a medical aphorism to state that it is easy to forget the pancreas, but still more difficult to remember it. If you are always aware that there is an important gland situated deeply in the epigastrium, whose functions are essential to life, and that this gland is subject to three different pathological changes in disease, you may make a diagnosis which will be of immense benefit to the patient and of considerable satisfaction to yourself. The facts speak for themselves in that every case where the suspicion of acute pancreatitis has been raised, and the diagnosis confirmed by laboratory tests within a few hours of admission, operation has resulted in recovery in many cases. Clinically, unless one has had a vast experience it

is a most difficult thing to diagnose disease of the pancreas. This is mainly due to the fact that the gland is deep-seated, and the signs and symptoms generally masked by associated conditions, such as anæmia, wasting, jaundice, etc. Rarely is the gland accessible to direct clinical observation, and exploratory laparotomy is often a necessary adjunct to determine the diagnosis. As a result of several years' work on the various functional tests for pancreatic insufficiency, I have been able to fix upon three tests as yielding the best and most consistent results. These three tests can be carried out in an hour, and have often been done whilst the patient is being prepared for operation, particularly in cases of acute pancreatitis. The three tests placed in order of value are:

(1) The diastatic activity of the urine;
(2) The Lœwi adrenalin mydriasis test;
(3) The presence of glycosuria or a lowered glucose tolerance.

These three tests I speak of as the "tripod of tests." If all three are positive, then the diagnosis is practically certain. If the diastase test is positive and the others negative, the pancreas is under suspicion, but as a rule no one test is conclusive. If all three tests are positive, and confirmation obtained by an excess of undigested fat in the stools and also undigested muscle-fibres, no further laboratory evidence is required. The diagnosis is as certain as any diagnosis can be.

The diastase test depends on the presence of a ferment in the urine derived from the pancreas and capable of digesting starch. Every normal urine contains this ferment in a definite and constant amount, and this amount is usually expressed in units ranging from 10 to 22·2, with a maximum of 32. In diseases of the pancreas the diastase content of the urine rises to figures of 300–500 units or even 1000 units. There is also a corresponding rise in the diastase content of the blood. If, on the other hand, there is any affection of the kidney such that the diastase cannot pass through the tubules, then there is a diminished output in the urine, and the diastase values fall to below 10 or even zero. The slightest damage to the pancreas results in a rapid rise in the diastase content of the blood and urine. In acute pancreatitis we find a very high diastase content, especially in early cases, but if all pancreatic tissue has been destroyed, then this rise is not maintained. This has been my experience, and it is not confined to acute pancreatitis, but to any affection of the pancreas. All that is required for this test is a fresh specimen of urine, preserved, if necessary, with toluol, and the test can be carried out in an hour. Further, only a very small amount is required for any one test. This same specimen can also be used to determine whether there is any glycosuria.

For the *adrenalin mydriasis test* a fresh solution of adrenalin chloride of a strength of 1 in 1000 is all that is required, and it has the further advantage of being easily applied at the bedside. One eye is selected, and two drops of the adrenalin solution are instilled, and the eye kept closed for a few minutes. After five minutes another two drops of adrenalin solution are added to the same eye. After twenty minutes the eye is examined, and if the pupil of the experimental eye shows marked dilatation as compared with the other eye, which is used as a control, the test is regarded as positive. The maximal dilatation is attained in half an hour and then rapidly disappears.

The glucose tolerance test.—If the urine on examination fails to reveal the presence of sugar then the glucose tolerance test is tried. The glycosuria in pancreatitis, especially the acute form, is often of sudden onset and transitory in character and so may be missed altogether. Thus cases have occurred where the glycosuria was present in one single specimen of urine and absent in all others, or it may persist for a day, a week, or even longer. The presence of glycosuria therefore affords strong confirmatory evidence of pancreatic insufficiency. The glucose tolerance test is tried when glycosuria is absent, and consists in producing a type of alimentary glycosuria by administration of known amounts of glucose on an empty stomach. It is found that whereas a normal individual can often tolerate as much as 150 grms. of glucose in one dose, cases with pancreatic insufficiency rarely tolerate more than 25 to 50 grms. Further, by analysis of the sugar content of the blood it is found that there is nearly always a definite hyperglycæmia in such cases.

As a result of the application of a large number of the tests devised for the diagnosis of disease of the pancreas, I have come to the conclusion that no one test is pathognomonic of pancreatic insufficiency. The tripod of tests described above afford the most reliable data, and if all three are positive then there is strong evidence that the pancreas is at fault. The transitory character of the phenomena which gives these positive tesults must never be lost sight of, and emphasises the necessity of clinical observations and early diagnosis. The three tests can be carried out within one hour, and have been used in this way in cases of suspected acute pancreatitis whilst the patient is being prepared for operation.

If we find in association with the tripod of tests excess of fat in the stools, especially when the figure exceeds 50 per cent. of the dried weight of the fæces, a further confirmation is obtained. Still further confirmation is obtained if, in addition, the patient is given a meal of under-cooked, pounded beef, and abundant undigested muscle-fibres are found in the stools ten to thirty hours afterwards.

The tests all suffer from certain defects, and do not at present give indications of the nature of the pathological process involved. This is the object of future work. The differentiation of chronic pancreatitis from carcinoma of the head of the pancreas may be cited as an example of the failure of the tests to distinguish between mere irritation of the pancreas and gross disturbances of function in that organ. In deciding between these two conditions I have placed much reliance on the presence of occult blood in the stools.

The detection of occult blood in the stools has now become a routine test, and the procedure adopted in this hospital may be inserted here.

Occult Blood in the Stools.

A patient with clinical signs and symptoms of disease of the stomach or neighbouring viscera, when admitted to the wards is given a saline purge. He is then placed on a meat-free diet, and specimens of the stools passed on three subsequent days examined. The tests for occult blood are applied, and if positive on all three occasions the results strongly suggest that there is a bleeding ulcerated surface in the alimentary tract, and that this ulcer is probably malignant. On the morning of the third day a test-meal is given if the symptoms and signs point to the stomach or duodenum and the results recorded. Should the test-meal indicate changes similar to those met with in malignant disease of the stomach no time is lost in adopting surgical measures. If there is a typical regurgitation test-meal with occult blood present in the stools the probability is in favour of duodenal ulcer, since chronic gastric ulcers, although giving regurgitation test-meals, rarely bleed, or, if so, the bleeding is intermittent. Having excluded the simple ulcers, a regurgitation test-meal may indicate cholelithiasis or chronic appendicitis, and in such cases there is no occult blood in the stools. Examination of the stools microscopically may indicate excess of fat in an undigested form, and point the way to a pancreatic lesion. If occult blood is present on every occasion the probability is that the pancreas is involved and that the growth is malignant. There is very rarely occult blood in the stools in chronic pancreatitis, although the tests are frequently positive in cases of acute pancreatitis.

The presence of occult blood in all the specimens tested indicates that there is a bleeding ulcerated surface in the gastro-intestinal tract, and that this ulcer is malignant. The only other condition where similar results are obtained is duodenal ulcer, and this can generally be excluded by the signs and symptoms and the test-meal results. The detection of occult blood in the stools is therefore of great diagnostic value, and provided extraneous sources of blood are excluded the tests are extremely delicate and reliable.

The above brief review will, I hope, give you some idea of the present state of our knowledge on the chemical pathology of the gastro-intestinal tract. In it I fear that too much has been attempted, but if I have been able to impress you with the complexity of the subject and yet stimulate your interest I have been well repaid. In conclusion, I would like to express my thanks to the physicians and surgeons of this Hospital for their help and co-operation, without which much of this work would have been impossible.

THE INTRODUCTION OF DIGITALIS INTO THE PRACTICE OF MEDICINE.

By GEORGE GRAHAM, M.D., M.R.C.P.

THE names of the men who have made important discoveries in medicine or surgery are frequently forgotten or only remembered by chance. For instance, the name of Thomas Willis is known by most students because he described the circle of Willis, but few people know that his great work was the observation that the urine of diabetic patients was sweet. Similarly the name of William Withering is known to students of chemistry because he experimented with barium carbonate, which is still called witherite, but very few know that he was responsible for the introduction of digitalis into the practice of medicine. It is true that his discovery was due to an accident, but a man with less knowledge of herbs would probably have overlooked it. He describes the discovery thus:

"In the year 1775 my opinion was asked concerning a family receipt for the cure of dropsy. I was told that it had long been kept a secret by an old woman of Shropshire who had sometimes made cures after the more regular practitioners had failed. I was informed also that the effects produced were violent vomiting and purging; for the diuretic effects seem to have been overlooked. This medicine was composed of twenty or more different herbs, but it was not very difficult for one conversant in these subjects to perceive that the active herb could be no other than the Foxglove."

Withering therefore proceeded to test its effects on all cases of dropsy. At first he tested it on the poor, who came to him "to the number of 2-3000 annually" as there was no hospital in Birmingham at that time. The doses used at first were too large, "for misled by reasoning from the effects of squill which generally acts best on the kidneys when it excites nausea I wished to produce the same effects by the Foxglove."

As a result of this early experience he recognised that the potency of the decoction varied with the time of year in which the leaves were plucked. Those leaves gathered when the flowers were in bloom gave far more potent decoctions than those plucked in the autumn. He soon discarded the decoction, "for arguing from the analogy of the tobacco" he thought the active properties might be

destroyed by long boiling. He therefore used the infusion, but later on he used "the leaves in powder." He also decided quite early that the diuretic effects did not depend upon the foxglove exciting nausea—in fact it acted best when there was no vomiting. If purgation occurred there was no diuresis, but the addition of small doses of opium was of great benefit in such cases. In the year 1776 he was using it for all cases of ascites, anasarca and hydrops pectoris but not in the ascites of female patients as he considered that many of these cases were "dropsies of the ovaria." In the spring of 1779 he used it with great success on a number of cases of dropsy which had occurred as a consequence of the epidemic of scarlet fever and sore throat which raged in the winter of 1778, and thenceforward he used the medicine much more frequently. By the year 1783 the Foxglove had appeared in the new addition of the Edinburgh Pharmacopœia, but Withering stated "it will be again very soon rejected if it should continue to be exhibited in the unrestrained manner in which it has heretofore been used at Edinburgh and in the enormous doses in which it is now directed in London." About this time it was tried for cases of phthisis pulmonalis, but Withering found it of little service. He also records at this time the case of a man who, following a local recipe, had drunk the whole of a decoction made from a large handful of green Foxglove leaves. When Withering saw him he was "incessantly vomiting, his vision indistinct, his pulse fourty in a minute." The man recovered.

In 1785 he had advanced so far that he published his book entitled "*An Account of the Foxglove and some of its Medical Uses, with practical remarks on Dropsy and other Diseases.*" The preface opens thus:

"After being frequently urged to write upon this subject and as often declining to do it from apprehension of my own inability, I am at length compelled to take up the pen however unqualified I may still feel myself for the task. The use of the Foxglove is getting abroad and it is better the world should derive some instruction, however imperfect, from my experience rather than that the lives of men should be hazarded by its unguarded exhibition or that a medicine of so much efficacy should be condemned and rejected as dangerous and unmanageable."

After a short disquisition on the value of reporting every case, "proper or improper," "successful or otherwise," and not only successful cases, he concludes his preface thus:

"I wish the reader to keep in view that it is not my intention merely to introduce a new diuretic to his aquaintance, but one which, though not infallible, I believe to be much more certain than any other in present use.

"After all, in spite of opinion, prejudice or error, Time will give the real value upon this discovery, and determine whether I have imposed upon myself and others, or contributed to the benefit of science and mankind.

"Birmingham, 1st July, 1785."

The book begins with a description and picture of the foxglove, its leaves, flowers, mode of growth, etc. The greater part of the book is filled with notes of 163 cases which he had treated between 1775 and 1784.

Case 4 is of considerable interest because the treatment was very successful and "gave rise to a very general use of the medicine in that part of Shropshire," and partly because the patient was seen in consultation with Dr. Darwin of Lichfield, the grandfather of Charles Darwin. The lady in question was nearly in a state of suffocation; pulse extremely weak and irregular, her breath very short and laborious. "She could not lie down in bed; her stomach, legs and thighs were greatly swollen; her urine very small in quantity not more than a spoonful at a time and that very seldom." She was given ℥iiss of a decoction of digitalis every two hours for five doses. She was very sick, but during the first twenty-four hours passed about eight quarts of water. It was observed that the pulse became more full and regular. The lady recovered and was alive nine years later; but as the dropsy continued to recur at intervals she used to take the infusion in small doses, which never failed to relieve her.

The pulse in this lady is described as extremely weak and irregular and this was also the case in two or three other patients, but as a rule the pulse is not mentioned. Withering mentions several cases in which the pulse-rate fell to 36 or 40 after excessive doses, and in one place "he points out the great effect the Digitalis has upon the action of the heart; for the pulse came down to 96 from 132." Further, he gives nine inferences which he has deduced from his observations, and in the ninth states—

"That it has a power over the motion of the heart, to a degree yet unobserved in any other medicine, and that this power may be converted to salutary ends."

Nowadays it is considered that the chief action of digitalis is on the heart and that the diuretic effect is due to the improved circulation in the kidney itself, for digitalis produces very little diuresis in a healthy person.

The dosage and mode of administration are very carefully described. Withering always considered that the digitalis should be used with great caution and as seldom as possible. Thus he describes at considerable length all the different drugs which were used without avail to prevent the dropsy reaccumulating, and relates that the patient became restive as she wished to have the digitalis more often.

I will conclude this short account of Withering's work by answering the conclusion of his preface which I have already quoted.

Time has indeed fixed the real value upon Withering's discovery, and has determined that he did not impose upon himself or others but contributed to the benefit of science and mankind. The great majority of doctors, however, have forgotten his very name.

RECENT ADVANCES IN RECONSTRUCTION.

WE are glad to see that the principle of co-operation between different departments of the Hospital is being more widely extended.

Our Professor of Physics was recently summoned to superintend the application of a stomach-pump to a patient in the wards. He conducted the operation with conspicuous success, and was able to give a practical demonstration of the well-known axiom of hydrodynamics that if P = the patient and V = the volume of fluid withdrawn, P–V = what is left of the patient afterwards; therefore, if V is greater than P, the result is an autopsy.

An interesting incident occurred lately in the Surgery. An observant dresser detected a curious arthropod—in fact several—upon the person of a patient. With remarkable *sang-froid* he called in the assistance of the Lecturer on Biology, who stated that the creature belonged to the order *Aphaniptera* and the genus *Pulex*, and recommended that a specimen should be sent up to the Curator of the Museum for preservation.

The advantages of systematic collaboration are nowhere better illustrated than in the case of a recent departure in the Chemical Department, where the Lecturer in Chemistry has been investigating the subject of possible new anæsthetics. Several daring experiments have been performed, invariably resulting in the maximum of anæsthesia on the part of the patient. In the opinion of our most experienced anæsthetists the most reliable of the new methods is induction by means of acetylene followed by the administration of supersaturated vapour of hydrogen sulphide gas. In practice it has usually been found necessary to induce respiration at frequent intervals by the aid of a concentrated solution of brandylic alcohol.

This system of co-operation has already averted many unpleasant accidents. A dispenser and stretcher-party have been attached to the firm of a certain eminent physician, who is particularly liable to syncopal attacks when his clerks make "howlers." This precaution was taken none too soon. Only a few days ago pints of sal volatile had to be administered to the physician, who had fainted on hearing a clerk observe that tea was a cardiac stimulant with a minimal lethal dose of ten cupsful.

The Professor of Physiology, also, is understood to be studying the specific dynamic action of protein. He may be seen in the afternoons surreptitiously observing the Equivalent of Somnolence of those who have ingested Durham cutlets, compared with that of others who have contented themselves with assimilating bubble-and-squeak. It is thought that the results of his researches will have far-reaching effects upon the menu.

But this is not all. Striking as have been the results of inter-departmental co-operation within the Hospital, the effects of the wider extension of these same principles have been even more beneficent. Following the example of a Northern physician, who has introduced a Professor of Logic at his Medical Research Institute at St. Andrews, an eminent statistician has been invited to bring his mathematical genius to bear upon the tangled problem of our increasing birth-rate. His office is connected by telephone with the rooms of the various district clerks, and here he may be seen endeavouring to deal, by the aid of the integral calculus, with the fresh reports which come in minute by minute. He is incorporating these results in a life-size graph, which he hopes will clearly demonstrate each clerk's expectation of sleep.

The Dental Department is now reported to be able to cope with increasingly large numbers of patients of whatever size, as a result of a few half-hour chats, assisted by striking demonstrations, with one of our distinguished pugilists.

A further advance has been made towards enhancing the enthralling lure of some of the latest crime-epics by active co-operation between enterprising authors and our celebrated Morbid Anatomy Expert, who has obligingly provided technically accurate descriptions of the post-mortem appearances characteristic of murder and sudden death in all the latest and most fashionable modes.

Finally the most dazzling success has been attained by the introduction, at the suggestion of a harassed H.P./D., of swifter and surer methods of coping with the crowds which occasionally congregate in the Surgery. In accordance with the new scheme a "hustler" is installed in a specially erected pill-box in the centre of the Surgery and controls the traffic by a system of syrens and stop-watch. No patient is allowed more than fifteen seconds in which to describe his malady. After this interval a piercing shrill from the syren lays him low—until the next firm comes on duty.

GEMINI.

OBITUARY.

LAURENCE HUMPHRY, M.D.(Cantab.), F.R.C.P.

IT was with much sorrow that the many friends and acquaintances of Dr. Laurence Humphry heard of his death, which occurred on February 5th, at the age of 63. Dr. Humphry was the son of a London barrister-at-law, and was born at Richmond, his mother being a daughter of Dr. McNab of Epping, who was a well-known physician. After graduating at Cambridge from Trinity College in 1876 he entered St. Bartholomew's for his clinical work, and took his M.B. degree four years later. He then settled in Cambridge and eventually became the

leading consulting physician in the district. Besides holding the position of Physician to the Addenbrooke's Hospital he filled the offices of Assessor to the Regius Professor of Physic, Examiner in Medicine to Cambridge and other Universities, and also served on the Council of the Royal College of Physicians of London. As a teacher of Pathology and lecturer in Medicine, he took an active part in the Medical School, and he was Secretary to the Special Board of Medicine for fifteen years.

Dr. Humphry was orderly and accurate in business matters, and thoroughly familiar with the complex affairs of the University. He had a considerable talent for research, and at one time took charge of the Pathological Museum. He was especially interested in malformations of the heart, on which subject he wrote the article in Allbutt's *System of Medicine*. He made some researches also on the functions of the pancreas, on the parathyroid glands and on embolic aneurysms of the pulmonary artery, but being subject to frequent and intense attacks of migraine he was not able to give as much time to research work as he wished.

Dr. Humphry was a man of fine character, sympathetic, high-minded, modest, gentle, and with a keen sense of humour. His judgment was decisive and wise; he was a chivalrous colleague and affectionate friend, a keen fisherman and a skilful modeller in wax. By the death of Dr. Humphry both Cambridge and St. Bartholomew's have suffered a very great loss.

STUDENTS' UNION.

BART.'S *v.* HARLEQUINS.

This game was played at Winchmore Hill on January 24th, and resulted in a win for the Hospital by 1 goal and 2 tries (11 points) to 1 try (3 points).

The Harlequins were compelled to play one short right through the game, and Adrian Stoop turned out at the last moment to fill what would have been another vacancy. The two outstanding things in the game were Stoop's vociferous coaching of his side and the dash of the Hospital forwards. The first half was very evenly contested. Orchard scored a try, which Johnstone converted, and Bart.'s crossed over with a 5 points' lead. Immediately on resumption Thomas got away and reached the back, but an excellent pass put Johnstone across the line. A strong rush by the "Quin." forwards enabled Wakefield to score between the posts, but the kick failed. The Harlequins were making strong attempts to get level, but Smuts' fielding and tackling were never at fault. Our opponents got the ball in one particular scrum, but were pushed off it, the Hospital forwards came away, and Orchard was able to pick up and score, but the kick again failed. A few seconds before the whistle went Stoop was somewhat injured and left the field.

The thing was the ginger which the Bart.'s forwards found for once.

BART.'S *v.* OLD MILLHILLIANS.

Played January 31st, and won by 3 goals and 2 tries to 1 try.

BART.'S *v.* U.C.H.

This, the first round of the Inter-Hospital Rugby Cup, was played at Richmond on February 3rd, and won by a dropped goal to *nil*. It was the avowed intention of the U.C.H. team to give Bart.'s a surprise, and they did. In the first two minutes Bart.'s attacked on the left, and the movement was spoiled by the U.C.H. tackling. From then to the end of the game, with Bart.'s mostly on the attack, the speedy breaking up and sturdy tackling of the U.C.H. forwards brought every attack to nothing, and if their forwards failed, Hudson, their stand-off half, did it himself. Our forwards got the ball often enough, and our three's tried all they knew to get through, and were not making obvious mistakes. Our forwards were perhaps kicking a bit too hard in the loose, and the ball did not *always* come away from the base of the scrum when it should have done. Thomas made three splendid attempts to get past on the left, but there was always that deadly tackle. Half-way through the second half Johnstone dropped a beautiful goal from well outside the "25." There was no further scoring.

BART.'S *v.* RUGBY.

Played at Rugby on February 14th, and won by 3 tries to 1. The first half was very evenly contested, both sides attacking in turn and both scoring one try. That for Bart.'s was obtained by Moody-Jones from a cross-kick by Orchard. In the second half the Hospital had far the better of the game. Morlock got away, and the ball passed to Johnstone, Cockell, Shaw and Thomas, the last-named just hurling himself over the line. Later the Rugby forwards overkicked, and G. E. Llewellyn, having no time to pick up, dribbled it back, then picked up and passed to Cockell, who put Morlock in. Moody-Jones was nearly in again on the right, but a forward pass five yards from the line spoiled the movement.

Afterwards the team were well entertained by two old Bart.'s men, Drs. Powell and Hoskings.

BART.'S *v.* MIDDLESEX.

This second-round tie was played at Richmond on February 19th, and won by 27 points to *nil*. Bart.'s had far the better of the opening half. The score opened when G. E. Llewellyn kicked, followed up and smothered the back, and from a "loose" following the scrum Orchard went over. Orchard, Johnstone and Llewellyn had a hand in a try scored by Thomas, and Cockell put Morlock in for a try, which Johnstone converted, Bart.'s crossing over 11 points to the good. In the second half Bart.'s scored more freely. A movement in which Llewellyn, Johnstone, Wall and Thomas had a hand put Orchard across. Next a good bout by Cooper, Llewellyn and Johnstone gave Moody-Jones an opening and he raced away, and beating the back with a very pretty swerve scored a try, which Johnstone converted easily. Orchard came away with a long dribble, picked up and scored, and again Johnstone added the points. A very pretty try resulted when Cockell got away and passed to Llewellyn, who passed back again to Cockell, who got across.

The combination amongst the halves and three's was much better. Smuts was absolutely safe at back, and there was no getting away from Mudge's all-enveloping reach.

BART.'S *v.* O.M.T.'S.

Won by 3 tries to *nil* on February 21st at Richmond.

REVIEWS.

"MIND AND ITS DISORDERS." Third Edition. By W. H. STODDART, M.D., F.R.C.P. (London: H. K. Lewis & Co., Ltd., 1919.) Price 18s. net.

This is an excellent modern book on mental disorders, which will appeal alike to the student and practitioner as well as to the specialist in mental diseases. The following selected chapter headings will give a good idea of the range which it covers: Perception and Ideation, Fatigue, Sleep and Dreams, The Sentiments, The Ego, Disorders of Sensation, Perception, Association, Emotions, Conduct and Erroneous Judgments, Psycho-Analysis, Anomalies of the Sexual Instinct, Causation of Insanity, Physical Stigmata, Neurasthenia, Anxiety Neurosis, Hysteria, Obsessions, Maniacal-Depressive Insanity, Paranoia, Dementia Præcox, Alcoholic and other Intoxication Psychoses, Epilepsy, General Paralysis (and four other chapters on mental disorders associated with other physical diseases), Idiocy and Imbecility, Combined Insanities, Feigned Insanity, Case Taking, General Treatment, and Legal Aspects. In addition there are ten other chapters on related subjects not included in the above list.

The opening paragraph of the Preface to this third edition is important as giving the keynote of many parts of the book: "Since the last edition I have fundamentally changed my attitude towards mental disease, having personally investigated very many patients by the psycho-analytic method, and thus been convinced of the truth of Freud's doctrines. Mental disease can only be understood by studying the psychology of the unconscious mind of patients, and the physical manifestations of a functional nervous disorder must be regarded as secondary, not primary, as I taught in the first edition." These words of the author's are of very great importance, and the reviewer from personal observation on other grounds is thoroughly convinced of their truth. It may well be that the sexual aspects of Freud's views are frequently overdone in proportion to other aspects, and that in particular the Œdipus Complex is frequently read into the unconscious mind of patients in psycho-analysis before the facts justify it or without sufficient justification in fact; yet it cannot be too strongly emphasised that Freud's views of the evil effects of suppression apply equally well to non-sexual matters which tend to be suppressed by the conscious mind through having some unpleasant associations, and that, in fact, such suppression is probably the underlying cause of the enormous majority of cases of neurasthenia and various other mental disorders. Thus the treatment of neurasthenia by psycho-analysis is probably qualitatively superior—cutting as it does at the underlying cause—to the older-fashioned Weir-Mitchell treatment which tends to affect chiefly the physical symptoms and tends to leave the underlying mental causes untouched. Taken as a whole the book is an excellent one and may be thoroughly recommended.

E. P. F.

MANUAL OF DISEASES OF CHILDREN. By JAMES BURNET, M.A., M.D., F.R.C.P.E. Second Edition. (E. & S. Livingstone.) Pp. ix + 416. Price 8s. net.

This is a revised and enlarged edition of a work in which the author gives an account of the diseases of children in as small a compass as possible. It should prove useful for those who want an outline of the main facts of the subject without unnecessary detail. The chapter on infant feeding is good, the list and classification of the commoner proprietary foods for infants being especially useful. In some respects the book is somewhat too abbreviated; this particularly applies to the information contained in it on convulsions.

THE TRANSMUTATION OF BACTERIA. By S. GURNEY-DIXON, M.A., M.D. (Cambridge University Press.) Pp. vi + 179. Price 10s. net.

The author, who is an old Bart.'s man, has treated the vexed question of the transmutation of bacteria in a very able manner. So little is definitely settled on the subject that all bacteriologists are ready to admit the difficulty of writing a connected treatise. The subject-matter is good, and a great deal of valuable information is included in a small compass. A book dealing with the variability of micro-organisms comes as a welcome change to the somewhat dogmatic statements of the present-day text-books on bacteriology. We have nothing but praise for the book, and the writer is particularly to be complimented considering the adverse conditions under which, according to the preface, it was completed.

HANDBOOK OF ANÆSTHETICS. By J. STUART ROSS, M.B., Ch.B., F.R.C.S.E. (E. & S. Livingstone.) Pp. xii + 214. Price 7s. 6d. net.

We are in entire agreement with Prof. Alexis Thomson, who states in the preface that he feels on perfectly safe ground in recommending this book as a reliable manual of instruction to both student and practitioner. The art of administering anæsthetics is dealt with in an eminently practical manner, and in such a way that it cannot fail to impress the reader with the thoroughness of its teaching. Special chapters are devoted to local and spinal anæsthesia by Dr. W. Wood, and intratracheal anæsthesia by Dr. Thomson. We were specially interested in the chapter on "Gas and Oxygen," the more so because this anæsthetic has been so largely used in our own Hospital.

The book should prove invaluable to students in search of a good text-book on practical anæsthetics.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

ADAMSON, H. G., M.D. "Multiple Xanthoma in a Boy." *Proceedings of the Royal Society of Medicine*, December, 1919.

CAMMIDGE, P. J., M.D., D.P.H. "Estimates of Sugar in the Blood." *Practitioner*, February, 1920.

CANDLER, A. L., F.R.C.S., M.B., B.S. "Abscess of the Liver among British Eastern Troops." *Lancet*, February 21st, 1920.

CRONK, H. L., M.R.C.S., L.R.C.P. "The Heart in Acute Febrile Diseases." *Practitioner*, February, 1920.

DAVIS, HALDIN, F.R.C.S. "Case of White-Spot Disease." *Proceedings of the Royal Society of Medicine*, November, 1919.

EDWARDS, F. SWINFORD, F.R.C.S. "The Treatment of Procidentia by Injections." *Ibid.*, December, 1919.

ELMSLIE, R. C., F.R.C.S. "Case of Infantilism." *Ibid.*, December, 1919.

EVANS, E. LAMING, F.R.C.S. "Case of Coxa Vara after Reduction of Congenital Dislocation of Hip." *Ibid.*, December, 1919.

GRANT, J. DUNDAS, M.D. "Traumatic Destruction of One Labyrinth illustrating the 'Marking-Time' Test—a Simplification of the Babinski-Weil Test." *Ibid.*, December, 1919.

——— "Two Cases illustrating the Scope and Utility of Ossiculectomy." *Ibid.*, December, 1919.

——— "A Useful Attic Syringe." *Ibid.*, December, 1919.

HAMILL, PHILIP, M.D. "Femoral Aneurism of (?) Rheumatic Origin." *Ibid.*, December, 1919.

HERRINGHAM, Sir WILMOT P., K.C.M.G., C.B., M.D., F.R.C.P. "Gas Poisoning." *Lancet*, February 21st, 1920.

JONES, W. BLACK, M.D., B.S. "Analysis of One Hundred Consecutive Cases of Cardiac Disease." *British Medical Journal*, January 31st, 1920.

LANG, B. T., F.R.C.S. "Aids to Definition in X-Ray Work." *Journal of the Royal Army Medical Corps*, January, 1920.

LEATHART, PERCIVAL W., M.B., B.Ch. "Chronic Infections of the Faucial and Post-Nasal Lymphoid Tissue in Children." *British Medical Journal*, February 14th, 1920.

POWER, Sir D'ARCY, K.B.E., F.R.C.S. "Surgical Aphorisms." *Clinical Journal*, February, 1920.

——— "The Fees of Our Ancestors." *Lancet*, February 7th, 1920.

ROGERS, KENNETH, O.B.E., M.D. "Two Cases of Hemiplegia." *British Medical Journal*, February 14th, 1920.

——— *Musings of a Medico* (Plymouth, 1920).

SCOTT, SYDNEY, M.S. "Instruments Used for Suturing the Pillars of the Fauces after Enucleation of the Tonsils in Case of Hæmorrhage." *Proceedings of the Royal Society of Medicine*, December, 1919.

WEBER, F. PARKES, M.D. "The *Role* of Health Resorts in the State and Their Use as 'Temples of Œsculapius' for the Diagnosis and Treatment of Chronic and Functional Diseases." *Ibid.*, November, 1919.

——— "Lepra: Sequel to a Case shown on June 21st, 1917." *Ibid.*, November, 1919.

——— with T. H. GUNEWARDINE, M.R.C.S. "Sequel of the Case of Lipodystrophia Progressiva shown on January 24th, 1919." *Ibid.*, December, 1919.

WOOD, PERCIVAL, M.R.C.S., L.R.C.P., Capt. R.A.M.C. *Moses, the Founder of Preventive Medicine* (London, 1920).

EXAMINATIONS, ETC.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.B., B.Ch.—D. L. Spence.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The following has been admitted a Member:

R. H. Simpson.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS.

The following were granted the *Diploma in Public Health*:
F. A. H. Clarke, F. N. White.

CONJOINT EXAMINING BOARD.

First Examination, January, 1920.

Part I. Chemistry.—C. F. Ashby, W. A. Hervey, T. E. M. Jones, J. G. McMenamin, G. B. McMichael, G. R. Nicholls.
Part II. Physics.—C. F. Ashby, R. A. Foucar, W. A. Hervey, J. G. McMenamin, G. B. McMichael, G. R. Nicholls.
Part III. Elementary Biology.—R. J. Irving Bell, J. L. C. Doyle, G. P. Driver, F. F. Imianitoff, G. G. Stewart.
Part IV. Practical Pharmacy.—D. D. Anderson, V. Barkin, G. Dru Drury, A. W. Hart-Perry, A. Jephcott, F. R. L. Miller, A. J. Moody, C. A. Moody, G. R. Nicholls, K. S. M. Smith, R. W. Taylor.

Second Examination, January, 1920.

Anatomy and Physiology.—S. J. Davies, R. R. Foote, J. Jackson, A. W. Marrison.

Final Examination, January, 1920.

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

H. E. Archer, J. H. Bulcock, B. H. Cole, I. Frost, L. P. Garrod, J. V. Landau, S. F. Mahmood, M. A. W. Mooro, R. E. R. Sanderson, F. P. Schofield, C. Shaw, G. M. J. Slot, S. D. Sturton, A. E. Sutton, C. J. L. Wells, J. S. White, D. W. Winnicott.

APPOINTMENTS.

BLOUNT, D. A., M.R.C.S., L.R.C.P., appointed Administrator of Anæsthetics to Westminster Hospital, Broad Sanctuary, S.W. 1.
BRADLEY, E. J., M.B., B.C.(Cantab.), appointed Senior Resident Medical Officer, Bristol General Hospital.
CHANDLER, F. G., M.D.(Cantab.), M.R.C.P., appointed Physician to Out-Patients, City of London Hospital for Diseases of the Chest, Victoria Park. (*Corrected notice.*)
GRAHAM, G., M.D.(Cantab.), M.R.C.P., appointed Physician to Out-Patients, Great Northern Central Hospital.
GRANGE, C. D'OYLY, O.B.E., M.B., B.S.(Lond.), F.R.C.S., appointed Assistant Surgeon to the Harrogate Infirmary.
MOUAT-BIGGS, C. E. F., D.T.M.(Liverp.), M.R.C.S., L.R.C.P., Major R.A.M.C., appointed Protozoologist to the Royal Victoria Hospital, Netley, Hants.
STURTON, S. D., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon, Royal Sussex County Hospital, Brighton.
WOODFORDE, A. W. G., M.B., B.S.(Lond.), appointed Hon. Registrar, Samaritan Hospital for Women, Liverpool.
WOODROOFFE, G. B., M.B., B.C.(Cantab.), appointed Certifying Surgeon under the Factory and Workshop Acts for Lostwithiel.

CHANGES OF ADDRESS.

BRADLEY, E. J., Senior Resident Medical Officer, Bristol General Hospital, Bristol.
CAZALY, Lt.-Col. W. H., I.M.S., Crab Hill Cottage, South Nutfield, Surrey.
COLEMAN, FRANK, 131, Harley Street, W. 1 (next door). (Tel. Padd. 2953).
DANKS, W. S., York Lodge, York Road, Sutton.
DENNYS, G. W. P., Col. C.I.E., I.M.S., "South Lea," Milford-on-Sea, Hants.
GANE, E., The Coppice Mental Hospital, Nottingham.
GAUVAIN, Sir HENRY J., 37, Harley Street, W. 1 (Tel. Mayfair 6180).
GILLON, G. GORE, 48, Brook Street, Grosvenor Square, W. 1.
HAWKINS, A., Palace Hotel, Montana-Sur-Sierre, Canton Valais, Switzerland.
HEERDEN, J. A. VAN, Darenth Industrial Colony, Dartford, Kent.
MCCALL, H. D., Yorkersgate, Malton, Yorks.
MOUAT-BIGGS, C. E. F., Maj. R.A.M.C., Officers' Quarters, Netley, Hants.
PRITCHARD, H., 6, Wimpole Street, W. 1.
STURTON, S. D., Royal Sussex County Hospital, Brighton.
WIGAN, W. C., U.M.C.A., Mponda's, Fort Johnstone, Nyasaland.
WOODFORDE, A. W. G., 4, Gambier Terrace, Liverpool (Tel. Royal 2320).
WRIGHT, A., Lt.-Col., C.B.E., R.A.M.C., The Castle, Cape Town, South Africa.

BIRTHS.

BUTTERY.—On February 9th, at "Treval," Dollis Avenue, Finchley, to Dr. and Mrs. Harold R. Buttery—a daughter.
DUGGAN.—On February 20th, at College Gates, Worcester, the wife of Norman Duggan, M.B., F.R.C.S., of a son.
HARKER.—On January 17th, at 18, Queens Road, Southport, to Dr. and Mrs. Thomas H. Harker, a daughter.
MACKENZIE.—On February 9th, at 1, Camden Terrace, Bradford, to Edith, wife of Colin Mackenzie, O.B.E., F.R.C.S.—a son.
STATHERS.—On October 28th, at Park Lodge, Brackley, the wife of Dr. Gerald Stathers—a son.
WOODRUFF.—On January 25th, at 6, Stratford Place, W. 1, the wife of Charles Reynolds Woodruff, of a son.

MARRIAGE.

ROBINSON—MACDONALD.—On February 3rd, 1920, at Barnsley, at the Congregational Church, by the Rev. J. Wilson, Captain Christian Cathcart Robinson, R.A.M.C.(T.F.), son of the late Dr. Robinson, R.N., late of Folkestone, and of Mrs. Robinson, The Limes, Wye, Kent, to Jessie Leonora, second daughter of Mr. Allan Macdonald, Oaklands, 34, Huddersfield Road, Barnsley.

DEATHS.

ALDERTON.—On February 22nd, 1920, at 82, The Grove, Hammersmith, Thomas Ganton Alderton, L.R.C.P., eldest son of the late Thomas Alderton, Surgeon, of Reepham, Norfolk, aged 69.
CLARKE.—In March, 1919, Walter James Clarke, M.R.C.S., L.R.C.P., of 47, Gravelly Hill North, Erdington, Birmingham.
HEMBROUGH.—On January 13th, 1920, John William Hembrough, M.D., D.P.H.(Durh.), M.R.C.S., L.S.A., of Moothall, Newcastle-on-Tyne.
HUMPHRY.—On February 5th, 1920, at Lensfield, Cambridge, from illness contracted while on service at the 1st Eastern Hospital, Laurence Humphry, Lt.-Col. R.A.M.C.T., M.D., F.R.C.P., Senior Physician to Addenbrooke's Hospital, aged 63.

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.*

St. Bartholomew's Hospital Journal.

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

VOL. XXVII.—No. 7.] APRIL 1ST, 1920. [PRICE NINEPENCE.

CALENDAR.

Fri., Apr. 2.—Dr. Tooth and Sir D'Arcy Power on duty.
Tues., ,, 6.—Dr. Calvert and Mr. Waring on duty.
Fri., ,, 9.—Dr. Fletcher and Mr. McAdam Eccles on duty.
Tues., ,, 13.—Dr. Drysdale and Mr. Rawling on duty.
Fri., ,, 16.—Sir Archibald Garrod and Mr. Gask on duty.
Tues., ,, 20.—Dr. Tooth and Sir D'Arcy Power on duty.
Fri., ,, 23.—Dr. Calvert and Mr. Waring on duty.
Tues., ,, 27.—Dr. Fletcher and Mr. McAdam Eccles on duty.
Fri., ,, 30.—Dr. Drysdale and Mr. Rawling on duty.
Tues., May 4.—Sir Archibald Garrod and Mr. Gask on duty.

EDITORIAL NOTES.

THE Bazaar held in the Great Hall on March 4th was in many ways superior to the bazaars of yesterday and to-morrow which we detest and avoid. The presence of the Queen-Mother lent to the ceremony a certain dignity in which other bazaars are apt to be sadly lacking. The genuineness of the cause prevented cynics from asking: "Is it all worth while?" The Earl of Granard's orchestra provided the element of beauty by performing with taste in a tent erected near the Fountain, playing music far above the average reached at bazaars.

Queen Alexandra was accompanied by the Princess Victoria, and was cheered as she stepped from her car to the hall door by a crowd of nurses, students and patients who had assembled in the Square. All who could claim to be there followed into the hall and watched the royal party visit each stall and purchase at each a suitable article. The Princess Beatrice, Princess Christian, and Princess Victoria Louise and the Duchess of Albany also attended in the course of the afternoon.

After Queen Alexandra had left the hall the tension became somewhat less acute, and buying and selling started in real earnest.

The Viscountess Sandhurst was responsible for the fruit and flowers stall, and Lady Bowlby, Lady Cohen, Mrs. Cohen and Mrs. Barris looked after provisions and sweets. Lady Moore, assisted by Miss Gask and Miss Murray Smith, sold books. Fancy stalls were in the hands of the Matron and Mrs. Richard Gill. Mrs. William Lovell and Mrs. Grandage looked after the White Stall, Mrs. Douglas Harmer was in charge of the toys, Mrs. Ernest West sold at the "White Elephant," and Lady Lawrence sold baskets. Mrs. Tooth was at the "plain clothes" stall, Mrs. Jessop and Mrs. L. B. Rawling at the stall called "*Bric-à-brac*," and Mrs. Andrewes superintended the packing. Great pains were taken to procure and arrange the goods.

A happy relief from such feverish merchandise was the Library, set aside for tea. Mr. and Mrs. Frank Cohen generously gave tea for several hundred people, so that the shillings which were taken at the door were all profit. Tea was extremely well arranged by Miss Pemberton, Nurses' Home Superintendent, and gracefully served by a small army of nurses.

After tea people flocked to the concert in the Surgery which had been generously arranged by Mr. George Robey. The Surgery is not a good concert room, but the artistes did their parts bravely, and by the sale of tickets and programmes much money was procured.

About £3,200 has been raised, and it is hoped to hold a sale of the surplus wares in the autumn, the time and place of which will be duly announced.

* * *

Mr. R. M. Vick, M.A., M.Ch.(Cantab.), F.R.C.S., has been appointed to the post of Warden of the College in succession to Mr. Girling Ball. Mr. Vick, it will be remembered, was at the Leys School and at Jesus College, Cambridge, and qualified in 1908. He was Luther Holden Scholar 1911–12, and later Demonstrator of Pathology at Bart.'s and Assistant Surgeon at the Metropolitan Hospital. He is now acting for Mr. Gask as Temporary Assistant Surgeon of the Hospital.

* * *

Mr. M. Donaldson, M.B., B.Ch.(Cantab.), F.R.C.S., has been appointed Assistant Physician Accoucheur to this Hospital.