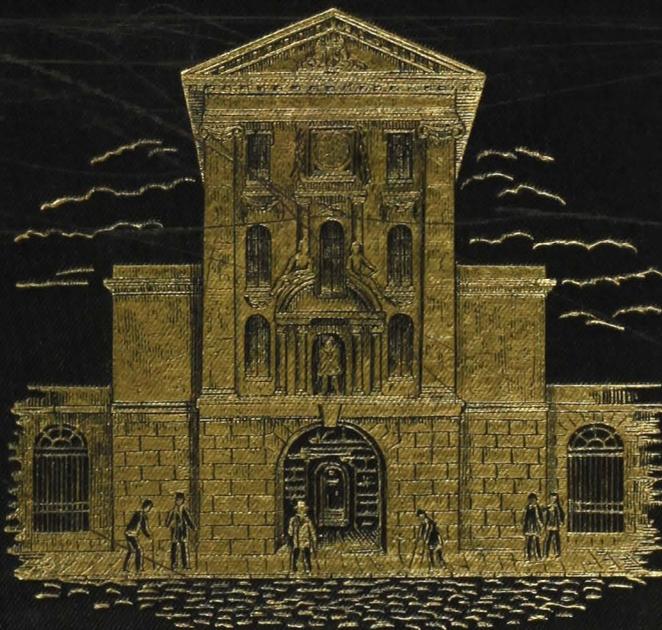


St. Bartholomew's
Hospital



Journal.
1913-1914.



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St. Bartholomew's Hospital



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OCTOBER 1st, 1913.

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

Calendar.

Wed., Oct.	1.—	Winter Session begins. Twenty-first birthday of Journal.
Fri., "	3.—	Dr. Herringham and Sir Anthony Bowlby on duty.
Mon., "	6.—	Examination for D.P.H.(Camb.) Second Examination Society of Apothecaries.
Tues., "	7.—	Dr. Tooth and Mr. D'Arcy Power on duty. Final Examination Conjoint Board (Medicine).
Wed., "	8.—	First Examination Society of Apothecaries.
Thurs., "	9.—	Final Examination Conjoint Board (Midwifery). Oxford Michaelmas Term begins.
Fri., "	10.—	Dr. Garrod and Mr. Waring on duty. Final Examination Conjoint Board (Surgery).
Tues., "	14.—	Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., "	17.—	Dr. Morley Fletcher and Mr. Bailey on duty.
Tues., "	21.—	Dr. Herringham and Sir Anthony Bowlby on duty.
Fri., "	24.—	Dr. Tooth and Mr. D'Arcy Power on duty.
Mon., "	27.—	Examination for M.B., B.S.(London).
Tues., "	28.—	Dr. Garrod and Mr. Waring on duty.
Fri., "	31.—	Dr. Calvert and Mr. McAdam Eccles on duty.

Editorial Notes.

THE twentieth volume of the JOURNAL has been written and closed. To-day is our twenty-first birthday, but there is no *fête* held in honour of the day, and there is only one birthday present—which will arrive later! This particular present must needs be given in any case, for it consists of a new block for the cover illustration. Since the JOURNAL first struggled to the light twenty-one years ago one block has done service, and from it have been taken something like half a million copies.

No great change has overtaken the JOURNAL during those years. Its life has been placid and its growth steady. Not so the efforts that preceded it, however.

As far as we can gather an attempt was made to start a journal in the "seventies," but enthusiasm was not great and the attempt came to nothing. Again, in 1885, a serio-comic journal (in MSS.) blossomed forth, but it only ran through six issues. Its infantile circulation was very poor and it died a happy and sudden death, unmourned and unregretted.

The third attempt—which has resulted in the present JOURNAL—was made when the clubs were amalgamated. Our first number saw daylight in October, 1893, and the hope was then expressed that the new prodigy would survive the diseases of infancy. Under modern methods of prevention and cure it has done so.

But even in its earliest days the JOURNAL suffered from a certain chronic complaint that has clung to it throughout. Within the first six months it was necessary to appeal to students and old Bart.'s men to send in contributions; there was but little difficulty in getting material for publication; the difficulty was to get the average man to take a hand in it.

Yet placid though life has been, the JOURNAL has lived through some strange mutations. In the first number the word "bacteria" does not appear—nor does any word remotely connected with that word appear!

In "Vol. i, No. 1" there was an article on "Clinical Aptitude," by Sir Dyce Duckworth, a clinical lecture by Mr. Howard Marsh, and above all, a short but interesting item, entitled "Clinical Jottings," by Dr. Samuel West! Verily, Dr. West has been a faithful contributor!

It may be that in the near future we shall witness a revolution of more import to the JOURNAL than was ever the discovery of bacteria; should the change occur it will render our earlier numbers unintelligible to future students (except those of great erudition!). It is possible that the language of English medicine may be rudely altered, that our present tongue may soon become a dead language, and the present literature of medicine unreadable without a dictionary. We, of course, refer to the Basle nomenclature, but—

* * *

The Basle nomenclature!

I was in the Square the other day when a friend approached me—a large volume in his hand. "Have you seen the new 'Gray'?" he asked.

I shook my head: "Anything remarkable about it?"

"It's written in the new terminology!" he exclaimed more in anger than in sorrow.

Now both for and against the "new" terminology there is much to be said. Also be it said the official language of anatomy in this country is not yet, at least, the "new" terminology. In fact a committee of the Society of Anatomists of Great Britain and Ireland is even now considering the matter, and this being so, there seems much folly in the publication of new editions with the adoption of this Basle nomenclature.

One naturally inquires the reason why some of these important works are being brought out in this revolutionary manner, and the tendency is to lay the blame upon the poor author or editor, and to assume that he is trying to force the hands of all interested in the study of anatomy in this country. In a majority of cases, however, we think that this blame would be wrongly placed. It is the publishers who are the culprits, and in one case at least of which we are informed they forced publication in the new terminology *quite against the wishes of the editor of the book*, who, however, found himself helpless in their hands.

And the reason?

There is a large sale for English medical works in America, for on the whole English medical books are better than those of the U.S.A. Now in America the Basle nomenclature has been adopted. It has also been adopted in the colonies. That is the secret! And in consequence certain publishers are attempting to dictate to the English medical man the tongue that shall be spoken by him.

This would not matter very much if we were about to adopt this new terminology officially. But it seems that there is no such prospect in the near future. The Basle terminology contains a vast number of terms which are as

clumsy as those already in use, and it is by no means an ideal language. Even in America this is acknowledged. The idea has been put forward that the English-speaking races should combine to form a new and better terminology and should get the other countries to fall in line if possible. *But no agreement to proceed on these lines is likely to be arrived at until the year 1915 at the International Congress of Anatomy!* And, thereafter, it is probable that other five years will elapse before any revision is finally accepted.

Let the student not be misled. Examination papers are still set in the old terminology, and should authorities decide to adopt the new terminology it is obvious that time must be allowed wherein both may be used; there will be no sudden and irrational demands. It would have been better far had these enthusiasts waited until the matter had been definitely settled, in which case all the books would be altered and the confusion of reading anatomy in one language and surgery in another avoided.

But it is probable that the Basle nomenclature will not be adopted without considerable revision. And to print indiscriminately the unrevised nomenclature in a few books for a couple of years is surely to make confusion worse confounded.

Those who advise an interim change seem to forget one fact altogether. They extol the utility of a temporary universal language for purposes of foreign reference, but they forget altogether that the average practitioner wishes to refer to current *English* work, and that though a few might be well suited by a sudden change the *majority would be greatly inconvenienced.*

Let us by all means have a revised language for medical literature, but let us hope for something better than the Basle nomenclature. Let us use it in books if it be considered essential as a temporary expedient—but *let us confine it to brackets*, placed after the old and more familiar terms. That the publishers should have us completely in their hands is intolerable.

It is probable that in years to come a revised form of the Basle terminology will be a great boon to students; but, in the meantime, we cannot but think that the undue haste of a few publishers is causing much dissatisfaction and confusion, and that their action is neither conducive to progress nor to that unity which a revision of our terminology should imply.

We are sufficiently open-minded, however, to the various difficulties of the case, and should welcome a correspondence on the subject in our columns.

* * *

The new Session begins on our day of issue, and we have to perform an oft-repeated, though never perfunctory, task—that of welcoming new students.

No doubt most newcomers will feel the Hospital to be a cold and unsympathetic place for a day or so. Such is the inevitable consequence of new surroundings and strange

faces. They will soon discover, however, that Bart.'s is hospitable and warm-hearted, and that there is but little difficulty in adapting themselves to the new environment.

We would urge them to seek as soon as possible the secretaries of the various sports clubs and other societies, according to their interests and inclinations. We may add that the said secretaries are quite as anxious to make the acquaintance of newcomers as the newcomers are to find themselves at home and "in the running." In particular we would call the attention of both old and new students to the fact that there is a miniature rifle range within the precincts of the Hospital. At one time this was much patronised, but of late it has been almost deserted. We trust this reminder may suffice to revive the miniature rifle club. The winter is essentially the time for this type of sport, and we hope to see again this year the monthly cup competitions, which were discontinued owing to lack of entries.

* * *

We believe that a large number of Old Bart.'s men would be interested in having before them a list of both London and provincial hospital appointments filled by previous students of our hospital. We have therefore decided to publish such a list, the first instalment of which will appear in our next issue. Of necessity, a good many names will be omitted in the first place on account of our lack of information, but if we are advised of such omissions they will be rectified in subsequent issues of the JOURNAL.

* * *

We extend our congratulations to Mr. R. M. Vick, who has been appointed Demonstrator of Pathology (surgical), and Mr. K. J. A. Davis, who has been appointed junior demonstrator.

Our Retrospect.



WHEN, after the dissolution of the Monasteries, the Hospital of St. Bartholomew was refounded in the year 1547 by King Henry VIII, the King endowed the Hospital with lands of the yearly value of 500 marks (£380 4s. 2d.), and the citizens of London agreed with the King to pay towards the maintenance of the Hospital a similar sum of 500 marks per annum.

For some years the citizens paid this sum to the Hospital regularly, but after a time they fell into arrears, and various disputes took place between the City and the Hospital, which were settled ultimately by an agreement, whereby, among other matters, the Corporation of the City of London agreed to pay the following annuities or rent charges amounting to £347 6s. 8d., viz. £233 6s. 8d. out of the profits of Blackwell Hall, under an order of the Court of Aldermen in the year 43 Queen Elizabeth;

£100 (formerly 500 marks) made under deed of covenant, sealed by the Corporation of London on April 13th, in the year 37 King Henry VIII; £10 formerly issuing out of the duties of package and scavage; £4 payable out of the property in the Parish of St. Andrew, near Baynard's Castle, under letters patent of the 13th January 38 King Henry VIII.

We learn from the Treasurer's Report that during the past year these annual rent charges have been redeemed under an agreement whereby the Corporation has transferred to the Official Trustees of Charitable Funds, in trust for the Hospital, the sum of £13,893 6s. 8d. Consols, the yearly dividends of which will produce an income equal to that hitherto received by the Hospital in respect of the above ancient rent charges.

This agreement reminds us of the close relations between the Hospital and the City Corporation, and it is probably not generally known that the full and official designation of the Hospital is as follows: "The Mayor and Commonalty and Citizens of the City of London as Governors of the House of the Poor (commonly called St. Bartholomew's Hospital) near West Smithfield, London, of the foundation of King Henry VIII."

The special appeal by the Hospital for funds to meet the excess of expenditure over income and the bank overdraft has, during the year, produced £21,612 in donations towards the reduction of the debt and £5835 in annual subscriptions. This result must be regarded as satisfactory, for although the bank debt is not extinguished it has been materially reduced, and the thought of curtailing the work of the Hospital, which it was feared would be necessary, has now been abandoned.

Early this year, when the medical benefits of the Insurance Act came into operation, regulations were made by the Hospital, which were received with general approval and have been adopted by other hospitals. Under the present arrangements all those who apply to the Hospital for treatment (except cases of urgent illness or accident) are asked whether they are insured. If insured the case is referred to a medical officer of the Hospital to decide whether the ailment is urgent. If the illness is such that it can be treated by a general practitioner of ordinary competence the insured person is told to obtain treatment from his panel doctor. These regulations have resulted in a diminution of the casualty patients, chiefly males, but have made no difference to the number of in-patients. Although there has been a considerable decrease in out-patients, there is still no lack of cases suitable for teaching, and the clinical opportunities of the students have been in no way reduced, as it was feared at one time would probably be the result of the operation of the Insurance Act.

We learn from the Dean that there has been some diminution in the number of full students entering the School. This, we hope and believe, is only temporary,

and we have no doubt that those who are now entering on their student course do so with very bright prospects. The entry for October last, we are told, was 180, as compared with 165 in 1911, and included 73 full students, as compared with 78 in the previous year, 76 entries to special classes, and 31 preliminary scientific students. The large number of special entries is mainly due to the very popular final F.R.C.S. class, which is held twice yearly, and is always well attended.

Owing to the meeting of the International Medical Congress in London in August the School authorities decided not to hold a special post-graduate class during the last long vacation. We hear that this suspension of the post-graduate class is temporary only, and that one will probably be arranged for the summer of 1914.

During the year the Hospital has sustained a great loss by the death, on June 20th, of Mr. Alfred Willett, who retired from active work as Surgeon to the Hospital in 1901, when he became Consulting Surgeon and a Governor. Mr. Willett entered at St. Bartholomew's in 1857, became Surgical Registrar in 1863, Warden of the College and Assistant Surgeon in 1865, full Surgeon in 1879, and Lecturer in Surgery in 1889. He was seventy-seven at the time of his death. Mr. Willett's long and faithful services to the Hospital and School are well known to those with whom he worked. As Treasurer of the School he had a large share in directing the educational policy of the School for many years, and was always on the side of moderate progress. It was mainly through him, with the help of Dr. Shore and Sir Anthony Bowlby, who were President and Treasurer of the Students' Amalgamated Clubs, that the ground at Winchmore Hill was secured for the use of the Students' Clubs.

It is difficult to find words to express adequately the great loss which befel the Hospital in the death on April 19th of Mr. R. B. Etherington Smith. His illness and death came with such suddenness as to be almost incredible, and was a great shock to all who knew him. He was taken ill with pneumococcal peritonitis on April 17th; an operation was performed the same day, but in spite of everything that could be done he died on the morning of April 19th. At the time of his death he was only thirty-six, and was Assistant Surgeon and Warden of the College. He was universally respected and beloved not only at St. Bartholomew's, but also among oarsmen and sportsmen in all parts of the world. The funeral service in the Church of St. Bartholomew the Great included a very large congregation of the Governors, the staff, nurses, students, and of rowing men from Cambridge, Oxford, and the Leander Clubs, who attended to do honour to the promising young surgeon and brilliant oarsman.

At a meeting of Etherington Smith's colleagues and friends, held early in May, it was decided to open a subscription list inviting funds for the erection of a suitable

memorial to him at St. Bartholomew's Hospital. We hear that a sum exceeding £1700, made up of collections at St. Bartholomew's, by the Leander Club, and among the Cambridge Boat Clubs, has been received, and it has been decided to refit the old operating theatre and to build over it a small ward, which shall be known as the "Etherington Smith Ward," the theatre also in future to be known by his name. The work of carrying out these alterations is well in progress.

We append herewith plans of the new buildings in question. The first of these is of the new operating theatre, occupying the same site as the old one, but smaller in size, as portions of the space—including the wasted space below the old gallery—are taken up with a nurses' cloak-room,

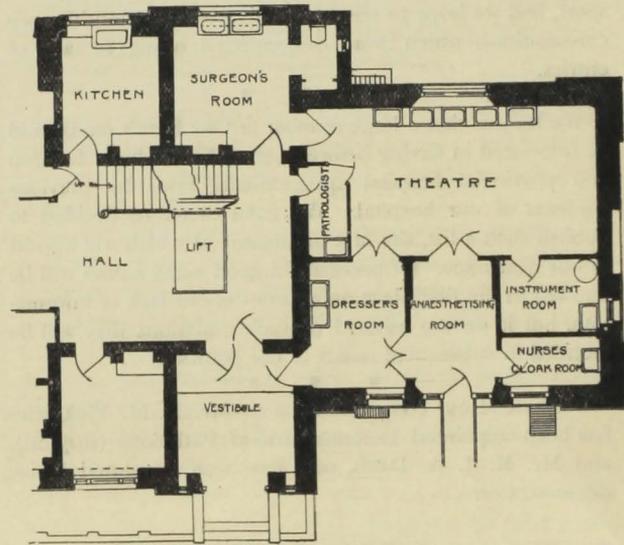


FIG. 1.—GROUND PLAN.

dressers' room, instrument room and anaesthetising room, besides which there is a new surgeons' room and a kitchen.

The new gallery (Fig. 2) is over the top of these rooms, and is approached from the staircase, which has also been renewed.

The ward (Fig. 3) is above the gallery and the rooms accessory to the theatre, but it is not above the theatre itself, which is lighted by direct daylight from a glass skylight overhead.

The cost of the new memorial wing is estimated at about £1500, which should leave a balance of £200 out of the money already subscribed. It is hoped that this will be increased by at least another £300, so that we may have £500 towards the endowment of the new ward.

During the past year there have been numerous changes in the *personnel* of the Hospital Staff. Mr. Bruce Clarke retired at Christmas from the office of Surgeon to the Hospital after nineteen years' service as Assistant Surgeon

and ten as full Surgeon. He has been elected a Consulting Surgeon and a Governor of the Hospital. He has been succeeded as Surgeon by Mr. Cozens Bailey, and the vacancy as Assistant Surgeon created by Mr. Bailey's promotion has been filled by the election of Mr. Harold Wilson as Assistant Surgeon. Mr. Girling Ball, also, has been elected an Assistant Surgeon to fill the vacancy caused by the death of Mr. R. B. Etherington Smith. On the Medical side Dr. Samuel West has retired from the position of Senior Physician after sixteen years' service as Assistant Physician and ten years as full Physician. Dr. Ormerod, also, has retired from the position of Physician to the Hospital after having served eleven years as Assistant Physician and nine as full Physician. They have been elected Consulting Physicians and Governors to the Hospital, and the vacancies created by their retirement have been filled by the election of Dr. Calvert and Dr. Morley Fletcher to the position of

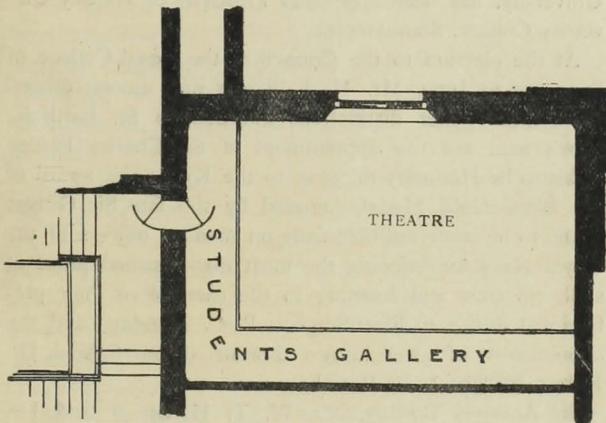


FIG. 2.

Physician to the Hospital. Sir Francis Champneys, Bart., retired in March from the post of Physician Accoucheur and Lecturer on Midwifery and Diseases of Women after twenty-two years' service, and has been elected Consulting Physician Accoucheur and a Governor of the Hospital. Dr. W. S. A. Griffith has been appointed Physician Accoucheur, and Dr. Williamson has been appointed Physician Accoucheur with charge of Out-patients, Dr. J. D. Barris being appointed Assistant Physician Accoucheur. The vacancies arising from the promotion of Dr. Calvert and Dr. Morley Fletcher have been filled by the election to the posts of Assistant Physician of Dr. Langdon Brown and Dr. Hugh Thursfield.

The re-arrangement of some of the special departments, which the Governors decided upon last year, has been carried into effect by the appointment of Mr. R. C. Elmslie as Surgeon in Charge of the Orthopædic Department, of Dr. Hugh Walsham as Medical Officer in Charge of the X-ray Department, and Dr. E. P. Cumberbatch as Medical Officer in Charge of the Electrical Department.

Mr. H. Blakeway and Mr. J. E. H. Roberts have been

appointed Surgical Registrars in place of Mr. Wilson and Mr. Ball; and Dr. C. M. Hinds Howell and Dr. A. E. Gow have been elected Medical Registrars and Demonstrators of Morbid Anatomy in place of Dr. Langdon Brown and Dr. Thursfield. In the Department for Diseases of Children, Dr. Thursfield has been associated with Dr. Morley Fletcher as one of the Physicians in Charge, and Dr. P. Hamill has been elected Casualty Physician.

In the Medical School several changes in the teaching staff have occurred. Dr. Calvert has resigned the Lectureship on Pharmacology and Therapeutics, and early in the year the School decided to make important changes in this department. One of the rooms on the top floor of the Pathological Block has been specially fitted up as a

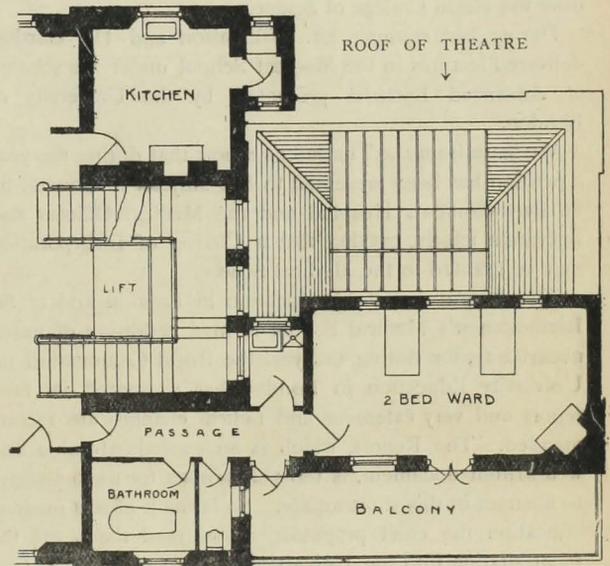


FIG. 3.—FIRST FLOOR PLAN.

laboratory for pharmacological research, and has been placed in charge of a specialist in this subject, Dr. P. Hamill, who also has been appointed to the Lectureship. Dr. Hartley and Dr. Horder have retired from the Demonstratorship of Practical Medicine, and Dr. Langdon Brown and Dr. Thursfield have been appointed. Vacancies arising in the Department of Practical Surgery through the resignation of Mr. Gask and the death of Mr. Etherington Smith have been filled by the election of Mr. Harold Wilson and Mr. Girling Ball. On the promotion of Dr. J. D. Barris to the post of Assistant Physician Accoucheur, Mr. M. Donaldson has been elected Demonstrator of Practical Midwifery. Dr. A. E. Stansfeld has succeeded Dr. Gow as Demonstrator of Pathology (Medical), and Mr. A. W. Stott and Mr. K. J. A. Davis have been elected Junior Demonstrators of Pathology. In the Anatomical Department Mr. E. G. Stanley becomes the senior of the Demonstrators, Mr. Foster Moore having retired and Mr. Blakeway having been promoted to the

Surgical Registrarship. The vacancies thus arising have been filled by the election of Mr. C. D. O'Grange and Mr. A. L. Moreton.

In the Department of Physiology, Mr. J. W. Trevan and Dr. T. S. Lukis have succeeded Dr. C. M. Hinds Howell and Dr. E. P. Cumberbatch. Mr. R. R. Armstrong, who for two years has done good work as Lawrence Research Scholar, has been appointed Junior Curator of the Museum.

The Department of Chemistry has sustained a loss through the death in October last of Mr. W. O. Wootton, who was a good and popular teacher and a very promising young chemist. He came to St. Bartholomew's with high recommendations from the Royal College of Science. He has been succeeded by Mr. E. Cahen, who also comes to us from the Royal College of Science.

During last summer Dr. Williamson and Dr. Gordon delivered lectures in the Medical School under the scheme of Advanced Lectures promoted by the University of London.

We learn from the Treasurer's report that during the year a petition has been presented to His Majesty in Council by St. Bartholomew's Hospital and the Medical Officers and Lecturers jointly, praying that a Charter of Incorporation may be granted to the Medical School.

The future of medical education in London and of St. Bartholomew's Medical School is in a condition of much uncertainty, for during the year the Royal Commission on University Education in London has presented its final report and very extensive and radical changes are recommended. The Report, which is an exceedingly able and well-written document, is too voluminous for us to attempt to abstract in this short article. So far as it effects medical education the chief proposals, as we read them, are the incorporation into the University of London of a few (not more than three) of the existing hospital medical schools, and the appointment in connection with them of a number of university professors in medicine, surgery and midwifery, who, it is proposed, shall devote most of their time to professorial duties and receive adequate salaries from the University. As well as this change it is proposed that an extensive reorganisation of the methods of clinical teaching, arranged on the German plan, shall take place. We understand that this report is engaging the very serious and careful attention of the authorities of the Medical School. We are sure, however, that they will do nothing which will have the effect of destroying or of curtailing the *practical* character of medical education, so distinctive of the English system.

In February last an interesting innovation was started at Bart.'s, when there was held the first of a series of operation "At Homes." It had been felt for some long time that prominent surgeons in London practically never see the work of their colleagues in other hospitals, and the suggestion was made that the surgical staff of each of the hospitals should in turns invite their colleagues from other hospitals

to a reception and to witness operations. This has been arranged, and Bart.'s, in order of seniority as the oldest hospital in London, held a very successful reception on February 3rd. Among the visitors on that occasion were Sir Rickman Godlee, Bart., President of the Royal College of Surgeons, Sir Alfred Pearce Gould, Sir Watson Cheyne, Mr. Corner, Mr. Clayton-Greene, Mr. Arbuthnot Lane, Mr. Makins, and many others, representative of all the great hospitals in London.

At the University of London, Dr. Herringham has been re-elected Vice-Chancellor for a second year of office, and the dignity of University Professor in Pathology has been conferred upon our popular Lecturer, Dr. F. W. Andrewes. In another University, a former St. Bart.'s man, Mr. Gilbert Barling, has become Vice-Chancellor of the University of Birmingham. Dr. Alexander Hill, late Master of Downing College, Cambridge, and formerly Vice-Chancellor of that University, has been appointed Principal of Hartley University College, Southampton.

At the election to the Council of the Royal College of Surgeons in June, Mr. H. J. Waring was, among others, successful. Other distinctions awarded to St. Bartholomew's men are the appointment of Sir Charles Pardey Lukis to be Honorary Surgeon to the King; the award of the Blane Gold Medal, founded by the late Sir Gilbert Blane to be conferred biennially on medical officers of the Royal Navy for evincing the most distinguished proof of skill, diligence and learning in the exercise of their professional duties, to Fleet-Surgeon R. C. Munday; and the appointment of a well known alumnus of our School, Dr. Robert Bridges, to be Poet Laureate.

Sir Anthony Bowlby, Mr. W. T. H. Spicer and Dr. W. S. A. Griffith have been appointed members of the Honorary Consulting Staff to the Queen Alexandra's Hospital. Sir Anthony Bowlby also has been elected a member of the Army Medical Advisory Board and of the Advisory Board under the Vivisection Act. Surgeon G. N. Levick, R.N., who was a member of Captain Scott's Antarctic Expedition, has been recommended for special promotion to the rank of Fleet-Surgeon.

Several Bart.'s men have taken part in Red Cross or Red Crescent Missions to the War in the Balkans. Mr. E. N. Russell was in charge of a Field Hospital of the Ottoman Red Crescent Society, and was accompanied by Mr. S. M. Hattersley with Mr. G. S. Stathers as dressers. They were stationed at Scutari. Mr. D'Arcy Power, jun., and Mr. E. L. Dobson were members of the British Red Cross Hospital in Montenegro. Mr. H. G. Baynes was in command of the British Red Crescent Hospital at Constantinople with Mr. R. M. Mellor as a dresser. Mr. B. Haigh was with a Red Crescent Field Hospital in the Tripoli Hinterland and at Salonica; Dr. E. Marshall was with a Red Cross Hospital accompanying the Bulgarians; J. Shah and A. E. Jenkins were dressers at Sofia with a Red Crescent

Hospital, and Sister Matthew did work with the Red Cross Society in Athens.

The staff of St. Bartholomew's took a large part in the work of the International Medical Congress held in London in August last. The duties of Secretary-General were carried out with great skill and success by Dr. Herringham; and in addition our staff took part in the proceedings of every one of the sections. Dr. Norman Moore was President of the Section of History of Medicine, and delivered an able address on the "History of Medicine in England." On Friday, August 8th, fifty of the most distinguished foreign members of the Congress were entertained to luncheon in the Great Hall of the Hospital, and afterwards there was held a Garden Party in the Square, at which about 500 attended. Demonstrations of interesting cases were given, and specimens were shown in the Museum, as well as interesting antiquities in the Library.

Mr. Girling Ball and Mr. H. Blakeway have been appointed Surgeons to the City of London Truss Society, and we congratulate Dr. E. A. Cockayne, late Casualty Physician, on his appointment as Medical Registrar, and subsequently as Assistant Physician to the Middlesex Hospital.

Among the distinctions gained by our Students during the year we have to record the following: Dr. F. A. Roper has been awarded the Raymond Horton Smith Prize for his thesis for the degree of M.D. of the University of Cambridge; Mr. R. L. Mackenzie Wallis has been awarded the Gilson Research Scholarship in Pathology of the Society of Apothecaries; Mr. J. W. Trevan has been re-elected to the Medical Research Exhibition of the Fishmongers' Company; Lieut. E. B. Allnutt has won the De Chaumont Prize in Hygiene at the R.A.M. College; Mr. H. L. Ellison was distinguished in Physiology in the second examination for the M.B.(London); Mr. A. L. Moreton gained distinction in Surgery and Midwifery, and was awarded the University medal at the Final examination for the degrees of M.B., B.S.(London).

At various examinations during the year students have maintained the high reputation of the classes. During the year thirteen students passed the Primary examination for the Fellowship of the Royal College of Surgeons, and twenty-five, who have received their education wholly or in part at St. Bartholomew's, have passed the Final. At the University of Oxford, two have taken the degree of M.D. and three the degrees of M.B., B.Ch.; at the University of Cambridge, nine have taken the M.D., and twenty-one have passed the final examination for the degrees of M.B., B.C.; in the University of London, six have taken the M.D. degree, one has taken the M.S., and twelve have passed the final examination for the M.B., B.Sc.; at the Royal College of Physicians, three have taken the M.R.C.P., whilst no fewer than fifty-one have completed their examinations for the diplomas of L.R.C.P. and M.R.C.S.;

eighteen have passed the first examination for medical degrees of the University of London, and fifteen have passed the second examination for medical degrees, Part I, and sixteen have passed the second examination, Part II.

The various Scholarships and Prizes of the Medical School have been well contested. The Luther Holden Research Scholarship has been held by Mr. M. Donaldson, who has been investigating the Pathology of Shock. Mr. K. J. A. Davis has been elected to succeed him. Mr. R. R. Armstrong has completed the second year of his work as Lawrence Research Scholar, his subject being the Pathology and Causation of Pneumonia, and he has been succeeded by Mr. T. H. G. Shore.

The following are the winners of the Scholarships and Prizes during the year 1912-13:

- Lawrence Scholarship.*—T. H. G. Shore.
Luther Holden Scholarship.—K. J. A. Davis.
Brackenbury Medical Scholarship.—F. G. A. Smyth.
Brackenbury Surgical Scholarship.—G. L. Keynes.
Matthews Duncan Prize.—G. D. East.
Senior Scholarship in Anatomy, Physiology and Chemistry.—E. B. Barnes.
Senior Entrance Scholarships in Science.—C. W. B. Littlejohn, C. R. A. Thacker.
Junior Entrance Scholarship in Science.—P. N. Cook.
Entrance Scholarship in Arts.—G. Bourne.
Jeaffreson Exhibition.—C. M. Titterton.
Shuter Scholarship.—E. P. Hicks.
Kirks Scholarship and Gold Medal.—F. G. A. Smyth.
Willett Medal.—G. L. Keynes.
Walsham Prize.—M. N. Perrin.
Bentley Prize.—D. H. D. Wooderson.
Hichens Prize.—Not awarded.
Wix Prize.—G. L. Keynes.
Harvey Prize.—H. M. C. Macaulay, P. H. Wells (*prox. acc.*).
Sir George Burrows Prize.—F. G. A. Smyth.
Skykker Prize.—F. G. A. Smyth.
Practical Anatomy, Junior—Treasurer's Prize.—(1) A. Morford; (2) L. W. Evans, R. C. Davenport, C. M. Titterton (*æq.*).
Practical Anatomy, Senior—Foster Prize.—(1) E. B. Barnes; (2) S. W. Isaacs, W. R. White-Cooper, P. H. Wells, A. R. Dingley (*æq.*).
Junior Scholarships in Anatomy and Physiology.—(1) A. Morford; (2) C. M. Titterton.
Junior Scholarship in Chemistry and Histology.—L. J. F. Bull.

A Case of Death from Diabetic Coma after Appendicectomy under Local Anæsthesia.

By E. W. G. MASTERMAN, M.D., F.R.C.S.,
 Jerusalem.

THE following case seems to me worth recording from its interest, both medical and surgical. G. M—, a schoolmistress of European parents, *æt.* 26, came under my care in 1908 with severe diabetes. I cannot find my first notes, but I know she had marked polyuria, and that the percentage of sugar

was high. The usual symptoms of "weakness" and loss of flesh were complained of. Treatment by dieting was soon followed by a complete disappearance of sugar, a condition which was maintained as long as a fairly strict diet (special bread, etc.) was followed. During my absence in England in 1909 the patient's friends heard of a "Quick and Perfect Cure of Diabetes" (as the advertisement now before me runs) by "The Anti-diabetical Tea of Physician C. Damman of Brussels," and tried it with such apparent success that on my return I found my patient indulging in ordinary diet, including considerable quantities of sugar, *without any sugar appearing in the urine*. The patient's brother, an intelligent schoolmaster, had learnt from my dispenser how to test for sugar, and during this time and during the rest of her life frequently made tests—about once a month. I was naturally rather sceptical both about the remedy and the absence of sugar, but confirmed the latter fact several times. I failed to find a trace even after prolonged boiling with Fehling's solution. This condition of improvement continued after the Brussels remedy was stopped, and the lady was able to perform all her rather exacting duties in health and enjoyment, and full, too, of hope, after the previous gloomy prospect. She was well nourished, without being as stout as before, and had the appearance of health and vigour. In the autumn of 1912, while singing in an amateur concert, she got a very slight return of sugar; indeed, so far as I gathered after her death this had happened on a few other previous occasions of nervous strain, but it passed off almost at once. During 1912 the patient had a slight and somewhat indefinite attack of appendicitis, and in the last week in February, 1913, I was called again to see her with another attack of moderate severity, with definite local signs. Knowing her history I even then did not press the question of operation, but told the friends that as this was the second attack I should, under other circumstances, have recommended operation, and that should a further attack occur there might be no choice but to operate; further, as there had been some talk of her going to England in the spring, I said that if she did not have the operation it would be better for her to abandon the long cross-Europe trip and stay quietly at home. The next day, after talking it over, she and her friends said they had agreed on the operation. I may say the urine had been examined shortly before this and found to be free of sugar.

The patient was admitted to a private ward in my hospital on February 28th. Temperature 99.2°F .; pulse 92. On examining the urine I found a considerable quantity of sugar, but no definite diacetic acid reaction with *ferri perch. sol.* Patient was in a nervous condition, but not more so than many would be in anticipation of an operation.

On March 1st, at 6 a.m., patient was given a hypodermic injection of morphia and scopolamine, and about 8 a.m.

I operated upon her, using as a local anæsthetic novocaine. The operation was a simple one, and the appendix, an unusually long one, was found ballooned at the end by some pent-up gas. There was no inflammatory exudation, and no adhesions were present. Patient was quiet for some hours after the operation, but soon complained of thirst, and in the afternoon severe vomiting set in. The pulse ran up to 140; thirst was partially relieved by frequent rectal injections of solution of citrate of soda. For some hours continuous irrigation of the rectum was tried, and the fluid was absorbed with great rapidity: from midnight to 6 a.m. four and a half pints were administered thus. Patient vomited only once, and had some good sleep.

On March 2nd, during the forenoon the pulse became rapid (150), respirations 26, and the restlessness increased. There was a good deal of vomiting until 11.30 a.m., when I washed out the stomach, after which it ceased and the patient was able to take a surprising amount of nourishment. "Air-hunger" became marked towards evening. From 8 a.m. to 8 p.m. patient passed six pints of urine (sugar 16.40 gr. to the ounce; diacetic acid reaction well marked).

Symptoms of restlessness increased during the succeeding night. After hypodermics of morphia and strychnine patient got spells of sleep. Breathlessness marked; wandering at intervals, but conscious when spoken to. Three pints of urine were drawn off with a catheter.

On March 3rd, at 9.30 a.m., temperature 104°F . Patient gradually sank into deep coma. Temperature at 1.15 p.m., 105°F . Died at 3.35 p.m.

As a perfectly typical case of diabetic coma it is not worth while reproducing my notes at any length, but a tragedy of this nature is a sad commentary on what a "cure" of diabetes really amounts to. Fortunately I went into the case with my eyes open, and the friends were fully warned of the risk. I had hoped that by using only local anæsthesia, and especially avoiding all chloroform, in such a short and simple operation—one which sooner or later would probably have had to be done—the risk might be avoided, but it proved otherwise.

The Professor's Experiments.

By PAUL BO'LD.

[From the memoirs of his assistant and secretary, Gertrude Delaney, D.Sc.]

No. I.—THE RETARDATORY FORCES.

NOW Jerome Mudgewood became *Professor* Mudgewood I have never discovered. He was certainly no self-styled professor, for a more retiring and less self-conscious man I have never met. Long ago his independent fortune had enabled him to renounce teaching and the boons of public laboratories in favour of a modest

house in Hampstead, with a magnificent suite of private laboratories. The residents called him "Professor," perhaps because he looked like a professor, with his large head balanced on a little body and tiny legs that seemed to flicker like a cinematograph when he hurried along, as was his wont. He certainly *looked* very wise, and he *was* very wise—even wiser than he looked, which is as it should be in these days when "*esse quam videre*" is at a discount, even among scientists. He possessed a round little face, round little eyes, a round little mouth, and big round spectacles. His hair receded well from his great forehead, and was curly, long, and grey. His face was clean shaven. Why he, whose habits and manners were so eccentric, should have troubled to shave it is quite impossible for me to say, but all men's natures possess some contradictory phases, and I suppose that that is the explanation, though in truth it is no explanation at all when I come to think of it. But he was *most* particular about shaving.

It is eight years now since I, Gertrude Delaney, D.Sc., first met the Professor, it is two years since I last saw him. He did not exactly die, he went—simply went. Where—nobody knows. I saw him go, but—well, that has nothing to do with this matter I am writing about now. I am concerned at the moment with the first big discovery which took place while I was with him.

My own education has not been neglected or I should not be a Doctor of Science of London University. I have a smattering of most sciences, and have learnt sufficient of these to know how very little I really know, which is something learned at any rate. Fortunately my father was a sensible man, and he did not encourage me to go to dances, or to flirt, or Dress (with a capital "D"), or do as the modern empty-headed fools, called girls, generally do. However, on his death, at the age of twenty-three, I was well qualified in scientific subjects to prosecute research, but without any means of doing so, unless I took up teaching; and I did not care to do this, for I very much disapprove of the modern method of cramming women with things they don't understand, and then setting them to teach others the fallacies their own brains conjure out of the muddle. Women should be taught like men, and with men. It is not a question of sex, which question is, to my mind, too much to the fore—but that is a matter for a separate treatise, which I hope to write some day.

I was about at the end of my resources when I saw in the *Daily Adler* an advertisement as follows:

"Dr. Mudgewood requires amanuensis. Must have some scientific training; good salary to right person. Call at No. 3 door (chemical laboratory), Aldehyde House, Hampstead."

I knew Dr. Mudgewood by repute as a man whose knowledge on almost all scientific subjects was profound, and I at once made up my mind to interview him. This might be the first step to higher things.

It occurred to me that my qualifications might induce him to take an assistant, instead of a mere creature with a beautiful name—an amanuensis, forsooth! The term would be admirable if applied as a name to an Egyptian goddess, but as applied to an ordinary unthinking and almost unthinkable girl, it always seems to me the height of satire.

I went to "Door No. 3 (Chemical Laboratory)."

At first the old housekeeper would not admit me. She said that the Professor had already interviewed three hundred girls, and had received seven thousand letters, and that he would not see anyone else. However, when I mentioned that I was a "D.Sc.," she retired to consult her master. She knew that the great man himself received correspondence bearing those letters after his name, and though she did not know their meaning, she evidently stood in awe of them.

Almost immediately I was shown into the laboratory, a large, airy room, equipped in a most up-to-date fashion. At the far end of the apartment a bright fire was burning in an open grate, and in front of this the little man stood, his legs well apart, as if in fear lest the weight of his head should overbalance him. As I entered he removed his round spectacles, blew upon them vigorously, and wiped them with a scarlet silk handkerchief, which would have made a very useful table-cloth. He did not speak for some moments, but stared at me hard without using his spectacles; then, replacing these on his fat little nose, he stared at me hard through them. I began to feel very nervous, and ventured a mild "How do you do, Professor?"

"Very well, very well," he replied dreamily. Then, after a pause, he repeated, "*Very* well." Again there was a painful silence. We did not seem to be getting on very fast.

At last he appeared to wake up. "I don't seem to remember you," he began.

"I don't suppose you do," I replied. "I have called about your advertisement. I wish to apply for the position if it be suitable."

He smiled broadly. "That's better," he cried.

I was puzzled. "What's better?"

"You said 'if it *be*'! You used the subjunctive. All the others who had occasion to use the subjunctive deliberately used the indicative. Now let me test your capacities. Have you ever passed any examinations?"

"I am a Doctor of Science of London University," I replied.

He did not seem pleased by this. If I had told him I was a three-legged ostrich he would have made the same remark.

"Dear me," said he. "Very odd, very odd."

Then he looked up at the ceiling, and, after a long pause, again repeated with much emphasis, "*Very odd!*"

I got used to his little ways later. But at that time they were very disconcerting to me.

He looked at me again: "Is your brain well ordered? Can you bring out definite facts at short notice?"

"I think so," I replied.

"Well, then, tell me a word of ten syllables."

This was indeed a curious examination. But, after considering for about half a minute, I replied, "Pentadekylparatolyketone."

"Very good—very good—*very* good; you are, I fear, too good for an amanuensis. The others were not good enough."

Then I ventured a suggestion. "I don't think you require an amanuensis."

"No?" he asked in surprise. "Ah—perhaps a *secretary* would be more suitable, but I really thought—"

"You don't want a secretary," I interrupted boldly, "What you require is an *assistant* who can do secretarial work."

He took off his spectacles and blew upon them vigorously once more. "I think not," said he. "I think not—I *really* do not think so—and yet, you *might* be useful in that capacity. Yes—now about salary. I have never had an assistant. I should want you to live here. I suppose I must pay you for the inconvenience." Then he put his big head on one side like a puzzled robin, and asked doubtfully, "Would five hundred pounds a year, paid quarterly, suit you?"

I was overwhelmed for the moment, but I controlled myself, and replied, "Yes, thank you, Professor. When shall I commence?"

"When you like," said he. "What is your name?" he continued.

"Gertrude Delaney," I answered.

"I shall call you Delaney. If I have a woman assistant I must treat her just as I would a man. I can't have innovations, you know. Well, Delaney, please come to-morrow morning and make a start."

So I was engaged as Professor Mudgewood's assistant.

I had been with the Professor about two years, and though in a large number of researches I had been of considerable assistance to him, there were generally one or two going on in which I had no part, and which never seemed to come to anything. I regarded these as chimerical.

One day, however, when I was in the library upstairs looking up some notes on the camphors, the little man burst into the room, his eyes blazing with excitement, his whole body quivering from the same cause.

"I've got it," he shouted, although I was only two yards away. "I've got them both—extraordinary—most extraordinary—*very* extraordinary!" Then he paused for breath.

"What have you found, Professor?" I asked in surprise.

"The Retardatory Forces—both α and β ," he shouted.

"The Retardatory Forces?" I exclaimed. "What are they?"

He looked at me with some scorn, as though marvelling at my ignorance, which ignorance was not, however, surprising, since he had never spoken to me on the subject before, nor had he allowed me to examine his apparatus.

"The Retardatory Force α slows down extra-atomic movements and vibrations, while the Retardatory Force β retards the intra-atomic vibrations. Do you know what that means? Do you realise the enormity of the discovery?"

I shook my head. The matter seemed to me a purely mathematical one.

"Come and see, then, come and see," he shouted, and, borne on his little twinkling cinematograph legs, he disappeared from the room, while I followed him to the laboratories more leisurely.

I found him standing before his latest piece of apparatus. Innumerable coils and springs and vibrating parts were in one box, and connected by two terminals to the two ends of a second box. The latter was about four feet square, and was made of polished wood. There was a glass front to it, and through the two ends protruded two square platinum plates, each about fourteen inches across. The Professor started a little motor, and immediately a clicking and whirring commenced in what the Professor called his "power-box." I looked curiously over his shoulder through the glass front of the other box. But there was no sign of electric discharge, nor, indeed, anything to be seen.

"I have turned on the α force," said the Professor. "Now watch."

He went across the room and brought a struggling rabbit from a hamper. Momentarily he turned off the force, and, lifting the glass window, he placed the animal between the two platinum discs, where it crouched, cowed and still. Then he lowered the glass again, and, watch in hand, turned on the force. After about a minute he again stopped the motor, and took the rabbit out.

The little animal seemed no different. But the Professor said, "Feel its pulse."

I placed my hand near its heart. It was several seconds before I felt a beat, and that seemed very slow in passing. I counted the beats—there was one in every fifty seconds.

"Extraordinary," I murmured, looking up at the Professor.

"Yes," said he, as he blew upon his glasses—and there was a note of triumph in his voice—"extraordinary, extraordinary—very extraordinary." He scratched his head with the edge of his glasses and looked thoughtfully at the rabbit, whose movements were slow and deliberate in the extreme. I placed it on the floor, and it ran across the room. I say "ran," for it went through all the movements of running, but it took at least thirty seconds to raise a foot from the floor and put it down again. In three minutes it

had traversed about a yard. It seemed healthy and strong, but it was slow—marvellously slow.

The Professor took me across the room and showed me another rabbit, which he had "treated" half an hour previously. It was eating lettuce; but I hardly know whether to call it eating. One complete movement of the jaw took forty-five seconds. The movement of a cow's jaw chewing the cud would seem incredibly swift and voracious in comparison.

"Do you understand what this means?" cried the Professor. "It means that I can retard life, growth, time, chemical action—everything extra-atomic."

I whistled to myself. Some old maids would have thought it unwomanly to do such a thing; the Professor—whom I always classed among the old maids—smiled triumphantly.

"What are you going to do about it?" I asked.

"Do?" he exclaimed. "Do? *Do!* I will do everything! First of all, I shall be able to prosecute my other researches indefinitely—indeinitely; think of it—indeinitely! And so shall you—so shall you."

Generally I should have felt very irritated at his mode of speech—the way in which he echoed his own words always did irritate me—but now I was bewildered, and looked upon the Professor in a new light. He seemed to be "Brain" personified. I therefore stood meekly by and said nothing. He, for his part, said not another word, but, turning abruptly, left the laboratory, while the rabbit continued its slow progress across the floor. I watched it. It walked round the room, and nibbled at some green-stuff which the other rabbit had not eaten. Nibbled! Good heavens! Its jaws worked ponderously, slowly—one could hardly see the movement! But as I watched, the effect seemed to wear off; it was soon obvious that the force only gave temporary retardation.

For two or three months the Professor said no more about the subject; he was busy building a new room adjoining the laboratory.

One day, soon after this had been completed, he asked me to enter this room with him.

"I have fitted this chamber with two large poles for conducting the α force, and I intend to shut myself in for a week. Will you come?"

I am not generally a coward, but I suggested that I would rather wait. That if the Professor was unharmed at the end of a week, I would accompany him on the next occasion. I spoke very politely.

He nodded. "As you will. But there is no danger. I have a controlling key in the room, and shall only give myself small doses of the force. Enough to keep me down to, say, one-seventh of my usual rate of living. Not as much as I gave to the rabbits."

So the Professor disappeared into the room, and a week passed. He did not come out again, and I grew nervous.

Generally speaking, he was so very punctual. I gave him a few extra hours, and then forced my way in. It was not difficult to do this, as the lock was very flimsy.

There sat the Professor. Eating! He was munching bread and butter very slowly, but not so slowly as I had seen the rabbits.

He looked up as I entered; his head moved up as though he were a mechanical toy and the works had run down.

He opened his mouth and commenced to speak, but I heard nothing except a low rattle, deep and vibratory. And the grotesqueness of that slowly moving mouth was too much for me—I roared with laughter. I kept on laughing; I could not help it.

A methodical, angry expression spread over the Professor's face, beginning with the eyes, and gradually coming downwards. It was like watching an eclipse of the moon.

I think the Professor must have understood the situation, and that he realised how slowly his vocal cords were vibrating, so that only a rumble could be heard, for the eclipse passed, and the moon shone once more.

In an hour's time the Professor's movements had become almost normal, and his voice, though deep and slow, was clear.

"I am late," said he; "but that is because the force took so long to wear off."

"Is not the bread stale?" I asked inaptly.

"No. The bacteria, and other flora and fauna, had had their growth retarded like my own. I have only lived about twelve hours. You see, I used double the force that I had at first intended to use. Even the chemical action of the fire was retarded. One scuttleful of coal has lasted the whole week!"

It was true. In my excitement I could hardly breathe. The possibilities were enormous.

At last I found my voice. "We can make a fortune!" I cried. "We can use the force as a food preservative! No more refrigerators. But fresh meat, fresh milk, eggs, butter—everything! All the decaying principles will be held back by a heavy dose of the force!"

The Professor did not seem to welcome the idea. "I have a better use for it," he said. "I shall come and live here for a year—ten years, perhaps—at the rate of a day—or less. Thus I shall be able to await scientific developments in the outside world, and so extend my life that I can continue to work, and watch the advance of science for hundreds of years! I will try to live at the rate of a day for a hundred years. Think what it will mean! I shall merely bring some food and a book into this room. I shall light the fire, and stay here apparently a day. I shall go forth fresh to find that a century has passed. I shall read up the great discoveries which have been made during that period, and shall be able to follow up science with new knowledge added to my own. Oh, marvellous, wonderful—*very* wonderful!"

He had become very excited, and now mopped his perspiring brow with the inevitable red silk handkerchief.

"The elixir of life," I murmured.

But the Professor's gorgeous dreams were never to be realised.

Shortly after this I myself undertook to remain with him in his room for a week; we were to live at a slower rate than he had done. The Professor thought that we might try the effect of living at the rate of about three hours to the week.

We entered the room, which was unlighted by windows, as the Professor considered that the rapid passing of night into day would become tedious. The sun would rise every quarter of an hour, and we should constantly have to light the lamp and put it out again. Foreseeing this, he had lighted the room by means of artificial illumination alone.

The Professor switched on the force, but I felt no change at all. At first I thought that something had gone wrong, for the Professor's movements seemed quite normal, and also his voice. When I spoke my thoughts to him, however, he shook his head.

"No—your own self being tuned down equally with mine, you feel nothing and see no difference," said he. Then continued, "The only thing I cannot explain is that your sense of hearing should have been changed, for sound waves are physical, not chemical. I presume, however, that though you really *hear* different sounds, the brain, with its own change, is translating these vibrations proportionately. However, that is another matter to be worked out later. Look at your watch," he added, "and you will see how the time passes; it is probably time for you to wind it up."

I looked, but my watch had stopped already!

The Professor, however, showed me his own after he had wound it up. The hands were moving round with extraordinary rapidity.

"How long have we been here?" I asked in amazement.

He considered for a moment "I *think* about thirty-six hours, but it may be only twenty-four. I have no means of telling whether my watch has gone round twice or thrice."

Then he put some coal on the fire.

"I will go out into the house and find out," I said.

"No—you must not," was the emphatic reply. "The housekeeper would think you mad. You would take about four hours to reach the dining-room and get back here. Long before that the woman would have fetched a doctor to you."

I laughed. Then I wondered how the housekeeper would appear to me. I realised that the plump old lady would seem to fly upstairs at incredible speed, that she would seem to eat her dinner in a few seconds. Voracious! I laughed again.

But the Professor's voice brought me back from my dreams.

"I told you that I had discovered *two* Retardatory Forces, α and β . The second force, β , is intra-atomic. I have been working at it quietly, but it is a difficult force to deal with. I wish you to work with me in future."

I was overjoyed at his words; they showed that he was beginning to place real confidence in me.

"Very well," I replied. "Will you tell me something about it?"

He paused, and, as usual, wiped his spectacles quite unnecessarily.

"It is a bigger thing than the α force. With it I can disintegrate matter. When an intra-atomic vibration is halved, the atomic weight is halved. Therefore, I can transmute metals by keeping the force in action. I increase the volume of the substance until I obtain hydrogen; after that I obtain new and lighter substances, and finally I reach the ultimate element of all—the omnipresent ether of space!"

"When did you do this?" I exclaimed in wonder.

"I have not done it yet. I know that I can. I have reduced heavy metals to light ones. I tried to make gold from lead, but all the parts were not simultaneously retarded. Some parts went just beyond gold, and some did not go far enough. No doubt some gold was present, but I got a mixture of many very similar elements, answering to most of the tests for gold, but giving other reactions also. That is the great difficulty; the action does not take place homogeneously throughout a substance. I turned iron into hydrogen, but not real hydrogen; it was a mixture of gases allied to hydrogen—hundreds of them, I should think; and yet there was a little iron left, and a little of all the intermediate stages. Is my difficulty clear?"

I nodded, and then considered the matter silently.

The Professor continued: "Both these forces are produced by the same machine; it is only a matter of adjustment. Sometimes I can't quite understand what the difference is. You have heard the two notes which the machine sounds when working? Well, the higher of the two—the very shrill one—is produced when the β force is being produced."

The time passed rapidly, and just as we were preparing to emerge a new thought struck me. I have always been subject to humorous ideas. Our housekeeper was discreet, and not inquisitive, but this shutting of ourselves up for a week rather startled her, I could see, though she made few remarks, being used to the Professor's vagaries.

"Wouldn't it be fine to shut her in this room for an hour with the force!" I exclaimed, "or a day! She would just dust the room, and come out in the middle of the night, having entered in the middle of the day."

The Professor chuckled. "Dear me, dear me, how ludicrous—how *very* ludicrous!" he exclaimed.

We opened the door of the room and entered the laboratory. Through the window I caught sight of figures

rushing to and fro. A bicycle went past at what appeared to be a rate of about two hundred miles an hour. And the few sounds that I did hear were high and squeaky. I understood at once that the force had not worked off yet, so with my master I sat down and waited before entering the house.

After this we were at work upon the β force for several weeks, transmuting metals, but never getting any pure elements as results. Organic matter, being for the most part composed of atoms of low atomic weights, we left alone, for we could get nothing but light gases as the result, and we preferred to work upon solids at present.

One thing that hindered our work was the fact that the machine was constantly re-adjusting itself and producing the α force, after the Professor had set it going with the β force, and this, of course, had no effect in transmuting matter; and, search as we would, we could not find out the cause of this automatic re-adjustment.

After three or four weeks I again thought of the joke which we intended to play upon the old housekeeper, and, on mentioning it to the Professor, he, chuckling to himself, asked her to dust the room. Then he quietly locked the door on the outside and pocketed the key. He left the room for a few minutes, instructing me to attend to the laboratory while he was away.

The whirr of the machine sounded pleasantly in my ears, as I thought of the woman's amazement when she re-appeared. What a funny—

“Whirr-r-r!”

The note was different and shrill. For the first time the noise of the machine had changed from the lower to the high, piercing note. The force β was at work!

Since I had broken in upon the Professor in the first instance a stronger lock had been placed upon the door. The machine itself I could not stop, for the contact key was locked in a little iron-bound box. The Professor would never allow *that* out of his own control.

I rushed to the door and called him. At last he arrived, leisurely and somewhat irritable. But as soon as he heard the high note he ran to the door of the small room, and, unlocking it, flung it open. We stood and stared. The room was empty! The housekeeper, the table, the chairs, the carpet, all organic matter was gone—absolutely gone! The fireplace and other things of high atomic weight were changed: some were semi-liquid, others were—well—

“She's gone,” I exclaimed in a wail.

The Professor sighed. “She was a good housekeeper,” he said regretfully.

There was nothing to be done. There were no remains, even; and I stared blankly at my companion.

“What can we do?” I asked, feeling faint and distraught.

The Professor shook his head.

“Nothing, I fear—I very much fear,” he replied. “She has become hydrogen, and less than hydrogen; she is

mixed with the vapours of table and chairs; she is floating out into space.”

I shuddered, and sank into a chair.

“Tut, tut!” he exclaimed. “It can't be helped—it *really* can't be helped. But I did not foresee this possibility. I'm afraid we must not use the force so indiscriminately until we know more about it.”

* * * *

We were for some time puzzled as to what official notice should be taken of the housekeeper's disappearance. The law does not recognise this kind of happening as an everyday matter to be lightly passed over. The charge of manslaughter loomed large before the Professor's eyes. The course taken in the end was suggested by myself. I pointed out that, the housekeeper having disappeared, the actual manner of her going was of no importance to outsiders, but of considerable importance to us; furthermore, that few people would believe the truth did we tell it. We, therefore, informed the police that our housekeeper had gone out to post a letter, that she had not since returned or been seen by us, and would the police do all they could to find her? Of course, they searched her effects, and, of course, found no reason for her disappearance. The Professor, wishing to be truthful, wanted to tell them that she had taken with her a duster, a broom, and a bottle of French polish; but I showed him that, though in truth these things had disappeared with her, he was hardly justified in making the imputation that dishonesty was the cause of her disappearance.

We no longer continued the experiments upon ourselves, the Professor deciding that it was better to follow the science of to-day than to try to live to see the science of a century hence.

Incidentally, he asked me to marry him about this time. But I had other views on the matter.

Case of Intussusception of Jejunum into Ileum. Resection of seven and a half feet of Small Intestine; Recovery.

By GEOFFREY HADFIELD, M.B., B.S.



LEANOR R—, æt. 19, married, was admitted to the Metropolitan Hospital at 10 p.m. on October 30th, 1912, complaining of abdominal pain and vomiting.

History present condition.—At 3 a.m. on the morning of October 29th she had violent, sudden, generalised abdominal pain, which has continued with very slight intermission until admission. Vomited twelve hours after onset of pain. Since then has vomited frequently, and the vomit during the last few hours has become offensive. Bowels

opened Monday evening, October 28th, before attack came on.

On admission she therefore gave a history of—

- (1) General abdominal pain for forty-three hours.
- (2) Vomiting for thirty-one hours.
- (3) Absolute constipation for forty-six hours.

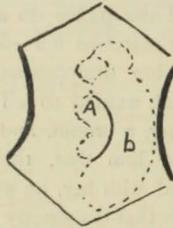
Past history.—Confined in January, 1912; on two occasions since then has had attacks of generalised abdominal pain at intervals of about three months. Each attack prostrated her; she vomited, and recovered in twelve to sixteen hours.

Condition on admission.—Looks ill. Commencing peritonitic facies. Restless. Occasional hiccough. Not sweating. Tongue dry and thickly furred.

Pulse, 130; respirations, 32; temperature, 99.6° F. Nothing abnormal in chest.

Abdomen.—Movement is limited and painful. Distended in the umbilical region and left hypochondrium.

Outlines of three distended coils of intestine seen in the following position:



No peristalsis observed. The most superficial coil (A) feels boggy, and is sub-resonant on percussion, but not tender. The coil (B) feels resistant, is almost dull on percussion, and is tender. Flanks are resonant; general fairly well-marked rigidity present all over abdomen, least marked in the upper part of the recti.

Per rectum.—Very tender high up on left side.

Operation.—Mr. Elmslie opened the abdomen by an incision in the left linea semilunaris. Free fluid, brown in colour, found lying between coils of intestine.

The median coil (A in diagram) presented in the wound. It was greatly distended and damson-coloured. On freeing it by dividing omental adhesions it was seen to be twisted on its mesentery. It was untwisted, and the coil (B in diagram) was found to practically encircle it. This coil was then brought to the surface and was found to be tightly distended, about 13 in. long (diameter 2½ to 3 in.), and purple-red in colour. So tightly was it distended that it had ruptured about its middle, the tear, however, only involving the peritoneal and muscular coats. The upper end of this coil disappeared under the folded mesentery of the coil A; on retracting the mesentery, however, a short length of black collapsed intestine was seen entering the distended coil at its upper end. This was the proximal end of a jejunal intussusception, the distended ruptured coil of gut being the intussusciens.

About 6 to 6½ ft. of black, collapsed small intestine were withdrawn from the coil B, where they were packed in a concertina-like fashion. No difficulty in the actual reduction.

The intussusceptum consisted entirely of small intestine; it was gangrenous up to 1 ft. of the duodeno-jejunal flexure, did not bleed, nor change colour with hot saline. Its mesentery was very thick, and all the larger veins in it were extensively thrombosed. The intussusciens, although it had not lost much of its peritoneal sheen and had assumed an almost normal colour and calibre, was found to have at its distal end three circular black patches near its mesenteric attachment.

Clamps were put on the intestine distal to this, and at about 6 in. from the duodeno-jejunal flexure.

The muscular coats of the gut were crushed and ligatured, and the mucous membrane stumps invaginated. Interlocking sutures were then passed along the root of the mesentery, and the gut with the whole of its mesentery was removed. A side-to-side anastomosis was then done.

Two hours after the operation a small formed stool was passed. On November 4th the stools were free from blood, and on November 6th she was taking light mixed diet, and three months after the operation was in good health.

The piece of gut removed contained at its lower end a small pedunculated polypus.

I am greatly indebted to Mr. Elmslie for permission to publish this case.

The Clubs.

CRICKET CLUB.

PAST v. PRESENT.

Played at Winchmore Hill on July 2nd, this match resulted in a draw. The weather was glorious until about 5.30 p.m., when a sudden heavy shower stopped further play and robbed the Present of almost certain victory. For the Present H. J. Bower played attractively for 99 runs, and for the Past A. J. Waugh compiled a faultless century. A large gathering witnessed the match, and the Garden Party seems to be as popular as ever.

SCORES.

PRESENT.		PAST.	
E. G. Dingley, c Turner, b Norman	31	A. J. Waugh, st Brash, b Haynes	101
R. H. Maingot, st Symes, b Norman	29	E. M. Grace, c Owen, b Bower	28
H. J. Bower, c Gaskell, b Waugh	99	A. Symes, c Mudge, b McCall	0
J. F. Haynes, c Waugh, b Norman	10	H. Barnes, c Wells-Cole, b Bower	0
T. Owen, b Norman	16	A. J. Turner, c McCall, b McFarland	6
R. G. Mack, lbw, b Norman	9	E. Nunn, run out	11
J. B. McFarland, not out	33	W. A. Pocock, c sub, b Haynes	17
E. J. G. Brash, b Waugh	24	T. E. Osmonde, b Owen	0
G. C. Wells-Cole	} Did not bat.	N. F. Norman, not out	4
H. D. McCall		C. Viner, b Owen	0
W. C. Spackman		A. Noon, not out	2
J. B. Mudge		G. Gaskell did not bat	
Extras	18	Extras	11
Total (7 wkts.)	269	Total (9 wkts.)	180

FINAL CUP TIE.

BART'S v. ST. THOMAS'S HOSPITAL.

Played at Honor Oak Park on September 14th. Bart's won the toss and batted first. The batsmen found A. F. Morcom very difficult, and with the exception of E. M. Grace, made a very poor resistance. Things looked brighter when St. Thomas's were dismissed for 142, but very weak batting by Bart's in their second innings gave St. Thomas's the Cup. For St. Thomas's Morcom secured 8 wickets for 37, and 5 wickets for 22. For St. Bart's Owen got 5 wickets for 20 runs.

SCORES.

ST. BART'S.		2nd Innings.	
1st Innings.			
T. Owen, c Price, b Morcom	11	b Atkinson	20
R. H. Maingot, b Morcom	2	b Cranston	6
R. H. Williams, c Sparkes, b Morcom	6	b Morcom	6
H. J. Bower, b Morcom	2	st Fry, b Cranston	3
E. M. Grace, b Cranston	31	b Morcom	4
J. B. MacFarland, b Morcom	0	b Morcom	0
H. G. Moser, c Atkinson, b Cranston	3	lbw, b Morcom	0
W. C. Spackman, b Morcom	1	b Morcom	0
G. C. Wells-Cole, b Morcom	3	c Garden-Hill, b Atkinson	9
W. E. Wilson, not out	6	b Atkinson	7
H. D. McCall, b Morcom	0	not out	1
Extras	3	Extras	2
Total	68	Total	58

ST. THOMAS'S HOSPITAL.

C. W. Sparkes, c Wilson, b Owen	6	M. T. Atkinson, lbw, b Owen	6
H. Garden-Hill, c Spackman, b Owen	10	L. W. Shelley, c Williams, b Bower	20
G. Cranston, b Wilson	40	H. A. Rowell, c Spackman, b Owen	0
V. C. Pennell, b Grace	33	H. S. B. Fry, not out	5
A. F. Morcom, b Wilson	1	Extras	6
A. R. C. Doorly, st Williams, b Grace	3		
S. T. Price, b Owen	12	Total	142

BATTING AVERAGES.

	Innings.	Not outs.	Total.	Highest score.	Average.
T. Owen	13	1	273	100*	22.7
H. J. Bower	11	1	221	99	22.1
R. H. Maingot	11	1	184	67*	18.4
J. F. Haynes	10	0	178	65	17.8
G. C. Wells-Cole	12	3	155	57	17.2
E. M. Grace	13	0	187	55	14.3
E. G. Dingley	10	0	109	44	10.9

Also batted—J. B. Macfarland, 7 inns., total 161, average 32.5
 J. W. Stretton, 7 " " 187, " 26.7
 R. H. Williams, 9 " " 136, " 17.0
 H. D. McCall, 8 " " 111, " 15.8

* Signifies not out.

BOWLING AVERAGES.

	Wickets.	Runs.	Average.
H. J. Bower	15	114	7.6
J. W. Stretton	10	122	12.2
T. Owen	30	401	13.36
H. D. McCall	21	281	13.39
E. M. Grace	23	504	21.9

RUGBY FOOTBALL CLUB.

This year we hope for great results, and intend to make a really good attempt at the Inter-Hospital Cup.

With the exception of B. J. Brewitt, the whole of last season's first XV are available, and, in addition, J. V. Fiddian is back at Hospital

once more. We hope he will be able to turn out regularly for the side.

At present we know nothing of what recruits we shall get from the Schools or Universities, but we hope that all freshmen who play rugger will put their names down to do so, as there are three teams playing regularly, and we want all the players we can find.

The first XV should be exceptionally strong at forward and half, but we rather lack weight and pace in the three-quarter line. If only we can strengthen this part of the team there should be nothing to prevent us having a really successful season. We have all our old fixtures, and one new one—against the Royal Naval College at Osborne.

Officers for the coming Season.

1ST XV.—Captain: R. H. Williams. Vice-Captain: J. B. Mudge. Hon. Secretary: F. G. A. Smyth. Selection Committee: R. L. Kitching, J. Bradley.

2ND XV.—Captain: C. H. Banks. Hon. Secretary: R. Coyte.

3RD XV.—Captain: R. Fitzgerald Moore. Hon. Secretary: J. D. Longford.

LONDON UNIVERSITY O.T.C. MEDICAL UNIT.

The annual camp was held this year from July 10th to August 2nd at Windmill Hill on Salisbury Plain. Major H. H. Tooth, C.M.G., was in command, with Capt. A. P. Gray as acting Adjutant. Nine officers and 150 cadets attended the camp.

Early parade before breakfast was devoted to company drill, when candidates for certificate A were given command of the sections. From 9 to 12.30 more company drill, stretcher drill and first aid were gone through and short lectures on the afternoon's work given, while the B certificate men also were taken through map reading and drawing, and other more advanced work.

In the afternoon various forms of field hospitals were pitched, the sergeants at times being given charge of the arrangements. Several night marches by compass were undertaken, in one of which five members of the unit left camp on horseback at 12.45 a.m. and rode to Stonehenge, arriving back in camp at 10 a.m. after covering twenty-five miles.

Another day the whole unit marched by road to Stonehenge and back, the cooks being left about eight miles from camp to prepare a hot dinner, which was much appreciated on the return journey. "A" section (St. Bart's, London and Charing Cross) distinguished itself by winning Major Herringham's cup for stretcher drill after a very keen competition. The result was obtained by the hard work of Staff-Sergt. Guppy and Sergts. M. Donaldson and Thompson, who were well backed up by the rest of the section.

An examination in the practical portion of A certificate was held during the last week of camp, when fifty-six cadets passed.

It is hoped that a large number of freshmen will join to fill up the gaps formed by those who leave each year.

It is now understood that no cadet will be re-engaged after his period of two years' service unless he has passed certificate A.

Anyone wishing for further information can apply to Lieut. H. K. Griffith, Resident Staff Quarters, or at any of the drills which are held at 4.15 on Tuesdays in the Old Surgery.

ST. BARTHOLOMEW'S HOSPITAL STUDENTS' CHRISTIAN UNION.

We offer a hearty welcome to all the Freshmen who have just joined the Hospital, and hope that a considerable number will join our Union.

The objects of the Union, which was founded in 1877, are set forth in the card given to all members, and details will be given to inquirers by the Student President or any member of the committee.

Weekly meetings are held during the winter session, a notice of each being posted on the board at the head of the cloak-room stairs.

Correspondence.

AN URGENT APPEAL.

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

SIR,—We beg to commend the following sad case to the consideration of St. Bartholomew's men.

Mr. Malcolm Dyson qualified in 1897 and took his final F.R.C.S. in 1900; he will no doubt be well remembered by many of his contemporaries, and was an earnest, hard-working practitioner in spite of a constitution which was never robust.

He was in practice with one of us for some years, he never spared himself, and carried out his duties in a most thorough and conscientious manner. Eventually he settled in Rotherhithe, where he was much appreciated and carried on a large and arduous practice.

In the middle of February of this year he contracted influenza, but would not give up work until pneumonia set in, and from this he died within a few days of its onset.

Mrs. Dyson is left with two children, one a boy, *æ*t. 10, and a daughter who was born on the day of her husband's death.

Her income is totally inadequate for her support, and having been a trained nurse before marriage, she now wishes to take up massage as a means of livelihood.

We ask the help of the readers of this JOURNAL to enable us to start a fund to provide her with some support until she can acquire the knowledge and certificates necessary for the purpose.

We shall gratefully acknowledge any subscriptions.

HOWARD H. TOOTH,
34, Harley Street, W.;
JOHN ADAMS,
180, Aldersgate Street, E.C.

SOME CASES OF HÆMOPHILIA.

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

SIR,—In the course of his remarks upon the interesting cases of hæmophilia which he gives in your current number, Dr. Sparrow prints a genealogical tree which, he says, "is in direct opposition to the generally accepted fact that the hæmorrhagic diathesis is transmitted to the males by the females."

It appears to me, however, unless I or the printer have been in gross error, that exactly the contrary is true. Dr. Sparrow's tree shows that a hæmophilic man, who may have inherited through his mother, did not transmit the disease to his children, but that three of his daughters transmitted it to their sons, and that his sister transmitted it to her son. Another genealogical tree, which Dr. Sparrow prints without comment, also shows transmission of hæmophilia to male offspring only, through non-hæmophilic females.

I am sir, yours, etc.,
W. M. FLETCHER.

TRINITY COLLEGE,
CAMBRIDGE.
September 3rd, 1913.

The Bookshelf.

REVIEWS.

MANUAL OF BACTERIOLOGY. By MUIR and RITCHIE. Sixth edition. Pp. 736. (Henry Frowde, and Hodder & Stoughton, 1913.)

This book is so well known to both student and practitioner that an exhaustive review of its contents is unnecessary; it is probably the most widely read of all the text-books upon bacteriology.

It is slightly larger than previous editions, but the authors have wisely considered that to increase its volume further would be undesirable.

Revision and addition have been considerable, but the authors have not accepted nor included all the results which are *said* to have been obtained during the past two or three years, deeming many of which, though highly interesting, yet highly problematical. Rather, they have sorted such work with much discrimination, and have included chiefly those results which appeared likely to stand the test of future inquiry.

In spite of the fact that Messrs. Muir and Ritchie have refused to plunge blindly into the maelström of speculative hypotheses, the book is thoroughly up-to-date. Two very important sections have been added, one of which deals with the bacteriology of milk. The other is a chapter on the importance of fungi as disease-producing organisms, which subject is daily becoming of more importance.

In this edition many new microphotographs have been included, and the number of illustrations now reaches 192 without including the six coloured plates with their twenty-five admirable illustrations.

There is only one criticism which we should like to offer. As in the vast majority of scientific works, the authors have been so intent on the subject-matter that they have occasionally neglected the style. It has not been badly neglected in this instance, but an occasional involved sentence causes one to pause for a moment in doubt. A clear literary style is really much more important in a text-book than in a novel. It must not be thought that we are picking out this volume as a great offender in this respect. On the contrary it is far better than the majority of text-books. But our attention has been much directed to this point of late, and it seems that better results may accrue by mentioning the matter in connection with a book of considerable value than by treating of it in the review of an unknown effusion by an unknown man. There are several famous works—especially among those dealing with anatomy—which are so badly written in places that only the already initiated can fit a meaning to some of the tangled strings of words.

In conclusion we do not think that either practitioner or student could find a better book for general purposes; it covers the whole of the necessary ground for ordinary examination purposes in a very thorough manner.

MINOR SURGERY. By LEONARD A. BIDWELL, F.R.C.S. Second edition, revised and enlarged. 8vo. Pp. xvi + 299. Illustrated. (London: University of London Press. Messrs. Hodder & Stoughton and Mr. Henry Frowde.) Price 10s. 6d. net.

The fact that a second edition of this work has become necessary within twelve months of the publication of the first is a sufficient indication that it has met a need. The first edition was reviewed in the JOURNAL for February, 1912, and after reading the new, revised and enlarged edition we have pleasure in repeating our recommendation of it.

Owing to the lamented death of the author as the work was passing through the press the final proofs have been read by Mr. Percy Dunn; but except in this respect the published work is as it left the author's hand.

Like all the other publications of the University of London Press that we have seen, the binding, paper and type are all that can be desired.

SYNOPSIS OF MIDWIFERY. By A. W. BOURNE. Pp. 212. (J. Wright & Sons, Ltd.) Price 5s. net.

As the name implies, this book is not a text-book in the ordinary sense, nor is it intended to be one. It contains, however, short concise information on almost every possible point connected with obstetrics, and ranges from ovulation to pubiotomy. It should be a very valuable help to those who have already studied the subject and wish to revise any particular detail. Important points for examination purposes have been emphasised, and the sections on treatment have been rather more fully dealt with than the other portions. On the whole it is a very practical little book, and should form a useful addition to the student's library.

BOOKS ADDED TO THE LIBRARY.

Bowly, Sir Anthony A., C.M.G., F.R.C.S. Surgical Pathology and Morbid Anatomy. Sixth Edition, edited with the assistance of Dr. F. W. Andrews. Demy 8vo. Lond. 1913.

Bruce, J. Mitchell, M.A., LL.D. (Hon.) (Aberd.), M.D. (Lond.), F.R.C.P., assisted by Walter J. Dilling, M.B., Ch.B. (Aberd.). *Materia Medica and Therapeutics. An Introduction to the Rational Treatment of Disease.* Ninth Edition, carefully revised. Small 8vo. Lond. 1912.

Jellett, Henry, B.A., M.D. (Dublin Univ.), F.R.C.P.I. *A Short Practice of Midwifery, embodying the Treatment adopted in the Rotunda Hospital, Dublin, with a Preface by Sir W. J. Smyly, M.D., F.R.C.P.I.* Sixth Edition, revised. With four coloured plates and 207 illustrations, and an Appendix containing the Statistics of the Hospital for the last twenty-two years. Demy 8vo. Lond. 1913.

Pembrey, M. S., and Ritchie, J., Editors of Text-book of General Pathology by the following contributors: A. P. Beddard, A. E. Boycott, C. H. Browning, A. E. Garrod, J. S. Haldane, I. Walker Hall, A. F. Hertz, F. W. Mott, M. S. Pembrey, J. Ritchie, J. H. Ryffel, S. V. Sewell, J. Lorrain Smith, E. Ainley Walker. Royal 8vo. Lond. 1913.

Woodward, A. S., M.D., M.R.C.P. Manual of Medicine. Crown 8vo. Edin., Glas. and Lond. 1912.

The Concise Oxford Dictionary of Current English, adapted by H. W. Fowler and F. G. Fowler. Crown 8vo. Oxford 1912.

The following were presented by the authors:

Eccles, W. McAdam, M.S.(Lond.), F.R.C.S.(Eng.). Hernia: its Etiology, Symptoms and Treatment. Third Edition. Medium 8vo. Lond. 1908.

Hall, F. de Havilland, M.D., F.R.C.P. The Lumleian Lectures on Intra-thoracic Aneurysm. Delivered before the Royal College of Physicians of London on March 6th, 11th and 13th, 1913. Lond. 1913.

Pakes, Walter C. C. The Science of Hygiene. A Text-book of Laboratory Practice for Public Health Students. New Edition, revised by A. T. Nakhivell. Crown 8vo. Lond. 1912.

Sawyer, Sir James, M.D., F.R.C.P. Insomnia: its Causes and Treatment. Second Edition, with many revisions and additions. Crown 8vo. Birmingham 1912.

The New Resident Staff.

Sir ANTHONY BOWLBY	October	M. N. Perrin.
	April	J. R. Griffith.
Mr. D'ARCY POWER	October	R. O. Ward.
	April	L. R. Shore.
Mr. WARING	October	G. L. Keynes.
	April	E. J. Bradley.
Mr. McADAM ECCLES	October	C. R. Wright.
	April	J. W. Stretton.
Mr. BAILEY	October	R. E. R. Burn.
	April	W. A. Pocock.
Dr. HERRINGHAM	October	H. Y. Mansfield.
Dr. GARROD	October	A. C. Roxburgh.
Dr. CALVERT	October	G. A. Smythe.
INTERN MIDWIFERY ASSISTANT	October	H. Griffith.
EXTERN MIDWIFERY ASSISTANT	October	E. P. W. Wedd.
	January	E. A. P. Brock.
OPHTHALMIC HOUSE-SURGEON	October	R. L. Kitching.
HOUSE-SURGEON TO EAR, THROAT, AND NOSE DEPARTMENT	October	A. B. Pavey-Smith.

New Addresses.

BARROW, R. M., Suite 13, Buena Vista Block, 24th Street, Edmonton, Alberta, Canada.

CANE, Capt. A. S., R.A.M.C., 38, Bombay Road, Kirkee, India.

CARLYON, T. B., 36, Nelson Road, Gillingham, Kent.

DONALDSON, M., 145, Harley Street, W. (after October 7th).

HARRIS, Staff-Surg. N. H., H.M.S. "Proserpine," Mediterranean.

KEMP, C. G., Fifield House, Manor Road, St. Albans.

MOORE, NORMAN, 67, Gloucester Place, Portman Square, W. (Tel. Mayfair 537.)

MURPHY, Surg. L. C. E., R.N., Royal Marine Barracks, Chatham.

PIDCOCK, G. D., 16, Willoughby Road, Hampstead. (Tel. 124 Hampstead.)

SOAMES, R. M., Ridgeway, Reigate Hill, Reigate.

Appointments.

BUTLER, T. HARRISON, B.Ch., M.D., M.R.C.S., L.R.C.P., appointed Hon. Assistant Surgeon to the Birmingham and Midland Eye Hospital.

CANE, Capt. A. S., R.A.M.C., M.R.C.S., L.R.C.P., appointed Specialist in Dermatology, etc., 6th (Poona) Division, India.

SOAMES, R. M., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P., appointed Tuberculosis Medical Officer to the County of Surrey.

Royal Naval Medical Service.

The following appointments have been notified since August 20th, 1913:

Staff-Surgeon W. P. Dyer to the "Vengeance."
Staff-Surgeon P. M. Rivaz to the "Bellerophon."
Staff-Surgeon E. S. Wilkinson to the "King Edward VII."
Staff-Surgeon W. C. B. Smith to Royal Marine Barracks, Chatham.

All to date October 1st, 1913.

Surgeon E. Moxon-Browne to the "Indefatigable," to date October 11th, 1913.

Royal Army Medical Corps.

The death of Captain F. H. Noke, which took place on August 12th, will have been seen with deep regret. He entered the service in 1904 and retired two years ago on account of ill-health. A first rate officer, a fine athlete, and one who was loved by all who knew him, there is no one who will be more missed by his many friends, both in the Corps and beyond it.

* * *

Majors W. E. Hardy and J. E. Brogden have been promoted to the rank of Lieut.-Colonel.

Colonel E. J. E. Risk (A.M.S.) and Major E. M. Williams retire on retired pay.

* * *

The following will proceed to India during the present trooping season: Captain A. H. Hayes and Lieutenant T. E. Osmond to the Northern Army. Major A. L. Scott, Lieuts. Allnut, Hudleston, Vivian and With to the Southern Army.

Major H. S. Thurston has exchanged from Malta to Dublin.

* * *

Captains E. W. M. Paine and A. S. Williams will join the Captain's Course at the Royal Army Medical College in November next.

* * *

At the termination of the last Course, Captain H. C. Sidgwick obtained six months' acceleration of promotion and a special certificate in operative surgery; Captain A. A. Meaden three months' acceleration.

Captain H. C. Sidgwick has been posted to Woolwich, and Captain C. W. O'Brien to the London District.

* * *

The attention of men who intend to compete for commissions in the Corps is drawn to the great importance of obtaining service marks under paragraph 71, Regulations for the Officers' Training Corps.

Births.

HUNT.—On August 31st, at Secunderabad, Deccan, India, the wife of Edmund Henderson Hunt, F.R.C.S.—a daughter.

LOTT.—On August 22nd, at Hamlegro, Bromley, Kent, the wife of Cyril H. Lott—a daughter.

OGLE-SKAN.—On September 7th, at 157, Audley Road, Hendon, N.W., the wife of H. W. Ogle-Skan, M.R.C.S., L.R.C.P., of a son.

PAGET.—On September 25th, at Waddon Bridge House, Croydon, the wife of Walter Gray Paget, M.R.C.S.(Eng.), L.R.C.P.(Lond.), etc., of a daughter. Australian papers please copy.

Times of Attendance of the Staff in the Wards and Out-patient Departments.

This Time-table will be Published Quarterly and also whenever there are any Important Alterations.

		Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Medical Wards	Dr. HERRINGHAM	—	1.30	—	1.30	1.30	—
	Dr. TOOTH	1.30	1.30	—	1.30	—	—
	Dr. GARROD	1.30	1.30	—	1.30	1.30	—
	Dr. CALVERT	1.30	1.30	—	1.30	1.30	—
	Dr. MORLEY FLETCHER	1.30	1.30	—	1.30	—	—
Surgical Wards (<i>operating days in heavy type</i>)	Sir A. BOWLBY	1.30	—	1.30	—	1.30	—
	Mr. D'ARCY POWER	1.30	1.30	—	1.30	1.30	—
	Mr. WARING	1.30	1.30	1.30	1.30	—	—
	Mr. ECCLES	1.30	1.30	—	1.30	1.30	—
	Mr. BAILEY	1.30	1.30	1.30	1.30	—	—
Gynæcological Wards	Dr. GRIFFITH	2	—	2	—	2	—
	Dr. DRYSDALE	—	1.30	—	—	1.30	—
Medical Out-patients	Dr. HORTON-SMITH HARTLEY	1.30	—	—	1.30	—	—
	Dr. HORDER	—	—	1.30	—	—	1.30
	Mr. RAWLING	9	—	—	—	—	—
Surgical Out-patients	Mr. GASK	—	9	—	—	—	—
	Mr. GORDON WATSON	—	—	—	—	9	—
	Mr. WILSON	—	—	—	9	—	—
	Mr. GIRLING BALL	—	—	9	—	—	9
Diseases of Women (O. P's.)	Dr. WILLIAMSON	—	1.30	—	—	—	9
	Dr. BARRIS	9	—	—	1.30	—	—
Diseases of Children	Dr. MORLEY FLETCHER	9.30	—	—	—	—	—
	Dr. THURSFIELD	—	—	9.30	—	—	—
Orthopædic Department	Mr. ELMSLIE	1.30	—	—	1.30	—	—
Throat and Nose Department	Mr. HARMER	1.30	—	—	1.30	—	—
	Mr. ROSE	—	9.30	—	—	9.30	—
Ophthalmic Department	Mr. JESSOP	—	1.30	—	—	1.30	—
	Mr. SPICER	1.30	—	—	1.30	—	—
Aural Department	Mr. WEST	1.30	—	—	1.30	—	—
	Mr. SCOTT	—	9	—	—	9	—
Skin Department	Dr. ADAMSON	—	9	9	—	9	—
	Mr. ACKLAND	—	9	—	—	—	—
	Dr. AUSTEN	—	—	—	—	9	—
Dental Department	Mr. COLEMAN	—	—	9	—	9	—
	Mr. FAIRBANK	9	9	—	9	—	9
Electrical Department	Dr. CUMBERBATCH	1.30	1.30	—	1.30	1.30	—
		(males)	(women)		(males)	(women)	
Skiagrams		9.30	9.30	9.30	9.30	9.30	9.30
		1.30	1.30	—	1.30	1.30	—

Marriages.

BAILEY—GUARD.—On September 2nd, at St. Paul's Church, Woburn, Bucks., by the Rev. R. A. Sidebottom, Vicar of Fair Oak, assisted by the Rev. P. Everett Healey, George Frederick Selborne Bailey, M.D., of Clayton's, Bourne End, Bucks, son of Mr. and Mrs. G. F. Bailey, late of Towalla, Watford, to Mabel Yardley, eldest daughter of Mr. and Mrs. Henry Guard, Harrage, Romsey.

TAYLER—EVERETT.—On September 16th, at Holy Trinity Church, Bradford-on-Avon, by the Rev. Wyndham S. Merewether, Herbert Paget, son of the late Christopher Tayler, of Trowbridge, to Kate, daughter of the late Samuel Everett and Mrs. Everett, of Melbourne, Chippenham.

Death.

HARTILL.—On September 23rd, 1913, at Manor House, Willenhall, Staffs, John Thomas Hartill, J.P., M.R.C.S.Eng., L.R.C.P. Lond., aged 65 years.

Acknowledgments.

Guy's Hospital Gazette, New York State Journal of Medicine, Long Island Medical Journal, L'Echo Medical du Nord, The Hospital, The

Medical Review, Nursing Times, British Journal of Nursing, Giornale della R. Società Italiana d'Igiene, Clinical Excerpts, Middlesex Hospital Journal.

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: 1436, Holborn.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d. or carriage paid 2s. 3d.—cover included.

St. Bartholomew's Hospital



JOURNAL.

VOL. XXI.—No. 2.]

NOVEMBER, 1913.

[PRICE SIXPENCE.

St. Bartholomew's Hospital Journal.

NOVEMBER 1st, 1913

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

Calendar.

- Tues., Nov. 4.—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., „ 5.—Clinical Lecture. Mr. Waring.
Primary F.R.C.S. Examination begins.
Fri., „ 7.—Dr. Herringham and Sir Anthony Bowlby on duty.
Clinical Lecture. Dr. Calvert.
Tues., „ 11.—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., „ 12.—Clinical Lecture. Mr. Waring.
Fri., „ 14.—Dr. Garrod and Mr. Waring on duty.
Clinical Lecture. Dr. Herringham.
Tues., „ 18.—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., „ 19.—Clinical Lecture. Mr. McAdam Eccles.
Thurs., „ 20.—Final F.R.C.S. Examination begins.
Fri., „ 21.—Dr. Morley Fletcher and Mr. Bailey on duty.
Clinical Lecture. Dr. Tooth.
Examination for D.P.H.(Oxford) begins.
Tues., „ 25.—Dr. Herringham and Sir Anthony Bowlby on duty.
Wed., „ 26.—Clinical Lecture. Mr. McAdam Eccles.
Fri., „ 28.—Dr. Tooth and Mr. D'Arcy Power on duty.
Clinical Lecture. Dr. Garrod.

Editorial Notes.



Print in another column the list of papers to be read before the Abernethian Society during the present session. The opening address was delivered by Mr. Jessop before a very large audience on October 16th; a report of the address will appear in the next number of the JOURNAL. Much enthusiasm was aroused by the fact that the President of the Society was on this occasion once more seated in Abernethy's own chair, which for five years had been lost to the Society. The papers to be read before the Society cover a wide field, and we notice with pleasure that addresses are to be delivered by two distinguished physicians who are not connected with this Hospital—Sir William Osler, Regius Professor of Medicine at Oxford, and Dr. Henry Head, Physician to the London Hospital.

* * *

We have to offer our heartiest congratulations to Dr. F. G. Chandler on his appointment to the post of Medical Registrar at the London Hospital. The larger hospitals are notoriously slow to elect to important posts men who have been trained at schools other than their own, and the distinction achieved by Dr. Chandler is therefore the greater.

* * *

In our last issue we drew attention to the torpid condition of the Miniature Rifle Club. As the result several students have been stirred with martial ardour. But alas, the torpidity of which we spoke seems to be in reality a deep coma, and the ardent sportsmen have been unable to gain admittance to the range or to find a guardian thereof. We publish in our correspondence columns a letter from one of these gentlemen, and we trust that it may meet the eyes of those concerned with the vitality of the Miniature Rifle Club. A public notice affixed in the usual place for such would doubtless be welcomed by many.

* * *

As the result of our comments on publishers' methods and the Basle terminology, we have received considerable correspondence. We are sorry to say that it exhibits a remarkable unity of opinion against the use of the B.N.A. It would have been so much more easy to consider the question impartially if both sides had been voiced.

Apart from this correspondence, however, our remarks have had yet further result. One of the large London medical schools is, we believe, about to publish our comments in full in their own journal, while others are also taking the matter up, and the *Lancet* has devoted a full page leader to the support of our endeavours.

We hear that one of the publishers is contemplating a new edition in the old terminology. We hope that this may be the case, and certainly the one who is first in the field will reap a large harvest.

It is perhaps well for us to make it once more clear that we are in favour of a revised terminology. But we are in favour of one which shall be *consistent* and more or less *final*, and also of one which comes officially into the field with due decency and order. It is the confusion caused by sporadic efforts which we would most avoid.

* * *

In the present number of the JOURNAL we are publishing the first of a series of lists of hospital and teaching appointments held by past students of the Hospital. We trust this list will be of service to Bart.'s men in all parts of the United Kingdom.

Davos-Platz as a Health Resort.

By BERNARD HUDSON, M.D., M.R.C.P.

THIS, I am afraid, is a very hackneyed subject, Davos-Platz being so widely known already, both as a health and also a winter sport resort. However I thought that perhaps a few words concerning the place, especially as regards the management of phthisical patients, from one who actually lives and works in it, might be of some interest to the readers of this Journal. Hence this article.

Davos is a small town situated in the Canton of Grisons 5200 feet above the sea-level. It began to become known as a health resort, especially for persons afflicted with tuberculosis of the lungs, about forty years ago.

Since then its growth and development have been steady; modern hotels, pensions, and sanatoria have sprung up, and at the present time about 4000 visitors can be accommodated at prices varying from six francs upwards *per diem*. Many of these establishments cater especially for invalids, and are built and arranged with that object, and all of them are provided with balconies facing south.

Practically all the hotels and sanatoria, etc., are centrally heated, electric light is everywhere, gas being used merely

for cooking purposes. Under such conditions contamination of the air with fumes and noxious gases is reduced to a minimum. The drainage and sanitation are most excellent.

Davos owes its reputation to its climate, which, in one particular, is perhaps unique, and that is the almost complete and constant absence of wind. Other places of similar altitude enjoy the same sunshine, and dry, invigorating air, but it is the absence of wind, combined with these conditions, which renders the place so peculiarly suitable for certain cases of pulmonary tuberculosis. The cold is hardly felt, whereas with wind it would become almost unsupportable.

With regard to the management of phthisical cases, a special matter of importance is the position of Davos with regard to the question of disinfection. Very naturally, as Davos is probably the most well-known health resort for consumption in the world, there has grown up an idea that the risk of infection there must necessarily be very great, but as a matter of fact, on looking into this question we are forced to come to the conclusion that there is in reality less risk than in many other places. In Davos the most careful and stringent precautions are taken to prevent spread of the tubercle bacillus. Compulsory disinfection is here law, and every room vacated by an individual must be sterilised before being occupied again, unless a doctor's certificate be produced to the effect that the former occupant is not suffering from tuberculosis or any other infectious complaint. The disinfecting is carried out by the "Kurverein" at the patient's expense, a small amount being charged. In this matter Davos is practically unique. One can mention many other well-known health and pleasure resorts, where, by a pleasant fiction, invalids, and especially tuberculosis persons, are not received, and where no precautions whatever are taken in regard to this danger. As we all know, in many such resorts there are usually a large number of consumptives who manage to disguise their complaint under the more innocent-sounding terms of bronchitis, nervous breakdown, anæmia, etc. In these kind of resorts, therefore, surely there is more real danger, especially as it is masked, than in a place where the disease is properly recognised and combated, the patients being forced to declare themselves, and adequate precautions taken. Under such conditions we do at least know "where we are."

The climate of Davos, especially during the winter months, is characterised by its still, dry weather. The remarkable absence of wind, the exhilarating feeling in the air, and the sun's heat, quite nullify the cold from about 10.0 a.m. till 4.0 o'clock in the afternoon, that is to say, even in the middle of winter there is from five to six hours of sunshine on fine days. It is no uncommon sight to see people skating coatless, with the mercury many degrees below the freezing point, and open-air luncheon parties on the rink are quite every-day affairs, even in the depth of winter.

In this high altitude the type of case which does best is a person with fairly good resisting power, and of more or less robust constitution. I am, of course, speaking of phthisis; weakly individuals, with but feeble resisting power, are not, generally speaking, so suitable for high altitudes, the demands upon their constitution being too severe.

Other contra-indications to the place are heart lesions, very advanced and active phthisis, and severe bronchitis. Asthmatical cases—by this I mean true bronchial asthma—often obtain great relief here. Tuberculosis of the larynx is not always a contra-indication; it depends on the particular case; some of them do remarkably well, while others cannot stand the cold at all, and have to be sent away to a milder and moister climate.

prospect of returning to work and a useful life, after the period of "curing."

One other point I should like to mention in speaking of Davos, is the fact that not merely is it a well-known health resort, but it is also one of the leading winter sport centres of the Alps. Davos was indeed the cradle of these popular and fascinating sports, and had them long before they began to boom. The prominent position which the sports take in the winter life of the place has, it is true been sometimes condemned as pernicious from the health point of view, but familiarity with the working of these health-seeking and sporting elements in combination seldom fails to convince even the most prejudiced opponent of the principle that no harm, but, on the contrary, much good is the result. The medical men at Davos are practi-



DAVOS.

There is at Davos, in the winter months especially, a large English colony, and some of the hotels and pensions cater especially for English people.

An important English institution, and one which does most useful work, is the Queen Alexandra Sanatorium, which is a great boon to many afflicted persons of limited means. Opened in 1909, it has supplied a great want.

The management, medical officers, nurses, are all entirely English, and, in fact, the whole institution is a little bit of England planted in a foreign country. There are eighty beds in the sanatorium, and the average length of stay is about six months.

Candidates for admission must be British subjects of limited means, and must also be suitable medically, that is to say, they should be persons who are likely to derive considerable benefit from a stay in the sanatorium, and for this reason, old-standing chronic cases are not desired. The ideal kind of case is the early one, that has a reasonable

usually unanimous in recognising the good and helpful effect of the sports on the life of the invalid community. For although for the great part unable to participate, the invalid at least has something interesting to watch, and is thereby perhaps prevented from thinking too much of himself and his complaint, and as a result becoming selfish and self-centred—an unfortunately only too common tendency in this disease. The sports, too, in addition to preventing the sanatorium atmosphere, with its resulting hypochondriacal tendency, from predominating, put animation and sparkle into the place, and provide an interest in life even for those who are only able to look on, while there are of course certain slight and arrested cases of pulmonary tuberculosis to whom regulated exercise, especially under the conditions of climate prevailing in the Alps, is of the greatest benefit, and the ordering and regulating of such exercise is one of the most important items in the treatment of the disease.

Notes on a Case of Malignant Pustule.

By G. L. KEYNES, M.B., B.C., M.R.C.S., L.R.C.P.

CASES of infection with the bacillus of anthrax are not so rarely seen at this Hospital that every case is worthy of being recorded in the JOURNAL, but in the instance detailed below the manner of the patient's reaction to treatment was not quite usual—a fact which lends the case some additional interest.

History.—The patient, A. D—, a butcher by occupation, on October 1st, 1913, helped a farmer to slaughter and flay an ox, which afterwards was discovered to be suffering from anthrax. On October 9th the patient noticed a small pimple on his left wrist, but this subsequently disappeared. On October 10th a second pimple appeared on the back of his left forearm, and on the following day a third appeared on the same forearm near the elbow. By October 12th both these pimples had developed into large vesicles, each about an inch in diameter, with central black scabs, and the patient consulted Dr. T. F. Hugh Smith, of Farningham, on October 13th; he was then advised to come to this Hospital, and he was admitted on the same evening.

Condition on admission.—The patient exhibited on his left forearm two lesions which were absolutely typical of anthrax. The central, black, umbilicated scabs were surrounded by a vesiculated area and by an outer ring of a bright red colour, and the presence of chains of the bacilli was demonstrated in the fluid from the lesions. The whole forearm was red and indurated, and tender; enlarged lymphatic glands could be felt in the left axilla. Nevertheless the patient was suffering from very little constitutional disturbance; he had had no rigors, his temperature was only 99.6° F., and his pulse-rate 96.

Treatment.—Owing to the patient's lack of constitutional symptoms, his infection was concluded to be of low virulence, and it was decided not to excise the pustules, but to rely entirely on other means of treatment. Accordingly on October 13th, on the evening of his admission, 40 c.c. of Sclavo's serum were injected into his anterior abdominal wall, and the patient was expected to develop the usual effects of the injection, as shown by a high temperature and marked constitutional disturbance. On October 14th, however, the patient was feeling quite well and the local symptoms on his left forearm had already begun to subside. His temperature had fallen to below normal and it never rose above normal afterwards. There was a slight local reaction at the site of injection of the serum, but the usual general reaction was entirely absent and the patient made an uninterrupted recovery. Even on the day following the injection it was no longer possible to demonstrate the presence of the bacilli in the lesions; no growth could be obtained on culture media and a blood culture was also negative.

Formerly the pustules were invariably excised except when the lesions were on the face, but this practice is becoming less usual. The present case illustrates the efficiency of treatment with serum alone, as practised in all his cases by Sclavo himself, and emphasises the fact that no ill-effects need necessarily follow its administration.

I am indebted to Mr. Gordon Watson for permission to publish these notes.

The Professor's Experiments.

By PAUL BO'LD.

[From the memoirs of his assistant and secretary, Gertrude Delaney, D.Sc.]

No. II.—THE MAGNETIC ESSENCE.

IN committing to paper a few light memoirs of Professor Mudgewood's work from time to time, I have been careful to avoid touching upon any of his own published results. He is so famous in many branches of science, and his own pen has so amply justified his work, that I feel it would be quite useless to attempt to deal with such themes. From time to time, however, the Professor has done exceptionally brilliant pieces of work which have never reached the public, for various reasons; and here I feel that I am doing only what is the right thing in giving the main items of the more striking examples to the public, now that the Professor is no longer in a position to do so himself.

He was always exceptionally kind to me, though sometimes his habit of echoing his own words, and of keeping some minor facts from me, with a self-hugging secrecy, did annoy me. It was not because I was a woman, however. That was some satisfaction. More than once he has said to me: "Gertrude Delaney, you could not have been a more useful assistant to me had you been a man." That from the Professor was the highest possible compliment, for he held the majority of women to be but little more highly developed than elephants. I am not sure that there was not some foundation for his opinion; poor women, it is not their fault, but the fault of the mischievous system which has grown up contemporaneously with civilisation, a system which makes man and woman of two races, a higher and a lower, whereas in Nature we find no such differences; for instance, the horse and the mare—but I am wandering from the point. The Professor opened my eyes to much that I had been blind to previously.

His great power lay in his wonderful syllogistic reasoning. Everything was based upon reason—logic—in its highest form. He held that the one great essential difference between man and brute, the one divine attribute in man, was reason, and his observation of the scant courtesy, or

even contempt, with which so many women treated reason was no doubt the factor which caused him to put them in a lower position, though he always held that there were possibilities of their rising from this position, if they would take the trouble to do so, and if they would have the courage to trample on mere miserable *CUSTOM*.

Dear little man. Well—I have no hope of seeing him again, but I shall never forget him or cease to feel a strong affection for him. I can shut my eyes and see him now—Rotundity personified. But though his face, his eyes, his mouth, his *pince-nez*, were all round, and his other parts were inclined to corpulence, he was one of the most energetic men I ever met. Every movement spoke of vitality in its rapid jerky way.

In another place I have mentioned the wonderful "Retardatory Forces" which he discovered, and it was soon after the experiments on these had ceased that he came to me and gave me one of those surprises, which in time, paradoxical as it may seem, came to me no longer as surprises. I grew to expect the unexpected.

I was standing on the laboratory steps driving a nail into the wall upon which to hang a chart which the Professor held in his hand, while he steadied the steps by placing one foot upon them. I glanced down as I finished hammering, and noticed that Professor Mudgewood was lost in thought—some abstract reasoning, no doubt. Suddenly he smiled and scratched his head with his *pince-nez*.

"Have you ever studied magnetism?" he asked abruptly.

"Why—of course," I replied, and descended to the ground.

"Ah—of course—of course," he echoed, then continued sarcastically, "I am aware that magnetism is a subject which forms part of the usual curriculum of a Doctor of Science. I am also aware that you are a Doctor of Science; but when I asked whether you had *studied* magnetism, I did not mean have you *read* about it in books, and learned certain facts and so forth, but have you *reflected* on it, *reasoned* about it, realised the wonder of it?"

I shook my head. "I fear not," I replied. "It was so much necessary work, but it never appealed to me sufficiently to cause me to ruminate on the subject."

"H'm—that means you know what the text-books have to say about it. Well, in a measure, they are wrong, quite wrong. I know more about the subject than any of them."

I was not aware that he ever gave so much as a thought to the subject of magnets or magnetism, but I did know that the Professor was not given to autolatry, and that when he spoke, he did so with facts and logic arrayed upon his side. Therefore I received the news as a fact and waited further details. They were soon forthcoming.

"Those Retardatory Forces were remarkable—remarkable," he said musingly. "Quite by chance they put me on the track of a vast research in Magnetism. I picked up a nail from the floor of the chamber—after the accident

you know." I shuddered; I remembered the disappearance of the housekeeper only too well. "The full force had not been exerted so low down. It had not altered perceptibly the chemical nature of the steel nail, but there was some constituent of the nail—present in very small quantities—which it had altered."

"You mean that the steel is composed of elements besides iron, and that these were changed?" I queried.

"In a sense, yes." He nodded. "But mark, Delaney—mark well—*very* well—*not* in the sense you mean."

"I don't *quite* follow."

"It is *quite* simple." I did wish he would not talk like that, it made one feel so small, yet he always would speak of the most astonishing things as "*quite* simple." "It is *quite* simple," he repeated. "The element which was affected was an *unknown* one, present only in minute quantities. Let me tell you how it came about, for I want you to help me with this research in the future."

I nodded silently, but I felt very much annoyed; it was obvious that the Professor had already been at work upon this new research in his old secretive manner.

The Professor continued:

"I picked up the nail, merely with a view to asking you to analyse it and see what change a small quantity of the force had produced in it, chemically. I placed it for the moment on the table in the next room, close to the pole of the large electro-magnet. It was just before eleven o'clock, and I went straight out of the laboratories and up to my bedroom." He paused, and pulling his huge red handkerchief from his pocket wiped his glasses carefully. This was quite unnecessary, but I knew from past experience that he was gaining time to frame some important communication. I was right. He went on: "As soon as I was in bed I began to review my actions of the day, and I wondered vaguely whether it was worth my while to give you that nail to analyse. Then I sat up suddenly; I realised that the nail on the table had not been attracted to the electro-magnet."

"Perhaps the current was not on," I ventured mildly. It was an inane remark, and I knew it as soon as I had spoken. The Professor was not the man to lose sight of such a possibility. He said nothing, however, but looked at me over his glasses with such a sad yet scornful glance that I felt like hitting him—the "old Adam" is strong within even those who devote their lives to science.

"I sprang from my bed," he continued, ignoring my remark, "and rushed downstairs to the laboratory. I switched on the electric light and inspected the electro-magnet. It was in working order. The nail still lay on the table. I ran to the cupboard and fetched a handful of similar nails, which I threw round and about the first nail. In a flash they were swept from the table and hung from the pole of the magnet. *The original nail remained where it was.* There was, you see, no question of demagnetisation,

but simply this fact—a piece of iron existed which refused to respond to magnetic forces. Iron which was magnetically inert."

I was delighted with this discovery—it was certainly a fine one—and I congratulated the Professor upon it.

He smiled. "From your words," said he, "it is obvious that you do not realise the vast importance of this discovery."

"Well," I replied, "no doubt it is important, but the mere fact of being able to destroy magnetic force, or potency, if you like so to term it, hardly seems to me very valuable. I trust you will not take my opinion amiss. After all, it is merely an opinion."

"An opinion indeed! An opinion—*merely* an opinion!" He did get excited sometimes, there's no gainsaying the fact. "Do you not realise that in learning to *destroy* one also learns the *possibility of making*?"

I whistled—a bad habit of mine when something new strikes me for the first time.

He smiled, quite mollified by my action; it might have been a great compliment to him; indeed, when I come to think of it, my whistling did partake somewhat of that nature.

"My dear Delaney, I analysed the iron. I could detect no different chemical behaviour. I thought—I wondered. Something had gone from the iron. What? Many strange thoughts came into my mind. Why were cobalt and nickel so feebly magnetic? Why was oxygen magnetic at all? Why were paramagnetic and diamagnetic elements scattered so promiscuously? They seem to follow no chemical or physical properties in any way rationally. Even the conductivity of the substances where electricity is concerned bears no sort of ratio to their magnetic state." He paused, then abruptly asked: "You know the accepted theory of magnetism?"

"You mean Ampère's theory?" I asked. "The theory that magnetism is due to electric currents circulating in the molecule continuously, which theory has to suppose that there is no resistance to these currents in order to account for their non-diminution?"

"That is it," he replied. "That is it. It may be right in some measure—*some* measure, you understand. But if it be so the magnetic currents are not in the molecules of iron, nor of oxygen, but in the molecules of a separate element, which is generally combined with these elements in an extraordinarily stable manner. That element I have at last isolated. I have named it 'Magnetos.' It is a veritable essence of Magnetism."

"You have isolated it?" I cried, astonished.

"Yes. I could not do so by ordinary means, but during the time iron was undergoing a certain chemical combination with another element, I have found it possible to extract it with a powerful magnet, while the molecules were in a particular state of extreme tension, you understand. The iron then recovered is quite non-magnetic—quite."

"How much have you obtained?" I asked excitedly.

"Come away from the steps and sit down," he replied, "then we will talk further. One forgets everything else when the brain is actively engaged—everything." He laughed.

We went into the physical laboratory and sat down. "There is what I have made," he said, pointing to some fragments of glass in the iron fender, and sticking to the other ironwork of the grate.

"Professor!" I exclaimed, and there were tears in my eyes.

"Tut, tut. It is nothing. I ought to have foreseen this. I had obtained a minute quantity of this Magnetos dissolved in water, not enough to weigh or to see. It was in the bottle, which in turn was clamped to the heavy wooden retort stand. I carefully removed this bottle and approached the fireplace, examining the contents meanwhile. Suddenly the slight magnetism in the iron of the fireplace snatched the bottle from my fingers—and the result you see. I had forgotten that I was carrying an intensely powerful magnetic agent."

"I am so sorry, Professor," I interrupted earnestly.

"Dear me—dear me. Don't say that"; he seemed quite pained. "Don't you see that it would be impossible to manufacture any quantity of the stuff in this way? We must do it all inside a great iron sphere, so that we shall be free from lines of force; and it must be stored there. A bottleful of Magnetos would fly to a piece of iron a thousand yards away, and drag a ton weight with it. It would attract a locomotive so strongly as to derail it and pull it to itself a hundred yards away, if the bottle could be fixed immovably! Our only method will be to prepare and store the Magnetos in the centre of a strong iron sphere!"

Then at last I *did* realise the magnitude of the discovery. What a force! What a power!

"Now," continued the Professor, "I wish to make and test this Magnetos. I will have the sphere made and isolate a quantity of the element. Will you see to the preparation of the testing plant? For instance, I want a powerful electro-magnet made and hung above the floor, say, at a height of twelve feet. That will give us ample distance to estimate the pull against gravity. We shall be able to measure the forces; we may get some interesting light thrown upon molecular construction."

The iron sphere was constructed, and it was characteristic of the Professor that for five months he said no word of what he was doing inside it, though he superintended my own preparations, and went into the minutest details of my own part of the work with me. All that I knew was that he was using enormous quantities of iron. His garden was stacked with it!

Then one day he came in to me. "I have prepared two grammes of Magnetos," said he. "It has taken four hundred and seventy-five tons of pig iron! We will test it to-morrow

—to-morrow." He tapped his teeth with his glasses and stared about at the various appliances, finally bringing his eyes to rest upon the large electric magnet suspended above his head. "To-morrow," he echoed thoughtfully. "Most certainly to-morrow."

At nine o'clock punctually he entered the laboratory; so methodical was he that not even his eagerness to test his new element could hasten the eggs and bacon along their prescribed route. As the clock struck he bounced in, beaming at me through his round spectacles. I had been waiting half an hour, anxiously and expectantly.

"Good morning, Delaney," he cried cheerfully. "Is everything ready?"

"Good morning, Professor. I believe so," I replied. "What are you going to do first?"

"Quite a simple test—in fact, an almost childish one—an almost childish one. The fact is, I want to make certain that I have isolated Magnetos, first. I also wish to gain some idea of its strength. A rough idea, don't you know—a mere approximate idea." He tilted his head on one side like an expectant terrier, and looked at me carefully for a few moments. "You have no idea of its possibilities—none at all," said he, and smiled one of those enigmatic smiles I knew so well.

I had not professed any great knowledge on the matter, and I always felt irritated when he pointed out my ignorance in this needless fashion, so I made no comment, but waited for him to proceed.

"I shall make my first test by taking this piece of wood and magnetising it," he continued, picking up a strip of wood about eighteen inches long and two inches square which lay on the table. "If you will come with me, you will be able to follow the process."

At last I was to enter the sphere!

It was about fourteen feet in diameter, and fitted up like a small chemical laboratory. A wooden floor was laid across it about four or five feet from its lowest point.

The Professor picked up a small stoppered bottle, which contained a heavy liquid of a deep translucent blue.

"Magnetos," he said simply.

"Magnetos!" I echoed.

He removed the stopper, and with a glass rod withdrew one drop of the liquid, which he then placed in a larger jar containing some three gallons of distilled water.

"That will be *very* dilute," I remarked.

"A million times stronger than in an iron magnet," he replied caustically.

"But—Professor," I cried, struck with a sudden thought, "in itself is it a magnet? Iron only becomes magnetic when the lines of force alter the position of the particles and 'set' them in the same direction. For instance, by means of an electric current or of another magnet. The softer the iron, the less permanent is the magnetism."

"Quite right—quite right," he answered, keeping his eyes

on the large jar, which he was stirring thoroughly with a glass rod.

"Well—but——" I continued, when he interrupted me.

"But—as soon as *this* comes near a magnet, being a fluid, the particles at once set in the desired manner. And, moreover, since almost every piece of iron and many other things are slightly magnetic, it will become a magnet as soon as it is taken from the sphere. It will become a magnet when quite a long way from even an ordinary nail. You remember the effect of the fireplace on my first specimen."

"Then it is also easily demagnetised?"

"Quite so—in its present form. But I propose during my tests, though it is hardly necessary, to *freeze* it in a few cases after it is magnetised."

He had finished stirring the mixture, and now dipped one end of the piece of wood into the jar. Letting the water drain off, he wiped the remaining liquid on a duster, and, thrusting the latter into his pocket, left the sphere, followed by myself.

He had not advanced a yard, however, when the stick was torn violently from his hand, and fastened itself to the iron bench close by; simultaneously the duster was pulled from his pocket as if by invisible hands, and flew through the air with a sharp "flap" to the same table.

"It is very strong," remarked the Professor. "*Very* strong—dear me—I *hardly* thought it would be so strong." He chuckled and mopped his brow (which was quite dry) with his great red handkerchief.

Then he approached the table and essayed to remove the piece of wood. He could slide it about, but could not lift it from the table, try how he would. It was quite ludicrous to see the little man, red in the face and puffing and blowing, in his fruitless attempts to lift the piece of wood. After spending a futile minute he stopped, and regarded the piece of wood almost anxiously.

"To a casual onlooker," I ventured, "that piece of wood would seem heavy. He would think that gravity was the force that held it."

"Gravity!" the Professor shouted. "That gives me a new idea! Gravity is a similar force. It will be found in the element I shall name 'Gravitos!' It is different in this respect, that the circular intra-molecular currents are not in the molecules of the substances themselves, but in the inter-molecular molecules of the ultimate element. Do you follow? We shall be able to overcome gravity—the whole idea is in my mind—it is magnificent—grand—very grand." He paused for breath.

"You have done a great service to humanity," said he seriously, "by comparing it with gravity. Meanwhile—let us proceed."

The butler's cat was outside the laboratory. We could hear it miaowing—too well. The Professor paused thoughtfully as he heard it, tapped his teeth with his glasses, and

then went to the door. He picked up the cat and brought it in without a word. He took it to the iron table and rubbed it several times against the piece of wood. Then with an obvious effort, which left a good deal of fur adhering to the wood, he pulled it away, and placed it on the floor. The cat staggered and gave a sideways leap, then appeared to be leaning against the iron leg of the table.

The Professor fetched a saucer of milk and set it down a foot in front of the cat. Poor cat! It could not reach it. It slid round the table leg. It seemed on the point of leaving the table-leg, but invariably just as it got one portion of its body away, another portion would twist into position against the table-leg.

I could not restrain my laughter, though it was hardly kind. But to see the cat struggling against invisible bonds was too funny. Quite. The Professor pulled it away, and placed it in the middle of the floor. It *rushed* at once to the fireplace, where it was once more chained. I continued laughing, but the Professor seemed very serious. "We must be careful—very careful," he remarked.

"What about the cat—can you wash it off?" I asked, regaining my composure.

"I fear not—that cat will stick to every piece of iron it approaches all its life. . . . Unless we cut its fur off," he added. "Then, as I do not suppose there is much Magnetos on the skin, it may be all right."

So, for the sake of humanity, we shaved the cat. I never saw a shaved cat before—I never wish to see one again. Of all ghastly-looking objects. . . . However, our purpose was answered. The cat no longer flew to the nearest iron. It was free—but it staggered a little when it passed the fireplace or the table, or any other iron object.

We did not do any very delicate testing that day. The solution was obviously too strong, and until it had been further diluted, it was clear that we should be the playthings of magnetism. So the Professor set to work to prepare a dilute solution, and to figure out his tests for the following day.

Directly after breakfast the Professor repaired to the laboratory. I heard him go down the stairs, and I heard the door shut behind him. I hurriedly finished a letter I was writing, and followed him into the laboratory.

I glanced into the sphere. He was not there. I looked round the chemical laboratory, but could see no sign of him. In some astonishment I went back to the physical laboratory. I could have taken an oath that I heard him enter the laboratory.

I looked round in perplexity. Then I heard a groan. Had he fallen and hurt himself? I stooped down and looked beneath the table. He was not to be seen. I distinctly heard another groan, and gazed about me. Suddenly and quite unexpectedly I saw him. He was crawling on the ceiling! No! He was clinging to the electro-magnet! No—I was wrong—he was fastened to it

in some way, but he was moving his arms and legs in a most curious manner—twelve feet above the floor!

"How did you get up there?" I asked. "What *are* you doing, Professor?" I was utterly astounded.

He grunted something unintelligible; then I caught the words, ". . . trying—to get down."

"Good heavens!" I cried. "If you come down now you'll kill yourself! Hold on a moment while I get the steps—for heaven's sake, try to hold on!"

A hollow laugh greeted me. "I'll hold on," he said. "Fool—fool that I am! Don't you see I'm stuck here? . . . It's the Magnetos." He gasped for breath—talking was evidently difficult. "Spilt it . . . waistcoat . . . trousers . . . flew up!" I managed to distinguish.

I was at a loss how to proceed. The Professor was moving his arms and legs vaguely, and looked exactly like one of those tortoises which one sees in the city sometimes; when held up, the body remains rigid, but the legs and head move and nod in an aimless fashion.

"What shall I do?" I asked, endeavouring to collect my thoughts.

"Do?—do? Fetch the butler—get two ladders and some boards. Climb up to me, and cut me free—it is only on my clothes, I believe. And for heaven's sake, don't let anyone else come in—if this were known outside—if it were known!"

The Professor's weakest point was his fear of ridicule. People had laughed at his diminutive appearance, and at his methods too, and he hated ridicule, simply hated it.

I called Johnson.

He came in, and stared at the Professor, open-mouthed.

"Lor, Miss, 'ow is 'e 'oldin' on?"

"It's the magnet, Johnson. He's been caught against it."

"Lor."

"We must get ladders and planks at once. Do you know where to find them?"

"Oh, lor!"

"Johnson," I cried, "wake up!" He seemed almost hypnotised by the sight, and with eyes and mouth agape paid but scant heed to my words.

"Johnson," said the Professor feebly, "go and get the ladders—there are several in the garden—do you hear me? Go—go!"

Johnson woke up. "Yes, sir," he replied in his ordinary voice, and thenceforward his discreet butler's manner was unruffled. He might have been accustomed all his life to the sight of little men sticking up in the air without visible means of support.

As soon as we could reach the Professor we found another difficulty. The knife which we had brought into the room had flown up and stuck to him. He was covered with nails and bits of things. All the loose ironwork in the room had attached itself to him.

"Tear my coat and trousers down the back," groaned the Professor.

We did so, but he did not budge.

"Try my vest and my shirt . . . everything!" There was a tone of fear in his voice. We started to do this, but he stopped us.

"It's no good. It's soaked through. It's on *me!*"

"What are we to do?" I asked.

"Put all your weight on me. Hang on me."

We did so, and his coat came away in Johnson's hand, Johnson himself falling with a crash to the floor, but fortunately without hurting himself. As for the Professor—he remained where he was.

Johnson sat on the floor and rubbed his head.

"I regret, sir, that I was hunable to retain my 'old," he remarked.

I was getting desperate. "Can nothing be done?" I cried. "Shall I put an alternating current through the electro-magnet?" I added quickly.

"No good," sighed the Professor, trying to turn his head to look at me. "The loose condition of Magnetos would enable it to reverse its magnetism as rapidly. There is only one thing to be done. You must put a high frequency current through it. A very high frequency current."

"But, Professor, it will cost——"

"What's that matter?" He was getting angry.

"Do you want me to spend the rest of my days like a blessed fly—with my face to the ceiling—or like a sloth—or a hibernating bat?"

* * *

In a week's time the apparatus was ready, and we released the Professor. Of the manner of his eating and sleeping I need not speak. It was too painful, as can be imagined.

We got the Professor to the floor, having previously removed the fireplace and all other iron lest he should fly off at a tangent. We had to keep the high-frequency current going—otherwise he would have sped back to the ceiling again. The Professor was in an exhausted condition.

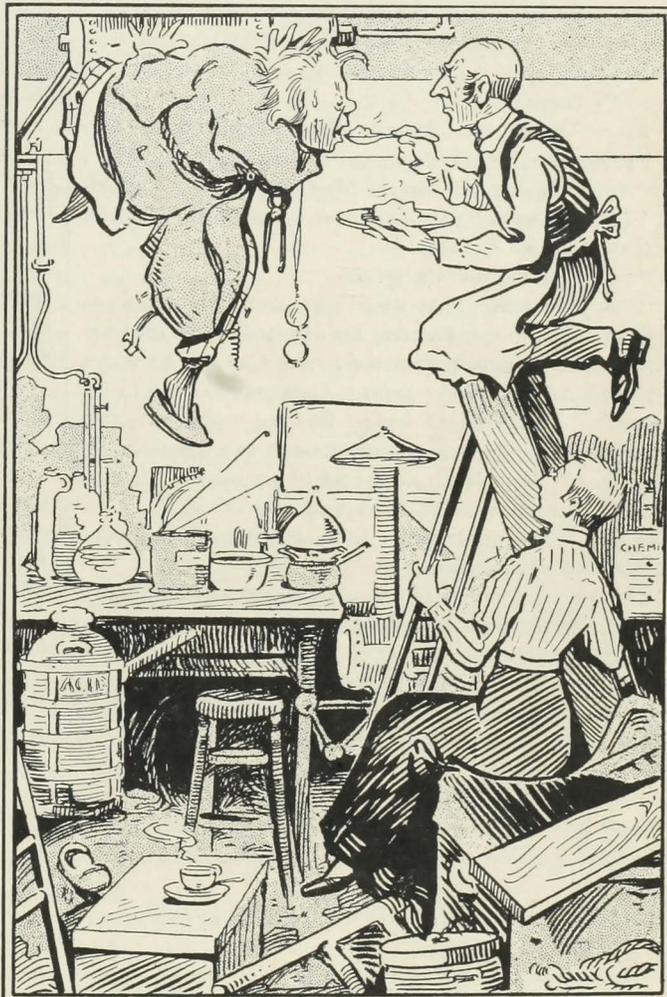
"Get me into the sphere," he groaned, "and bring me a bath, and soap and water, and some sodium hydrate."

With considerable trouble we managed to get him into the sphere. He pulled this way and that in an astonishing manner, every time we neared the smallest piece of iron; and nails, and buttons, and odds of every kind kept flying to him and sticking about his person.

For a month he stayed in the sphere, and scrubbed and washed and otherwise attempted to rid himself of the few drops of dilute Magnetos which had attached themselves to his person. From time to time he came out and tested

his powers gradually, until at last he found that he could approach the fireplace without being pulled to it. That is to say he *was* pulled, but he was successfully able to resist the pull.

"At last," he said, and breathed a sigh of relief. "I must go out and breathe the fresh air. A month in the sphere! A month! Dear me—a *month!*"



"OF THE MANNER OF HIS EATING AND SLEEPING I NEED NOT SPEAK!"

"Is it safe yet, do you think?" I asked doubtfully.

"Safe? What? To go out? Yes—quite safe—quite safe. But you shall come with me. I must go at once—now."

He went from the room to get his coat and hat, and I did the same.

We progressed fairly well, though on more than one occasion the Professor was caught off his guard, and hurriedly rushed to some iron railings or embraced a lamp-

post. We kept to quiet streets, however, and few noticed his vagaries.

"You will be reading a paper on this at the Royal Society?" I ventured.

"No—I think not—decidedly not," he replied. "I could not demonstrate it properly. I could never carry the Magnetos there. Think what would happen when we removed it from the sphere."

"True," I murmured, "but—diluted."

"No," he answered fiercely; then rushed at an iron gateway, which he embraced and released. "No. I will not—I will not!"

Then I understood. He was *afraid*; afraid of ridicule! I knew better than to continue the subject.

"Are you going to throw the Magnetos away?" I asked.

"Throw it away!"—he embraced a lamp-post—"Throw it away! Where? How?"

"Down the drain in the sphere."

"Do you realise what would happen? An enormous magnet underground, wherever the pipe goes. All the iron-work would be pulled from the houses above! Knockers would be pulled from the doors! Gates would crash to the ground! Can you not realise the responsibility resting upon the shoulders of one who owns two grammes of Magnetos? A whole district would be convulsed. Electric trams, iron carts, railways, everything magnetised!"

Then I did understand. The Professor had indeed undertaken a responsibility.

On the way home the Professor was very thoughtful, and as soon as we were seated in the library once more he turned abruptly to me.

"We *can* get rid of it, or we can use it." He removed his glasses and breathed upon them heavily, then he rubbed them with his red handkerchief and beamed upon me.

"Yes?" I asked.

"We can remove it in an iron sphere," he continued.

"With due precautions, we could utilise it." He looked doubtful suddenly, and continued—"But the responsibility is too great—too great. *Much* too great."

I was disappointed. "Don't you think—diluted—we might—"

He interrupted me. "No. I daren't even say how it was made—others would make it. In war it would be useful. Bombs filled with it. Burst in fortress. All guns and men magnetised—everything useless and held together in one convulsive magnetic lump! No—no. Think of a submarine mine. Anchored. Battleship releases Magnetos from a sphere. No more firing or fighting. All becomes a rigid magnetic mass!"

"It seems to me," I said, "that we might make England great with it."

He sneered. "Why England? Don't you see that while it would undoubtedly be useful—very—it would give enormous power to any individual who possessed enough

money to make it? An anarchist society, for instance. A bomb would not explode and kill a few people. It would paralyse a town. Think of it. A hundred people—or a thousand—sprinkled with Magnetos and clinging immovably to tram lines, lamp-posts, door-knockers, rain-pipes, manhole-covers—a few bombs would do all this, and more. It would create not only scores of permanent human magnets, but articles of all sorts touched with it would be similarly affected. A small iron building might become the nucleus of a conglomeration of human beings, carts, barrows, mud, flagstones, doors—anything and everything!" He sighed. "What power, but—what responsibility!"

"Yes—I think you are right," I said meekly.

"Tut—tut. Well, that's the end of it. By the way, when is the next boat for New York?" He rubbed his hands together cheerfully.

"New York!" I exclaimed. "Are you going there?"

"With you—if you will come. Only for the trip—you know—there and back—there and back. We shall take an iron sphere with us. But we shan't bring it back. No, we shall *not* bring it back."

Then I understood why the Professor was going to make the trip.

We went to New York, and returned by the next boat.

Somewhere at the bottom of the Atlantic lies a large iron sphere, containing the most powerful element which has ever been isolated. In time it will rust through, I expect. If it does so, I anticipate no great damage. The Magnetos will soon diffuse throughout the waters of the ocean. If some ship happens to be near at the moment, it may be held up for a few days. I do not think that it would sink.

Or, perhaps, in ages to come, a geologist will find a "fossil" sphere, and convey it to some as yet undreamed museum. We will hope that the authorities will not open it. At any rate, if they do, we shall feel no responsibility.

Some Notes on the State of Otolology in 1730 (Pathology and Therapeutics).

By ARCHER RYLAND, F.R.C.S.(Ed.).

PART II.

THE wide gulf which, in the early eighteenth century, intervened between the state of anatomical knowledge and the state of therapeutical and pathological science, is well known to all readers of the old medical works. This fact is a striking one with regard to medical works of the seventeenth and eighteenth centuries. Here, for instance, we find, lying almost side by side, the accuracy and beauty of the old anatomical plates and those absurd theories of disease with methods of treatment, almost always foolish, seldom sustained by facts, and frequently disgusting.

It may truly be affirmed that the work of Du Verney possesses the finest quality of its age. Both Politzer and Sir William Wilde have referred to it as work that might be consulted with profit and instruction by modern students.

His anatomical knowledge and his general scientific point of view stand probably on a higher level than that of any of his contemporaries or immediate predecessors. His theories of the nature and treatment of disease, although upon an altogether inferior level, certainly do not fall below the standard of his age. Most writers of this period—Lusitanus, Marcus Banze, Paullini, Hoffmann—are to be found still staggering under their ancient load of inherited dogma and helpless superstition.

Controversy still centred around the propriety of instilling into the ear the renal secretion of various animals—of the donkey, of the goat, of the hare, and sometimes of the wolf. It is a relief to find even one writer in these dark ages who refuses to tread through the barren waste of drops, decoctions, theories, nomenclatures and rank empiricism, who refuses to find the cause of deafness in the ascent of exhalations, and who clears up the whole matter by ascribing it to the "work of the Devil, or other evil spirits."

The disorders of the organ of hearing in the original system of Du Verney are dealt with according to the anatomical site of disease, beginning with the external portions of the ear, and thence proceeding inwards towards the labyrinth. This, of itself, was of course a distinct advance in the science of method.

The first diseases to be treated of, according to this plan of investigation, are those of the outer ear.

Pain in the concha and external auditory meatus is due to a solution of continuity of those parts. Such a solution may be caused by wax, by heat and cold, or by sharp, saline and serous humours. The magical phrase that linked up in the minds of these primitive pathologists the two events, viz. solution of continuity, and pain, was that ancient one—the irregular motion of the spirits. And this phenomenon indeed was regarded as the proximate cause of pain. It is a fact of some interest, that the words "solution of continuity" still persist among the terms of modern medical phraseology.

It is perhaps impossible at the present time to estimate to how great an extent the idea of the "motion of the spirits" once coloured the whole conception of medicine and surgery.

Vieusseus, in the final chapter of his admirable *Traité de L'orielle*, has advanced six ponderous principles in proof of the existence and motion of the animal spirits, and he therein claims to demonstrate by facts of a self-evident nature, "qu'aucune sensation ne peut se produire, sans que l'esprit animal en soit la cause prochaine and immediate." His arguments are drawn mainly from analogy—from certain facts connected with the siege of Mons, from

cannon-balls, sand-bags, and from battering-rams. The nerves, according to the theory of Vieusseus, cannot be the media of conductivity for the sensations, but are to be regarded as the natural paths of the "animal spirits."

Many paragraphs are devoted to the demonstration of the fact that the nerves are of a soft structure; and no soft structure, says he, is capable of transmitting a sense impression. And since experience commonly teaches us that structures of a soft character are unable to transmit impulses, it is therefore extremely probable that a nerve cord is incapable of transmitting a sense impression. Vieusseus had written a book on the nervous system, in which the theory of the "motion of the spirits" in relation to nervous distribution had appeared as an eminent physiological fact. The general view at this time appears to have been that this mysterious "motion of the spirits" took place along the course of the nerve, in much the same way that sap travels along the stem and branches of a plant.

In this connection, the "troisieme principe" of his *Traité de L'orielle* is of considerable interest. "Il n'est aucun nerf qui ne soit mol, non-seulement dans premiere origine (nous entendous dans le centre ovale du cerveau) mais encore dans la seconde, c'est-a-dire dans la moëlle allongée de ce viscere et dans la moëlle de l'épine. Si quel'qu'un nie la verité de ce principe, il la reconnoitra fort aisement, s'il examine la tisseure interieure des nerfs des pieds, des jambes, et des cuisses, par exemple, cas en les examinant proche la portion de la moëlle de l'épine, qui est continué dans la cavité des vertebres des lombes, et de l'os sacré, d'on ils prennent leur seconde naissance, il verra certainement que la substance de la moëlle de l'épine, qui s'insinué dans les cavitez de leurs petites fibres, revêtuës chacune en particulier de la pie-mere, est très-molle, et qu'elle doit être regardée à peu près comme la moëlle des plus petites branches du sureau et par consequence spongieuse."

The arguments which connect irregular motion of the spirits with changes in the wax, with the action of heat and cold, and with saline humours, were, of course, part and parcel of that marvellous pathological system of which, in order to understand an isolated portion, it is necessary to comprehend the whole.

The fact that it is quite impossible for our generation to comprehend it as a whole, or to view from the central point of such a system any fact in medicine or surgery, merely exaggerates the apparent absurdity of their arguments. The mode of reasoning employed in the discussion of a case of pain in the ear associated with fever will provide an excellent instance of the great disparity that existed between the anatomical and the pathological knowledge at this time. The reasoning is briefly as follows:

- (1) The violence of the pain in the ear causes—
- (2) An agitation of the spirits—(It is quite as common to find it stated that the agitation, etc., causes the pain)—which, in its turn, causes—

(3) An increase in the motion of the heart and the arteries.

("It is easy to see that this causes an exhalation of the most active particles of the blood while its oily part is more perfectly dissolved, whose swift and rapid motion is the cause of the heat in the fever.")

(4) A consequent quickness of the pulse and an increase of heat.

(5) Which disorders the principle of the blood.

(6) Which produces real fever.

(To be continued.)

Widow's Guild.



WORKING parties for the St. Bartholomew's Hospital Women's Guild will be held every Wednesday until Easter. Notice of dates and addresses will be given in the JOURNAL from time to time. Three have already been held at Lady Champneys', Mrs. Holmes Spicer's, and Mrs. Harmer's.

During November the following will be held:

5th.—Mrs. Gill, 17, Albert Hall Mansions.

12th.—Mrs. Adamson, 17, Devonshire Place, W.

19th.—Mrs. Griffith, 96, Harley Street.

26th.—Lady Cohen, 15, Gloucester Square.

The Clubs.

RUGBY FOOTBALL CLUB.

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

This match was played at Dulwich on October 4th, resulting in a win for the Old Alleynians by 29 points to 7.

Considering that it was the first match of the season, and that the Bart.'s team was in many ways experimental, the result was not so discouraging as it appears on paper.

The Hospital forwards, led by Fiddian and Mudge, played well, and showed signs of developing into a really good pack. The out-sides defended well, but were not quite fast enough for the opposing three-quarters, two of whom were Internationals. Williams and Evans, at half, worked splendidly, the former opening the score with a clever drop goal. Savory scored the remaining 3 points. Team:

H. R. Dive (back); C. H. Savory, W. F. Eberti, T. Owen, C. T. Tresidder (three-quarters); R. H. Williams, D. D. G. Evans (halves); J. B. Mudge, J. V. Fiddian, J. D. Bradley, F. G. A. Smyth, H. C. C. Joyce, C. H. D. Banks, C. W. Littlejohn, W. H. Hains (forwards).

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

This game was played at Drayton Green on October 11th in pouring rain. The Hospital team was weakened by the absence of Williams, Fiddian and Savory, but showed itself quite capable of beating its opponents by 6 tries to 1—18 points to 3.

Bart.'s were attacking the whole time, with the exception of one or two forward rushes on the part of Ealing, which brought the ball towards our line. But Dive was steady and safe at back, and their attacks never lasted long.

Tresidder opened our score by dribbling over the line, and two similar tries were scored before half-time by Parkes and Littlejohn.

In the second half Tresidder went over twice by the corner-flag and Mudge scored a remarkable try after handing off most of the

opposing side. Owen had bad luck in slipping just as he was racing over for a try.

Unfortunately, none of the tries were converted, but the ball was very heavy and sodden. Team:

H. R. Dive (back); C. T. Tresidder, W. F. Eberti, T. Owen, L. C. Goument (three-quarters); D. D. G. Evans, A. E. Parkes (halves); J. B. Mudge, J. D. Bradley, F. G. A. Smyth, C. E. Kindersley, G. F. Jukes, H. C. C. Joyce, C. W. Littlejohn, N. A. Scott (forwards).

ASSOCIATION FOOTBALL CLUB.

Captain, 1st XI E. G. Dingley.

Secretaries { K. D. Atteridge.
G. M. Cowper.

This season, as is usual, the club has suffered some loss, A. J. Waugh having gone from the forward line. The defence, however, remains practically the same, and if the new men who have been introduced only keep fit and turn out regularly there is no reason why the two cups won last season should not be retained.

A good list of fixtures has been arranged for both first and second elevens, the latter having many Wednesday as well as Saturday matches.

Any men who have decided to play Soccer this season, and who have not yet placed their names on the list in the Abernethian Room, are earnestly requested to do so as soon as possible, and to state also the position in which they are accustomed to play.

ST. BARTHOLOMEW'S HOSPITAL *v.* CLAPHAM ROVERS.

The above match was played at Winchmore Hill on Saturday, October 11th, and resulted in a draw, the score being 2 all. The game was played under anything but ideal conditions, as it rained the whole time.

The Hospital kicked off from the Pavilion end, and for the first half had by far the better of the game. After about ten minutes' play Green scored off a centre from Grace, and there was no further score up to half-time.

On resuming after the interval the Rovers' forwards got together better, and one dangerous rush ended in their equalising.

Shortly after this Braun scored for the Hospital with a nice dropping shot that completely beat the goalkeeper. Towards the end, however, the opposing forwards got away again and scored.

On the whole the Clapham Rovers were lucky to draw, as if the shooting of our forwards had been a bit better and they had tried a few long shots we should certainly have won. The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, J. W. Stretton (backs); G. C. Wells-Cole, G. D. Jameson, G. M. Cowper (halves); K. D. Atteridge, S. L. Green, J. B. McFarland, L. Braun, E. M. Grace (forwards).

ST. BART'S *v.* BRIGHTON COLLEGE.

This match was played at Brighton on Saturday, October 18th. We had nearly a full side out, but our centre-half, owing to motor-bike trouble, was not available until after the first half. The Hospital did most of the attacking during the first half, and shortly before half-time was called, McFarland ran through on his own and scored with a very neat shot.

During the second half the Brighton boys made some dangerous attacks, but nothing came of them as their shooting was poor, and those shots that were straight were ably defended by Mack in goal. Although the Hospital made several good attempts, they were unable to make any further score, so the game ended in a win for St. Bart.'s, the score being 1—nil.

The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, J. W. Stretton (backs); E. M. Grace, G. D. Jameson, G. M. Cowper (halves); K. D. Atteridge, J. B. McFarland, L. Braun, L. Bourne, T. Carlyle (forwards).

HOCKEY CLUB.

We have lost several of our last year's Cup-Tie team—C. A. Weller, W. C. Spackman and E. J. Y. Brash having left the Hospital, whilst C. S. Atkin, M. T. W. Steedman and C. K. Sylvester are doubtful as to whether they will be able to assist us in many games. However, we have started the season in a promising fashion by defeating a strong Beckenham side.

Altogether the outlook is quite hopeful, as there seems to be plenty

of material from which a strong side can be built. There is a 2nd team match every Saturday, and it is hoped that anyone wanting a game will let R. S. Smith know. Freshmen will especially be welcome.

The officers for the season are:
 1ST XI.—*Captain*: W. V. Hughes. *Hon. Secretaries*: R. R. Powell, D. R. Thomas.
 2ND XI.—*Hon. Secretary*: R. S. Smith.
Committee: C. K. Sylvester, B. Whitehead, C. S. Atkin, M. T. W. Steedman, J. G. Ackland, D. R. Thomas.

Ibernethian Society, Session 1913-14.

LIST OF PAPERS TO BE READ BEFORE THE SOCIETY.

1913. Date.	Author's Name.	Subject of Paper.
Oct. 16.	— Sessional Address— W. H. Jessop, F.R.C.S.	"Some Bart.'s Reminiscences."
" 23.	— Clinical Evening.	—
" 30.	— W. Girling Ball, F.R.C.S.	"Inflammation."
Nov. 6.	— A. B. Pavey Smith, M.R.C.S.	"Occupation."
" 13.	— J. E. R. McDonagh, F.R.C.S.	"The Organism of Syphilis."
" 20.	— A. F. S. Sladden, M.B.	"A Deposit in the Urine."
" 27.	— M. N. Perrin, B.C.	"The Psychology of Dreams."
Dec. 4.	— Sir William Osler, Bart., M.D.	"The Medical Clinic—a Retrospect and a Forecast."
" 11.	— D. W. Hume, M.B.	"Anæsthetics."
1914.		
Jan. 8.	— K. A. J. Davis, F.R.C.S.	"Bird Photography."
" 15.	— Mid-Sessional Address— Henry Head, M.D., F.R.S.	"Functional Nervous Disorders and their Management."
" 22.	— A. L. Moreton, M.B.	—
" 29.	— A. W. Stott, M.R.C.P.	—
Feb. 5.	— A. E. Stansfeld, M.R.C.P.	"On Patients Found Unconscious."
" 12.	— A. G. Evans, M.B.	"The Ethics of Prevention."
" 19.	— T. H. G. Shore, M.B.	"Leukæmia."
" 26.	— Alexander Macphail, M.B., C.M.	"Body-snatchers."
Mar. 5.	— Clinical Evening	—
" 12.	— General Meeting	—

Correspondence.

B.N.A. TERMINOLOGY.

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

SIR,—There is one class of the medical population, and that the largest, who ought to be considered before any drastic change is made in anatomical terminology. I refer to the general practitioner. His time for reading is limited, and if he is to keep himself up to date he cannot afford to waste any of it.

What will be his feelings on first reading an article in which the Basle terminology is used? He will find structures mentioned of which he has never heard, and unless he happens to remember that there is a new terminology, he will naturally conclude that the evolution of the human body has been making great strides since his student days. When he discovers that the new names belong to familiar structures he will be annoyed, and will want to know why he is called upon to spend his scanty leisure in learning anatomy over again, with new names for most of the structures.

He will be told that the new names will be world-wide, and that they are an improvement on the old ones.

But will the new terminology be world-wide?

There have been many attempts to establish artificial universal languages. Not one of them has been successful.

Even Esperanto, the most successful of them, is very unstable, and Esperantists are divided into camps, some using the original language, the others "improvements" on it.

What is to prevent the same thing happening to anatomy?

Even if the new terminology be an improvement on the old—and the general practitioner may have his own views on this point—that is a dangerous reason for adopting it. Like other human inventions it is not perfect, and no doubt it can be improved upon.

If we adopt the Basle terminology because it is an improvement on the old, who can guarantee that in a year or two we shall not be asked to adopt another, because it is an improvement on the Basle terminology?

Until he is quite sure that the new terminology has come to stay, the general practitioner will do well not to waste his time in learning it.

Yours truly,
G. P.

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

DEAR SIR,—There seems prevalent at the present time a spirit of controversy in regard to the advisability of accepting the Basle nomenclature, so I, Sir, ripe with the experience of twelve months in the dissecting room, am about to be bold enough to add my criticism to its adoption.

In the first place, many names which have hitherto given such admirable description are no more, and instead of the romantic mind being nourished by such terms as "gladiolus" and being inspired by thoughts of "Hunter," it is to be starved by the appalling technicality of "corpus sterni" and "adductor canal."

The most elementary student is quite familiar with a groove on the humerus in so much that it is the resting-place of the tendon of biceps, but "bicipital groove" is to give place to "sulcus intertubercularis." In shortening "levator anguli scapulæ" to "levator scapulæ" again there is loss of description. By "musculo-spiral nerve" I at once have an idea of muscular supplies and a course through the spiral groove, and why it should be re-named "radial" I do not see, since its main trunk is in the upper arm, and of its two divisions in the lower arm, the radial is only cutaneous, whilst the post inter-osseous is muscular to muscles, many of which are of ulnar origin!

"Nervus spermaticus externus" is explicit, but it does not indicate from what nerve it is a branch, as our old friend "genital branch of genito crural" did so ably.

"Nervus dorsalis scapulæ" may be very true, but really what is more simple than "nerve to rhomboids"? In fact I should much like to see "external thoracic" and "musculo-cutaneous" called "nerves to the pectoralis major and biceps" respectively. How easy would anatomy then be!

Now, Sir, I must not use any more of your valuable space, but must—I was nearly apologising, but perhaps it will be better for me to remain,

Yours faithfully,
"PRECOCIOUS."

P.S.—On soliloquising in my contrite moments I find I have an admission to make. When I first entered the dissecting room that book that came into my possession was an old edition of Cunningham.

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

SIR,—One would judge that the students just entering the rooms all want books in the old terminology by the number of queries from them as to where such may be obtained.

It seems a simple conclusion that it is necessary at least to know the old terminology, and the only question which then arises is should it be one or both?

We have to consider the advisability or otherwise of learning both with regard to the present and the future—that is to say, what will be its value to us as students and as qualified men?

The latter consideration will probably not weigh heavily with us; we may hear both, but it is certain we shall hear far more of the old.

Our chief thought, however, is for the present. It is idle to say anatomy is a serious subject; our first aim is to learn sufficient for a certain examination standard.

Beyond this, if time allows, and if we are "keen," we shall go as deeply as possible into the subject, either for our own satisfaction or in view of a higher examination—with this alternative we can learn the Basle nomenclature!

One doubts, too, the great superiority of the new terms, and many battles are waged daily on this point.

For myself, when a B.N.A. enthusiast advises me to discard a term, a single simple English word (the name of some great worthy of

early days), and adopt in its place a string of three or four cumbersome Latin words which "tells you all about it," I feel that the simple English word has always been associated in my mind with the part in question, and has never presented any difficulty; the other, as I am not a great Latin scholar, does.

It is not my humility prompts this confession for it is true of many of us.

We do not wish to be accused of being too conservative and trying to hinder a much-needed reformation. May the day come when we have a perfected nomenclature which will be understood in every part of the medical world.

We are glad to learn as much of the B.N.A. as is possible without spending valuable time over it.

At present, however, we have to consider our own interests, and it seems essential that we make the old terminology our basis.

STUDENT.

THE CATERING COMPANY.

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

SIR,—If space permit, may I air in your columns a grievance not (as I think) peculiarly my own? It concerns the Catering Company, and it is this.

That remarkable institution, while it spares no pains to satisfy the delicate cravings and stimulate the jaded appetite of the well-to-do, shows for the poor man hungry a very galling contempt.

With two shillings for his lunch a man might well go further and fare worse, but come to the Company's board with sixpence in your pocket and an empty stomach to fill, and it is strange if you do not leave it both angry and hungry.

Ask the Company for bread, and you shall receive, after a suitable interval, a small *quadrate sequestrum* excised from a tinned loaf, handed to you with an air of deprecating surprise at a request so bizarre, and presenting to the fair rotundity of the generous crust your mind had pictured a contrast utterly pitiable.

Ask it for cheese or a sandwich, and it will dole you out a morsel you might swallow at a gulp. Call on the Company at tea-time and suggest bread and butter. There appear four triangular bread-shavings, perhaps the tenth part of a twopenny loaf, carrying almost half a pennyworth of butter (I speak of retail prices). In two minutes you are wondering where they can be, so little is their presence palpable, and there is twopence down on the bill. Instances might be multiplied, but these suffice.

The Company may reply (not without accuracy) that I have but to cross the road at Little Britain Gate to lunch well on fourpence, and amply on fivepence, with a fire and the *Daily Express* thrown in. I can only answer that I am a loyal student and would support the Hospital's own institution. Moreover, it occasionally happens that I have no other choice.

I have done, sir. My case is this:

The Company's more pretentious dishes are admirable. The steak and kidney puddings are wonderfully contrived, the Cornish cutlets very delicately flavoured, the junkets and cream beyond praise, the breakfasts quite memorable and most inconsistently cheap. How can it not be possible to supply bread, butter, cheese, cake and perhaps even split rolls and tongue in quantity suited to the appetite of youth at prices befitting the unqualified purse?

I am, etc.,

IN STATU PAUPERIS.

ST. BART'S HOSPITAL,
October 14th.

RIFLE RANGE.

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

SIR,—In common with several other members of the Union I am desirous of making use of the miniature Rifle Range, but do not know to whom to apply in the matter. Would you kindly inform us, through the JOURNAL, how to do so?

I am, Sir,

Yours faithfully,

ST. BARTHOLOMEW'S HOSPITAL,
LONDON, E.C.

F. W.

October 15th, 1913.

The Bookshelf.

BOOKS RECEIVED FOR REVIEW.

Elementary Bandaging and Surgical Dressing. By Walter Pye. (John Wright & Sons, Ltd.) 13th edition.

Aids to Public Health. By David Sommerville. (Baillière, Tindall & Cox.)

The Deaf. By National Bureau for Promoting General Welfare of the Deaf. (P. S. King & Son.) 6d. net.

Manual of Bacteriology. By Muir and Ritchie. (Henry Frowde, Hodder and Stoughton.) 6th edition.

Gray's Anatomy. (Longman, Green & Co.) 18th edition. 32s. net.

Epidemic Infantile Paralysis. By P. H. Römer. (Translated by H. R. Prentice.) (John Bale, Sons & Danielsson, Ltd.) 7s. 6d. net.

John Hunter and Odontology. By J. F. Colyer. (Claudius Ash, Sons & Co., Ltd.)

A Synopsis of Midwifery. By A. W. Browne. (J. Wright & Sons., Ltd.) 5s. net.

Cancer of the Rectum. By Harrison Cripps. (J. & A. Churchill.) Sixth edition. 5s. net.

Diseases of the Rectum and Anus. By Harrison Cripps. (J. & A. Churchill.) Fourth edition. 10s. 6d. net.

The Care of Food and its Cooking. By E. de Paiva Raposo. (Price & Co.)

A Companion to Manuals of Practical Anatomy. By E. B. Jamieson. (Henry Frowde and Hodder & Stoughton.) 6s. net.

Sciatica. By W. Bruce. (Baillière, Tindall & Cox.) 5s. net.

Annual Report. (E. Mercks.)

Transactions of the National Association for Prevention of Consumption. (Adlard & Son.)

Operative Surgery. By J. F. Binnie. (H. K. Lewis.) 30s. net.

Manual of Medical Treatment. By I. Burney Yeo. (Cassell & Co.) 25s. net.

REVIEWS.

DISEASES OF CHILDREN. By VARIOUS AUTHORS. Edited by GARROD, BATTEN and THURSFIELD. Pp. 1167. (Edward Arnold.) Price 30s. net.

We heartily welcome the appearance of this work, for a standard comprehensive book on pædiatrics by representative members of the English school was greatly needed. There are twenty-two contributors, all of whom, save two, are on the staff of a children's hospital, either in London or Edinburgh; we feel, however, that the title of the work should rather be the "Medical Diseases of Children" as the surgical aspects of children's affections receive but scant attention.

The introduction contains sections on the special features of disease in children (Garrod), heredity (Gossage), immunity (Thursfield), and feeding (Cautley). In a notice such as this it is impossible to draw attention to all the good points, but we would specially mention Dr. F. J. Poynton's article on diseases of the circulatory system.

Dr. Still has managed successfully to initiate a semblance of order in dealing with the varieties of œdema; Mr. Waugh's article on "Appendicitis," in which he advocates early operation, is excellent, and serves to emphasise the lack of a surgical opinion in several of the other sections.

Dr. Morley Fletcher has written a very clear and comprehensive chapter on "Diseases of the Liver, Pancreas and Peritoneum"; he adheres to the old terms, obstructive and non-obstructive jaundice, meaning by the latter jaundice other than that resulting from obstruction to the extra-hepatic bile-ducts.

Disorders of metabolism and of the ductless glands are ably described by Dr. Garrod. Dr. Thursfield is responsible for diseases of the hæmopoietic and lymphatic systems; the classification of the so-called blood diseases which he has evolved is very comprehensive.

The chapter on "Diseases of the Lungs and Pleuræ" is disappointing. Pneumonia and broncho-pneumonia in childhood are notoriously difficult to describe; their consideration here is mystifying, containing much unnecessary speculation and repetition. Cirrhosis of the lung, chronic fibroid phthisis and bronchiectasis are taken as mere synonyms of chronic interstitial pneumonia, and are all considered as one disease; the important question of the surgical treatment of bronchiectasis is dismissed in one line as "not advisable."

Dr. Batten is to be heartily congratulated on the admirable accounts he has contributed on organic nervous and muscle diseases;

both these sections are fully illustrated from photographs, the majority of which are excellently reproduced, leaving nothing to be desired.

In a volume of this nature a certain amount of repetition is unavoidable, but in this case the overlapping has been reduced almost to a minimum. We notice, however, two long accounts of "Foreign Body in the Bronchus"; but in neither is mention made of the great advantage which in certain circumstances may accrue from passing the bronchoscope through a tracheotomy wound, though we are told that swelling of the vocal cords after passage of the tube through the larynx may necessitate tracheotomy.

The book as it stands is a great advance on any English publication on children's diseases, and is certainly the most important medical publication which has been issued for some long time.

MEDICAL ELECTRICITY. By Dr. LEWIS JONES. Sixth edition.

The sixth edition of this well-known work has now been published, and it contains much new and important matter. The first portion of the book deals, as before, with the principles of the subject and the different forms of electrical apparatus for medical and surgical use, and for the production of X rays.

This part now contains a lucid description of ionic medication and of diathermy, and many references to the practice of these important methods of electrotherapy will be found in the latter part of the book. This part has been considerably enlarged and three new chapters have been added. One deals with the electrical treatment of injuries and diseases of joints and the fibrous tissues. Another deals with the treatment of the urinary and reproductive organs, and here will be found an account of the use of electrical methods in gynaecology, also an account of the treatment of uterine fibromyomata by the X rays. Special chapters now deal with the electrical treatment of diseases of the skin and of the special senses.

An admirable account of the treatment of paralysis will be found in the chapter on the peripheral nerves, and the author emphasises the importance of using currents which rhythmically vary in intensity. A description of the devices whereby this effect may be brought about will be found in an earlier chapter.

A new method of testing muscles, by condenser discharges, is described, a method which the author has quite recently introduced into this country. In the electro-therapeutic section will be found abundant references to the writings of other European workers, and the reader is also guided by the great experience of the author in electro-therapy. It is interesting to note that the author maintains that the therapeutic action of electricity is due either to the chemical or to the thermal effects which it produces. Electricity would thus be shorn of much of its mystery, at any rate in the treatment of disease, and if this be its *modus operandi*, the path is rendered clearer for its scientific application.

The development of medical electricity in this country and the widening of its field of therapy is due, in great part, to the labours of the author, and it is pleasing to see the continued expansion of the book, which must be regarded as the standard work, in English, on medical electricity.

BOOKS ADDED TO THE LIBRARY.

Besson, Dr. A. Practical Bacteriology, Microbiology, and Serum Therapy (Medical and Veterinary). Translated and adapted from the fifth French Edition by H. J. Hutchens, D.S.O., M.A., M.R.C.S., L.R.C.P., D.P.H.(Oxford). With 416 Illustrations, 149 of which are coloured. Crown 4to. Lond. 1913.

Cunningham's Text-book of Anatomy. Edited by Arthur Robinson, M.D., F.R.C.S.(Edin.). Fourth edition; enlarged and rewritten. Illustrated by 1124 figures from original drawings, 637 of which are printed in colours, and two plates. Royal 8vo. Edin., Glas. and Lond. 1913.

Gray, Henry, F.R.S. Anatomy: Descriptive and Applied. Eighteenth Edition. Edited by Robert Howden, M.A., D.Sc., M.B., C.M. Notes on Applied Anatomy. Revised by A. J. Jex-Blake, M.A., M.B., B.Ch., F.R.C.P., and W. Fedde Fedden, M.S., F.R.C.S. With 1120 Illustrations, of which 431 are coloured. Royal 8vo. Lond. 1913.

Halliburton, W. D., M.D., LL.D., F.R.C.P., F.R.S. Handbook of Physiology. Eleventh Edition (being the twenty-fourth edition of Kirke's Physiology). With nearly 600 Illustrations in the text, many of which are coloured, and three coloured plates. Demy 8vo. Lond. 1913.

Hornsby, John Allan, M.D., and Schmidt, Richard E. The Modern Hospital: Its inspiration; its architecture; its equipment; its operation. With 207 illustrations. Post 4to. Philadelphia and Lond. 1913.

Howell, William H., Ph.D., M.D., Sc.D., LL.D. A Text-book of Physiology for Medical Students and Physicians. Fifth Edition. Thoroughly revised. Royal 8vo. Lond. 1913.

Muir, Robert, M.A., M.D., Sc.D., F.R.S., and Ritchie, James, M.A., M.D., F.R.C.P.(Edin.). Manual of Bacteriology. Sixth Edition. With 192 Illustrations in the text and 6 coloured plates. Crown 8vo. Lond. 1913.

Parke, Louis C., M.D., D.P.H.(Lond.), and Kenwood, Henry R., M.B., F.R.S.(Edin.), D.P.H.(Lond.). Hygiene and Public Health. Fifth Edition, with Illustrations. Demy 8vo. Lond. 1913.

The following were presented by the George Crocker Special Research Fund, Columbia University:

Studies in Cancer and Allied Subjects. The Study of Experimental Cancer. A Review by William H. Woglom, M.D.

Vol. I. New York 1913.

Vol. III. *Ibid.* 1913.

The following were presented by Dr. P. Wood:

Transactions of the Ophthalmological Society of the United Kingdom. Vols. XXX-XXXIII. Lond. 1910-1913.

Hospital and Teaching Appointments held by Past Students of the Hospital.

LONDON. LIST No. 1.

<i>Hospital.</i>	<i>Name and Post.</i>
Charing Cross Hospital	J. Abercrombie, <i>Con. Physician.</i>
St. George's Hospital	H. D. Rolleston, <i>Physician.</i>
King's College Hospital	T. P. Legg, <i>Assistant Surgeon.</i>
	W. d'E. Emery, <i>Pathologist.</i>
London Hospital	E. W. Mansell Moullin, <i>Con. Surg.</i>
	P. Kidd, <i>Physician.</i>
	Sir F. Eve, <i>Surgeon.</i>
St. Mary's Hospital	P. Furnivall, <i>Surgeon.</i>
	F. G. Chandler, <i>Med. Registrar.</i>
	W. J. Gow, <i>Obstetric Surgeon.</i>
Middlesex Hospital	S. R. Douglas, <i>Thera. Inoc. Dept.</i>
	T. G. A. Burns, <i>Anæsthetist.</i>
	A. G. R. Foulerton, <i>Bacteriologist.</i>
Westminster Hospital	E. A. Cockayne, <i>Asst. Physician.</i>
	G. H. D. Robinson, <i>Ob. Physician.</i>
	W. G. Spencer, <i>Surgeon.</i>
	P. R. W. de Santi, <i>Surg. to Throat Department.</i>
London School of Med. for Women (Royal Free Hospital)	W. P. S. Branson, <i>Asst. Physician.</i>
	J. Berry
	J. Cunning
	T. P. Legg
	H. Work Dodd, <i>Ophth. Surgeon.</i>
North-East London Post-Grad. College	J. G. French, <i>Assistant Surgeon.</i>
	P. Kidd, <i>Consulting Physician.</i>
	E. Hooper May, <i>Con. Surgeon.</i>
	H. D. Gillies, <i>Surg. Ear, Throat and Nose Dept.</i>
	W. Steuart, <i>Elect. Department.</i>
West London Post-Grad. College (West London Hospital)	C. F. Hadfield
	F. Trewby
	F. Swinford Edwards, <i>Con. Surg.</i>
	H. Pritchard, <i>Physician.</i>
	G. D. Robinson, <i>Physician for Dis. of Women.</i>
London School of Clin. Med. (Seamen's Hospital, Greenwich)	P. Dunn, <i>Surg. for Dis. of the Eye.</i>
	P. S. Abraham, <i>Dermatologist.</i>
	G. D. McDougal, <i>Elect. Depart.</i>
	G. P. Shuter, <i>Admin. of Anæsths.</i>
	J. D. Mortimer, <i>Asst. Admin. of Anæsthetics.</i>
	Sir Dyce Duckworth, <i>Bt., Phys.</i>
	W. Steuart, <i>Physician in charge of Elect. Department.</i>
	W. J. Gow
	H. Williamson
	A. Haig
	H. Pritchard
	A. S. Woodwark
	J. K. Murphy

(To be continued.)

New Addresses.

AMY, G. J., 28, Rue Alphonse Karr, Nice.
 BEVAN, H. C., Hillcrest, Rumney, Mon.
 BLAKEWAY, H., 1, Weymouth Street, W.
 BURGESS, E. J., III, High Street, Brentwood, Essex.
 CATES, H. J., Laurel Mount, West Park Road, St. Helens, Lancs.
 DANKS, W. S., Lynton Lodge, Worcester Road, Sutton.
 HAMILTON, Major W. G., I.M.S., Jail House, Alipore, Calcutta.
 HAVILAND, H. A., Normans, Rusper, Sussex.
 HILL, P. K., Wesleyan Mission, Hankow, China.
 HUGO, Major J. H., I.M.S., Agency Surgeon in Baghelkhand, Sutna, E.I.R., India.
 LEE, C. S., Graiseley Cottage, Wolverhampton. (Tel. No. 4.)
 LESCHER, F. G., West London Hospital, Hammersmith Road, W.
 NIXON, J. A., 7, Lansdown Place, Clifton, Bristol. (Tel. 2066.)
 OSMOND, T. E., Hanford House, Thorpe-le-Soken, Essex (temporary).
 PRITCHARD, H., 82, Harley Street, W. (Tel. Mayfair 854 (unchanged).)
 SYMES, Capt. A. J., I.M.S., Port Blair, Andamans.
 TAIT, H. B., Ashmount, Hornsey Lane, N. (Tel. 860 Hornsey.)
 TRECHMANN, M. L., 88, Eccleston Square, S.W. (Tel. Regent 4297.)
 VNER, G., 15, Devonshire Place, W. (Tel. 4944 Paddington.)
 WALKER, K. M., Calle Cordoba 460, Buenos Aires, South America.
 WOODMAN, E. M., 81, Edmund Street, Birmingham.

Appointments.

CHANDLER, F. G., M.R.C.S., L.R.C.P., M.B., B.C. (Cantab.), appointed Medical Registrar to the London Hospital.
 DIX, CHARLES, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Medical Officer of Health to the Wincanton Rural District Council.
 JOYNT, I. W., B.C. (Cantab.), appointed Surgeon ss. "Patia," Direct Jamaica Line (Messrs. Elders & Fyffes).
 LESCHER, F. G., M.R.C.S., L.R.C.P., appointed House-Surgeon to the West London Hospital.
 WHITAKER, L. EDGAR, L.R.C.P. (Lond.), M.R.C.S. (Eng.), appointed Consulting Ophthalmic Surgeon, Palmerston North Hospital, New Zealand.

Births.

BARRIS.—On Sunday, September 28th, at 50, Welbeck Street, W., to Dr. and Mrs. John Barris—a daughter.
 BODY.—On September 19th, at Dowlais House, Middlesborough, Mrs. T. M. Body—a son.
 BOULTON.—At Rockcliffe, Mussoorie, India, to Major Harold Boulton, I.M.S., and Mrs. Boulton (née Maud Mary Garton)—a daughter.
 GRIFFIN.—On September 22nd, at Baldock, Herts, the wife of John P. Griffin, M.R.C.S., L.R.C.P. (Lond.), of a daughter.
 HOLTHUSEN.—To Dr. and Mrs. Alan W. Holthusen—a daughter.
 RIDOUT.—On September 30th, at St. Elmo, Clarendon Road, Southsea, Hants, to the wife of C. A. Scott Ridout, M.S., F.R.C.S.—a son.
 ROSE.—On October 18th, at 68, Wimpole Street, to Mr. and Mrs. Frank A. Rose—a son.
 WILSON.—On September 25th, at Murree, Punjab, India, to Captain and Mrs. Methven Wilson, I.M.S.—a daughter (Margaret Helen). By cable.

Marriages.

GIBSON—KENNEDY.—On October 4th, at St. Matthew's Church, Ealing Common, by the Rev. H. C. Douglass, Vicar, Alfred John Gibson, M.B., B.S., of Brentwood, Essex, son of Alfred Gibson, Esq., to Elma Mary, only daughter of C. Fred Kennedy, Esq., Madely Road, Ealing.

HUSSEY—GRAHAM.—On September 23rd, at St. Mary's, Lambeth, by the Rev. Thory Gage Gardiner, Rector, James Hussey, M.D., of Farnham, Surrey, to Elizabeth Rebecca, second daughter of John Graham, Barnard Castle, Yorks.

MOLE—HOLMES.—On September 30th, 1913, at St. Gabriel's, Warwick Square, S.W., by the Rev. L. H. Nixon, M.A., Precentor of Westminster, and the Rev. Noel Kynaston Gaskell, Curate of St. Gabriel's, Harold F. Mole, F.R.C.S., of 19, Mortimer Road, Clifton, elder son of the late F. M. Mole, of Westfield Road, Edgbaston, to Harriet (Hetty), youngest daughter of the late Reuben Holmes, of Heanor, Derbyshire.

SHRUBSALL—GILMOUR.—On September 20th, in Glasgow, by the Rev. J. Faulkner, M.A., Frank Charles Shrubsall, M.D., F.R.C.P., to Jane Reid Foulles Gilmour, M.B., Ch.B.

VERRY—RIDER.—On October 16th, at St. Mary Abbots, Kensington, by the Rev. E. S. Best, M.A., Rector of Hamsey, Sussex, and the Rev. Prebendary S. E. Pennefather, D.D., Vicar of Kensington, Surgeon Guy Tyrrell Verry, R.N., eldest son of the Rev. H. R. Verry, M.A., of Abbotsfield, St. Albans, formerly Rector of Easton, near Stamford, to Dorothy Mary Wase, elder daughter of John Edward Wase Rider, of 1, Lansdowne Road, W., and Lincoln's Inn.

Deaths.

CLUSE.—On Saturday, September 27th, at Park Lodge, Park-road, Crouch End, Valentine Cluse, late Renter of St. Bartholomew's Hospital, London, in his 60th year.

HARTILL.—On September 23rd, 1913, at Manor House, Willenhall, Staffs, John Thomas Hartill, M.R.C.S., L.R.C.P., aged 65.

WILLIAMS.—On September 19th, 1913, at Holywell, Flints., James Williams, M.R.C.S., L.S.A.

Acknowledgments.

The Stethoscope, Westminster Hospital Gazette, Middlesex Hospital Journal, Medical Review, The Shield, Nursing Times, British Journal of Nursing, University College Hospital Magazine, The Hospital, Guy's Hospital Gazette, London Hospital Gazette, Long Island Medical Journal, St. Thomas's Hospital Gazette.

NOTICE.

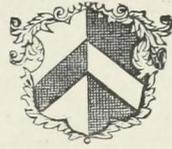
All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.

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

All communications, financial or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, the Journal Office, St. Bartholomew's Hospital, E.C. Telephone: 1436, Holborn.

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St. Bartholomew's Hospital



JOURNAL.

VOL. XXI.—No. 3.]

DECEMBER, 1913.

[PRICE SIXPENCE.]

St. Bartholomew's Hospital Journal,

DECEMBER 1st, 1913.

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

Calendar.

- Mon., Dec. 1.—M.D. and M.S.(Lond.) Examinations begin.
Tues., " 2.—Dr. Garrod and Mr. Waring on duty.
Wed., " 3.—First and Second Examinations M.B.(Oxford) begin.
Clinical Lecture. Mr. Bailey.
Thurs., " 4.—Clinical Lecture. Dr. Fletcher.
Fri., " 5.—Dr. Calvert and Mr. McAdam Eccles on duty.
Mon., " 8.—First, Second, and Part I of Third Examinations for
M.B.(Camb.) begin.
Tues., " 9.—Dr. Morley Fletcher and Mr. Bailey on duty.
Part II of Third M.B.(Camb.) Examination begins.
Wed., " 10.—Clinical Lecture. Mr. Bailey.
Fri., " 12.—Dr. Herringham and Sir Anthony Bowlby on duty.
Clinical Lecture. Dr. Calvert.
Mon., " 15.—First Examination for Medical Degrees (London)
begins.
Tues., " 16.—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., " 17.—Oxford Michaelmas Term ends.
Fri., " 19.—Dr. Garrod and Mr. Waring on duty.
Cambridge Michaelmas Term ends.
Sat., " 20.—**Winter Session divides.**
Tues., " 23.—Dr. Calvert and Mr. McAdam Eccles on duty.
Thurs., " 25.—**Christmas Day.**
Fri., " 26.—Dr. Morley Fletcher and Mr. Bailey on duty.
Mon., " 29.—D.P.H. Conjoint Examination begins.
Tues., " 30.—Dr. Herringham and Sir Anthony Bowlby on duty.
First Examination of Conjoint Board begins.

Editorial Notes.

UNION is best for men, either with their own tribe or with strangers; for even a grain of rice groweth not when divided from its husk." Hitopadesa originated this statement a good many years ago. It has since become the foundation of civilised life.

This fact has of late been often in our mind; and to fight a lone hand, though heroic, is not always the best statesmanship. We conceived the idea that the united journals of the various hospitals, acting in common cause, might prove a valuable weapon for students when their interests were threatened by outside forces. As the result a meeting of editors of the various London Hospital Journals was held at Bart's on the 10th inst., when various resolutions embodying these ideas were unanimously adopted. The following hospitals were represented: London, Guy's, St. George's, St. Thomas's, Royal Free, St. Mary's, Middlesex, University College, St. Bartholomew's.

In these days of legislative revolution, of Royal Commissions on Universities, and of B.N.A. Terminologies, unity of purpose becomes a very important matter, and we believe that a step in the right direction has been taken in forming this "Concert of Editors." Our field of operations has been considerably widened by the decision to include all the provincial teaching schools of Great Britain and Ireland, and to notify these of resolutions adopted and lines of policy which are being taken.

We hope that in the course of time this organisation may result in something very much stronger—but of that it is unwise to say too much, for developments will depend upon the students themselves.

* * *

A meeting of students of the University of London was held at South Kensington on November 12th. The object of the meeting was to pass a resolution commending the report of the Royal Commission on University reform. However, much to the surprise of the promoters of this meeting, the

opposition was great. And since a vote in its favour was seen to be impossible, a vote against it was avoided by adjourning the meeting.

We ourselves were glad of this, as it seemed to us that the meeting was much too premature, for the various faculties of the University have not all yet sent in their own reports and views upon the findings of the Commission.

Briefly the endeavour is towards the formation of a London University of a more homogeneous nature—a university that shall be united and progressive. In so far as medicine is concerned there are two main ideas. Firstly, that the teaching of students is not sufficiently academic to promote in them the faculty of reasoning for themselves; and secondly, that the clinical research work in the various hospitals is not sufficiently organised to obtain progressive results.

Now the suggested reforms are of a very sweeping character, and in the opinion of some people are not entirely calculated to benefit the medical profession. Progress is of course essential, but the best road to progress is that of evolution rather than that of revolution. And there seems to be an epidemic of revolution infecting all things at the moment.

It is argued that the student should not learn his work from the utilitarian point of view, but in such a manner as to enable him to carry out progressive research throughout his life; on the second point it is argued that for the purpose of research and teaching, professors are necessary on exactly the same lines as in other sciences; they should be men who are themselves spending their time in conducting research work when they are not engaged in teaching students, and hence men whose private practice should be of a very limited nature.

It is not our province to discuss the value of this method from the point of view of progressive knowledge, but one of its effects is most certainly a thing to be considered seriously by the student.

The University cannot afford to appoint a professor in every subject at every hospital in London. In fact the proposition is the appointment of professors at only three hospitals to start with. But the effect will be that students will have to attend perhaps an hour's lecture or a clinical demonstration in one hospital, and then return to their own hospital for an hour's work on another subject!

The waste of time thus involved will be great. It is not possible to conduct things in London as at Cambridge. London is too big and the London student too independent.

It is certainly possible for the authorities to enforce their regulations, but the probability is that the students would give up the London degree and take the Conjoint examinations instead. They have neither the time nor the inclination to become academic prodigies. The proposed regulations are all of an academic nature, and neglect absolutely the utilitarian point of view, which must be always the point of

view of the general practitioner, however much the specialist may aim at higher things.

That there should be more unity of purpose and greater facility for organised research goes without saying, but alterations should be carried out experimentally and in homœopathic doses, and should not be brought about by a revolution based upon academic hypotheses, whose results cannot be foreseen.

There are other points concerning the elementary training of medical students which are equally open to debate, but with which we can scarcely deal at the moment. Those which we have mentioned above, however, seem sufficient to warrant active opposition on the part of medical students to the acceptance of the Commission's report as it stands, and it would be well to urge revision and caution upon the powers that be.

* * *

On November 13th a largely attended meeting of the Abernethian Society listened to an account by Mr. J. E. R. McDonagh, F.R.C.S., of his researches into the life-history and chemistry of the organism of syphilis. According to Mr. McDonagh the *Spirocheta pallida* is merely the male gamete in the life-cycle of an intracellular organism, the *Leucocytozoon syphilis*, all the stages of which he has demonstrated, and, with a few exceptions, photographed. Mr. McDonagh has a convincing, though dogmatic manner, and it was evident that the greater part of his audience believed in the truth of his discoveries in spite of their subversive nature. In some scientific circles these facts are still accepted with some incredulity, but Mr. McDonagh may be trusted to carry the truth home in the course of time. Meanwhile, St. Bartholomew's may be proud to have produced a researcher of so much originality and resource. It is only a matter of time before the value of Mr. McDonagh's work will be generally recognised.

* * *

On December 4th the Abernethian Society will be addressed by Sir William Osler, Bart., Regius Professor of Medicine at Oxford. Sir William Osler is in no way connected with St. Bartholomew's, but his name is familiar to everyone as the author of a ponderous and much-used volume. He has chosen as the subject of his address, "The Medical Clinic—a Retrospect and a Forecast." The constitution of the modern clinic is a matter which intimately concerns the future of all medical schools such as our own, and Sir William Osler's views cannot fail to be of interest. We extend a hearty welcome to our distinguished visitor.

* * *

A meeting of the Rahere Lodge, No. 2546, was held at the Imperial Restaurant, Regent's Street, W., on November 18th, 1913. The W.M., Bro. Harold Austen, initiated the Rev. R. B. Dand and Mr. A. L. Moreton into Freemasonry. Bro. D. W. Hume was raised to the Third Degree and was

presented with the Lodge Jewel. Bro. R. M. Vick, of the In Arduis Fidelis Lodge, was elected a joining member. Bro. C. Hubert Roberts was elected a rejoining member after three years' absence from the Lodge. A sum of twenty-five guineas was voted to a late member in distressed circumstances. Forty-one members and guests attended the banquet.

* * *

We are glad to notice that two old Bart.'s students have been elected as mayors of their townships. Mr. W. E. L. Davies is Mayor of Llanedloes, and Mr. N. W. Taviles-Humpherys is for the fifteenth time Mayor of Montgomery.

* * *

We are requested to state that Dr. Robert Jones has changed his name to R. Armstrong-Jones.

* * *

We print in another column an announcement of the appointment of Dr. Feiling to the post of assistant physician to the Metropolitan Hospital. Dr. Feiling has our heartiest congratulations.

Some Notes on the State of Otology in 1730 (Pathology and Therapeutics).

By ARCHER RYLAND, F.R.C.S.(Ed.).

PART II (continued).



are given, in reference to the external diseases of the ear, a certain case of great pain in the meatus, accompanied with violent symptoms. This reference is of interest, as it well shows how certain classic cases of otological interest were remembered, stored-up, borrowed, imitated, ruthlessly plagiarised, and solemnly passed on through the centuries. It is no exaggeration to say that this particular case formed a prominent passage in otological writings for hundreds of years. The *Fourth Observation of the First Century of Fabricius Hildanus* narrates the case of a patient in whose left ear a glass bead had become impacted. Symptoms of an extraordinary nature supervened, followed eventually by a paralysis of the left side of the body. The explanation of Hildanus himself is grounded on the assumption that the portio dura is distributed in part to the arm and leg.

It is, perhaps, not a matter of surprise that a writer in the early years of the eighteenth century, working under the domination of the still immense reputation of Fabricius Hildanus, should have attributed value of a no mean order to the facts of a case which that great surgeon had so minutely recorded. But it is surprising that we should find it again and again brought forward in works on otology since the age of Du Verney, and to find it actually quoted at full length in Samuel Cooper's *Practical Surgery* as late as the year 1813.

"After four surgeons, who had been successively consulted, had in vain exerted all their industry to extract a bit of

glass from the left ear of a young girl, the patient found herself abandoned to the most excruciating pain, which soon extended to all the side of the head, and which after a considerable time was followed by a paralysis of the left side, a dry cough, epileptic convulsions, and at length an atrophy of the left arm. Hildanus cured her by extracting the piece of glass, which had remained eight years in her ear, and had been the cause of all this disorder." It does not appear that Hildanus found it necessary to practise an incision behind the ear. Du Verney (1683) strongly recommends such a procedure, and it is indeed the only surgical operation to be performed upon the ear that is discussed or recommended in his work. Fabricius, at Aquapendente, according to Cooper, rejected this operation, which was first proposed by Paulus Ægineta and again disapproved of by Leschevin (*Proc. de l'Acad. de Chir.*).

The remedies to be used for pain in the meatus, whether caused by solution of continuity or by other conditions, do not differ from the usual remedies in vogue at that time: decoctions of hyssop, calamint, and marjoram, or drops of bullock's gall and oil of bitter almonds.

The explanation of the action of these drugs seemed to be to the mind of the surgeon who employed them a matter of self-evident simplicity.

"There is no difficulty in explaining the effect of these remedies. They are all indued with a very penetrating salt, which warming these parts opens the ducts of the glands, and causes the substance to flow which was before retained by the cold." For the pain caused by serous humours an alkaline solution was generally employed. Such humours were reputed noxious by their acidity, and therefore the water of Blessed Thistle in which wood-lice, earthworms, and ants' eggs had been boiled was clearly indicated as a curative application. No arguments are used to justify the use of so obvious a remedy. With regard to abscess of the auditory passage, the usual mode of argument as to aetiology and pathology may be briefly set out in its astonishing poverty of language, fact and coherent thought. The discussion of the whole subject merely amounts to this. In the first place, there is an obstruction of the glands which therefore press upon the vessels. Pressure on the vessels stops the blood, the vessels become lacerated, and an abscess is caused.

We cannot but think, that even at the time of Du Verney, the existence of worms in the auditory meatus was already an ancient legend. It was, no doubt, part of that antique heritage of revolting folly, of vague and unfounded surmise that burdened the shoulders of every writer of this period, and that each, for some unknown reason, had to carry about with him, like the White Knight in *Alice in Wonderland*, weighed down in addition to his military equipment of shield, spear and armour, with dish-covers, rat-traps, and spurs for kicking sharks. Probably such cases had been recorded during previous centuries, possibly by the ancients

themselves, and the idea was thenceforward perpetuated by the copying from book to book, and by the quotation of the same case from generation to generation, which seems to have been the universal habit of the time.

It was supposed that in old ulcers of the ear, that is, in cases of long-standing suppurative otitis media, "worms of different figure and size came out with the pus," and it was common to refer to the authority of the ancients, to Foerstus Schenkus, or to the German journals. Du Verney suggests as the cause of this affection, the "hatching of eggs in the auditory passage which thousands of insects which fly in the air may possibly leave in this place." The treatment depended upon the installation of thick oily drops, because they were supposed to stop up the branchiæ of these insects and thus suffocate them in an instant (*Journal des Scaians*, 1677).

Chronic suppurative otitis media was known simply by the term "suppuration in the ear," though the latter was by no means always clearly defined as a disease and differentiated from ceruminous discharge, ulceration, and the various humours. Du Verney, it appears, was one of the earliest, if not the very first, writer to contest the notion that a chronic discharge from the ear came originally from the brain. The problem, in his mind, resolved itself simply into one of anatomy—a sphere within which he was qualified to argue with the greatest effect. The belief that the suppurative discharge did come from the brain is an extremely old one. It followed naturally from such a conviction that very few were in favour of doing anything to arrest it. And to this day, among a certain class, the belief that a discharging ear should be left alone still exists, and has probably its foundation upon something corresponding to those fallacious ideas, against which Du Verney argues before the close of the seventeenth century. The curious thing, however, with regard to his views is this: The plain facts of anatomy, as investigated for the first time by himself, in a style at once masterly and complete, convinced him that the brain was not the source of the discharge. "For," says he, "the foramen is exactly stopt up by the auditory nerves, and even then it could enter nowhere but into the vestibulum and cochlea, and must necessarily erode the membrane, which closes up the fenestra rotundum, the basis of the stapes, and the membrane that covers it, to pass into the tympanum. At last, when they are come into the tympanum, they must certainly rather fall into the mouth through the aqueduct (Eustachian tube) than lacerate the membrana tympani." In spite of this very clear knowledge, he obstinately favours the policy of inactivity with regard to suppuration. "It is," he continues, "for the most part indolent, and cannot be stopt without causing pernicious effects. We ought not imprudently to stop it."

It is, perhaps, impossible to say for how many years this opinion held the field. In England it was not until the

year 1806, the year in which John Cunningham Saunders published his work upon the *Anatomy and Diseases of the Ear*, that a definite refutation of this theory was put forth.

The original work of Saunders we have not been able to examine. It has been highly praised by Sir William Wilde. "There is no doubt that he availed himself to a large extent of the labours of Du Verney. But still to Saunders we are indebted for our first special English work on otology, and to him the various charlatans that have ever since ventured to set forth their ideas in print, are indebted for the mine from which they drew forth the material of their various and voluminous publications."—(Sir W. Wilde, *Dublin Journal of Med.*, 1844.)

The peculiar danger of arresting a discharge from the ear is emphasised by the quotation of a case which, in fact, on translating the narrative into terms of modern pathology, bears a very suggestive resemblance to a case of otitic meningitis.

"A man about 65 years old of a full and sanguine habit of body, had a very considerable suppuration in his ears and especially in his right, for five and twenty years together, although in all other respects he enjoyed a perfect health. The matter which he discharged was fetid and very thick. He died of an apoplexy in four and twenty hours after this suppuration was stopt. I opened the cranium and having carefully examined all the parts of the brain near the os petrosum, I found them perfectly sound and the bone in its natural state, and I actually met with serous humours in the ventricles and cavities of the brain."

As to obstruction of the auditory passage, the causes given are—inflammation, abscess, ulcer, foreign bodies and wax. The authority of Fabricius Hildanus is quoted in support of the fact that grains of wheat and other organisms may bud in the auditory passage. It was also supposed that wax might petrify in the auditory meatus in the same way as gall in the gall-bladder (*Obs. xlv, Bartholin's Journal*.)

The cure of deafness due to impaction of cerumen seems to have been practised in France about this time with considerable profit and repute, and we have a reference to "that famous surgeon of Mons, who made so much noise in the world for curing deafness, and who undertook none but this sort of deafness."

"To know this, he turned his patient's ear to the rays of the sun, and when he discovered any obstruction in the passage, he made use of a particular instrument to clear it, and after this manner he cured a great number of deaf people."

The diseases of the tympanic membrane were classified, according to Du Verney, in the four following groups: relaxation, increased tension, schinousness, and rupture. With regard to rupture, it is interesting to find the statement that the membrane may become eroded by the acrimony of the pus which is retained in the tympanum. This is the first reference that we have been able to find of pus actually present in the tympanic cavity.

"In what manner, soever, the membrane be broke, it happens that in shutting the mouth and the nostrils the air comes out of that ear with noise and such a force that it can extinguish a candle." It is probable that Politzer had not this statement in his mind when he refers in his *Geschichte der Ohrenheilkunde* to the "musterhafte Genauigkeit und Schärfe des Urtheil" of Du Verney's writings. It was apparently known at this time that the existence of the membrana tympani was not absolutely necessary for audition. Rupture of the membrane was regarded as an incurable condition.

It is, perhaps, needless to remark that chronic suppuration of the middle ear was not recognised as such at the period of which we are writing. Surgeons viewed the diseases of the tympanum as falling into one or other of the two following groups, viz. caries of the bone and inflammation of the lining membrane. And in each case the disease was supposed to be secondary to an "abscess of the auditory passage."

What ideas, then, had the old authors as to the route of infection and as to the anatomical extension of the disease in these ordinary cases of chronic septic inflammation of the middle ear?

The line of argument, it seems, lay very nearly as follows: First there was an abscess of the auditory passage, that is, of the external auditory meatus as defined by modern anatomy. A carious track was established into the processus mamillaris, followed by an extension of the disease along the aditus to the tympanic cavity with subsequent destruction of the tympanic contents, and finally the occurrence of total deafness. The treatment according to Deymeir consisted in the dilatation of the passage with prepared sponges, and the direct application to the carious bone of euphorbium powder. The desired result was exfoliation of the bone, and "the hindering of the growth of the fungus."

They were not far from the truth. Indeed, they were surprisingly near to the truth, and the wonder of the matter is, having regard to the extraordinary accuracy of their anatomical knowledge, that a period of at least one hundred years, subsequent to the work of Du Verney, should have elapsed before any attempt was made towards a rational surgical treatment of the diseased mastoid bone.

According to Lincke's *Sammlung*, the first surgeon who fairly established opening of the mastoid as a legitimate surgical procedure was Jasser, who performed the operation in the year 1776. It is needless to say that the operation fell into disrepute, and, as is well known, was only revived through slow and laborious stages, after a period of many years.

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Electro-therapy—in the Past and at the Present Day.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

PART I.

BEW of those who pass through their course at Bart.'s have a correct knowledge of the work that is done in the Electrical Department, or of the cases that are really suitable for electrical treatment, or of the mode of action of electricity on the body when it is used in the treatment of disease. When the Electrical Department is requested to "treat this patient electrically," the clerk of the case does not know what sort of electrical treatment the patient has, or see how it is given, and when a report on the electrical reactions of the muscles is required, he does not see the process of testing or the reactions of diseased muscles.

This lack of acquaintance with the field and methods of modern electro-therapy is a matter for regret, not from the point of view of the examination, for questions on the subject are seldom or never asked, but in its relation with private practice afterwards. An acquaintance with the field of electro-therapy shows that many common maladies can be successfully treated by electrical methods, while some practical knowledge of these methods enables the practitioner to give the treatment himself. The opportunities for the use of electrical methods in private practice are recognised by those who, after qualifying, come to the Electrical Department to take out a course of study, before or after going into practice. Nor is the question of expense an insuperable objection, for much successful work can be done without expensive apparatus.

At the present day electro-therapy occupies a position very different from that which it held in the past, or even twenty years ago, while during the past few years the field of successful electro-therapy, in which *visible* results are obtained, has been considerably widened.

This will be evident on studying the past history of medical electricity, and some reference to it may be of interest, because, more particularly in its later stages, Bart.'s men have played a leading part in its development in this country, and have done pioneer work in the allied subject—radiology.

It is interesting to note that the foundation of electricity as a true science was laid by a medical man, Dr. Gilbert, who was President of the Royal College of Physicians in 1600 and physician to Queen Elizabeth. His friend, the poet Dryden, wrote :

"Gilbert shall live till lodestones cease to draw,
Or British fleets the boundless ocean awe."

and Common Sense. The first records of electrical treatment at a London hospital are found in 1767, when a static machine was installed in the Middlesex Hospital. In 1777 a similar machine was placed in St. Bartholomew's Hospital. At St. Thomas's Hospital medical electricity was studied by John Birch, the surgeon, who in 1799 contributed an account of its use for medical purposes to John Adams's

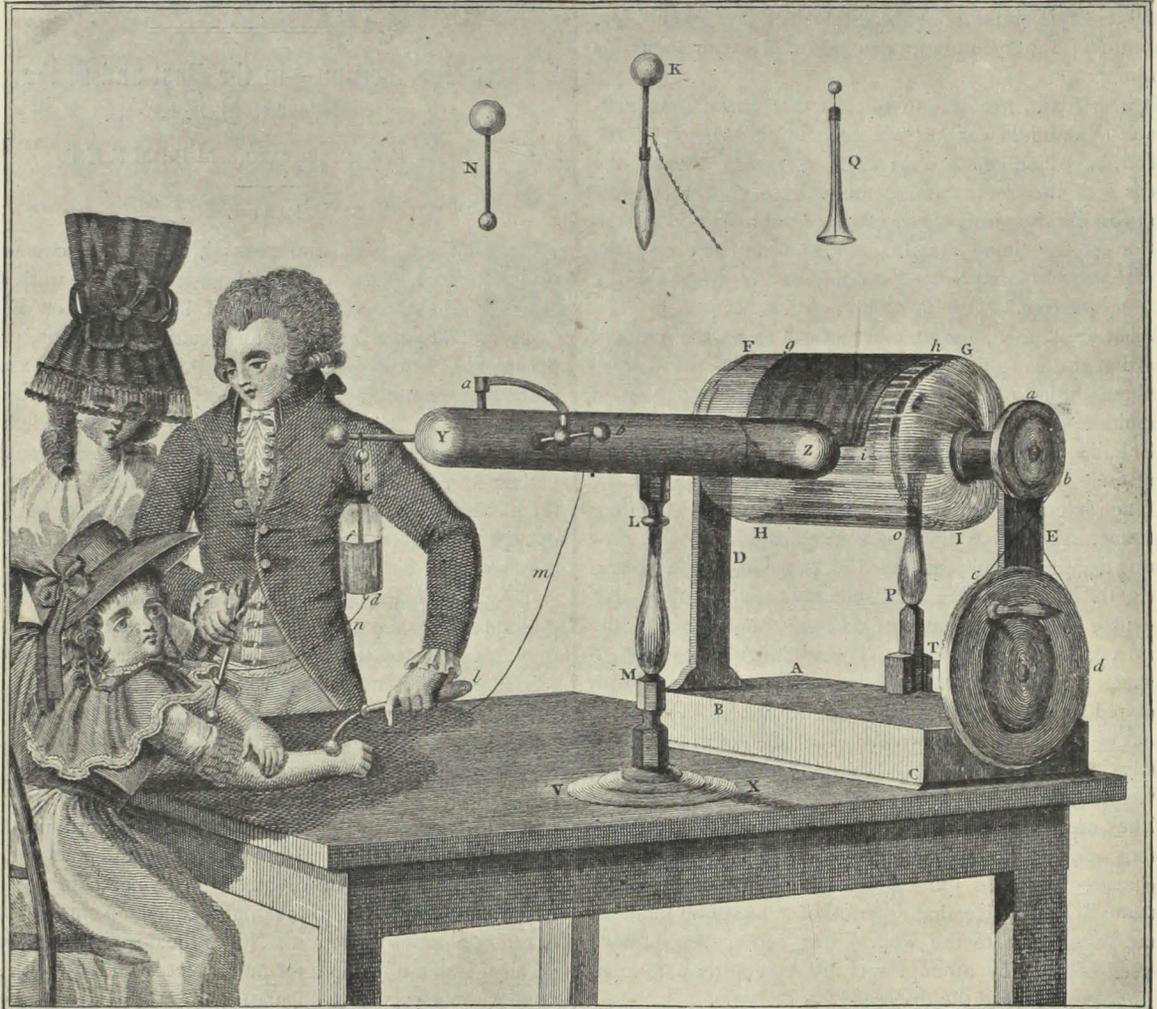


FIG. 1.—ADMINISTRATION OF STATIC ELECTRICITY TO A PATIENT. (FROM A PRINT PUBLISHED IN 1799.)

Gilbert did not apply the knowledge which he acquired to medicine, and it was not until 145 years later that static electricity was used as a curative agent by de Haen (1745), Jallabert (1748), and Abbé Nollet (1749).

In 1752 Benjamin Franklin tried the action of electricity on a number of paralytics. In 1759 John Wesley, the preacher, published a book entitled *The Desideratum; or, Electricity made Plain and Useful, by a Lover of Mankind*

book, *An Essay on Electricity*. An old print, bearing the date 1799, showing the administration of static electricity to a patient, can be seen on the walls in our Electrical Department. A reproduction of it is shown (Fig. 1).

Few results of value had been obtained from static treatment up to this time. Stiff joints and painful muscles seem to have benefited, also functional nervous disorders. The use of static electricity in medicine was more scien-

tifically studied in 1836 and during the following years at Guy's. In 1836 an electrical department was founded at that Hospital, and Dr. Golding-Bird was placed in charge. He was the first medical officer in charge of an electrical department in this country. This department received attention from Addison and Gull, physicians to the Hospital, and in 1837 Addison published a paper in the *Guy's Hospital Reports*, "The Influence of Electricity on Certain Convulsive and Spasmodic Disorders." Dr. Lewis Jones, who has very kindly supplied me with much information on the history of medical electricity, says that this paper is to be regarded as the first scientific medical contribution of real value in this history. Addison's paper dealt mainly with the good results obtained by the use of static electricity in cases of chorea. These results were confirmed by Gull, who, in 1853, wrote on the *Value of Electricity as a Remedial Agent*. Golding-Bird obtained good results in the treatment of amenorrhœa in young subjects. This work at Guy's is of much importance, in that it furnishes the clue as to the *modus operandi* of static electricity in treating disease, and furnishes the indication of the suitability of a case for such treatment. Reference to this will be found later. Golding-Bird also wrote on the use of the galvanic current, and distinguished between galvanic and static electricity in their use for medical purposes. In 1839 Crussel made use of the electrical current for treatment of urethral stricture and for other surgical purposes. His work also has historical interest, because for the first time visible results were obtained and the process of their production actually seen.

About this period, Faraday was at work on induced electrical currents. He had discovered, in 1831, that one current could induce another in a neighbouring circuit, and Duchenne, the distinguished neurologist, formerly a general practitioner in Boulogne, employed induction-currents for the treatment of paralysis and nerve disorders. An amusing story is told of Duchenne. He insisted that locomotor ataxy was not a form of paralysis, although the opposite view was held at that time, and to demonstrate it to an unbelieving doctor he made a patient, suffering from the disease, carry the said doctor on his shoulders.

The influence of Duchenne's teaching has persisted to the present day, when the treatment of paralysis by induction-currents forms a large part of the work of electrical departments at the present time. Fig. 2 shows a picture of Duchenne faradising the frontalis muscle of a patient. Remak, of Berlin, made a prolonged and careful study of the influence of the galvanic current on many conditions, especially joint affections. In 1868, Erb introduced the method of testing muscles and nerves by the induced and by the galvanic currents, and, by him term "reaction of degeneration" was first used.

During recent times, work of the most important kind has been done in France. In 1893, d'Arsonval, of Paris, began

to publish his researches on high-frequency currents, and in 1898 he began to use these currents for medical purposes. At the beginning of the present century, the forward march of the method of treatment by ionisation was started by Leduc, professor at the School of Medicine, at Nantes, whose masterly researches have led to the most successful results in the treatment by electrical methods. Records of treatment by the ionic method had been published before in France, also in the United States, where Edison had, in 1890, suggested the use of the electric current for the introduction of lithium into gouty tissues. In recent years, Nagelschmidt, of Berlin, has been working with much more powerful high-frequency currents, and the diathermy apparatus, which he has devised to produce them, is destined to render much service to medicine and surgery.

At St. Bartholomew's Hospital, in 1882, an electrical department was founded, and Dr. Steavenson was placed in charge. Before this, some galvanic treatment had been carried out in the wards by house-surgeons and by dressers. In the *Hospital Reports* of 1883 will be found an account of the new department by Dr. Steavenson. It occupied a building which had been used as a coroner's court, and stood on a site adjoining the present pathological laboratory. The building, when completed, contained a bathroom with one bath, a lobby in which the patients waited, a workshop, a room for testing and treatment, which contained also an operating table for treatment by electrolysis. During the first year fifty-five in-patients were treated in the department, besides many more out-patients. The cases treated included paralysis, hysteria, ankylosed joints, sciatica, epithelioma and caruncle for destruction by electrolysis, also a case of extra-uterine gestation sent by Dr. Matthews Duncan for destruction of the foetus by electrolysis. Dr. Steavenson also mentioned, as attending the department, one lunatic and a sprained ankle. The electric current used was derived from cells. There were three batteries, each consisting of sixty dry cells. During the next three years, 1883-4-5, 269 in-patients and 876 out-patients attended. For many years the only electric bath in London was that in the Electrical Department at Bart's. In 1891 Dr. Steavenson died, and Dr. Lewis Jones was appointed medical officer in charge of the department. The further history of the progress in medical electricity in this country is closely interwoven with the teaching and writings of Dr. Lewis Jones. He was the first to introduce sinusoidal currents for use in arm baths and in full-length baths in this country, and to recognise the importance of rhythmic variation in their strength, and to adopt this principle in their application to electrical treatment. He made a scientific study of the discharge of medical coils, obtaining graphic records of the output, the form and duration of which is all-important if *painless* muscle contractions are desired and *accurate* reports on muscle reactions are wished for. This matter of the output of induction coils or of the

galvanic battery when used in experimental physiology has been neglected by physiologists. Dr. Lewis Jones introduced the ionic method into this country, and was the first to read a paper on the subject, viz. the treatment of rodent ulcer by zinc ions (1906). In 1907 the Department was moved into its present quarters, and the plan and equipment, with apparatus and appliances, was the work of Dr. Lewis Jones. Eight baths were placed in the Department, and each is now supplied with sinusoidal rhythmically varying

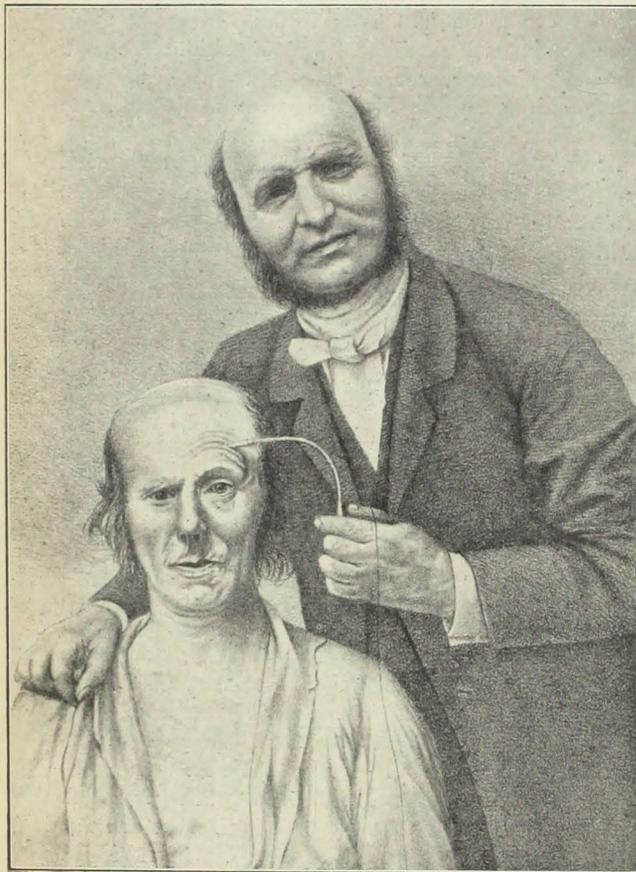


FIG. 2.—DÜCHENNE FARADISING THE FRONTALIS MUSCLE.

currents, which are on circuits completely separated from the main circuit outside, so that short-circuiting and dangerous shocks cannot occur. In 1911 a diathermy apparatus was installed in the Department. At the beginning of the present year Dr. Lewis Jones introduced the method of testing by means of condenser discharges—a method which is likely to lead to much new knowledge on muscle and nerve degeneration.

Finally, by teaching that electricity, when used as a therapeutic agent, acts either by the chemical (ionic) effects it produces, or by its thermal effects (as in diathermy or

high-frequency), he has cleared the field of electro-therapy of the mist and obscurity which formerly surrounded it and has placed it on a firmer foundation. In this way a clearer indication of the cases really suitable for electrical treatment is provided, as well as the procedure to obtain the results desired. An account of the history of the Electrical Department at Bart.'s would be incomplete without mention of Dr. Walsham and radiology. Dr. Walsham had acted as "Assistant Electrician" to Dr. Steavenson in 1889 and 1890, and to Dr. Lewis Jones in 1896. In April of that year the first skiagram was taken at Bart.'s. Since then the X-ray work has rapidly increased year by year. In 1907 Dr. Walsham was appointed Assistant Medical Officer to the Department. In 1912 a new department was formed to take over the X-ray work, and Dr. Walsham was elected medical officer in charge. Dr. Walsham shares with Wenckelbach, of Strassburg, the honour of being the pioneer in the use of X-rays for chest diseases, and Dr. Walsham has the priority, as the first paper on the subject was written by him for the *St. Bartholomew's Hospital Reports* of 1898.

(To be continued.)

Biographical Discoveries.

By A. N. ANIAS.

II.

HERPES Calculus Zoster, who flourished in the early part of the eighteenth century, was a physician of no mean repute, but one whose name is in some danger of being passed over in the annals of Medicine. Indeed, until the recent discovery of some papers relating to his earlier life and less famous works, very little was known about him.

As his name implies he was a native of Uræmia, and was born in the year 1668 at Eczema, which, previous to its destruction by the Filarians under Strongylus Gigas, was then one of the larger cities of that country.

His father was a magistrate of some reputation and a comparatively wealthy man; his mother was the younger daughter of that eminent soldier, General Œdema, of the Meninges.

It appears from the scanty records of his early life that his father wished him to become a lawyer, and Herpes for some few years studied, with this end in view, at the office of the famous Hydatids of Morgagni.

One day, however, on seeing a client suddenly break out into a purple rash and gradually coagulate in the waiting-room, he was fired with a great zeal to study Medicine. He straightway sought the advice of Cecil, the elder of the two Hydatid brothers, and he wisely encouraged the young Zoster to become a physician; "For then," said the aged

lawyer, "perchance you may ease me of my Paramyoclonus Multiplex."*

From this time onwards Herpes Zoster applied himself with remarkable energy to his new pursuit. At the age of twenty-two he entered the Dicrotic School of Medicine at Sarcoma. Here he studied under such masters as Tabes Dorsalis, Hallux Valgus—men who at that time were in their zenith—and also Pemphigus Kyphosis the younger, who had not yet come to his own. His progress here was rapid, and in four years he was elected to the coveted post of Fallopiian Lecturer in Paregorics.

For the next five years he occupied his time almost entirely in research, and his painstaking and accurate methods enabled him in 1695 to publish his first important treatise, entitled, *Dissertatio de quomodo quicumque satis sapiens sit cognoscat quantum sufficit Omnium Talium bibendum pro Bono ex aqua sumendum collunariorum.*

In this he made clear for the first time the true identity of scrofulous melancholia and fulminating pestilence, conditions which up to that time had been regarded as different manifestations of the same morbid conditions! His monograph on *Diapedesis of the Œsophagus in Haberdashers* was written during the following year.

Among his contemporaries at Sarcoma were Peristalsis Anthrax (nephew of the great Omentum) and Philip (son of the Hereditary Antrum of Highmore). His earlier pupils included Argyll Robertson, who was at that time studying on the Continent, and the pathologist Hippus.

In 1702 he resigned his position at the School, and left Sarcoma to take up his abode as a consulting physician in the city of Ranula. His skill and learning in a short time earned for him a reputation which led patients from all parts of the kingdom to come and seek his advice.

He was the first to use *Pulv. Ocul. Cancr.* to any great extent, and his standardised Syrup of Norwegian Leeches has only of comparatively late years been replaced in the treatment of genu valgum.

In spite of the fact that his time was largely taken up by his extensive practice he contrived further to pursue his researches, and in 1712 published a treatise on *The Eustachian Itch* and a volume of *Prescriptions for the Cure of Apoplexy in The Young.*

Herpes Zoster was unmarried and lived, during his residence at Ranula, with a maiden aunt, whose name appears to have been Monoplegia, but concerning whom nothing further is known beyond the fact that she died somewhat suddenly from unknown causes in 1716. It has been suggested, but without any justifiable foundation, that she may have been used as a basis for experimentation. His sister, Angina Malaria, lived with him from the time of his arrival at Ranula to the day of his death, which she survived by two years.

* ED.: Come, I say—you know.

AUTHOR: Local colour.

Records are conflicting as to the exact date of Zoster's death but this probably occurred on September 8th, 1746. The later years of his life were spent in retirement at Diplopia overlooking the Bay of Tænia, and not far from his native town.

A Case of Strangulated Inguinal Hernia in an old insane Woman, with Gangrene of the Bowel; Enterotomy; Recovery.

By EDWARD GANE, M.D.,

Assistant Medical Superintendent, Sunderland Borough Asylum.



J. S—, æt. 77 years, was admitted to the Sunderland Borough Asylum labouring under melancholia of a rather confused type.

On the night of October 21st a swelling about the size of a hen's egg appeared in the left groin. The patient complained of pain, and vomited once a darkish-brown fluid. The swelling was tense, elastic, and obviously contained fluid. There was no impulse.

It was not known at the time whether the patient was subject to a rupture, and there was no indication of one on admission. Later, on inquiry from relatives, it was found that she had had a hernia for many years.

The signs of strangulation were not definite, and the patient could give no reliable account of her symptoms. On the third day, however, her condition was serious, vomiting began to be more frequent, and I decided to explore the swelling.

Under an anæsthetic I made an incision over the whole length of the inguinal canal, and exposed the sac, which had the appearance of dirty wet wash-leather. A clear fluid escaped. A knuckle of bowel, apparently gangrenous, appeared at the bottom of the sac. Except for its apex it was closely adherent to the sac.

Under these circumstances, and the condition of the patient being critical, I decided merely to incise the bowel and leave it *in situ*. This was done, a thin mucoid fluid escaping. A couple of stitches were inserted at the ends of the skin incision and a suitable dressing applied.

The patient vomited freely after the anæsthetic, and during the night collapsed, but rallied after the administration of amyl nitrite and strychnine.

She was somewhat better in the morning, and was much relieved towards evening by the passage of a small quantity of fæces.

Two days later an enema was given, and subsequently the lower bowel began to act naturally, the amount of fæces escaping from the wound becoming less and less. This ceased a few days ago, and the wound is now almost healed without the presence of a fistula. The bowels act naturally, and the patient takes her food in a very satisfactory way.

Her general health (and temper) are in fact much better than they were before the operation.

The case may be of interest as showing the complete way in which recovery may take place under unfavourable conditions.

With regard to the treatment, I must ask my surgical readers to be gently critical. Insane patients give one little help towards an accurate diagnosis, and their symptoms are very often anomalous, or, at any rate, usual symptoms are not seldom absent. Moreover, as in this case, the patients are often restless after an operation and difficult to control.

I publish this case with the kind permission of Dr. Middlemass, Medical Superintendent.

A Case of Dissecting Aneurysm of the Thoracic Aorta.

By T. H. G. SHORE, M.B., B.C.

IN September 19th of this year a man, æt. 62, working at night as a liftman at a goods station, was brought to the Hospital just after midnight. He complained of severe præcordial and epigastric pain, which followed the act of micturition performed a short time before. He stated that for two years he had not been well, having had shortness of breath on exertion, increasing in severity up to the time when he was brought to Hospital, but never sufficiently distressing to make him give up his work. Last January he began to have slight pain, which came on an hour after his food and lasted for about an hour. Lately this pain had been worse, and even continuous, with exacerbations after his food. He had had no vomiting or hæmatemesis, or, so far as he knew, melæna. Towards the end of June the pain changed somewhat, becoming definitely præcordial, and worse on lying down. It had prevented him from having proper sleep for some weeks. About half an hour before he arrived at the Hospital he had emptied his bladder and had then collapsed. He became faint, fell down, vomited once, the pain in his epigastrium and chest became very much worse and his friends brought him to the Hospital in a cab.

He gave a history of having had pneumonia some years ago, but denied having had syphilis. He said that he had always been a strong, healthy man. He was a widower, and had a son alive and well.

When he was examined in the Surgery his temperature could not be registered; he had an anxious expression, and was pale, cold, sweating and a little cyanosed; he groaned sometimes with pain. His breathing was rapid and shallow, and his breath was free from the smell of alcohol. His speech was slurred, though he did not appear to have any paralysis of the facial muscles or tongue. The pupils were

equal, not dilated or contracted, and reacted naturally to light and to accommodation. There was no ocular palsy. His tongue was clean and was not tremulous; his teeth were not very good. The pulse was 60, regular, full, sudden, and of high tension. The radial artery was thick and tortuous. The pulses in the radial and femoral arteries were equal and synchronous. His heart was considerably hypertrophied, and he had double aortic murmurs, with a mid-diastolic murmur at the apex in addition, which was $6\frac{3}{4}$ in. from the middle line in the fifth intercostal space. His lungs were very emphysematous. There was some impairment of percussion note in the first two intercostal spaces on the right side, and the breath-sounds were weaker there. No other abnormal signs were found in his chest. His abdomen was well covered with fat and moved well, except in the epigastric region, where there was rigidity of both recti muscles. He had definite tenderness in that region. His liver did not extend below the costal margin. Both his knee-jerks were present. No urine was obtained.

As no obvious diagnosis was forthcoming beyond that of aortic disease, he was put on a couch and warmed up with hot bottles; he was not allowed to have anything by the mouth. Half an hour later he seemed no better; he was very restless, and complained of continuous pain in the same situations as before; he also had some tingling in the right hand and arm. His pulse-rate was 60, as before, but was obtainable only on the left side, where it was of the same full, forcible character. On the right side no pulse could be felt in the brachial or radial arteries, but it was present in the carotid. Morphine, gr. $\frac{1}{4}$, was given, and he was sent to Mark Ward with a diagnosis of aortic aneurysm, which one imagined to be expanding.

On the following morning the patient seemed better after the few hours' sleep obtained by morphine. He now had signs of consolidation or collapse of part of the upper lobe of the right lung, and also signs of general bronchitis. His right radial pulse could not be felt, though his left was much as before. His eyes showed disseminated choroiditis, and "wiry" arteries. In the afternoon the right radial pulse could again be felt; it was smaller and of lower tension than the left, was considerably delayed, and was very variable in tension, force and volume; also beats frequently failed to reach the wrist. The pulse was therefore very peculiar, resembling closely the pulse of auricular fibrillation.

Unfortunately no tracing was made of the pulse, and soon it disappeared again, never to return. The remainder of that day was spent in relieving his pain, until, at 11.30 p.m., he was found to have died quietly in his sleep.

A *post-mortem* examination was allowed. The heart was sent to the museum unopened, but the description of the aorta is as follows:

"Small rupture in intra-pericardial part of aorta just above the right auricle. This part of the aorta was enlarged,

and the innominate artery also enlarged, darkly stained, and felt abnormally hard, as did the carotid and subclavian. On cutting open the carotid on the right side a dissecting aneurysm was found with clotted blood lying between the separated coats. This had involved the subclavian to some extent, and the clot in between the walls of the carotid had compressed the commencement of the subclavian. The dissecting aneurysm had passed back to the intra-pericardial portion of the aorta, and had ruptured in the situation described. (The pericardium was distended with blood-clot and separated serum.) There was very considerable disease of the intima of the thoracic and abdominal aorta, and a separation of the adventitia from the media extended down to the bifurcation of the abdominal aorta into the common iliacs, beyond which separation could not be traced. There was no blood-clot, or liquid blood, between the coats beyond the innominate, but they certainly appeared blood-stained."

So the diagnosis of aneurysm was confirmed.

There were several points of interest in this case. First, the diagnosis. Judging from the history which the patient gave of dyspepsia, and from the severe pain and rigidity of the recti, together with the subnormal temperature and sweating, a diagnosis of perforation of a gastric or duodenal ulcer was possible. The persistently infrequent pulse was against a diagnosis of the internal hæmorrhage, which his appearance almost suggested. Aortic valvular disease alone did not seem to be enough to account for his condition. His pain was not such as is ordinarily meant by angina. The disappearance, however, of one pulse, previously known to be present, together with slight impairment in the upper two spaces on the right side, seemed to warrant a provisional diagnosis of aneurysm. In this connection is seen the great importance of examining *both* pulses in all doubtful cases, and, indeed, in all cases of disease of the cardiovascular system; for by employing such a routine many cases of aneurysm would be diagnosed, which at present escape notice on account of the somewhat speedy methods necessarily used in the surgery.

Another striking feature of the case was the return of the lost pulse after about twelve hours, and no less striking its character when it did return. Its smallness and the delay were easily explained by the assumption of the presence of an aneurysm, but the apparently complete irregularity was not so easily explained. It is to be regretted that no polygraphic tracings were made while the peculiar characters of the pulse were present. Possibly the explanation was to be found in an aneurysm pulsating with the cardiac action, the pressure in the sac being also influenced by respiration. Those facts, however, would not explain its disappearance, reappearance and second disappearance.

No changes in the voice or pupils were observed, although the whole of the thoracic aorta was involved. The only certain pressure-symptom was that given by

the pulse, possibly with the addition of symptoms of pressure on the phrenic nerves, for at one time it seemed that there was inspiratory recession of the epigastrium resulting from diaphragmatic paralysis; but this point was not very definitely settled. If this were the case, it may have had some influence in the production of the pulse changes.

Finally, no communication between the lumen of the aorta and that of the sac of the dissecting aneurysm was clearly demonstrated, though at the time one spot seemed likely.

It would be interesting if we could know whether the man's pain was due entirely to the dissection of the aorta, or whether he was really bleeding into the pericardium at the time of admission. The apex-beat was very far out, and in the fifth, not the sixth, intercostal space, as might have been expected from his valvular lesion. It is possible that the heart was at that time tilted up, though no signs of fluid could then be demonstrated.

I have to express my thanks to Dr. Drysdale for allowing me to publish notes of this case.

On Buying a General Practice.

By A GENERAL PRACTITIONER.

HE that buys a practice is commonly disappointed: less often that he is deceived by the vendor than by himself.

For it most often happens that a man knows not what he wants until he finds that he has it not.

It is no part of an honest salesman to declare in the market-place why he has for sale some commodity which he can make use of, whether it be a house, a horse, or a medical practice.

For clearly there must be some reason why he believes he can buy something better suited to him than that which he has: or he would not sell.

It is true that he may be about to retire upon a sufficient income, to abandon the practice of medicine for some other calling, to take up an appointment, to leave the district for the sake of his wife's health: but for the most part he that would sell a medical practice is so moved, at least in part, by some dissatisfaction with that he has.

Therefore it is unwise to tempt the vendor by insistent demands upon reasons for sale; rather try to form an opinion of what sort of a life his practice affords, and try to form an opinion as to whether it approaches nearly to what you seek.

Do not put blame for disappointment upon the conveyancer: remember that he may, like other men, be dishonest, and that he has a good opportunity to exercise fraud upon you.

But be he never so honest, he has never lived the life of general practice ; so can he not gauge what is unendurable even for much money, nor how much contentment may be reaped amongst little.

He that lives on a mountain-top for the view should not complain that he has always an up-hill journey home : nor he that rides in a motor-car for ease that his figure is no longer elegant.

So, do not seek the country for its open spaces and complain of the journeys to your patients : neither the houses of the rich for their wealth, and complain of the time occupied in passing from the door-step to my lady's sick-bed.

Much disappointment awaits him who cannot recognise incompatibilities and natural laws.

But there is one thing common to medical practice, and it is largely within your own hands : it is Medicine.

He that would be a faithful servant of Medicine will most often be poor ; but he need never be dull.

He that would be a rich physician will often be disappointed ; and he will most often be very dull.

There is no one thing, next to a love of his fellow-men, that more makes the physician independent of his circumstances than a faithful following of his art.

A writer upon china-collecting for amateurs advised that one should never buy a piece but that he liked it ; for that if he disliked it and found it not what he believed, he had nothing ; but that if he bought what he liked, that he had.

So in buying a practice seek rather an opportunity to practise your art in circumstances as near as possible to what you like, than to find a "bargain."

It is only the few who will be in a position to live in town and purchase pleasures of the country, and so but with limitations.

If apart from medicine, a day's hunting be to you better worth than ready access to the theatre, the trout-stream than the club-room, wild flowers than free libraries : if the wet drive or walk be less an evil than the din and reek of tube and tram, or the prying of the curious neighbour and his gossip than the indifference of the man next door ; then let such preferences guide your choice.

Marriage most often turns the mind to general practice ; and in the choice of a practice the lot of the wife deserves full thought.

Even as the physician rises above many vexations by the faithful pursuit of his art, so, too, does the housewife and mother in the pursuit of hers : yet the visiting physician spends his day amongst his fellow-men, whilst the physician's wife is apt to spend much of her's alone.

And whereas he, at the end of a day of much listening, and some talking, is apt to find rest in silence ; she, at the end of a day of much silence, seeks rest in much talking, and has a great hunger to listen.

Seek then for the good wife some opportunity for companionship—of the making of friends.

The pursuit of riches for itself brings no man happiness : but he that can wisely spend needs also earn.

Not many in general practice save money : for the large income is most often to be set over against the too large house, the car, the servants ; and the small out-goings too often have but the small incomings to balance.

Most general practices are, in the strange language of the mart, "over-capitalised" ; and it were hard to find a parallel to the folly of "competition" in medicine.

So three doctor men shall drive three miles to see three sick folk within three hundred yards, perchance, for three-and-six : so three doctor men shall, all at once, stay home three hours to see their patients, each with a house too big.

So three doctor men, weak with mad spending, shall be led of Satan to listen to three tales from three foul laymen of each other's failings.

But having sought for what we want, what sort of claim is to be allowed to the particular nature of what the lawyers call "the practice, profession, or business of a general practitioner" ?

There is the partnership : of such it is often held that herein is less risk ; and of deliberate fraud so it is ; but the management of sick folk (souls' sick bodies) is such that no two men can (or should try to) act alike ; and the prospect of their being able to work together is a risk as big as anything can be. Enter into no partnership that does not provide for possible dissolution within two years on terms by which all quarrelling can be avoided, and into which it needs no cause of complaint from either party to enter.

A prospect of succession within early reach is of great influence : for there most often is an old man and a young, which makes for much forbearance ; and much may be suffered for a known while, that an unknown term makes insupportable.

How seldom do two friends themselves seek partnership together : and yet where such is tried, how often does it succeed ?

Where two friends decide to seek their fortunes together, it is no bad thing for one to buy a partnership with quick succession to the whole, and then the other join him.

To buy "a practice" is a risk, no doubt ; for who shall say that patients will abide their doctor's "introduction" ? And yet it often proves a better thing than partnerships where strangers fail to understand each other's ways of life.

One great mistake in buying practices is often made : too long an introduction.

A "locum" is the very best beginning to an introduction : a month of such is ample, and a fortnight then (or three weeks at the most) should serve to introduce when both declare the change to patients, who already have some knowledge of the man to come.

There is another plan which, from the difficulty of agents

and conveyancers to learn of it, is seldom possible. And it is this: in smallish country towns where two or three practitioners as "rivals" hold the field between them, two friends who "buy the lot" have bought a practice that is "unopposed"; and as the income likely is no less (more likely more) and the expenses surely must be smaller, here is a sound and comfortable "deal"; for then are swept away the petty jealousies (and bad debts a' many too) which are such chafes and rubs in general practice.

In commerce, I believe it to be recognised that "options," as they call them, are secured for such and such a period of time; and if meanwhile such other circumstances turn out as it is hoped they "exercise the option."

So in general practice, I believe, a sound and proper mode of dealing will be made by those conveyancers who find a way to bring such plans about.

* * *

To buy a practice, then, beware of rogues; but yet still more beware of buying ere you know a little what it is you want.

In all men's dealings and in all men's ways is this in common—by some called "human nature," others yet "a tendency to Sin."

So then a horse that cannot run away may be too old or lame for aught but "Kennels."

And likewise, if you fear so terribly the scandal, gossip, and the "sameness" of life in country towns and villages, remember there may be no loneliness to equal that which swallows a man up in crowds and cities, where the flat above nor knows nor cares if you have gone off to your daily work on your two feet, or have been feet-first carried out, your work-days done.

Seek no flat mountains, nor warm ice, nor wine that robs not gluttons of their wits . . . neither to "gather figs of thistles."

* * *

And general practice is not all the Kingdom; 'tis a part. Seek what you think worth seeking for and in the search you'll find more than you seek.

For Life's Adventure's at the cross-roads still, and you shall fearless sit your horse and wait ready to take the venture as it comes . . . nor yet forget your sword-hilt's mystic form.

Obituary.

DAVID WATKIN HUGHES, M.R.C.S., L.S.A.



regret to announce the death of Dr. David Watkin Hughes, which took place at his residence in Wymondham, Norfolk, last month. He had been in failing health for some time and his death was not altogether unexpected. He was the son of the Rector of

Manafon, Montgomeryshire, and was born in 1837. For over fifty years he had practised in Wymondham, where he had a large practice, and his connection there dated back to 1860. For many years he was medical officer under the Forehoe Guardians, and in earlier days was surgeon to the old Bridewell until it was closed and the prisoners transferred to Norwich. He was a magistrate and a member of the Parish Council since its formation, President of the Wymondham and District Unionist Association, and the senior member of the Doric Lodge of Freemasons. He retired from his practice about four years ago, when he was succeeded by his son, Maurice Burroughes Hughes.

CLEMENT GODSON, M.D., M.R.C.P.

OLD St. Bartholomew's men will learn with great regret the death of Dr. Clement Godson, which occurred in London on November 26th at the age of sixty-eight.

Dr. Godson entered the Hospital in 1863, having received his general education at King's College School and the University of Aberdeen. He took his M.D. degree at that University in 1874, and in the same year was elected a member of the Royal College of Physicians of London. When in 1875 the Governors of St. Bartholomew's decided to appoint an Assistant Physician Accoucheur, Dr. Godson was chosen for the office, and held it until his resignation in 1890. In 1895 he was elected a Governor of the Hospital. For several years he acted as Physician to the Samaritan Free Hospital for Women and Children, and at the time of his death he was the Consulting Physician to the City of London Lying-in Hospital. He was the author of important articles in Quain's *Dictionary of Medicine*, contributed to the *Transactions of the Obstetrical Society* and other journals, and was an Examiner in Obstetrics for the Universities of Aberdeen and Durham.

Dr. Godson was interested in many things outside his profession, particularly in Freemasonry and the Volunteers and Territorials. One of the Founders of Rahere Lodge, he was its first W.M., and subsequently became Treasurer. He was also a Founder of the Rahere Chapter, and acted as I.P.Z. at its consecration. He held Grand Lodge office, and was widely known as a distinguished and active Mason. As Honorary Surgeon-Colonel of the Royal Army Medical Corps (Territorial branch) and Officer Commanding the 2nd London (City of London) General Hospital, he worked enthusiastically for the Territorial Force, and the Volunteer decoration was bestowed upon him.

The funeral service was held on November 29th at St. Mary's, Bryanston Square, and the interment was at Marylebone Cemetery, Finchley.

The Cambridge Graduates' Dinner.

S EVEN for 7.15," Frascati's. The Thirty-eighth Annual Dinner of the Cambridge Graduates' Club of St. Bartholomew's Hospital. It is already evident by the numbers that we are out for record. By the time we are seated, 110 members and guests are present.

7.15-8.45.—Now you realise why members come year after year, why the apologies and regrets for absence are so sincere, and why men are genuinely eager to accept invitations as guests. The Cambridge Dinner is the most enjoyable function of the Hospital year. And incidentally the price of the dinner is only 5s. 6d. One pays considerably more for considerably worse dinners.

8.45.—"The King." The National Anthem is sung with a rhythm, an accuracy and a verve that would suggest prolonged practice of a trained choir. Members and guests seem almost overwhelmed by their own (unsuspected) vocal brilliancy.

8.50.—The youthful Master of Gonville and Caius rises to propose "The Club," and to meet with a reception truly indicative of his great popularity. It is fitting that his first words should refer to the irreparable loss that the Club has sustained during the past academic year, for hardly one man present can have been spared the pang of sad recollection. With the Cambridge Graduates' Club Mr. Etherington-Smith was inalienably associated. It is given to few men to win such affection from so many in such diverse branches of human activity.

During the past year members of the Club have attained many high distinctions in their professional life. Dr. Griffith is President of the Obstetrical Section of the Royal Society of Medicine; Dr. Tooth is President of the Neurological Section; Dr. Langdon Brown, Dr. Barris and Dr. Hamill have been elected to the Hospital Staff; Dr. Myers, Dr. Rivers and Dr. Hele have received high University distinctions.

The prospects of the medical students at present in residence are excellent, and in due course valuable proofs of their ability will be sent to Bart.'s and other hospitals. [No, no, not other hospitals.]

And finally, he welcomes the twelve new members who joined the Club in October.

9.5.—Messrs. Wright, Catford, Stansfeld and Carte give a couple of unaccompanied quartettes. We are certainly out for record in the musical part of the entertainment.

9.20.—Our Consulting Physician, Dr. Norman Moore, rises to propose the toast of "The Guests." (Dr. Moore *always* beats his previous records, and the dictionary was dredged years ago for superlatives to describe his eloquence, so further attempt is futile. His ovation is accompanied by cries of encouragement proleptical of the entertainment to which he is traditionally committed later on in the evening.) Begins in his most delightful fashion to explain the difficulties of the task and likewise his special particular capability to undertake it. Why? Because in his student days he was frequently seduced from the more orthodox academic vocations to dip into that most delightful of delightful books—*The Cambridge University Calendar*! How could he adequately express the fascination of identifying in a contemporary the Lord High Bishop of Timbuctoo or the Junior Under Assistant Sub-Paymaster-General of His Majesty's household! And thus he had primed himself with information about the guests they were delighted to honour this evening, and any imperfections might be attributed, not to his indifference towards their dignities and distinctions, but to his not having devoted sufficient time to the *Calendar*.

Begins now, *seriatim*. First, Dr. Rolleston, who deserted Bart.'s for the more fashionable part of the town, and, thanks to this environment, had gained that courtliness of manner which was suitable to Mayfair duchesses and marchionesses, who would doubtless follow him to Wandsworth. But he ought to remember that whatever was of good in him as regards pathology or clinical medicine (the real meat, so to speak) he owed to Smithfield. Then Mr. John Abernethy Willett—surname and other names of deep affection to Bart.'s; perfect, therefore, in all respects save one—that he owed his allegiance to the older university on the banks of the Isis. Sir Kenneth Anderson, brother of the Chairman. All could not be mentioned, but he must make special reference to two other illustrious Oxonians—Dr. Thursfield and Dr. Gordon—and to Mr. Addison, of London University. He has to choose (or rather appear to choose) two guests who are to answer and one of these is to be Dr. Thursfield, towards whom he experiences that glow of fraternity common to all

men who have spent their years in a post-mortem room. The other is to be Prof. Dixon, whose immediate predecessor was Dioscorides, pharmacologist to the Empress Cleopatra. He would ask Prof. Dixon for some historical pharmacological lore. Does he know, for example, that five kings have written books on *Materia Medica*? (No, he himself had not verified all the references, but he would vouch that Solomon was included.) Does he know which six drugs are named after princes? Does he know that a prescription of Mithridates comprised seventy-seven ingredients (with innumerable incompatibles) which took three hundred years to eradicate from the pharmacopœia?

9.29.—And now, how shall we tell it?

In his six concluding words Dr. Moore split an infinitive!

True, it was only a little one, as Captain Marryat's young lady urged in mitigation; but there it was, and we felt keenly what a shock it must be to the cultured Oxford men.

Musical honours; the time is fair, but there is rather more volume than timbre.

9.35.—Mr. Catford on the platform. (But Mr. Catford, with that glorious voice of yours, you ought to sing about the sea, and piracy and deeds of derring do.)

9.45.—Professor Dixon rises in reply, and is reminiscent. Tells us about himself first of all, which is entertaining, and about certain Bart.'s examinees, which is even more so. Actually has the decency to admit that examiners abuse their position. Follows up by telling us how *he* was scored off. He had asked a man in a *viva* "What common animal can't vomit?" Examinee looks him straight in the face and answers at once, "Kangaroos." Dixon, flabbergasted, says—"Er, yes, but what about rabbits?" Examinee, triumphantly, "Never mind about rabbits, what about kangaroos?"

9.55.—Rises Dr. Thursfield. (Does the Oxford manner "rise" or what alternative does it adopt?) Says he has long been a student of the Cambridge manner, his first acquaintance with which was at an inter-collegiate football match, or rather at the dinner after it. A Cambridge man, an absolute stranger, accosted him and demanded proofs of his sobriety. These were presumably satisfactory, for he was then requested to remove a wineglass from his eye. This simple confidence in an absolute stranger had impressed him enormously. Concludes by drawing a delightful composite of the Bart.'s Cambridge manner by the employment of notorious examples.

10.0.—Mr. Wright obliges with a tuneful autobiography.

10.7.—Dr. Tooth rises to propose the health of the Chairman in his best neurological manner. Confessed he was suffering from nerves—funny complaint for a President of a Neurological Section. Reminds us of the wonderful thing it is to be near a Master of a College, to be able to examine him, and to find him actually a creature of flesh and blood, and charming and affable to boot. Reminds us also of the really amazing record that Bart.'s can claim in four masters of Cambridge colleges!

Musical honours for the toast, but there are three distinct tunes in the boat.

10.12.—The charming unaccompanied quartette.

10.25.—Dr. Anderson returns thanks and proposes—the Secretaries.

10.27.—Amidst terrific yells and semi-coherent utterances apparently professional, part instructive, part admonitory, Dr. Williamson rises in reply. Tells us this is his nineteenth appearance at the Dinner [Very many happy returns]. Speaks with much appreciated sympathy of his predecessor. [Nobody can fill Ethel's place, Dr. Williamson; the mould was broken; but you will get nearer than anybody.] Tells us of the telegraphed regrets of some of the absentees: the Master of Downing ["Dear old—"], the Master of Christ's who had sent us his blessing ["He would!"], the Vice-Chancellor of London University, who was fulfilling a previous long outstanding archi-episcopal engagement.

Dr. Burroughes follows and expresses the happiness he feels at being associated with his fellow secretary. Pays a graceful tribute to Dr. Hartley and also to Dr. Stott, who had organised the musical entertainment, which he did not hesitate to describe as a record for the Club meetings.

10.35.—Auld Lang Syne.

10.45.—Round at Dr. Morley Fletcher's. "Hairy Rouchy," of course! Hairy Rouchy "best of girls," who added to a whole encyclopædia of domestic virtues an irrepressible imperturbability, an indomitable philosophy, and an inexhaustible resourcefulness. Once again (with the affection bred of familiarity) we sigh sympathetically over Hairy Rouchy's (temporary) physical unattractiveness; we gasp half incredulously at her saltatory super-excellence; we grin admiringly at her matrimonial Machiavellism; we tremble apprehensively

at her precarious adventurousness; we thrill exultingly at her outmanœuvring deceptiveness; we roar appreciatively at her unanswerable argumentativeness; and we scream vociferously at her terminating ascendancy!

* * *

And then, Mr. Barnsley! Mr. Barnsley!! What can we say of Mr. Barnsley? Only this—that whilst George Graves makes us smile and occasionally snigger, Mr. Barnsley makes us roar and occasionally explode.

* * *

The Twelve Apostles. *Au revoir*—till the next Cambridge Dinner. A. A.

Correspondence.

ETHERINGTON-SMITH MEMORIAL FUND.

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

DEAR SIR,—A considerable number of your readers have already subscribed to the Etherington-Smith Memorial Fund, and as the subscription list will be closed very shortly I should be glad if any other of your readers who may intend to subscribe will send their contributions to me before the end of December.

It was originally decided by the Executive Committee that the Memorial should take the form of the provision and endowment at St. Bartholomew's of separate sick quarters for the use of the Medical, Surgical and Resident Staff.

The carrying into effect of this proposal by building a ward over a portion of the old operating theatre in the north-east block has involved the reconstruction and refitting of the operating theatre beneath. It was accordingly decided by the Executive Committee to devote the money received for the Memorial not only to the provision of the ward but also to the reconstruction of the theatre. This work is already well advanced, and when completed the ward is to be named the "Etherington-Smith Memorial Ward," and the theatre also is to be dedicated to him.

The amount already subscribed and promised is £1950, and it is hoped that the total subscriptions will reach at least £2000.

I am,

Yours very truly,
T. W. SHORE
(Hon. Treasurer,
Etherington-Smith Memorial Fund).

RIFLE CLUB.

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

DEAR SIR,—In recent leading articles you draw attention to the "torpid" and "comatose" condition of the Miniature Rifle Club.

Some years ago the Range was presented to the students of the Hospital by Lord Ludlow, then Treasurer to the Hospital, and, for a year or so, it was well attended and financially a success, all surplus being applied to improvements. We then entered on bad times, and the attendance was so poor that the Range was closed. The expenses of up-keep were not great—about ten shillings a week—but as the weekly receipts were often less than five shillings, it is obvious that no other course could be followed.

Attempts have been made from time to time to arouse enthusiasm and re-open the Club. They have utterly failed. For instance, at the last annual general meeting, called with reference to reviving the Club, the attendance comprised the President (myself), the two Vice-Presidents (Mr. Gask and Mr. Wilson), the Captain, Secretary, and one committee-man—no students.

Moreover, shortly afterwards, both the Captain and the Secretary left the Hospital without sending in their resignation or notifying the Committee in any way.

From a letter in your last issue—signed "F. W."—there would appear to be a desire on the part of some members of the Students' Union for the re-opening of the Range.

By the time this appears a general meeting will have been called, which it is to be hoped will have been well attended by all members of the Students' Union who are interested.

I can only add that we cannot accept the responsibility of re-opening the Range unless more regular support is promised than has been the case in the past.

I am, Sir,

Yours faithfully,
L. BATHE RAWLING.
(President of the Club.)

November 11th, 1913.

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

DEAR SIR,—In answer to the letter in the November issue of the JOURNAL concerning the Miniature Rifle Range, we should like to draw attention to the reason for closing the Range last winter.

The range is the property of the Students' Union, which allows the Rifle Club to use it. During last autumn (1912) so little interest was shown in the Range and so few men made use of it that the Rifle Club requested the Students' Union to close it. This was done and it has remained closed ever since.

By the time the December issue of the JOURNAL appears a meeting of the Rifle Club will have been held to find out whether there is any real desire to re-open the Range among a sufficient number of men to make it worth the expense of doing so.

Should this be found to be the case the Club would probably request the Students' Union to give its members another opportunity of making use of the Range, which is undoubtedly one of the best in London.

We are, sir, yours faithfully,
J. G. ACKLAND, } Hon. Secs.
O. B. PRATT, } Students' Union.

ST. BARTHOLOMEW'S HOSPITAL,
LONDON, E.C.;
November 18th, 1913.

FABIAN SOCIETY: RESEARCH DEPARTMENT.

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

SIR,—The Fabian Research Department, in compliance with numerous requests, has started a detailed investigation of the various forms of industrial insurance, beginning with the working of the National Health Insurance Act. The investigation will have for its sole purpose to discover what actually is the effect of the Act and in what way its operation can be improved. Will you permit me to invite insured persons, doctors, nurses, members of insurance committees, workers in any way connected with friendly societies, such as sick visitors, agents, secretaries, branch secretaries, etc., etc., to contribute facts or other information which they think would be of service.

We should, for example, be very pleased to receive copies of the minutes and regulations of insurance committees, particulars of societies' admission or refusal, expulsion or transfer of members or refusal of permission to transfer, adequacy or inadequacy of medical treatment, success and failure of the sanatorium benefit, medical attendance available for persons leaving home or away from home, the working of the maternity benefit, and so on. We want to hear of every example of satisfaction or success, as well as of every grievance or failure, and to explore all the results that can be yet traced. For this we can rely only on the kind co-operation of the Press and the public.

I am, yours very truly,
SIDNEY WEBB.

37, NORFOLK STREET, STRAND,
LONDON, W.C.,
October 10th, 1913.

FUND IN AID OF MRS. DYSON.

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

SIR,—The sum received by us in subscriptions to this fund amounts to £68 15s. 0d.

On behalf of Mrs. Dyson we beg to thank those gentlemen who have so kindly sent us their contributions in response to the appeal which you were so good as to insert in the October number of the JOURNAL.

We remain,

Yours faithfully,
HOWARD H. TOOTH,
JOHN ADAMS.

November, 1913.

VACANT POSTS ABROAD.

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

SIR,—I wish to make known to students and junior members of the medical profession some openings which, putting aside other aspects of the work, provide a variety of cases and scope for the performance of important operations greater than commonly fall to the lot of general practitioners in this country. In the majority of these places there can also be the inspiring reflection that there is no other qualified doctor within many miles to whom the patients could possibly apply for the treatment they need. The salaries, except in the case of Rusapi, in Mashonaland, where there is a Government

guarantee of £300, besides private practice, are small, but sufficient for comfortable maintenance of unmarried doctors, being the same, both for men and women, as those offered to the clergy working under similar conditions in the S.P.G. missions, in connection with which these posts are.

The doctors must be in full sympathy with mission work, but will not be required to do any but their professional work, unless they desire it themselves. The vacancies are, for men—(1) Hazaribagh, Behar, India; (2) Rusapi, Mashonaland; (3) Kwamagwaza, Zululand. For women—(1) Ping Yin, North China; (2) Delhi, India; (3) Malacca. In all these places the hospitals are in full working order. Several more men are wanted for China and three women for India, but we could not send them at present owing to lack of funds. Our doctors never enter into competition with private practitioners or those working in Government posts.

If you will kindly insert this letter in the forthcoming number of the Hospital JOURNAL it may prove an assistance to the efforts which the S.P.G. is now making to meet the great need for medical aid in places otherwise unprovided for by bringing these vacancies to the notice of some who are suited to fill them.

I shall be glad to answer fully any inquiries made from me about these posts and the needs and plans of this department of the S.P.G.

K. W. S. KENNEDY, M.B.,

Secretary, Medical Department, S.P.G.

15, Tufton Street, Westminster, S.W.

The Clubs.

ASSOCIATION FOOTBALL.

ST. BART'S v. AQUARIUS.

This match was played at Winchmore Hill on Saturday, October 25th, and resulted in a somewhat unexpected win for the Hospital by 5 goals to 3.

Aquarius kicked off and pressed from the start. After about ten minutes' play they scored, but shortly after Carlyle replied for the Hospital. At half-time the score was two all, both our goals being scored by Carlyle.

After the re-start Aquarius continued to press and soon scored, the ball slipping through Mack's fingers. Shortly after, however, Braun added another for the Hospital, and of the remaining two goals, one was shot by our opponents' right-half, and the other by McFarland.

On the whole it was a very creditable performance, since both our regular backs were away, and we were beaten by the same team in a cup-tie last year, with a full side out.

The following represented the Hospital.

R. G. Mack (goal); E. M. Grace, G. C. Wells-Cole (backs); G. M. Cowper, G. D. Jameson, D. P. Thomas (halves); A. O. Courtiss, J. B. McFarland, L. Braun, T. Carlyle, K. D. Atteridge (forwards).

SENIOR MIDDLESEX A.F.A. CUP.

(1st Round.)

ST. BART'S v. EALING SWIFTS.

This match was played at Winchmore Hill on Saturday, November 1st, and resulted in a win for the Hospital, the score being 2—0.

Our opponents and the referee did not arrive on the ground till 3.30, so the game had to be curtailed, as only thirty-five minutes each way was possible.

In the first half there was no score, and the game was fairly evenly contested, though the Hospital had, if any, the better of the game.

In the second half, however, the Ealing Swifts seemed to go to pieces, and towards the end our two goals were scored in quick succession, the first by Braun off a centre from Courtiss, and the second by McFarland. The latter was really due to Soutter, who cleverly baulked the opposing left back by jumping over the ball as it rolled across the goal-mouth, and allowed McFarland to take an open goal.

The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, J. W. Stretton (backs); E. M. Grace, G. D. Jameson, G. M. Cowper (halves); A. O. Courtiss, J. B. McFarland, J. S. Soutter, L. Braun, K. D. Atteridge (forwards).

AMATEUR DRAMATIC CLUB.

The Treasurer and Almoners have kindly given permission for the Christmas Entertainment to be held on three nights instead of two to prevent a repetition of the crowding of recent years.

The Club will produce "Beauty and the Barge," by W. W. Jacobs and Louis N. Parker, in The Great Hall, on January 5th, 6th, 7th, the dress rehearsal, to which patients are invited, being held on Saturday, January 3rd.

THE UNIVERSITY OF LONDON CRUISING CLUB.

This Club was founded in 1912 to promote intercourse between members of the University and its colleges interested in sailing and matters nautical, and to foster the sport of yacht and boat cruising and racing by affording, both to the novice and others, special facilities for indulging therein.

Since its foundation good progress has been made. Several Club cruises have taken place, in which members owning boats and others, who, forming parties, have hired them, have taken part.

It is also satisfactory to be able to announce that arrangements are now being made to form a one-design dinghy class, stationed in or near London. These boats will be the property of the Club and available for the use of members for racing and cruising. It is proposed to design them to be eligible for one of the Boat Racing Association classes, so that they may take part in interclub races and the various B.R.A. weeks at the yachting stations round the coast.

It is to be pointed out that dinghy sailing is a fine school for the prospective yachtsman, and the privilege of being able to get a sail almost any time, within easy distance of the Hospital at trifling expense, is one to be taken advantage of by any who feel the attraction.

The Annual Dinner of the Club will take place in London on Monday, December 15th. Any who feel disposed to join and would like to attend the dinner, at which they will meet the present members and hear about the Club, are invited to communicate with me either at the Hospital or at 18, George Street, Hanover Square, W.

Arrangements are also being made for a course of instruction in navigation during the winter.

Membership is open to all teachers and students of the colleges of the University and consequently to any members of St. Bart's Medical School, in addition to graduates and undergraduates of the University. The annual subscription is 5s.; no entrance fee. Inquiries should be addressed to me or to Mr. Ackland, secretary of the Students' Union, or to Mr. S. H. White, secretary of the Club, University of London, S. Kensington.

The Club will be glad of the support of old Bart's men who have matriculated in the University.

J. G. A. FAIRBANK.

The Bookshelf.

BOOKS RECEIVED FOR REVIEW.

Lectures on Tuberculosis for Nurses. By Oliver Bruce. (H. K. Lewis.) 2s. 6d. net.

Lectures on Medical Electricity to Nurses. By Delpratt Harris. (H. K. Lewis.) 2s. 6d. net.

The Ideals and Organisation of a Medical Society. By J. B. Hurry. (J. & A. Churchill.) 2s. net.

The Administrative Control of Smallpox. By W. M. Wanklyn. (Longmans, Green & Co.) 3s. 6d. net.

The Elements of Bandaging Fractures and Dislocations. By William Rankin. (Henry Frowde, Hodder & Stoughton.)

Manual of Surgery: Vol. III—Operative Surgery. By Thomson and Miles. Second edition. (Henry Frowde, Hodder & Stoughton.)

Alimentary Toxæmia. From *Proceedings of the Royal Society of Medicine.* (Longmans, Green & Co.) 4s. 6d. net.

REVIEW.

TREATMENT AFTER OPERATION. By WILLIAM TURNER, M.S., F.R.C.S., and E. ROCK CARLING, B.S., F.R.C.S., with a Chapter on the EYE, by L. V. CARLING, F.R.C.S. 8vo. Pp. x + 247. Illustrated. (London: University of London Press. Published for the University of London Press by Hodder & Stoughton and Henry Frowde.) Price 10s. 6d. net.

The authors state in their preface that there is undoubtedly a demand amongst practitioners for an account of the after-treatment of operation cases. The book has been written almost entirely without reference to other books, and no attempt has been made to include varieties of method or to indicate differences of opinion. The methods, directions and dates are those habitually employed or relied upon by the authors.

In the chapter on the stomach and duodenum, it is said that with regard to perforated gastric and duodenal ulcers, cases operated upon within twelve hours of perforation present few "difficulties in the after-treatment"; while in the next section of this chapter it is advised that aperients should not be given until the fourth day at the earliest. It is not clearly stated whether the last remark is intended to refer to all cases of operations on the stomach or duodenum, including those of perforated gastric or duodenal ulcer followed by general peritonitis, or whether it only applies to those in which an aseptic condition of the peritoneum is maintained, such as an ordinary gastro-enterostomy. We also consider that the authors are unduly severe in including their uncomplicated and aseptic appendicectomy patients amongst those who are confined to a diet of water and albumen-water for at least three days after the operation.

Having mentioned the above criticisms, we may say frankly that we have formed a very high opinion of this book. It is one we can confidently recommend to every house-surgeon as a most useful aid to him in his work, and one to which he may turn with every expectation of finding what he wants. Rapid reference is facilitated by means of special type for headings and subheadings and by a carefully compiled index. The book itself is light and easy to read.

Hospital and Teaching Appointments held by Past Students of the Hospital.

LONDON. LIST No. 2.

<i>Hospital.</i>	<i>Name and Post.</i>
King Edward Memorial Hosp., Ealing	{ D. Arthur } { J. G. French } <i>Hon. Con. Staff.</i> { D. N. Ruck }
German Hospital	F. P. Weber, <i>Physician.</i>
Gt. Northern Central Hospital	C. M. Hinds Howell, <i>Physician.</i> { J. Gay French, <i>Aural and Throat Surgeon.</i>
Hampstead General and N.W. London Hospital	{ E. H. Shaw, <i>Pathologist.</i>
Italian Hospital	{ Sir W. J. Collins, <i>Ophth. Surgeon to In-Patients.</i>
Kens. and Fulham Gen. Hosp.	{ M. L. Hepburn, <i>Ophth. Surgeon to Out-Patients.</i>
Leyton, Walthamstow and Wanstead General Hospital	{ Sir Dyce Duckworth, <i>Hon. Con. Physician.</i>
London Temperance Hospital	{ F. Melandri, <i>Physician.</i>
Memorial Hosp., Mildmay Pk.	{ T. P. Legg, <i>Surgeon.</i>
	{ C. A. Horsford, <i>Aural Surgeon.</i>
	{ J. H. Swanton, <i>Obst. Physician.</i>
	{ A. S. Worton, <i>Ophthal. Surgeon.</i>
	{ C. J. Horner, <i>Medical Officer.</i>
	{ Sir W. J. Collins, <i>Con. Surgeon.</i>
	{ W. McAdam Eccles, <i>Surgeon.</i>
	{ H. J. Paterson, <i>Surgeon.</i>
	{ H. Whale, <i>Throat Surgeon.</i>
	{ S. H. Habershon, <i>Con. Physician.</i>

(To be continued.)

OMISSIONS IN PREVIOUS LIST.

Charing Cross Hospital	{ J. A. Bloxam, <i>Con. Surgeon.</i>
	{ E. B. Waggett, <i>Surgeon, Nose, Throat and Ear Department.</i>
North-East London Post-Graduate College (Prince of Wales' General Hospital, Tottenham)	H. W. Carson, <i>Sen. Surgeon.</i>
Royal Free Hospital	{ S. West, <i>Cons. Physician.</i>
	{ M. L. Hepburn, <i>Ophth. Surgeon.</i>
London School of Medicine for Women	M. L. Hepburn, <i>Lect. in Ophth.</i>
West London Post-Grad. College (West London Hospital)	{ R. W. Lloyd, <i>Sen. Anaesthetist and Lect. on Anaesthetics.</i>
	{ N. W. Bourns, <i>Administrator of Anaesthetics.</i>
Westminster Hospital	{ F. de Havilland Hall, <i>Con. Phys.</i>

ERRORS.

North-East London Post-Graduate College (Prince of Wales' General Hospital, Tottenham)	{ W. Stewart } <i>Have left the Hospital.</i>
	{ F. Trewby }

Examinations and Degrees.

UNIVERSITY OF OXFORD.

October, 1913.

The degree of M.D. was conferred upon L. T. Burra, A. F. S. Sladden.

The degree of M.B. was conferred upon G. W. Carte.

UNIVERSITY OF CAMBRIDGE.

October, 1913.

First M.B. Examination.

Part I: Chemistry.—C. M. Billington.

Part II: Physics.—C. M. Billington, P. T. Liang.

Part III: Biology.—C. M. Billington.

Second M.B. Examination.

Part II (New Regulations).—A. B. Appleton, E. T. D. Fletcher
C. E. Kindersley, H. D. McCall, J. B. McFarland, J. A. B. Snell
C. R. A. Thacker.

D.P.H.

W. J. Cran, W. G. Hamilton, E. C. Williams.

The following degrees have been conferred:

M.D.—C. B. Heald, G. W. Twigg.

M.B., B.C.—H. J. Couchman, R. Hodson, A. C. Roxburgh, G. A. Smythe.

M.B.—C. C. H. Binns, T. E. Osmond.

B.C.—R. S. Morshead.

UNIVERSITY OF LONDON.

Third M.B., B.S. Examination for Medical Degrees.

For Internal and External Students.

October, 1913.

Pass List.—A. C. L. O'S. Bilderbeck, A. J. Clarke, J. M. Curé, W. H. Jones, E. N. Snowden, E. W. Whiting, G. Whittington.

Supplementary Pass List: Group II.—W. Simpson, F. G. A. Smyth.

UNIVERSITY OF DURHAM.

The following degrees have been conferred:

M.D.—R. C. Tweedy.

M.B., B.S.—R. L. Kitching, J. S. Soutter.

CONJOINT EXAMINATION BOARD.

October, 1913.

First Examination.

Chemistry and Physics.—T. C. Higgins, C. G. J. Rayner.

Practical Pharmacy.—C. J. L. Blair, J. Macadam.

Second Examination.

Anatomy and Physiology.—V. R. Mirajkar.

Final Examination.

The following have completed the examinations for the Diplomas of M.R.C.S. and L.R.C.P.: E. J. Bradley, H. J. Bower, C. S. Atkin, J. W. Stretton, E. H. P. Brunton, E. E. Mather, G. T. Loughborough, O. G. Maginniss, F. E. S. Willis, C. B. Vakil, H. R. Dive, F. T. Hill.

Primary Fellowship Examination.

A. G. T. Fisher, H. E. Griffiths, H. T. Hunter, R. A. R. Wallace.

Royal Naval Medical Service.

The following appointments have been notified since September 20th, 1913:

Fleet-Surgeon H. Spicer to the "Indefatigable," undated.
Staff-Surgeon A. Woolcombe to the "Victory," for trials of "Iron Duke," November 14th, 1913.

Surg. E. Moxon-Browne to the "Triumph," for Hong-Kong Hospital, to date November 8th, 1913.

Acting-Surgeon P. Wallis to the "Victory," additional for Haslar Hospital, to date September 25th, and to "Victory," additional for course of instruction at the Naval Medical School, Greenwich College and R.N. Hospital, Haslar, to date October 20th, 1913.

Acting-Surgeons F. Wright and D. Arthur have been confirmed in the rank of Surgeon in H.M. Fleet, with seniority of April 11th, 1913.

October 17th, 1913.—One of the prizes, for the subjects in which instruction is given at Haslar, was awarded to Acting-Surgeon F. C. Wright, of St. Bartholomew's Hospital.

Acting-Surgeon F. C. Wright also received special commendation for being second in the Second Haslar Group, and for the consistently good work he has done throughout the examinations.

New Addresses.

BATES, T., jun., 44, Foregate Street, Worcester. (Tel. 167.)
 BOULTON, Major H., I.M.S., Deputy Assistant Director of Medical Services for Mobilisation, 7th (Meerut) Division, Meerut, India.
 CANTI, R. G., 63, Palace Court, Bayswater, W. Formerly 24.
 COOK, J. B., Brentford Union Infirmary, Isleworth.
 DALE, C. B., 66, Bristol Road, Birmingham. Formerly 106.
 DUNN, J. C. S., 27, Warwick Road, Upper Clapton, N.E., and 159, Old Street, E.C.
 GLENNY, E. T., Shakespeare House, Hainton Avenue, Grimsby.
 HILL, R. G., 10, Castle Street, Farnham.
 HORNER, N. G., 48, Philbeach Gardens, Kensington, S.W.
 HOWELL, B. W., Royal National Orthopædic Hospital, Great Portland Street, W.
 HOWELL, C. M. HINDS, 145, Harley Street, W.
 INCHLEY, O., 32, Rustat Road, Cambridge.
 MACKAY, E. C., 29, Warrior Square, St. Leonards-on-Sea.
 MAW, G. O., Coningsby, Shortlands, Kent.
 MORSHEAD, R. S., Evelina Hospital for Children, Southwark Bridge Road, S.E.
 NEWMAN, Sir GEORGE, Grims Wood, Harrow Weald, Middlesex.
 O'KINEALY, Lieut.-Col. F., I.M.S., Superintendent's House, Presidency General Hospital, Calcutta.
 PRICE, Lieut. R. B., R.A.M.C., McGrigor Barracks, Aldershot, Hants.
 PUGH, J. W., 17, Cavendish Place, Cavendish Square, W.
 RANKEN, D., Victoria House, 72, Jesmond Road, Newcastle-on-Tyne. (Tel. 1520 Central.)
 SODEN, W. S., Metropolitan Hospital, Kingsland Road, N.E.
 SOUTTER, J. S., Metropolitan Hospital, Kingsland Road, N.E.
 STANGER, G., Wolverhampton and Staffordshire General Hospital, Wolverhampton.
 STANLEY, E. G., 145, Harley Street, W.
 STIDSTON, C. A., 14, Waterloo Road, Wolverhampton. *Additional address.*
 TAYLER, H. P., 13, Higher Broadway, Exmouth.
 WIGAN, W. C., Luddesdown, Gravesend.

Appointments.

BOULTON, Major H., I.M.S., M.B., B.C. (Cantab.), M.R.C.S., L.R.C.P., appointed Deputy Assistant Director of Medical Services for Mobilisation, 7th (Meerut) Division, *sub pro tem.*
 COOK, J. B., M.D., Ch.B. (Vict.), D.P.H. (Cantab.), M.R.C.S., L.R.C.P., appointed Medical Superintendent to the Brentford Union Infirmary, Isleworth.
 FEILING, ANTHONY, M.B., M.R.C.P., appointed Assistant Physician to the Metropolitan Hospital.
 HEPBURN, M. L., M.D. (Lond.), F.R.C.S., appointed Ophthalmic Surgeon to the Royal Free Hospital and Lecturer in Ophthalmology to the London School of Medicine for Women.
 HOWELL, B. W., M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., appointed Senior House Surgeon at the Royal National Orthopædic Hospital, Great Portland Street, W.
 MORSHEAD, R. S., M.B., B.C. (Cantab.), M.R.C.S., L.R.C.P., appointed House-Physician at the Evelina Hospital for Children, Southwark Bridge Road, S.E.
 NEWTON-DAVIS, Captain C., I.M.S., M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., appointed Specialist in Throats and Ears to the Northern Army, India.
 SODEN, W. S., M.R.C.S., L.R.C.P., appointed House-Physician at the Metropolitan Hospital, Kingsland Road.

SOUTTER, J. S., M.B., B.S. (Durh.), M.R.C.S., L.R.C.P., appointed House-Surgeon at the Metropolitan Hospital, Kingsland Road.
 STANGER, G., M.B., B.Ch. (Oxford), M.R.C.S., L.R.C.P., appointed House-Surgeon at the Wolverhampton and Staffordshire General Hospital, Wolverhampton.

Births.

BOULTON.—At Rockcliff, Mussoorie, on September 30th, 1913, the wife of Major H. Boulton, I.M.S., of a daughter.
 LEGGE.—On the 22nd inst., at 5, Cannon Place, Hampstead, the wife of Thomas M. Legge, M.D., of a son.
 LINDSEY.—On November 6th, 1913, at "Beaumont," Irving Road, West Southbourne, Bournemouth, the wife of Mark Lindsey, M.R.C.S., L.R.C.P., of a son.

Marriage.

MACKIE-BALL.—On November 22nd, 1913, at St. Paul's Cathedral, Calcutta, Captain F. Percival Mackie, I.M.S. (formerly K.G.O. Central India Horse), son of the late Rev. John Mackie, Rector of Filton, Glos., and of Mrs. Mackie, Compton Greenfields, to Gladys May, younger daughter of W. J. Ball, Upper Belgrave Road, Clifton, Bristol.

Deaths.

GODSON.—On November 26th, at 5M, Montagu Mansions, W., Clement Godson, M.D., V.D., of Sharsted Court, Westgate-on-Sea, and late of 82, Brook Street, W., Knight of Grace of the Order of St. John of Jerusalem.
 HUGHES.—On October 19th, 1913, D. W. Hughes, M.R.C.S., L.S.A. of Wyndham, Norfolk.

Acknowledgments.

The Nursing Times, The British Journal of Nursing, The Practitioner, The Magazine of the London (Royal Free Hospital) School of Medicine for Women, New York State Journal of Medicine, The Student, Guy's Hospital Gazette, St. Mary's Hospital Gazette, Middlesex Hospital Journal, Medical Review, University College Hospital Magazine.

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: 1436, Holborn.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d. or carriage paid 2s. 3d.—cover included.

St. Bartholomew's Hospital



JOURNAL.

VOL. XXI.—No. 4.]

JANUARY, 1914.

[PRICE SIXPENCE.]

St. Bartholomew's Hospital Journal,

JANUARY 1st, 1914.

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

CALENDAR.

Thurs., Jan.	1.—Second Examination Conjoint Board begins.
Fri., "	2.—Dr. Tooth and Mr. D'Arcy Power on duty.
Mon., "	5.—Second Examination of the Society of Apothecaries begins.
Tues., "	6.— Winter Session resumes. Final Examination Conjoint Board (Medicine) begins. Dr. Garrod and Mr. Waring on duty.
Wed., "	7.—First Examination of the Society of Apothecaries begins.
Thurs., "	8.—Final Examination Conjoint Board (Midwifery) begins.
Fri., "	9.—Final Examination Conjoint Board (Surgery) begins. Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., "	13.—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., "	14.—Oxford Lent Term begins.
Fri., "	16.—Dr. Herringham and Sir Anthony Bowlby on duty.
Tues., "	20.—Dr. Tooth and Mr. D'Arcy Power on duty.
Fri., "	23.—Dr. Garrod and Mr. Waring on duty.
Tues., "	27.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., "	30.—Dr. Morley Fletcher and Mr. Bailey on duty.

EDITORIAL NOTES.

THE Etherington-Smith Memorial fund is still some £30 short of the desired £2000. In our last issue we published a letter from the Dean, appealing for the balance required, but apparently the letter has not been read, or we cannot but think that this

small amount would have been forthcoming. We therefore appeal through our editorial column to those students, both past and present, who knew and revered Mr. Etherington-Smith, to do their utmost to make good the amount in question.

* * *

In our last issue we called attention to a meeting of students of the University of London which was held with the intention of commending the report of the Royal Commission. That meeting was, as we explained, adjourned. The new meeting was held on December 5th.

No notice of this meeting was sent to the Hospital, and it was only by accident that we heard of it on the morning of the same day.

We suspected that the promoters, in their anxiety to carry their motion, had of malice aforethought attempted to keep in ignorance those whom they suspected of opposition. The time was too short for us to gather our forces together, but we felt that protest was necessary, and that an amendment from the medical students ought to be moved, so, with but one or two supporters, we attended the meeting and entered the lists.

There were probably between 1200 and 1500 students present altogether, and, having secured permission to ascend the platform, we sent forth our protest against the exclusion of the medicals from this so-called *representative meeting*.

The secretary rose, and replied that there were so few medicals present at the last meeting that he did not think it worth while to notify them.

The students present, however, did not swallow this pill, and, on their sporting instincts being appealed to, they passed an amendment on behalf of the medicals to the effect that the report of the Commission, in as far as it concerned medical teaching, was not entirely satisfactory and needed revision.

Had due notice been given we could no doubt have mustered a force sufficient to adjourn the meeting again, and this would have been preferable, because, as we said

last month, such a meeting is entirely premature, considering that the faculties had not sent in their reports.

* * *

We extend our hearty congratulations to Mr. R. M. Vick and to Mr. K. J. A. Davis, both of whom have taken their M.C. degree at Cambridge. Further, we have to congratulate Mr. Vick on his appointment as Assistant Surgeon to the Metropolitan Hospital.

* * *

It is with very much pleasure that we note that Mr. H. E. G. Boyle and Mr. J. F. Trewby have been appointed Anæsthetists to the Hospital after five years' service as assistant anæsthetists. We offer them our heartiest congratulations.

* * *

On November 27th at a General Court two new governors were elected: Miss Ada Crosby, daughter of the Lord Mayor, Alderman Sir Thomas Crosby, M.D. Elected in respect of services rendered in connection with the grant of £500 received from the Executive Committee of "Alexandra Day." Lewis Gladstone Glover, Esq., M.D. Cantab., Ophthalmic House Surgeon in 1894. Elected in respect of a donation of £105 from his father, Sir John Glover, J.P.

* * *

Owing to the Christmas holiday season we are obliged to go to press early, and can, therefore, give no account of the festivities in the wards. We have no doubt, however, that these will prove as successful and attractive as heretofore, and we shall hope to give some account of them in our next issue.

* * *

Upon inquiry of Mr. Edwin J. Layton, Honorary Secretary of the Appeal Committee, as to the present position of the Fund, he informs us that, up to date, 1150 contributors have been good enough to send in subscriptions and donations amounting to £10,450. The help of all the present friends of the Hospital and that of new friends is still needed to meet the annual deficiency of income, further to reduce the debt to the bankers, and to make it possible to contemplate the rebuilding of the nurses' home.

The Honorary Secretary would be deeply grateful for any contributions, be they small or large. They should be sent to him addressed: "Honorary Secretary of Appeal Committee, St. Bartholomew's Hospital, E.C."

* * *

We have to announce with great regret the death of Sir Trevor Lawrence, which took place on December 22nd. Sir Trevor Lawrence was the son of Sir William Lawrence, F.R.S., surgeon to this Hospital, and first baronet, and was in his eighty-second year. He was treasurer of the Hospital from 1892 to 1904. A more adequate obituary notice will appear in the next number of the JOURNAL.

"SOME BART.'S MEMORIES," 1877-1881.

By WALTER H. JESSOP.

Being the Sessional Address delivered to the Abernethian Society on October 3rd, 1913.



R. PRESIDENT, Ladies and Gentlemen,—First of all may I congratulate the President on the honour his fellow-students have conferred upon him and wish him a happy and prosperous year of office. I am sure you will all be delighted to see, after some years' absence, the historic chair of our founder, even though it has been restored almost beyond recognition.

Next may I say that the subject of this address was suggested to me by your most persuasive secretary, Mr. Keynes, and little did I dream how difficult it would be to arrange. As far as possible I wish to restrict the time to my student and house-surgeon days, 1877 to 1881. I have already given you an address on the subject of my thirteen years in the dissecting rooms, which has not yet been published, as the facts dealt with were then of too recent date. More than thirty years, however, have passed since the occurrences I now attempt to chronicle, and I hope that, as when telling tales, which perhaps had better not be told at all, one is often skating on very thin ice, I may not offend anyone's susceptibilities. In a grand, ancient and venerated hospital as St. Bartholomew's, tradition and memories must necessarily play a great part.

"Hic schola magna sedet medicinæ, cujus in omnes
Pervenit terras fama, et ubique sonat,"

to quote the words of the Poet Laureate in his classic 'Carmen Elegiacum de Nosocomio Sancti Bartolomei Londinensi,' from which the other Latin quotations mentioned here are taken.

To-night it would ill become me not to say a few words of our great founder, John Abernethy.

"Mens et Abernethi docta, jocosâ, sagax."

Pupil of Percival Pott, he carried on the principles of surgery enunciated by his master, who was the first surgeon of his day and a scientific writer compared by some to Celsus.

The following interesting lines I found about Pott in an old book of 1825: "His life was a national blessing, his death a national loss; he enlarged the bounds of art, human malady shrunk before him; he was eyes to the blind, and feet to the lame. . . ."

Abernethy was so celebrated as a lecturer and attracted such a large class in Bartholomew Close that the Governors of this Hospital built him a Lecture Theatre, probably on part of the site of this theatre. His lectures, delivered sitting in the famous chair, were distinguished by clearness and impressiveness of delivery, at times accompanied by a

peculiarly descriptive play of the facial muscles. There are many tales extant of him and I mention two in Mr. Luther Holden's own words :

"Can I ever forget the old theatre in which our great Founder, Abernethy, delivered his famous lectures, and the rickety old armchair from which he gave the most famous of them all? Would you care to hear the substance of it? Don't be alarmed; it consisted of only four words. Abernethy came at 7 p.m. to give the surgical lecture, and, as usual, the theatre was crammed. 'Johnny,' who had indulged in an extra glass of his old port and felt it, was rather loth to enter the theatre lest his voice should betray him. However, in he walked and sat in his chair, silent for a few minutes. The students wondered what was amiss with him and cheered. Thereupon he opened his mouth and said, 'Gentlemen, keep diseased parts quiet.' Then he left the theatre amidst a storm of applause." Acting on this text, John Hilton, surgeon to Guy's Hospital, wrote his well-known valuable book on *Rest and Pain*.

Shall I tire you if I put in another of Abernethy's pithy sayings? Well, it was his practice to give an introductory lecture on October 1st. On one of these occasions, if not the last, very nearly the last, the theatre was crammed with students old and new, as usual, expecting some of his racy tit-bits. He came in, sat in his old arm-chair, looked silently for two or three minutes round the theatre and then exclaimed in a most pathetic voice—"Good God! What's to become of you all?"

Now passing to my own memories, which must necessarily from the time at my disposal be of the patchwork order, I have endeavoured to make them as interesting as possible by anecdotes and tales, which are as truthful as such materials generally are. I only hope that the chestnut bell will not be constantly ringing. Mr. Bruce Clarke has kindly helped my memory on some points, and I am sure you will all be delighted to hear that in a letter just received he says: "I really am very fit now."

In October, 1877, I entered here as student with several other Cambridge men. At that time St. Bartholomew's Hospital was well and strongly represented at Cambridge by Professors Paget and Humphry, but the entry of Cambridge men had not been greatly on the increase before this year.

I am bound to confess that the lode-star guiding us to St. Bartholomew's Hospital was the Warden, Dr. Norman Moore, by whose exertions and tact the Bart's entry was steadily increasing to reach its highest number in 1880.

No Warden ever had a more persuasive manner or possessed greater power in setting before a would-be student the enormous advantages St. Bartholomew's offered. To a Cambridge man his arguments were impossible to withstand, and no wonder my friends and myself after visiting the other hospitals elected to enter here—a decision we have never once regretted.

We were told and greatly impressed that the scheme had

been passed to rebuild the Theatres, Museum, Dissecting Rooms and Library, and to make the school far and away the best in London. With the audacity of poverty, my only possessions being the last two years of a Tancred Scholarship, I joined the most expensive London medical school; in those days the dressership fees were eight guineas for three months, and the house-surgeon had only rooms and £25 a year. Luckily by coaching I was able to keep myself and pay my fees during these years.

As showing the knowledge of physiology in 1877 I set a paper for a school, and amongst the very poor answers the following deserve record: "What are the functions of the liver? When your liver is bad you feel very bad—at least, that is what my father says. What are the gases of the atmosphere? Oxygen and nitrogen and zoedone (a popular temperance drink) by the sea. Enumerate the changes taking place in the food from its entrance in the mouth to its exit from the stomach? The food goes in at the mouth and comes out at the anus."

On looking about for a word to make you understand the conditions of the scientific world about 1877 I think "change" perhaps best expresses it. Everything pointed to great changes. Physiology, owing to the guiding hand of Michael Foster, was taking steps to secure a position distinct from anatomy, and the Cambridge school was being formed. In surgery new methods of dressing wounds were being tried, to prevent, or at all events diminish, suppuration and pyæmia. Terebene painted on to allow the wound to heal under a scab was one method, but most surgeons were using carbolic oil or lotion. Pasteur's work had enabled Lister to pursue his antiseptic studies.

It must be borne in mind that the routine was for every surgical wound to be poulticed, and that so-called laudable (non-stinking) pus was to be encouraged.

As everything sounded "change," so even the old Hospital was to be structurally altered by the removal of the Giltspur Gate and the erection of the new school buildings. In 1877 Dr. Robert Bridges wrote in the *Hospital Reports*, vol. xiv, p. 167, an account of the Casualty Department which I strongly recommend you all to read, and suggested changes in the Surgery which have only of late years been carried into effect.

You students, with your splendidly equipped laboratories and your specially trained teachers, can scarcely realise that thirty-five years ago in the London schools there was no physiology, no biology, pathology only represented by a little morbid anatomy, no Electrical Department, no bacteriology. The first demonstration on bacteriology in this Hospital was given by me before your Society on February 19th, 1885, the apparatus and specimens coming from the Healtheries Exhibition. We had few text-books, and those expensive and not written for examination purposes. This was really greatly to our advantage, as we had to observe for ourselves and learn from clinical work and

lectures. There were no "cram" books, no "aids," and the average man had a poorer chance than he has to-day.

Time sheds a glamour over the past, and one always hears the older men say, "Where are the giants of the past?" In 1850 one talked in bated breath of Pott, Abernethy, Vincent; in 1877 it was of Lawrence and Paget. Looking back now, one sees that the men of 1877 were just as great. What a grand Surgical Staff we had! Holden, Savory, Callender, Tom Smith as full surgeons; Willett, Langton, Marrant Baker and Marsh as assistant surgeons. The most popular member of the Staff was the Senior Surgeon, Mr. Luther Holden, well designated the "students' friend." Endowed by Nature with a very handsome face and perfect carriage, he looked the aristocrat, and his kindness and refined manner won the affection of the student. His long apprenticeship in the dissecting-room made him give anatomy the foremost place in his surgical teaching, and no new book was more appreciated than his *Landmarks, Medical and Surgical*.

His frequent visits to the dissecting-room were looked forward to by us all, and everyone tried to attract his attention. Sitting on a stool, with generally a bone in his hand, he would make us demonstrate the dissection to him, and then impress the main points on us, all the time trying to help, and not saying, "When you have read it up I will come again and look at it." He was considered the kindest and most popular examiner of his time at the College of Surgeons, where then, as now, the opposite qualities were bestowed on many others. At this time he was very keen on the treatment of popliteal aneurysm by digital compression of the femoral artery, and every student about was pressed into this service so as to ensure relays of men day and night.

Mr. Savory, the second surgeon, was a strikingly handsome man, with a very strong lower jaw and mouth. His finely proportioned vast forehead, smooth, cleanly shaven face, sharp alert eye impressed all and frightened many. He was by nature left-handed, but used either hand with equal ease.

A very good and careful operator (you must remember the operating in those days consisted chiefly of amputations), in amputating a breast he would hold the knife in one hand for the first incision and change it to the other for the second.

On the Surgical side, since the time of Percival Pott, St. Bartholomew's has been celebrated for possessing a great orator, and the succession from Pott passed to Abernethy, Lawrence, Paget, Savory, and Butlin. Sir William Savory was to many the greatest orator of all, certainly as a master of style.

He had studied oratory under Bellevue, and told me he had never lost an opportunity of hearing a great speaker or seeing a celebrated actor. His lectures on surgery were largely attended, and he riveted the attention by his perfect periods and by his incisive similes, such as: "Pyæmia or

pus in the blood, there, you have it in a nutshell." "Hypertrophy or enlargement of the part; you see it best in the blacksmith's arm or the ballet dancer's calf, and I advise you to look at the former."

The Hunterian Oration was perhaps his greatest *tour de force*, and it ended with a wonderful peroration just on the stroke of the hour. I was sitting next to Professor Huxley, who turned and said, "Too perfect; I wish he had made a mistake!"

The great power of oratory was never better exemplified than by the way in which he carried the whole meeting with him in his address at the British Medical Association's meeting at Cork in August, 1879. The subject, "On Prevention of Blood Poisoning in the Practice of Surgery," was directed against Listerism.

As a debater he could hold his own with anyone, and as an expert witness he was unassailable. One of the greatest barristers tried to upset his evidence in an Old Bailey trial. "Mr. Savory, I think you said the patient's temperature was 98.4°; what would you have thought if it had been 99.4°?" "One degree more," was the reply, to the delight of the crowded court and the complete discomfiture of the counsel.

An extraordinary instance of his debating power was demonstrated at one of the annual meetings when the members of the College of Surgeons parade their grievances before the President and Council. A speaker beginning his speech on the side of the Council with "Mr. Ernest Abraham" encountered very fierce opposition from the members, and the meeting became a regular bear-garden for noise. After the lapse of a few minutes and in response to calls of "chair" Mr. Savory rose and said simply this: "Gentlemen, I am here as President of the College and chairman of this meeting to adjudicate on points of order not those of taste. Mr. X. is in order." Roars of laughter greeted the announcement. A very noisy meeting became a peaceful one, and Mr. X. went on with his speech.

The junior surgeon, Mr. Thomas Smith, known always as Tom Smith, was perhaps the most generally beloved of all the staff.

Unus homo vobis operando restituit rem,
Quod natura parum fecerit, ille facit.

His kind, happy disposition and sympathetic nature was ever ready to help student or colleague. Added to this, he had the charm of always being able to make a joke without hurting the feelings of anyone.

He was a brilliant surgeon, and made his reputation first by his skill in cleft-palate and hare-lip operations. The great draw of the theatre was to see him do lateral lithotomy. The news would quickly spread round the Square, the theatre would be packed, nearly everyone holding his watch to count the fifteen to twenty seconds from the initial incision to the thud of the stone in the receiver. It was as wonderful as any feat of legerdemain. Then, after the patient had

left the theatre, he would say a few points about the case, and perhaps in his inimitable manner advise anyone attempting lithotomy to have a stone always ready in his pocket.

My medical clerking was done for six months with Dr. Gee, whose portrait is the best, perhaps, of all Dr. Bridge's personal descriptions in the "Carmen," the lines, well known by most, ending :

Teque Auscultantem, palpantem et percutientem
Pectora, sic morbi ducere signa vident.

He was truly a philosopher, and to the end a disciple of Bacon ; his style, replete with Saxon words, was his own, and the amount of his work was simply limited by his health. A sufferer from migraine, his slow deliberate speech and movements were typical of the atheroma he eventually succumbed to. Unable to climb hills as of yore he says in one of his last letters, "I console myself with Bacon's saying, 'the vale best discovereth the hill.'"

Dr. Gee was a great master of clinical medicine, and the two hours spent in his wards on an afternoon were a liberal education. Standing with the patient's board in his hand on one side of the bed, he would listen to the dresser's history of the notes of the case. As the dresser was reading Dr. Gee would put short concise notes, in beautiful copper-plate writing, rarely more than a few words, on the board. He would then examine the patient and add his own notes, with the result that the few lines contained the epitome of the case. Questions were then asked the clerk, and the diagnosis almost always put on the board. No one ever pressed facts home more than he did or gave better reasons for the reading of the case.

Dr. Gee was a sceptic as regards most medicines, as the following talk to his clerks will explain.

"Gentlemen, in the homœopathic pharmacopœia you will find a remedy for every disease, nay, more, two or three for each. Now, I have worked at nearly all the chief remedies, new and old, and can safely say I know only two specifics—mercury for syphilis and quinine for ague, and the latter is not always a specific." With all his learning and seriousness he could have at times a pleasant bantering manner, and from this fact many stories were fathered on him. To the "No" of a member of the staff to the question, "Do you know what Hippocrates said of Bright's disease?" the answer came: "You know, Dr. X., Bright's disease was not known in Hippocrates' time."

The next is perhaps a better one from Dr. Gee's love of ancient medicine. "Have you read an old Greek author"—mentioning the name—"on the liver? I have given it to the Medical Chirurgical Society." "No, Dr. Gee, I will get the book out of the Library." Five weeks later, going round the wards, Dr. X. announced he had read the book. "What did you think of it?" "I could find nothing in it." "No more did I, and that is why I gave it to the Medical Chirurgical Society."

In 1877 the staff was greatly strengthened by the advent of Dr. Matthews Duncan, who came from Edinburgh, and wielding a sledge-hammer made the obstetric medicine of the present day. His lectures were largely attended and were very original. Absolutely dogmatic in his utterances he evinced the greatest pity and contempt for much of the usual work in London, and never did a man better succeed by pure insistence. The Listerian principles, including the spray, were brought by him from Edinburgh, and one day Tom Smith, in his inimitable manner, pleased him much by saying, "Well, Duncan, this is a real Scotch mist."

Although saying at times in his lectures excessively funny things, he never turned a muscle of his face whilst doing so.



THE STEWARD, 1887.

He was a great hater of anything unreal, especially as to the neurotic complaints of patients, and frequently, as in the following case, his extreme honesty and integrity was characterised as bear-like. I remember his visit to a society lady who, adorned in her best clothes and jewels, was lying in bed waiting for the doctor. Taking not the slightest notice of the patient he walked straight through the bedroom to a large window looking out on some big oak trees. After a few seconds he turned round and said: "Well, madam, if you would hang some marrow-bones on those trees all the little dicky birds would come and peck at them."

Of the executive staff of the Hospital no man ever endeared himself more to all of us than the Steward, Mark Morris. Under a bluff, honest exterior he tried to conceal the kindest heart possible. With hat on head, a paper in right hand, his head a little on one side and carried backwards, he would walk with a swaying movement into the Square and see that everyone was doing his business. To

see him really upset as to the Hospital's good, which was ever uppermost in his thoughts and heart, was the chance of a birth at the Hospital. His dread in such cases was that the child might be left on the parish and therefore be a burden to the Hospital. He was scarcely ever away from the Hospital a day, and we told him he thought the Hospital could not get on without him. His portrait, painted by subscription, hangs in the Steward's office—a living presentment. When Oules, who painted it, asked him what he thought of the picture, the answer was: "It is very good, but everyone would say they had never seen Mark in such a good hat."

Amongst his many sayings I remember he used to say that no man could do his duty in a place like the Hospital and be popular; that the best materials for a steward to be made of were india-rubber and nails. He called himself "Morris Magnus, Magister Moralum and Licensed Dealer in Patients."

One department was as well conducted in those days as now, namely, practical anatomy. At St. Bartholomew's the two demonstrators of Anatomy, Mr. Cumberbatch and Mr. Walsham, ably assisted by two assistant demonstrators, were in teaching, knowledge, manual dexterity and helping power as perfect as human nature could provide. The supply of bodies was good and there was no lack of parts for dissection or for practical surgery.

The Dissecting Room, much smaller than the present, was T-shaped, and the present Anatomical Department covers the space then occupied by the Dissecting Room and the Anatomical Theatre. During the building of the present Dissecting Room the old round Anatomical Theatre was used as a temporary dissecting room, and round the fireplace there the following incident took place.

Every great speaker has some slight involuntary trick, and Sir William Savory used to slightly rub the hair near the mastoid process with his thumb—the fingers being extended. One day a prosector was copying the great orator, when, without being seen, Mr. Savory appeared and said—"Very good, almost to the life." The counter-stroke occurred two months after at a physiological examination at the College of Surgeons. The same prosector was asked to prick his finger, and put up a specimen of blood. The examinee was asked what he saw under the microscope and replied—"Blood." "Quite right, sir," said Mr. Savory, "Now I wonder if you could tell me whether the blood is that of a vertebrate or that of one of the invertebrates or lower class of animals." "That of an invertebrate, sir," replied the examinee. "Quite right," said the examiner, "something like a worm."

One can scarcely imagine the difference in those days from to-day with the Amalgamated Clubs and Students' Union, the splendid ground at Winchmore Hill, and last, but not least *The Students' Journal*.

The Abernethian Society flourished as now, though it

seems to lead a very quiet existence with none of the fiery elements of opposition as in those days, when at the annual general meeting the president made his own laws, knowing that at the next meeting he would be out of office and not responsible.

As to our clubs, there was a fives' club, with a silver cup, which disappeared with the funds and the secretary, a boxing club, which held its meetings in a room over a shop in Giltspur Street, the Rugby football club, and occasionally a rowing club. The Rugby Football Club was formed in 1873, and in 1881 the team, under the captaincy of Harry Campbell, who initiated the looser and quicker game, won the Inter-Hospital Cup for the first time, a success repeated for the second and last time in 1883 under C. O'B. Harding.

There was a Cambridge Medical Graduates' Club, which introduced us to the older Cambridge men at an Annual Dinner. I remember so well at the first dinner I went to our Botany Lecturer recited "The Society on the Stanislaus," and not to shock us substituted occiput for abdomen, the lines running, "but, a chunk of old red sandstone took him on the occiput."

The old Surgery facing Smithfield was a large hall 90 ft. by 30 ft. with rooms opening off it at the four corners for the House-Surgeons and House-Physicians. There were two enclosed spaces, shut in by screens, about the centre of the room, and here the Junior Assistant Surgeon, the Junior Assistant Physician, and two Casualty Physicians saw cases every morning. Immediately opposite the main door was the Dispensary with windows at which two nurses (called the "Fairy" and the "Angel") served out the more common medicines.

The noise and confusion from 9 o'clock till 10, when the doors were closed, was deafening, and I must refer you to Dr. Bridge's excellent account of the Casualty Department for a full description.

Dr. Bridges, now Poet Laureate, was a most excellent clinical teacher, and notwithstanding the noisy environment gave us many a useful lesson in the Pillbox, as we called the screened space. How he ever managed to diagnose the diseases under these conditions was a wonder to all, and must have been an inheritance from the days when the apothecary—Mr. Woods—sorted the cases chiefly by facial diagnosis. Of Mr. Woods, who existed before the time of house physicians, there were many tales told. Standing up in the Casualty Department he would utter his favourite dictum: "Now all of you who want your bowels open come this way." The patients filed before him, and selecting the obstructions for admission he gave the remainder suitable cards for medicines. It is related of him that he once cured a case of obstruction by giving an enema of soda-water.

A popular surgery mixture was known as "Queen Anne," composed of iron and quassia, but supposed to be quinine. A much vaunted remedy for coughs was the linctus made with rose hips. There was an old tale of a woman who

came or sent a child so often for it that she was watched and found to sell it in the streets as tartlets.

Another and more probable belief was that the cod-liver oil was used for lamp oil by some patients.

The excuse given by a patient for coming to the Surgery was: "Well, sir, I don't know there's anything the matter with me, but as I was passing the Hospital, I thought I would just slip in and have a dose of medicine."

Such cases tended to run up the great total then of 157,497 patients relieved in one year, and Dr. Bridges reckoned the cases were seen at the rate of 150 in less than two hours.

In the Out-patient Room was a relic of the past in an old operating chair with a very high back, used before the advent of anæsthetics. It was padded and covered with stout leather, and from the sides dangled broad straps to encircle the chest and limbs and prevent struggling.

The only operating theatre was the old one in Abernethy block, with its tiers of seats. On the floor was the cushioned table used indiscriminately for operations and for patients to lie on for Thursday consultations. In a dark cupboard were kept the operating coats of the surgeons, ordinary frock or tight overcoats, dirty and bespattered with the gore of years—the older apparently the better liked. The operating chair of Abernethy was kept in the theatre, but only as a relic of the past.

Operations took place at 1.30 p.m. on Wednesday and Saturday afternoons, and the surgeons had to wait in order of seniority for their turn. The assistant-surgeons scarcely ever operated except during the vacation or in cases of emergency, and then for their seniors. It was not an uncommon occurrence about 3 o'clock to see as many as three full surgeons in the theatre at the same time.

The operations in those days were chiefly straightforward ones, but Mr. Willett, the most go-ahead of the surgeons, was beginning to do extensive dissections in malignant disease. One severe operation on the penis, involving dissection of the inguinal and lumbar glands, occasioned the passing remark of Mr. Savory, "Is this a railway accident?"

You house-surgeons with your assistant house-surgeons to help you may think your work hard, but it is easy compared to the work then.

The surgical wards were distributed between four surgeons and each surgeon had one house-surgeon only. Every month the surgeon had one week of full duty and one week at the women's end of the Surgery.

There were eight dressers, and the house-surgeon was on duty day and night for a week. If a case came at night during his week on duty and was not seen by the house-surgeon he was reported to the office. We were kept in order, and our times of appearance in the morning noted down by a very conscientious and depressed-looking curator of the Surgery.

During my house-surgeoncy, owing to an epidemic of diphtheria and to Mr. Willett being surgeon to the women's wards, I had at the same time cases in no less than

eleven wards: Pitcairn, Harley, Darker, President, Lazarus, Magdalen, Casualty, Radcliffe, Martha, and our corresponding two medical wards. Diphtheria cases were nursed in the general wards, and the cases remained in the medical wards after tracheotomy.

The Square in those days had no shelters, and we stood round the Fountain waiting the arrival of the carriages of the surgeons and physicians. The conservatism of antiquity demanded that no one below the Senior Staff should drive in, an unwritten rule not broken for many years. I believe Mr. Cripps was the first to break it, and then, *horresco referens*, a student started to drive a dogcart in.

The best-turned-out carriage was Mr. Callender's—a very neat pill-box brougham with a pair of black-brown horses. Dr. Gee drove very fast grey horses and had a coachman with a face like a prize-fighter. Whilst waiting for their masters one day Dr. Gee's man blacked very successfully Mr. Savory's smart coachman's eye, and we waited with delight to hear the "How, Gee, am I to drive home with a man with an eye like that?"

As to the general discipline in those days, there was no such thing as a Discipline Committee and the number of "chronics" was very large. On the first of October appeared always a dozen or more of these "chronics"—perpetual students who had very likely passed no examinations. They frequented the Square and loafed about the Dissecting Rooms and Operating Theatre to gain acquaintance with the freshmen, who they introduced to the billiard rooms at a public-house, the "Rose and Crown," close by. They only remained about a month and then disappeared, to return the following October.

The Discipline Committee, under the Secretaryship of Mr. Bruce Clarke, later on cleared the whole gang off. But as far as the Square and School buildings were concerned you will be surprised to hear a strict rule was enforced as to not smoking which was well observed.

One great excitement was the snowball riot, which originated by a snowball going through the gate and accidentally hitting a policeman on the shoulder. After a short time an inspector from Snow Hill and twenty-five policemen came in and unsuccessfully tried to seize the students, who rolled them over in the snow. Several truncheons were lost and decorated the rooms in College for years. Whilst the war was waging opposite the College and elsewhere Mr. Savory and Sister Kenton were espied watching the fun with their heads out of a "window" and greeted with roars of laughter.

During my clerking a book was being written on abdominal tumours, and by mistake two patients with abdominal tumours arriving the same day were changed, and the obstetric case came into the Medical Ward. After an exhaustive examination as to the locality of the tumour, the clerk suggested whether it might not be a pregnancy. Dr. Matthews Duncan was sent for, and after hearing the

diagnosis of probable splenic tumour, examined the patient, and, without a smile on his face, said, "Amongst other things, a baby will be born in the space of a few hours," and twins duly made their appearance.

In February, 1881, I became House-Surgeon to Mr. Willett, following, as I did afterwards for many years in the rooms, Mr. Lockwood.

Never could a house-surgeon have had a kinder, more conscientious, or more beloved master than Alfred Willett. He was a most careful and thorough operator, and his diagnosis was rarely at fault. Well over 6 ft. in height, he was exceedingly strong and active, and it was a difficult matter to keep up with him as he ran up the stairs to the wards. At that time osteotomy was perhaps his favourite operation, and his strength and gentleness were admirably fitted for the work. One difficult case has always impressed me greatly as showing his judgment and power of diagnosis. You will find the account of it in the *Hospital Reports*, vol. xvii, p. 243. As there had just been the first successful operation for rupture of the bladder at St. Thomas's Hospital, we were all on the look-out for such a case. A man injured by a lift accident had all the usual symptoms, and, with the eagerness of the neophyte, I immediately sent for my surgeon. He came down, and the diagnosis was at once utterly upset by simply one question: "When did you pass your water?" and the patient replied, "Half an hour before the accident."

But perhaps the greatest change of all since the seventies is that in the Nursing Department. You, sister and nurses, with your charming blue, pink and white attires, can hardly credit the position, treatment and condition of the hospital nurse then. You may complain that the palatial Nurses' Home is not built yet, but a few details will convince you how lucky it is you were not here in the old times.

As to the nursing in those days, all will agree that it was very different and very inefficient as compared with the present high standard. The sisters of the wards were very delightful, homely, kind creatures, and possessed of great common-sense. Sister Casualty (Miss Jenkins) gave her reminiscences in 1902 in the *Journal of St. Bartholomew's Hospital Nurses' League*, p. 134, and many of the following statements I borrow from her paper. She entered in 1877 among the first batch of lady nurse probationers under Mrs. Drake, and had to sleep in a room off the ward. The only ward baths were in the ward kitchens; they were covered over, and the dinners served on the covers. The night nurses slept Box-and-Cox with the day nurses off the wards. All nurses and sisters had food cooked and eaten in the ward.

When ovariectomies—simple, straightforward cases only—were first done in "Martha," the nurse went on duty continuously for thirty hours after the operation, so as not to frighten the woman, and she had to take the pulse every hour and the temperature every two hours as an offset.

The urine and motions remained in the ward under the beds for any time up to twenty-four hours.

The night nursing was partly done by women of the charwoman type, who came in at night. Many took bribes of money and gin from the friends of patients.

All wounds were poulticed, the poultices being changed before the surgeon's arrival. Extra poultices and other duties were paid for by the patients at a regular tariff of so many pence.

The probationers were not altogether to the liking of Mrs. Drake, the Matron, who herself wore no uniform, and objected to the "lady nurses" in the present probationers' uniform with small caps without strings.

As to dress, the sisters wore blue merino dresses without caps or aprons, and the staff nurses had brown merino dresses, ordinary aprons, and caps of any description if they liked to wear them.

The following tale of the sort of test used to prove a woman's ability to undertake the solemn duties of hospital nurse serves to show the difference of the knowledge required now and then. The candidate had just lost her husband, and, anxious to get something to do, came to Bart.'s and fell in with Mark Morris, who was at the time trying an ordinary hand battery. He made her hold the handles in her hands, expecting she would cry out, and when she didn't, but pluckily submitted in silence to the shocks, he said, "Ah! you're the right sort; come and be a nurse." This she did, and in a short time was made Sister Mark, a post she held for more than thirty years.

Mr. Bruce Clarke has kindly written the following description of a Surgery anecdote which occurred whilst he was House-Physician.

It was Sister Mark who when I arrived back late at Bart.'s one night and went round the wards, said to me in reply to questions as to whether any new cases had come in during my absence, "Yes, but it is only one of them shammers come for a night's lodging." So I innocently remarked, "Then I suppose we shall have to keep him till the morning." "That's as you please," said she. So realising she had something up her sleeve, I said: "Well let's go and see the patient." When we got to the bedside I saw a miserable specimen of humanity lying on the bed covered with a dirty old blanket, and sister delivered herself of the following speech: "Since you have been out, sir, this poor man has been brought in. He fell down in a fit in St. Paul's Churchyard. Of course, sir, I knew the seriousness of the case so I put him to bed just as he was with all his clothes on. I didn't even remove his boots till I got your permission." And then she went on, "Of course, you know as well as I does that if this poor man's life is to be saved, he must have a hoperation this very night." Then in an altered tone of voice she called out "Nuss, go and fetch all the House-Surgeons and the House-Physicians and the chloroformist and the box of instruments, and whatever you does be quick or we shan't save the poor man's life," and then, pulling me by the coat, she quietly remarked,

"You had better come and sit in my room till all is ready," which I did. In a few minutes we heard the patient calling "Sister, Sister," and I said "Hadn't you better go and see what's up?" "No," said she, "it don't matter." At last we heard "Sister, Sister," again; then the ward door closed with a bang. Sister put her head out of her room and remarked: "Who banged that door?" "Please, Sister," said a patient, "the poor man that was brought in in a fit has run away." "And a jolly good job, too," said she. I sat in her room and roared with laughter at the little play which had been rehearsed with the nurses before.

And now to end this *olla podrida*, may I mention a more personal memory that to-day remains as vivid as thirty-two years ago. During the whole of my association with St. Bartholomew's I have been the recipient of the greatest kindness from all, but the care and extreme kindness shown during the severe attack of diphtheria I had when House-Surgeon in 1881 could not be exceeded. The infection was due to a cut on the right index finger while assisting at a difficult tracheotomy operation, and I was nursed in my room in the residents' quarters by Sister Pitcairn (Miss Mathew probably), to whose care and firmness I owe my life. It was a very near thing, and the turning-point was a large cup of bread and milk which Sister by extreme patience and persuasion induced me to take. The finely divided bread irritating the back of my throat made me cough for six hours, and in consequence I was able to present a good cast of my bronchi to the Museum. This specimen Dr. Gee used to lecture on as the bronchi of a house-surgeon, and the thickest membrane he had ever seen beyond the post-mortem room.

In the multitude of counsellors there is wisdom, and never can I be grateful enough to the daily procession of six (Dr. Gee, Mr. Willett, Mr. Butlin, Dr. Hall, Mr. Bowlby, and Mr. Mason) to whose skill and attention I recovered.

I commenced by impressing on you the word "change" as the password of 1877. Looking back thirty-six years it seems almost impossible to realise the magnitude and extent of the changes since then in science. The traditions of our glorious Hospital have been well maintained and now it will be for you in turn to hand them down pure and un-sullied to future generations.

"Things past belong to memory alone,
Things future are the property of hope."

ELECTROTHERAPY—IN THE PAST AND AT THE PRESENT DAY.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

PART II.

IN the last number of the JOURNAL a brief account of the history of medical electricity was given. Its progress was slow, especially in the earlier stages, because no one then understood the mode of action of electricity on the body. Static applications were seen to cause shocks and muscular commotion, galvanic and faradic currents produced sensory effects and muscular contraction, high-frequency currents produced often "*une chaleur désagréable*" (d'Arsonval), but there was much uncertainty whether these effects were essential or subsidiary in the production of therapeutic results. In consequence of this, all kinds of cases were tried so as to see whether electrical treatment would benefit them, and in the early days, when the methods of applying electricity were very few, the process of sifting the suitable from the unsuitable yielded much chaff and little wheat. Even at the present day the prevailing lack of knowledge of the action and the method of action of electricity on the body often leads to its prescription for cases for which it is quite unsuitable, cases which have derived no benefit from other forms of treatment, and drift down, like derelicts, to the electrical department on the chance that some good may be done them there.

Another reason why the progress of electro-therapy has been slow in this country is to be found in the smallness of the number of those who take up this branch of medicine. Few are attracted to it, probably because in their student days they do not see their cases treated, so that they obtain no knowledge of modern electrical methods, while the textbooks on medicine and surgery contain little more than an account of muscle-testing—an account which is not very inspiring. Further, electrical treatment is in many cases followed by no *immediately visible* results, so that it is open to sceptics to say that results just as good would have occurred if there had been no treatment at all. All this is responsible for the view held by some that electrical treatment is suitable only for derelicts and hysterics. Much of the electrical treatment that is practised at the present day is given in "homes" or "institutes" by people, whose supposed claim to practise it is the possession of a certificate of proficiency in nursing or massage. Yet patients are frequently sent to such places under the impression that it is only necessary to set the machine working or the current flowing, and that no clinical knowledge is necessary.

Then again, the mischievous application of electrical methods, or methods which are called electrical, has formed a field for exploitation by quacks. A book on "electro-

homœopathy" gives it out that "positive (red) electricity should be applied to the negative parts of the body, that is, the right side of the head and trunk and the inner side of each limb. The negative (yellow) electricity should be applied to the positive parts. . . . Both electricities should be applied in succession to the central line of the body. . . . Sanguine patients as a rule require blue, rather than red electricity."

An advertiser (from New York) announced that "by delving into the dusty records of the past, and, at the same time, keeping abreast of the latest discoveries of modern science, he had made an astounding discovery, in that he had at last discovered the elixir of life."



STEPHANE LEDUC, PROFESSOR AT THE SCHOOL OF MEDICINE AT NANTES.

At the present day we may recognise that electrical applications, the majority, if not all, act either by the *chemical* (ionic) effects which they produce or by their *thermal* effects. This is the teaching of Dr. Lewis Jones, and it enables us, as he says, to see what results may be reasonably expected from electrical treatment, and teaches us how to proceed so as to obtain the results desired.

Electricity can be applied to the body in the form of electrical currents in their different forms. In order to understand how they can cause *chemical* or *thermal* effects on the body, it is necessary to remember that electrical currents pass through the body in a way quite different from that in which they traverse metallic conductors. Just as a man can walk on land as far as the edge of the sea, and then must take a boat if he wishes to cross it, so the elec-

tricity gets as far as the body in the metallic conductor, and then is carried through the body by the ions present in the tissue fluids. If there are no boats, the man cannot cross the sea; so, if there are no ions, no current can traverse the body. The ions are derived from the salts dissolved in the tissue fluids. It will be remembered that when a salt is dissolved in water, a certain percentage of the molecules divide into two parts, each part of the molecule taking an electrical charge—one part a positive charge, the other a negative charge. These electrically charged parts are the ions. When the body is placed in an electrical circuit, the ions in the tissue fluids begin to *migrate*, those with the positive charge passing to the negative pole, those with the negative charge passing to the positive pole. There is, therefore, a redistribution of the ions; in other words, an alteration in the composition of the tissues so far as its saline constituents are concerned. When the ions reach the pole they give up their electrical charge and are transformed into the free state, and they may then undergo further chemical changes. There is, therefore, a formation of new chemical bodies *at the poles*, and a re-distribution of the ions *between the poles*. Further, if pads moistened with aqueous solutions of salts or drugs be placed on any part of the body, between it and the wire conveying the current, ions can be made to pass through the skin into the body. This method of introducing drugs is known as "medical ionisation." The electrical current can, therefore, be used for three purposes: (1) To produce an alteration in the saline composition of a region. This is the probable mode of action of the galvanic current in causing absorption of fluid effusions. (2) To cause a formation and accumulation of chemical bodies around the poles. These bodies, if they have a caustic action, may be used for the purpose of destroying tissues such as hair-follicles, moles, etc. (3) To bring about the introduction of new chemicals from without.

The foregoing is an account of the mode of action of electricity in producing *chemical* changes and an explanation why it is possible to use it for introducing drugs into the body. The process takes time, and therefore a continuously flowing current is required—the so-called galvanic current. The faradic current cannot be used because it is intermittent, flowing only for very brief periods with an interval between each period. But this current, also, has to be conveyed by ions. The ions make a *sudden* movement or jerk, and if the movement is sudden enough it constitutes a stimulus to excitable tissue. The action of electricity in stimulating excitable tissue is thus really a chemical action, a sudden ionic displacement. If there were no ions, electrical currents such as are used for physiological and therapeutic purposes would be powerless to cause muscles to contract. And if the movement of the ions is not sufficiently sudden, no contraction will occur. The mere movement or migration of the ions does not act as a stimulus unless it is sufficiently sudden. Now if the current,

strong enough to cause muscular contraction if it passes in one direction, be made to oscillate with extreme rapidity across the body there will be no muscular contraction because the ions remain stationary, or, at any rate, do not move sufficiently, in the short time available, to act as a stimulus. The current may be made stronger and stronger and still no contraction will be produced. Finally, when the current would be strong enough to kill, were it to pass in one and the same direction, the body begins to appreciate a sensation of warmth. The body can tolerate a current of 3 ampères, provided that it oscillates with sufficient rapidity, and if electrodes of large area be used, an agreeable sensation of heat is produced. If the current were unidirectional, one half of an ampère would be sufficient to produce death. Now the high-frequency apparatus of d'Arsonval and the diathermy apparatus as devised by Nagelschmidt produce currents which oscillate at an extremely rapid rate (the so-called "high-frequency" currents). When these currents are passed through the body, part of the electrical energy is transformed into heat, and this heat is produced in all parts where the current flows, not only in the superficial parts, but also in the depths of the tissues. No other device can produce this "thermo-penetration," and high-frequency currents produce their therapeutic effects by means of their thermal action.

In order that some idea may be obtained of electrotherapy as it is at the present day, of the cases suitable for treatment, of the form of electrical treatment given, and, as far as possible, how it acts, an account will be given of the types of case commonly attending the electrical department. At the time of writing, 163 patients are on the register as receiving treatment—60 men, 37 women, and 66 children—ranging in age between four days and seventy-five years. This list includes 92 cases of paralysis from various causes, such as nerve injury, neuritis, myelitis, anterior poliomyelitis. Fifty-nine of the 92 are cases of infantile palsy, while a few are cases of paralysis agitans, hemiplegia, and craft palsy. What sort of electrical treatment should be given to cases of paralysis? Apart from the actual cause of the paralysis and the attendant symptoms, which should also be included in the treatment, the paralysed muscles and nerves should be traversed by electrical currents. The currents may be conducted to and from the part by means of moistened pads placed upon it, or the whole part (if a limb) or the whole body may be immersed in a bath in water traversed by the current, so that the latter may enter or leave the part in all directions.

Now the kind of current that is used and the way in which it is applied makes all the difference if successful results are to be obtained, and this has been proved by experimental and clinical evidence. A galvanic current applied with the strength constant (as is done in many places and institutes) will do little or no good. It will cause no contraction of muscles, except, perhaps, at the moment of

entering and leaving the bath, but merely some migration of ions, and this does little or no appreciable good. A faradic current, if applied continuously, with strength sufficient to cause muscular contraction, will do harm, because the muscles are tetanised, fatigued, asphyxiated, and deprived of lymph and blood. If the faradic current is not strong enough to produce contraction, some improvement will result, but slowly and in small amount. Whichever current be used, it is essential that it should *vary rhythmically* between zero and the maximum. The prevailing opinion is that the faradic currents should be used if the muscles react normally, galvanic currents if the muscles show the reaction of degeneration. Experiments that have been done on animals have shown that normal muscles, when treated by suitable electrical applications, increase in size, the increase being due to actual growth of muscle. The same has been shown in the case of man. In one set of experiments (on animals) there was a 40 per cent. increase when rhythmically varying faradic currents were used. The rhythmic galvanic currents produced the next best results (18 per cent. increase). The sustained galvanic current produced but little increase, while the sustained faradic current produced diminution in size of the muscles, and there was histological evidence of damage to the muscle-fibres.

For some years rhythmically varying currents have been used in the treatment of paralysis in our Electrical Department, and Dr. Lewis Jones has always advocated their use. Now other hospitals are beginning to adopt the methods recommended by him. The incorrect application of electrical methods in the treatment of paralysis is responsible for the view, held by some, that electrical treatment is of no use, or inferior to massage, and that it does harm when used for infantile paralysis. Dr. Lewis Jones says that, in his experience, the worst cases of infantile paralysis that he has seen have been those which have had no treatment, while, on the other hand, he has never known a case which has been sufficiently treated by proper electrical applications become worse, so as to require, later on, perhaps, amputation—a requirement which may be necessary if all treatment is neglected. On the contrary, he has known cases, in which the muscles gave a reaction of degeneration, give normal reactions after a course of treatment.

(To be continued.)

A CASE OF MASSIVE POST-OPERATIVE COLLAPSE OF THE LUNG.

By R. ST. LEGER BROCKMAN, M.R.C.S.

THE comparative rarity of occurrence and the still more infrequent accuracy in diagnosis of this form of lung complication after abdominal operation is, I think, sufficient warrant for reporting the following case in the JOURNAL.

History.—A schoolboy, æt. 9, was admitted to Kenton Ward on November 15th, 1913, complaining of "having sat on an iron spike." At 5 p.m. on the day of admission, whilst climbing over a railing during a game of hide and seek, the patient slipped, and an iron bar standing upright in the ground entered his rectum. The boy pulled the spike out himself and walked home. He was taken to a doctor, who sent him up to the Hospital at once.

On admission.—When seen at 10 p.m., the patient looked ill and flushed. His tongue was furred: temperature, 101.4° F.; pulse, 120; respirations, 28. His lungs were natural; heart-apex-beat in fifth space inside nipple line. The cardiac dulness did not extend to the right of the sternum. His abdomen was not distended, but it did not move at all in the lower half with respiration, and it was rigid and tender below the umbilicus, especially in the left iliac fossa. The diagnosis was made of "peritonitis following a lacerated wound of the rectum." At 10.45 p.m. the boy's abdomen was opened by Mr. Gordon Watson. A laceration $\frac{1}{2}$ in. long was found at the level of the reflection of peritoneum from the rectum on to the pelvic wall. A culture made from this area subsequently grew streptococci, *Bacillus coli*, and a few anaërobic bacilli. The laceration was closed with two tiers of Lembert sutures. The abdomen was closed in layers without drainage, ʒiv of olive oil were introduced into the rectum, and a rectal tube was fixed in position.

The patient's condition on returning to bed and during the night was all that could be desired.

The next morning, at 11 a.m., the boy was very well. His temperature was 100.4° F.; pulse, 120; respirations, 28.

At 11.30 I was sent for. The boy had suddenly collapsed. Temperature, 102.8° ; pulse, 140; respirations, 56. At first sight the boy's condition suggested pulmonary embolism. On examination the apex-beat was found in the fifth space outside the nipple line, and the cardiac dulness extended $1\frac{1}{2}$ in. to the right of the sternum. The base of the left lung behind, from 2 in. above the angle of the scapula downwards, was completely dull on percussion, and marked bronchial breathing was heard over this area. Dr. Garrod examined the boy, and made the diagnosis of "massive post-operative collapse of the lung," but thought that there was some additional acute septic infection, and that the boy's hours were numbered. After this examination his pulse disappeared completely at the wrist, his pupils became dilated, and his respiration almost ceased. After ʒj of Curschman's solution and a pint of saline containing ʒj of brandy given intravenously the boy rallied somewhat.

He was then put on two-hourly injections of atrop. sulph. gr. $\frac{1}{100}$ and liq. strych. ʒij . These were continued for some hours until the patient began to show signs of the toxic effect of these drugs, and they were then at once stopped. Later in the afternoon, as the boy's heart was still much dilated, two leeches were placed over the præcordium. The boy's condition now began to mend, and

by 3 o'clock the next afternoon the dilatation of the heart had disappeared, his respirations were reduced to 30, and the signs in the lungs were only to be found with difficulty. Except for some slight suppuration round the skin sutures the patient made an uninterrupted recovery.

The possibility of accounting for the boy's condition by some acute septic process is, I think, quite put out of court by the subsequent history of events. The rapid recovery made by this patient in thirty-six hours would have been quite impossible if some virulent organism had been the cause. On the other hand, the clinical picture presented by this patient completely fits in with the description of this condition given by William Pasteur in the Annual Oration to the Royal Society of Medicine for 1908. This condition, he says, occurs in cases of abdominal section, chiefly in cases where the seat of operation has been above the level of the umbilicus. It is independent of the kind of anæsthetic used, and is not due to any toxic effect of ether or chloroform on the lungs. In this case a.c.e. mixture was used for induction, the anæsthesia being continued with chloroform. Pasteur claims that the active cause is a reflex inhibition of the diaphragm, and as evidence of this he quotes the condition of atelectasis found in the newborn. The lessened movement of the diaphragm after abdominal operation he has seen on the X-ray screen, and in certain cases the condition has been verified post-mortem when no embolism or blocking of a bronchus has been found. The commonest mistake made is to diagnose the condition as one of post-operative pneumonia. The collapse of the lung usually comes on within twenty-four hours after the operation, and the recovery usually takes place in twenty-four hours to three days. The onset of pneumonia is generally of later occurrence, and its course is of considerably longer duration. The collapse is rarely fatal, though such cases have been known to find their way to the post-mortem room, where nothing further has been found to account for death.

The onset of the condition is sudden, followed by a gradual though rapid recovery. The chief signs are the displacement of the apex-beat, and sometimes evidence of acute dilatation, such as there was in this boy. There is inaction of one side of the chest, with consequent over-action of the other side. There is dulness and bronchial breathing over the affected area, but without crepitations. At first sight the condition strikes one as very alarming, the patient looking so ill and collapsed, but the prognosis is fairly good as the cases rarely prove fatal.

Nothing has been written anywhere as to the treatment of the condition. In this case the patient was laid flat in bed; oxygen was given hourly for ten minutes. Atropine and strychnine were pushed till the patient showed signs of their physiological action. I have used these drugs in other cases in a similar manner, where patients have been almost *in extremis*, and am firmly convinced that such use

is justified by the results. Their toxic effects can be seen at once, and then the use of the drugs stopped for a time. Brandy with plasmon and egg was given every two hours through a nasal tube, as the patient would take nothing by the mouth, the egg being given in the form of ovaltine. The application of the leeches was on the advice of Mr. A. G. Evans, who saw the case with me two or three times during the day.

Mr. McAdam Eccles has published a case, in which this complication followed a lumbar nephrectomy, in the *West London Medical Journal*, vol. xvi, p. 282.

I am much indebted to Mr. Waring for permission to publish the notes of this case.

A CASE OF APICAL EMPYEMA.

By B. WHITCHURCH HOWELL, M.B., B.S., M.R.C.S.,
L.R.C.P.



HE following case may prove of interest.

A. B., æt. 6, was admitted into the Royal Free Hospital under the care of Dr. Phear on June 8th, 1913, suffering from pneumonia.

History.—Sudden onset of pain in the right hypochondrium with pyrexia, cough and vomiting, two days before admission.

Condition on admission.—Signs typical of right apical pneumonia developed, with a leucocytosis of 24,000.

Treatment.—Linseed and mustard poultices to the chest-wall, and respiratory and cardiac stimulants.

Progress.—The crisis seemed to occur on the eleventh day of the disease (June 15th), and for three days the temperature, pulse and respiration were normal. The physical signs began to clear up. Then the temperature and pulse began to rise—on one occasion, June 23rd, the temperature was 103·8° F., the pulse 120, and respirations 36. No fresh patch of consolidation could be found and the ratio P/R was normal. The physical signs were thought to be those of delayed resolution (improved note on percussion, tubular breathing, redux crepitations).

The temperature, however, never fell below 100°, and as the physical signs were unchanged, the case was transferred to the Surgical side on July 8th. Under a general anæsthetic I explored the third right interspace in front, and removed a few cubic centimetres of greenish-yellow pus, which gave pure cultures of pneumococci. I then resected about one inch of the third rib close to its cartilage with a special costotome, drained the underlying empyema, and inserted a drainage-tube so that its inner end lay just within the abscess-cavity, thereby avoiding irritation of the lung. The tube was fitted with a small square sheet of rubber next the chest-wall, and by stitching this to the skin the drainage-tube was kept in position.

Further progress.—The wound was dressed daily, and any re-accumulation of pus drained by turning the child on to the right side of his chest and holding his body up at an angle of 45°. This proceeding he thoroughly enjoyed. The drainage-tube was removed in six days, and the patient was discharged cured on July 30th. He was seen again on September 20th in excellent health, with good expansion of the lung.

Comments.—(1) The case shows the difficulty sometimes experienced of diagnosing between an empyema and delayed resolution in pneumonia in children, the breath-sounds often coming through the pus, which does not always give the *absolute* dulness noticed in empyemata occurring in adults.

(2) The pain referred to the hypochondrium is interesting, especially as the pneumonia was *apical* and not basal.

(3) Apical pneumonia is not common, and *apical* empyema still less common.

(4) The leucocytosis was not indicative of pus, though the continued fever was; this shows us that pathology is not always a helpmate to clinical medicine.

(5) The secret of the after-treatment seems to be efficient drainage with fresh air and good food. The former was accomplished by the postural device described, and the latter by three weeks' stay in the country amplified by cod-liver oil and malt, cream, etc.

I am deeply indebted to Dr. Phear and Mr. Pannett for permission to publish these notes.

THE CLUBS.

ASSOCIATION FOOTBALL.

SENIOR MIDDLESEX A.F.A. CUP.

(2nd Round.)

ST. BART.'S v. LONDON SCOTTISH.

This match was played at Winchmore Hill on Saturday, November 20th, and resulted in the Hospital being defeated for the first time this season, the score being 3—1.

Bart.'s began to press almost from the kick-off, and certainly looked like doing well. Many attempts were made at the goal, and one of them ended in Soutter's scoring. This, however, was very soon replied to by one of the Scottish forwards, who got clean away and scored.

After the change of ends things began to go wrong with the Hospital, and no one seemed up to form except Jameson at centre-half, who played a good game throughout. On two further occasions in the second half the opposing forwards broke through the Bart.'s defence and scored. In this part of the game a penalty was given against the Hospital, but our opponents decided to shoot wide.

The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, H. Rimington (backs); E. M. Grace, G. D. Jameson, G. M. Cowper (halves); A. O. Courtiss, J. B. McFarland, L. Braun, J. S. Soutter, K. D. Atteridge (forwards).

RUGBY FOOTBALL CLUB.

The first half of the season is now over, and although the Hospital team has not been altogether successful, the side shows every promise of being really good, and it is felt on all sides that we have a better chance of winning the Inter-Hospital Cup this season than we have had for some seasons past. Unfortunately, so far we have never

turned out a really representative team, but it is hoped that the full team will be got together at the beginning of the New Year and will be able to play together regularly right up to the cup-ties.

Up to now the Hospital has won 5 and lost 6 matches. 115 points have been scored against us in contrast to 116 points in our favour. Our worst defeats have been by the Old Alleynians, the first match of the season, and by the R.M.C., Sandhurst, on a Wednesday. The games at Bedford and against Rosslyn Park were very closely contested, and in each case we only lost, unluckily, by a small margin.

The "A" XV have been playing consistently well and have won the majority of their matches. A notable victory was that over the Old Alleynians' "A," while the O.M.Ts.' "A" only beat us by three points. This year the "A" XV Inter-Hospital Cup should certainly come to Bart.'s.

In view of the all-important cup-ties which come off in February and March it is hoped that all Rugger players will keep as fit as possible during the "vac." and will make a point of turning out regularly next term with a strong determination to win one, if not both cups.

BART.'S 1ST XV v. STRATFORD-ON-AVON.

This game was played on December 6th, at Stratford, in pouring rain and semi-darkness. The Hospital team was not at full strength. The weather conditions rendered good football impossible, and the game was of the kick and rush type. After a lot of scrappy play, in which the ball was hardly ever hauled, Bart.'s were awarded a free kick, and Williams landed a good goal from somewhere near the half-way line. This proved to be the only score of the match, so that Bart.'s were the ultimate winners by 3 points to 0. Team:

A. H. Little (back); C. Savory, J. C. W. MacBryan, A. E. Parkes, R. Coyte (three-quarters); R. H. Williams (capt.), D. D. G. Evans (halves); J. B. Mudge, E. J. Bradley, G. F. Jukes, F. G. A. Smyth, H. C. C. Joyce, C. W. B. Littlejohn, N. A. Scott, G. A. Beyers (forwards).

BART.'S 1ST XV v. ROSSLYN PARK.

The Hospital was unlucky in just losing this match at Winchmore Hill on December 13th. Neither side were at full strength, Fiddian, Bradley and MacBryan being away from the Bart.'s team. The game was very even throughout, and the home forwards got the ball mostly in the scrum, so that we were constantly attacking. Half-time arrived with no score. In the second half, Rosslyn Park scored a snap try under the posts while one of the Bart.'s forwards was laid out hurt and the attention of the side was consequently diverted. Bart.'s looked like equalising right up to the finish, but never managed to score, so that Rosslyn Park remained winners by 5 points to 0. Team:

A. H. Little (back); C. Savory, A. E. Parkes, W. F. Eberli, W. E. Wilson (three-quarters); R. H. Williams (capt.), D. D. G. Evans (halves); J. B. Mudge, R. L. Kitching, G. F. Jukes, C. E. Kindersley, H. C. C. Joyce, C. W. B. Littlejohn, N. A. Scott, E. A. Fiddian (forwards).

THE DRAMATIC CLUB.

The Entertainment will be held on January 12th, 13th and 14th, instead of the 5th, 6th and 7th, as stated in the December issue of the Journal.

CORRESPONDENCE.

FABIAN RESEARCH DEPARTMENT.

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

SIR,—The Committee of Inquiry into the working of the Insurance Act, instituted by the Fabian Research Department, has reason to believe that some insured persons are being refused the benefits to which the Act entitles them, and that many poor people feel unable to resist what seems to them oppression. Will you allow me, through your columns, to invite all who know of any case of what seems to be wrongful refusal of benefits, to write (in strict confidence) to me, giving full particulars?

Information is wanted as to the following cases among others:

(1) Refusal of sickness benefit when the proved incapacity to work is caused by pregnancy, on the ground that this is not a disease. But the Act entitles to benefit for every "disablement," without specific disease, and Section 110 of the Commissioners' Hand-book explicitly recognises incapacity caused by the disablement of pregnancy as a valid ground for sickness benefit.

(2) Restriction of sickness benefit in pregnancy and maternity to a maximum of four weeks. There is no limitation of sickness benefit in the Act for members of approved societies, apart from the twenty-six weeks' maximum.

(3) Refusal to continue sickness benefit, when the doctor certifies incapacity to work, on the ground that the patient is found (1) breaking the rules for persons on benefit (thereby incurring a fine only); (2) doing light household work deemed by the doctor not harmful; (3) even "looking after her children!"

(4) Refusal of sickness benefit on the ground that, although unable to follow his own occupation, the patient is capable of "some" work. This amounts to a parody of the law, for no one is ever incapable of any work whatsoever, unless he is continuously unconscious. (Even the bed-ridden paralytic may knit, or pick peas, or write a book!)

(5) Failure to provide the "adequate medical attendance and treatment," guaranteed by the Act for all cases without any exception. Particulars are desired of all cases in which (1) panel doctors have required payment for services beyond the scope of their contract with the Insurance Committee; (2) panel doctors have been unable to give the treatment required, e.g. surgery, eye cases, etc.; (3) hospital treatment was required and not obtained; (4) the prescribed drugs or appliances have not been supplied free of charge; and (5) appliances not included in the Commissioners' list (trusses, elastic bandages, spectacles, crutches, etc.) have been required and refused.

(6) Failure to provide what is required by tuberculosis patients, such as (1) inability to gain admission to sanatorium; (2) refusal of the necessary means of adequate domiciliary treatment, such as open-air sleeping arrangements or necessary ventilation; (3) refusal to allow nourishing food, such as milk and eggs, which the Act empowers the panel doctor to prescribe under certain circumstances.

(7) Refusal of maternity benefit or of sickness in connection therewith, on the ground of "misconduct," or because of alleged breach of rules.

(8) Expulsion from approved society, for instance, on ground of "withholding material information."

The Committee welcomes testimony on both sides; and would like equally illustrative cases in which, under the circumstances indicated above, benefits had been given or continued and instances of their advantageous results.

I am, etc.,
SIDNEY WEBB.

37, NORFOLK STREET, STRAND,
LONDON, W.C.;
November, 1913.

THE BOOKSHELF.

REVIEWS.

SKIN DISEASES IN GENERAL PRACTICE: THEIR RECOGNITION AND TREATMENT. By HALDIN DAVIS, M.B., B.Ch., B.A. (Oxon.), F.R.C.S.(Eng.), M.R.C.P.; Physician in Charge of the Skin Department, Paddington Green Children's Hospital; Chief Assistant in the Skin Department, St. Bartholomew's Hospital; Assistant Physician to the Hospital for Diseases of the Skin, Blackfriars. (London: The Oxford University Press, Warwick Square, E.C.) Price 15s.

It is with particular pleasure that we welcome this excellent book, not only for the pardonable prejudice in its favour from its emanating from a member of the staff of this Hospital, but because we are glad to recommend to practitioners that rarest of blessings—a book which really supplies a need. Mr. Haldin Davis's book is eminently practical, for his classification of skin diseases is not an ætiological one (only the essential pathological features are considered), but it is based upon the distribution of the lesion, and thus enables anyone, however ignorant of even the commonest skin affections, to increase considerably his chances of recognising the condition, which in the case of disorders of the skin is absolutely essential for successful treatment.

It might be thought that an objectionable amount of cross-

references would be entailed by this scheme, but so skilfully has the author done his work that this is by no means the case.

It may be said that the success of this book may largely be due to the peculiar circumstance, implied in the preface, that it was conceived in the author's mind when he was a student and when skins constituted to him the greatest of mysteries. In this way he has with exceptional success appreciated the difficulties of the uninitiated.

Since we feel justified in anticipating that this manual may well become a standard one and are perfectly certain that it will run to several editions, we feel that it may be of distinct advantage to criticise the illustrations. On the whole, we doubt if any real service is afforded by the ordinary half-tone reproductions of eruptions. If these are to serve merely as a means of enabling a reader to visualise the distribution of a rash, well and good; but when they are intended to indicate the character of the eruption we feel that generally they fail to be of the slightest educative value. True, the shape of the lesions may be faithfully reproduced in a photograph, but the recognition of a rash depends upon many other features, in particular its colour. The peculiar non-actinic colouring of most skin rashes renders the task of the dry plate an impossible one. Some slight improvement is added if elaborate colour screens and panchromatic plates are employed, yet even if this labour is undertaken, the result is in our experience disproportionately poor.

Our destructive criticism is issued in the hope that it may prove constructive. The colour photographs in Mr. Davis's book are so magnificent, such life-like renderings of the actual lesions, that one would like to see a future edition containing more of such photographs and fewer of the half-tones, even if the latter cannot be entirely eliminated. We are well aware that the cost of production of such pictures is very high, and the weight of the paper necessarily employed for such illustrations makes a book very heavy, but if our recommendation can be followed, we are sure that a considerable addition may be made to the value of a very valuable work.

We do not feel it necessary to select any features of the book for special consideration; in passing, however, it is interesting to note that, contrary to many dermatologists, Mr. Davis favours a rheumatic origin for erythema nodosum. We may say, however, that we have particularly admired the clearest description of the treatment of psoriasis that we have ever read, and the treatise on the treatment of the skin of the face ought alone to ensure a sale comparable to that of a popular novel.

The style is particularly good. Mr. Davis's book is delightfully easy to read; he employs well-chosen phrases and exercises care in his selection of "good English"—a feature very seldom encountered in scientific works. We have only one minor quarrel with him; even though he elevates it to the supreme position, we do not agree with his describing fresh air among "drugs."

EPIDEMIC INFANTILE PARALYSIS. By Prof. PAUL H. RÖMER, Translated by H. RIDLEY PRENTICE, M.B., M.R.C.P. Pp. 179, with illustrations. (London: John Bale, Sons & Danielsson, Limited.) Price 7s. 6d. net.

This is a valuable monograph on poliomyelitis, in which the main features of the disease are set out from all points of view.

The book is divided into six chapters. Opening with an historical retrospect, a brief consideration of the symptomatology of the disease in man is given. The main portion of the work deals with aetiology and pathology; these sections are excellent, the author detailing at length his own animal experiments with the virus, and comparing the results he has obtained with those of other workers.

Prof. Römer is an enthusiastic follower of the monkey method of identifying the poliomyelitis virus. Though this monkey work is undoubtedly very valuable, and the monkey test conclusive when both the clinical symptoms of poliomyelitis and the pathological lesions are produced, we need to be a little cautious in our deductions when atypical results ensue. When virus produces in the monkey symptoms of general muscular weakness, without definite muscular paralysis, and post-mortem degenerative lesions without infiltration of the central nervous system, the result is not so conclusive. Control experiments carried out in the same way on the monkey with material from other diseases of children, possibly or even probably due to ultra-microscopic virus, are highly desirable in the present state of our knowledge before everything of this nature is classed "poliomyelitis."

The translator is to be congratulated on the highly finished way in which he has done his work. We are glad to notice that he has dispensed with an introduction by some obscure English writer,

which apparently is the usual practice when publishing a translation nowadays. A full bibliography is given, and the 57 illustrations, many of which reproduce histological changes in the monkey's nervous system, are excellent, though by many readers a section showing a normal "anterior horn" under high power would doubtless be much appreciated.

We heartily recommend this monograph to all those who are interested in the study, and especially to those engaged in the experimental study, of poliomyelitis. Indeed, to the latter it should prove indispensable.

HOSPITAL AND TEACHING APPOINTMENTS HELD BY PAST STUDENTS OF THE HOSPITAL.

OMISSIONS FROM LISTS 1 AND 2.

<i>Hospital.</i>	<i>Name and Post.</i>
St. George's Hospital	{ J. R. H. Turton, <i>Dem. of Path. and Asst. Curator of Museum.</i>
Guy's Hospital	{ C. J. Ogle, <i>Anæsthetist.</i>
King's College Hospital and Medical School	{ W. A. Turner, <i>Phys. and Lect. on Neurology.</i>
	{ F. W. Tunncliffe, <i>Asst. Phys.</i>
	{ W. R. Smith, <i>Prof. of Forensic Medicine.</i>
St. Mary's Hospital	{ G. Harrison Orton, <i>M.O. in charge of X-ray Dept.</i>
	{ J. E. S. Fraser, <i>Lect. on Anatomy.</i>
	{ W. G. Wynter, <i>Phys. and Lect. on Medicine.</i>
Middlesex Hospital	{ Stephen Paget, <i>Cons. Aural Surg.</i>
	{ H. Martin Grey, <i>Asst. in Electro-therapeutic Dept.</i>
University College Hospital	{ J. H. Parsons, <i>Ophth. Surg. and Lect. on Clin. Ophth.</i>
Westminster Hospital	{ R. Farrant, <i>Surg. Registrar.</i>
London School of Medicine for Women (Royal Free Hospital)	{ G. Harrison Orton, <i>M.O. in charge of Elect. Dept.</i>
West London Post-Grad. College (West London Hospital)	{ W. d'Este Emery, <i>Lect. on Path.</i>
	{ Robert Jones, <i>Lecturer on Mental Diseases.</i>
London School of Tropical Medicine.	{ L. W. Sambon, <i>Lecturer.</i>
	{ H. Williams, <i>Lect. on Post-Hygiene.</i>
	{ Sir F. H. Lovell, <i>C.M.G., Dean.</i>
	{ F. W. O'Connor, <i>Demonstrator.</i>
Royal Institute of Public Health	{ Prof. W. R. Smith, <i>Principal.</i>
German Hospital	{ A. Compton, <i>Hon. Asst. Surg.</i>
London Temperance Hospital	{ A. Abrahams, <i>Med. Registrar.</i>

EXAMINATIONS AND DEGREES.

UNIVERSITY OF OXFORD.

The degree of M.B. was conferred on R. O. Ward.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:
M.C.—K. J. A. Davis, R. M. Vick.
M.B., B.C.—H. W. Barnes, H. Y. Mansfield.

UNIVERSITY OF LONDON.

M.D. Examination.

Medicine.—G. Hadfield (University Medal).

B.Sc. Examination.

H. M. C. Macaulay (First Class Honours in Physiology).

UNIVERSITY OF LIVERPOOL.

The Diploma in Tropical Medicine has been taken by:
E. C. Hepper, E. E. Wilbe.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Final F.R.C.S.

C. W. Archer, M. Bates, F. H. Diggle, A. L. Moreton, C. T. Neve,
S. B. Radley, R. A. Ramsay, R. M. Rowe, P. J. Franklin, J. Gow,
J. S. Bookless.

SOCIETY OF APOTHECARIES.

Diploma of L.S.A. has been granted to W. R. Sadler, H. V. Capon.

NEW ADDRESSES.

BATES, MARK, 33, The Tything, Worcester
CORKER, Surg.-Gen. T. M., K.H.P., Headquarters, IXth Division,
Ootacamund.
GASK, G. E. (Tel. Mayfair 3665.)
GIRVIN, Lieut.-Col. J., R.A.M.C., Military Hospital, Curragh Camp.
INNISS, Lieut.-Col. B. J., R.A.M.C., Meerut, U.P., India.
JORDAN, A. C., 13, Upper Wimpole Street, W. (Tel. Mayfair
5340, unchanged.)
MASTERMAN, E. W. G., 80, London Road, Tunbridge Wells (tem-
porary).
MILLER, T. M., c/o Dr. Lock, 3, Calverley Terrace, Tunbridge
Wells.
POWER, D'Arcy. (Tel. Mayfair 776.)
RUSSELL, E. N., Health Office, Mombasa.
RYLAND, A., 30A, Wimpole Street, Cavendish Square, W. (Tel.
Pad. 1950.)
STRAHAN, S. S., Manila Railroad Company, P.O. Box 44, Manila.
TRAVERS, E., 2, Phillimore Gardens, W. (Tel. 2395 Park.)
WELLS, W. W., 97, Sloane Street, S.W. (Tel. Vict. 7167.)
WILSON, Cyril, c/o Raymond Wilson, Esq., Wilsonia, Upsher,
Balfour, Stockenstrom, Cape Colony.
WITH, Lieut. P. A., R.A.M.C., c/o Messrs. Holt & Co., 3, White-
hall Place, S.W.

APPOINTMENTS.

MARSHALL, J. C., M.D. (Lond), F.R.C.S., appointed Assistant Surgeon
to the Western Ophthalmic Hospital.
RUSSELL, E. N., M.B., B.C. (Cantab.), appointed Temporary Medical
Officer to East African Protectorate, Mombasa.
RYLAND, A., F.R.C.S. (Edin.), appointed Registrar at the Central
London Ear, Nose and Throat Hospital, Gray's Inn Road, W.C.
VICK, R. M., M.C. (Cantab.), F.R.C.S., appointed Assistant Surgeon
to the Metropolitan Hospital, Kingsland Road, N.E.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, promotions, etc., have been notified
since November 21st, 1913:

Fleet-Surgeon H. Clift to the "Argonaut" and for group of ships
of Third Fleet, December 1st, 1913.

Fleet-Surgeon H. C. Arathoon to the "Goliath," December 10th,
1913.

Fleet-Surgeon A. Woollcombe to the "Venus," undated, and to
the "Woolwich," on commissioning.

Fleet-Surgeon E. Follitt to the "Majestic" and for group of
Third Fleet ships, January 1st, 1914.

Staff-Surgeon N. Harris to the "Weymouth," undated.

Surgeons F. Wright and D. Arthur to the "Vivid," additional for
disposal, December 1st, 1913.

Staff-Surgeon A. Woollcombe promoted to the rank of Fleet-
Surgeon, to date November 29th, 1913.

R.A.M.C.

Surgeon-General T. M. Corker, K.H.P., has been transferred to
the IXth (Secunderabad) Division, and his address is Headquarters,
IXth Division, Ootacamund.

BIRTHS.

BECK.—On December 21st, at Bromyard, the wife of Ashton Beck,
M.B., of a daughter.

FERNIE.—On December 13th, at 24, Crooms Hill, Greenwich, the
wife of C. H. Fernie, M.R.C.S., L.R.C.P., of a son.

FOLLIOTT.—On December 3rd, at 67, Weymouth Street, the wife of
Fleet-Surgeon E. Follitt, R.N., H.M.S. "Iphigenia," of twin sons.

GIBSON.—On October 30th, 1913, at 4, Upper Gloucester Place,
N.W., the wife of Sydney H. Gibson, L.R.C.P., M.R.C.S., etc., of
a son.

ODELL.—On December 14th, at "Ferndale," Torquay, the wife of
William Odell, M.D., F.R.C.S., of a son.

SOAMES.—On December 17th, at Ridgeway, Reigate Hill, to Ralph
and Mary Soames, a son.

MARRIAGES.

ASHLEY.—LAVINGTON.—On December 11th, at the Cathedral,
Brisbane, by the Very Rev. the Dean of Brisbane, Thomas E.
Ashley, M.R.C.S., L.R.C.P. (Lond.), of Brisbane, second son of
R. W. Ashley, Esq., J.P., and Mrs. Ashley, of Woodville, Stoke
Bishop, Bristol, to Muriel, second daughter of Mr. and Mrs. Cyril
E. Lavington, of Druid Stoke, Stoke Bishop, Bristol. (By cable.)

TATCHELL.—FRASER.—On November 29th, at St. Paul's, West-
bourne Grove, Percy Tatchell, M.R.C.S., L.R.C.P., youngest son
of Edward Robert Tatchell, and of the late Mrs. Tatchell, of
Northbank, Seaview, Isle of Wight, and 73, Holland Park, W.,
to Miriam, youngest daughter of the late James Fraser, of Lloyds,
and of Mrs. Fraser, of 16, Prince Edward Mansions, W., and
Craighill, Kessock.

DEATHS.

LAWRENCE.—On December 22nd, 1913, at Burford, Dorking, Sir
James John Trevor Lawrence, Bart., K.C.V.O., aged 81.

WALCH.—On December 27th, at Brighton, Charles Nash Crosby
Walch, M.B., of "The Croft," Rustington, sixth son of the late
James H. B. Walch, of Hobart, Tasmania, aged 44.

WELLS.—On November 14th, 1913, G. L. Wells, M.B., B.S. (Lond.),
M.B., Ch.B. (Leeds), F.R.C.S., of 15, Eldon Terrace, Leeds.

WOODS.—On December 10th, 1913, at Dashwood House, Ramsgate,
from septic poisoning, Frank Woods, M.R.C.S., L.R.C.P., L.S.A.

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 ADVER-
TISEMENT MANAGER, the Journal Office, St. Bartholo-
mew's Hospital, E.C. Telephone: 1436, Holborn.*

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King Henry VIII Gateway in gilt) can be obtained (price
1s. post free) from MESSRS. ADLARD AND SON, Bartholo-
mew Close. MESSRS. ADLARD have arranged to do the
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St. Bartholomew's Hospital



JOURNAL.

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[PRICE SIXPENCE.]

St. Bartholomew's Hospital Journal,

FEBRUARY 1st, 1914.

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

CALENDAR.

Tues., Feb.	3.	—Dr. Herringham and Sir Anthony Bowlby on duty.
Wed., "	4.	—Clinical Lecture (Surgery), Mr. Waring.
Fri., "	6.	—Dr. Tooth and Mr. D'Arcy Power on duty. Clinical Lecture (Medicine), Dr. Morley Fletcher.
Tues., "	10.	—Dr. Garrod and Mr. Waring on duty.
Wed., "	11.	—Clinical Lecture (Surgery), Mr. D'Arcy Power.
Fri., "	13.	—Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine), Dr. Herringham.
Tues., "	17.	—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., "	18.	—Clinical Lecture (Surgery), Mr. D'Arcy Power.
Fri., "	19.	—Dr. Herringham and Sir Anthony Bowlby on duty. Clinical Lecture (Medicine), Dr. Tooth.
Tues., "	24.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., "	25.	—Ash Wednesday. Clinical Lecture (Surgery), Mr. McAdam Eccles.
Fri., "	27.	—Dr. Garrod and Mr. Waring on duty. Clinical Lecture (Medicine), Dr. Garrod.
Mon., Mar.	2.	—Hichens Prize. Applications for Luther Holden Scholarship to be sent in.
Tues., "	3.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., "	4.	—Clinical Lecture (Surgery), Mr. McAdam Eccles.
Fri., "	6.	—Dr. Morley Fletcher and Mr. Bailey on duty. Clinical Lecture (Medicine), Dr. Calvert.

EDITORIAL NOTES.

IT is not long since we mentioned the formation of a "Concert of Editors" of the London Hospital Journals. Since this was formed a few months ago the editors have met several times, and some hard work has been put in. Most of the medical schools of Great Britain outside the metropolitan area are already represented as honorary members. So far we have concentrated our attention, first upon our own organisation, and secondly, upon that subject of so much importance to students—the Basle terminology. With reference to the latter we have been in correspondence with several of the larger publishers of medical works, and have pointed out to them the position in which matters stand. The battle is not yet finished, but we are able to announce that some at least of the publishers will keep their backs turned upon the unofficial innovation. Messrs. Cassell & Co., Ltd., in writing to us state—"We have no present intention of substituting the Basle anatomical terminology for the official terminology in books published by us"; while Messrs. Baillièrè, Tindall & Cox state that "We at any rate are not trying to force upon an unwilling body unacceptable terms for the sake of the increased profits in the United States and Colonial markets."

For the benefit of students who find a difficulty in obtaining up-to-date works in the old terminology, we wish to bring to their notice the fact that there are such books to be obtained, and if we refer specially to works on anatomy, it is because in other subjects there are plenty of standard works in the official terminology still on the market.

The books we would mention are *Buchanan's Anatomy*, Paterson's *Anatomist's Note-Book*, and as a revision book, Fagge's *Pocket Anatomy*. All these are still written in the old terminology for the most part, and used in conjunction with one another should prove a serviceable combination.

Buchanan's Anatomy is not quite so large as Gray's or

Cunningham's, and it is written on rather a different basis, being dealt with in special sections, after the same plan as Cunningham's *Practical Anatomy*. This makes it a very useful book to work with in connection with dissections, and though it is rather smaller than the other large textbooks, this is compensated for by the fact that it is more concise and more easy of digestion.

Paterson's *Anatomist's Note-Book* is a very useful book for dissecting purposes, but it must be used in connection with a larger book, such as the one above mentioned. This book has only just been published and a review is given on another page.

* * *

The names of Sir W. J. Collins and Surg.-Gen. H. E. Hathaway both appear in the new year's honours list as having been respectively created K.C.V.O. and C.B. To both of these past students of the Hospital we extend our most cordial congratulations.

* * *

We heartily congratulate Mr. G. Hadfield on his success in obtaining the University Medal in the London M.D. Examination.

* * *

Further, we have to extend our congratulations to Mr. J. W. Gill, M.R.C.S., L.R.C.P., of St. Germans, who has been placed on the Commission of the Peace for the County of Cornwall.

* * *

On Sunday, January 11th, the centenary of the birth of the great Sir James Paget was celebrated at Great Yarmouth, of which town Sir James was a citizen. His son, the Bishop of Stepney and Bishop-Elect of Edmondsbury and Ipswich, preached at a memorial service, at which the civil, military and naval forces were all represented. An account of this historic event will be found in another column.

* * *

As usual the wards on Christmas Day were resplendent with visions of fairyland. From room to room one might wander, and come ever upon some fresh scheme of decoration or some original plan for distributing pleasures. In one ward it may be the carnation and lily hold their own, in another paper, cunningly fashioned by patient and nurse, forms a canopy of wistaria, almost hiding with its delicate mauve blossoms the ceiling and the walls.

The entertainments by the various troupes and friends of the Hospital were well up to par this year. Indeed several people who had passed many a Christmas Day beneath the roof of St. Bartholomew's remarked that taken all round they had never known a more entertaining series of entertainments.

In the morning there were two claimants to the title of "Father Christmas," one of whom was accompanied by a reindeer of somewhat fearsome appearance. Whether it was due to Father Christmas or to the reindeer we know

not, but in one of the wards visited it is said that a little girl fled beneath the bed in terror; happily she was consoled when she was made to understand that the entertainment was for her most particular benefit.

Among the notabilities present was Mr. Winston Churchill. At least, he was introduced to us under that name. In spite of his correct "get-up" and general appearance, however, we should not have estimated the gentleman's age at more than six years. He carried a monocle—we are doubtful ourselves about this monocle, but as we do not know the First Lord of the Admiralty very intimately, we are not in a position to say whether it was a correct feature of the impersonation.

Perhaps the most curious part of the proceedings on Christmas Day is the *first* dinner. This takes place about 9 a.m.! No—it is not a late breakfast, but dinner, with turkey and plum pudding complete, and those who partake of it are the nurses on night duty. Even on Christmas Day the routine of work must somehow proceed, and this early dinner is one of the necessary items.

One must not pass over these happenings without a word as to the organisation of all this festivity. The whole of it is almost entirely due to the sisters and to the nurses. For many a long day they have been working and quietly preparing for the great event, some of them making decorations, others dressing dolls, others perhaps making the harmless, but necessary pin-cushion (these, for the Christmas trees)! Whatever the success of Christmas Day in St. Bartholomew's, let it not be forgotten that this success is chiefly due to our enterprising nursing staff.

ELECTROTHERAPY—IN THE PAST AND AT THE PRESENT DAY.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

PART III.



MORE than half the total number of patients attending the Electrical Department are cases of paralysis. They attend with great regularity. The men begin to come at one o'clock, each in his turn takes his treatment, and returns to receive fresh applications week after week and month after month. Female patients with facial palsy are models of regularity in their attendance. Mothers bring their paralysed infants twice weekly for one year, two years, even for longer periods, until they are too heavy to carry.

There are eight baths in the Electrical Department and they are in constant use. Three of these are arm baths; two are full length baths for the treatment, at the same time, of the trunk and extremities; two are for the use of children; while in another any one extremity can be treated singly or

together with any other. When the baths are filled, the current passes through the water from one end of the bath to the other, and when the patient or one of his limbs is immersed, part of the current passes through him. This method of applying the current has special advantages. The patient is kept warm so that *long* applications may be given. The water covers the patient and acts as a perfectly fitting electrode of the largest possible area, so that the current can enter and leave the skin at all points. In this way the total amount of electricity traversing the part will be large, thus enabling *strong* applications to be made, while the large surface of entry of the current reduces the current density at the skin to a small value, thus ensuring *painless* applications.

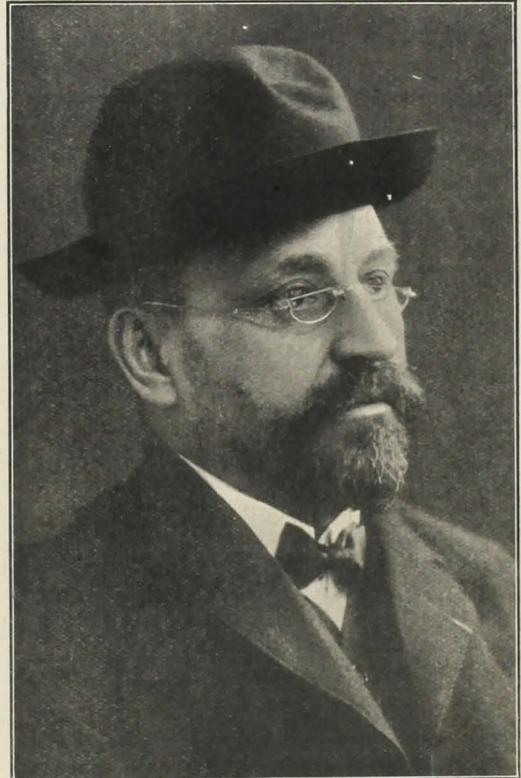
The currents that are supplied to these baths are rhythmically varied in their strength between zero and the maximum that the patient can bear with comfort. The current starts from zero, reaches its maximum in about two seconds, and reaches zero again in the same time. When once the suitable strength has been ascertained, very little further attention is required. The current that passes through the baths is on a circuit completely disconnected from the main circuit, so that there is no risk to the patient, and no necessity to have the bath insulated from the earth and to keep a constant guard over the patient.

The more frequently the applications can be made the better. Bergonié states that he has observed better results by prolonging their duration and increasing their frequency. He now gives two applications daily, each lasting thirty to sixty minutes, in the treatment of children with infantile palsy. No fatigue occurs, and nothing but good results. A portrait of Bergonié is shown on this page.

When a motor nerve or its nucleus of origin is sufficiently injured or diseased, the alteration in the electrical reactions of the muscles supplied *must* occur, whatever treatment is given and however soon it is commenced. But nerve-fibres will recover their function or regenerate, and it is seldom that all the nerve-cells representing a muscle in the spinal cord are destroyed. While the lower motor neuron is regaining its function, what is happening to the muscle that is receiving no treatment? The muscle ceases all work. It is not even a *resting* muscle, for there is some degree of continuous contraction or tone in a resting muscle, and chemical changes are still going on in it. But when there is a lesion of the lower motor neuron, the muscle ceases work entirely. It hangs loosely from its extremities, supported by the skin. Its circulation becomes feeble in the extreme, and the blood-supply to the adjoining parts is much impaired. The temperature is lowered and the muscle cannot shiver itself warm. The skin becomes blue and cold, and chilblains develop. The growth of the bone is retarded. The muscle-fibres then slowly die and are replaced by fibrous tissue, which gradually shrinks, and contractures of the limbs may develop. Patients in this

condition are sometimes seen and present a sorry spectacle, examples of long-continued extensive paralysis, neglected or improperly treated.

To prevent these changes, a proper circulation must be maintained in the limb, and the muscles and nerves must be artificially stimulated so as to make them work and improve their blood-supply. No method of treatment can bring this about more effectively than electrical currents properly applied in the way described. Every part is traversed by the current, and every nerve-fibre and muscle-fibre is stimulated, while all the tissues benefit from the improved blood-supply.



J. BERGONIÉ, PROFESSOR IN THE UNIVERSITY OF BORDEAUX.

The good results that are obtained from properly applied electrical treatment of paralysis can be seen in the Electrical Department. When treatment is commenced, chilblains, if present, disappear, the skin loses its blue colour and the limb becomes warm, even though, at this stage, no voluntary power of the muscles may have been regained. Provided that the nerve or its motor nucleus has not been damaged beyond repair, and provided that the cause of the paralysis is no longer operating, the voluntary power gradually returns, and finally the electrical reactions become normal. Cases which seem to have fallen into the last degree of atrophy and paralysis will benefit if the treatment is persevered with for a sufficient length of time, and voluntary power and normal reactions may return.

Massage forms a useful subsidiary treatment, but it is a mistake to think that it can replace *properly applied* electrical treatment. If anyone doubts this, let him see the children with infantile paralysis that are receiving only massage, and those that are receiving electrical treatment at St. Bartholomew's Hospital, and let him see them week by week. Those who are having only massage and manipulation develop chilblains and the limb remains cold, blue and lifeless. This bad condition persists until electrical treatment is commenced, when the chilblains disappear, the blue colour goes and the limb remains warm. If these patients who are having electric baths are examined each time that their cards are renewed, no chilblains are seen and the skin is warm and has a good colour, and the good condition persists if the baths are continued.

The objection is raised that the electrical treatment stimulates the antagonist muscles (if they are healthy) to contract, so that those which are paralysed are passively stretched. This can be avoided by applying a suitable splint so as to support and fix the part moved by these muscles. It is to be remembered that if these paralysed muscles show the reaction of degeneration and if the galvanic current is used to treat the paralysed limb, the healthy antagonists will give a quick twitch, while the paralysed muscles will give a sluggish contraction which will long outlast the quick twitch, thereby causing a passive stretching of the *healthy* muscles.

Besides the cases of paralysis, many other patients with very different forms of disease find their way to the Electrical Department. Brief mention will be made of these forms of disease, first taking those which are *suitable* for electrical treatment, giving some account of the form of treatment applied, and explaining, as far as is possible, how the electricity acts. The galvanic current is applied to a large number of these cases. It was mentioned before that the therapeutic action of electricity was due either to the *chemical* or to the *thermal* effects which it produced. When the continuous current passes through the body, chemical changes occur at the point where the electricity leaves the metallic conductors to be "ferried" across the tissue fluids by the ions present in them, also at the point where the electricity leaves the tissue fluids to enter the other metallic conductor on its way back to the source of the current.

Thus, if a platinum wire be inserted into the follicle of a *superfluous hair* and connected to the negative pole of a battery and the circuit be completed by connecting the positive pole of the battery to some other part of the body, a white froth is seen in the follicle, the root is destroyed and the hair can be lifted out. Chemical changes have occurred around the platinum wire. Sodium ions bearing a + charge of electricity, have been attracted to the negative pole (the platinum needle), the + charge has been neutralised, free sodium has been formed which decomposes the water in the cells of the follicle, forming

hydrogen and caustic soda, and the latter destroy the follicle.

Again, in the treatment of *lupus*, a brush of platinum needles are inserted into the diseased tissues and connected to the positive pole of the battery. The patient has previously taken potassium iodide, so that iodine ions are present in the tissue juices. Those that reach the diseased part are attracted to the + pole because they bear a - charge. This charge is neutralised at the needles, and the free iodine that is deposited in the tissue destroy the bacilli in the neighbourhood.

In the treatment of *nævi*, two needles may be inserted and the current passed from one to the other. Caustic soda and hydrogen are formed around the negative pole, and acids (chiefly HCl) at the positive pole. These chemical products coagulate the blood in the *nævus*.

The so-called electrolytic action of the current when used to destroy tissue is really the chemical action of these products which accumulate at the points of entry and exit of the current. The passage of the current produces further changes in the tissues *between* the poles. The ions which convey the electricity are redistributed, those with the + charge migrating "down-stream" *with* the current, those with the - charge migrating "up-stream," *against* the current, so that there is an alteration in the composition of the tissues so far as their soluble, ion-forming constituents are concerned. The passage of the galvanic current acts promptly and effectively in the relief of congestion following injury; and the fluid effusions are rapidly absorbed. The good effect following the application of the galvanic current to sprains and similar conditions seems to be little known, although it was familiar to Remak as far back as 1856. The vaso-dilatation produced by the current helps in the production of these good effects, although it is likely that the redistribution of the ions lowers the osmotic pressure of the fluid and so aids in its absorption into the blood-vessels.

If the action of the chemical products that are formed around the points of entry and exit of the current is not desired (for they may irritate or injure the skin), pads moistened with salt solution are placed on the skin, and the conductors that convey the current are placed on them, out of contact with skin. The chemical products that accumulate at the point where the metal conductor touches the pad do not reach the skin till they are diluted beyond harming power by the water in the pad. When the current flows another action is now seen. Ions migrate from the pad, through the skin, into the body. This method of introduction of drugs is known as the "ionic method." Not the whole molecule is introduced, but one of its two component ions. The germicidal action of zinc chloride solution is due to the zinc ion and it is only the zinc ion which we wish to introduce, and this is brought about by the electrical current. The ionic method secures the introduction of the therapeutically active ion; it introduces it only into the part.

desired, provided that this part does not lie deeply; it introduces it with a thoroughness equalled by no other method (provided again that the part lies superficially), every cell and nucleus receiving some ions. The ionic method of treatment has been applied in almost every branch of medicine and surgery. It is applied to several cases in the Electrical Department, where its efficacy is put to a severe test because many of the cases that are sent there and are treated by this method have proved to be refractory to other methods of treatment given elsewhere.

Of the various ions that have been introduced, none have proved of more value or have been more extensively applied than the zinc ion. The starting-point for the application of the zinc ion to cases of ulcer dated from the publication, in 1903, of a paper by Leduc, describing the successful treatment of a case of rodent ulcer. At the time of writing zinc ions have recently been used in the Electrical Department for the treatment of a very callous "tropical" ulcer. The patient, a native of West Africa, came to England for treatment. The ulcer has been twice ionised with zinc and it has nearly completely healed. Other methods of treatment were without avail. Mr. D'Arcy Power has kindly allowed me to mention this case, which is under his care. A case of membranous conjunctivitis of both eyes of many years' duration is now under treatment by zinc ions. A mass of granulations on the orbital surface of one lid has been reduced in size and the pus is diminishing. This case, also, has been refractory to other methods of treatment. Two other cases of callous ulcer have healed, each after a single application of zinc ions. Discharging sinuses can be made to close by ionising their walls with zinc by means of a zinc rod, clothed with a thin layer of cloth saturated with the solution of a zinc salt. It is necessary that the zinc solution should be in contact with every part of the wall of the sinus, otherwise the infecting organisms will not be all killed and pus will form again and re-open the sinus. Warts can be removed by transfixing them with a zinc needle which is connected to the + pole of a battery. Acids are formed around the needle, zinc ions are produced, and the wart drops off in a few days.

Zinc ions have been used with success for cases of septic infections of the middle ear, the frontal sinus, the nasal mucous membrane and the uterus; for rectal fistula, rectal ulcerations, anal fissure, for boils and carbuncles, for the disinfection of the roots of teeth and for many other conditions.

Of the ions used for medical cases, the salicyl ion is, probably, the most frequently applied. It is of great value in the treatment of some joint affections for inflammation of muscles and fibrous tissue and nerves. It greatly relieves the attendant pain. It is also of value in the treatment of neuralgia. Many cases of these diseases attend the Electrical Department. The part to be treated is covered with a thick absorbent pad, saturated with a 1 per cent.

solution of sodium salicylate. The pad is connected to the negative pole of the battery, and the salicyl ions, bearing the — charge, are repelled from the negative pole into the underlying tissues. The best results are seen in cases of simple arthritis. Cases of neuritis, as a rule, do well. Good results are sometimes seen in cases of sciatica. The applications must be long and extensive and the inflammatory products in the nerve-sheath must not have been replaced by fibrous tissue. The least satisfactory results are seen in cases of rheumatoid and osteo-arthritis. The patients will say that they are relieved for a few hours or for a day or two, and then the pain recurs. Sometimes no relief at all is obtained. Good results are often obtained in cases of neuralgia. A patient reappears in the Electrical Department every few months when her trigeminal neuralgia reappears. One or two applications of salicyl ions always abolishes her pains.

Chlorine ions are of value in bringing about the resolution of scar-tissue, providing that the agent responsible for its formation is no longer at work. Two cases have recently been successfully treated—one, a case of fibrous ankylosis of a finger-joint, the other, a case of contraction in the scar following a complete Halsted operation and inability to raise the arm beyond an angle of 45° with the trunk. Both these patients recovered full range of movement.

A very brief account has been given of the use of three ions. Many others are used, *e. g.* the ions of silver, copper, lithium, magnesium, iodine, cocaine, quinine, etc., for many different conditions. Much work is still waiting to be done on medical ionisation.

ANATOMICAL MONUMENTS.

IT is a well-established fact, and in many ways a matter for great regret, that one of the main objects of the International (B.N.A.) terminologists is to wipe away most of those very interesting monuments left on the human body in memory of the honoured and venerable pioneers of systematic and descriptive anatomy. These anatomists have given the dignity of their respective names to unnamed structures in the body, and thus their names have been handed down to us. Thus the thickened lower border of the aponeurosis of the externus obliquus abdominis folded back upon itself presents a living monument to Poupart. Occasionally there seems to be some doubt as to who was the first anatomist to call a particular structure his own, for there are sometimes more than one name given to a structure, *e. g.* the suspensory muscle of the duodenum stretching between the duodeno-jejunal flexure and the diaphragm has been described by Treitz as well as by Lockwood, of St. Bartholomew's Hospital. The new terminologist would probably evade this difficulty by

giving it a Roman nomenclature, thereby dropping the curtain before Treitz and Lockwood. At such a crisis as this, when an attempt is being made to obliterate the names of these great men, it should be our object as students of anatomy to inquire into the life of these grand old men, and to learn a little of what they did and how particular structures came to be named after them, for a student beginning his course of dissections in the rooms is apt to skip over these classic names, and not pause for a moment to pay his respects to these most celebrated anatomists by asking himself such questions as: "Who was Poupart? Where did he come from? What did he do? How did this ligament come to be called after him?"

An attempt is being made in this and following articles to describe very briefly the life history of these anatomists. The English names are taken first, and we shall limit ourselves in the first instalment entirely to the abdomen. Most of the details have been copied from the *Dictionary of National Biography*.

ALCOCK'S CANAL, *containing the Internal Pudic Vessels and Nerve in the Parietal Pelvic Fascia.*

Alcock, Nathan, was born in Cheshire, 1707, and was of the kin of Bishop Alcock, the founder of Jesus College, Cambridge. He studied first at Edinburgh, then under Boerhaave at Leyden, where he graduated M.D. at the age of thirty. From Leyden he came to Oxford, and gave lectures on anatomy and on chemistry. At forty-two he became M.D. of Oxford, and was elected F.R.S. His happiness was disturbed by the death of a lady to whom he was, after a long engagement, about to be married, and he retired to his native place, Runcorn, because this and some fits of illness made him disinclined for the exertions of professional life. After an extensive private practice he died of apoplexy at the ripe age of seventy-two. He was six feet high, of dark complexion, and athletic make. He was a resolute Whig in politics, and in the Church a follower of Hoadly. His Leyden thesis was on pneumonia. He published no other work.

COLLES' FASCIA, *Deep Fascia of the Perinaeum.*

Colles, Abraham, was born in 1773 at Milmount, near Kilkenny. During his education in Kilkenny Grammar School a flood swept away part of the house of a doctor named Butler, and carried a work on anatomy into a field near Colles' home. The boy picked it up; the doctor gave him the book, and this led to Colles' choice of a profession. He entered Dublin University at seventeen, and obtained the diploma of the Irish College of Surgeons at twenty-two. Subsequently he graduated M.D. of Edinburgh, and then went on foot from there to London, where he remained for some time, assisting Astley Cooper in the dissections for

his works on hernia. He returned to Dublin, and at thirty was appointed visiting surgeon to Steevens' Hospital.

Colles became a masterly operator, being cool and dexterous, and singularly fertile in resource. He was the first man in Europe to tie the innominate artery, and he did it successfully. When he first tied the subclavian artery for aneurysm the operation had only twice been attempted in England, never in Ireland. His name is most widely known in connection with Colles' fracture of the radius. His paper on the subject appeared in the *Edinburgh Medical and Surgical Journal*, 1814, vol. x.

At thirty-one Colles became Professor of Anatomy and Surgery in the Irish College of Surgeons, and held the office for thirty-two years. Colles' practice, both as physician and surgeon, was very remunerative, for many years exceeding £5000 per annum. He remained surgeon to Steevens' Hospital till two years before his death, on 16th November, 1843, in his seventieth year. He was offered a baronetcy at sixty-six, which he declined. He was a Liberal in politics, and a Protestant in religion. He never lost an opportunity of frankly admitting his blunders. On one occasion, at a post-mortem examination of a patient on whom he had operated, he turned to the class and said, "Gentlemen, it is no use mincing the matter, I caused the patient's death." Colles was about the middle size, well proportioned, and of dignified manner, with a shrewd, clear eye, a fine forehead, and a decided mouth. His works include *Use of Mercury in Venereal Complaints*, *Essays on Lithotomy*, *Tying the Subclavian Artery*, *Dissection Wounds*, and *Fracture of the Radius*.

COWPER'S GLANDS, *Opening into the Bulb of the Urethra in the Male.*

Cowper, William, was born in Petersfield in Sussex in the year 1666. His name is sometimes spelt phonetically Cooper. He was the youngest son in the family and was not related to Earl Cowper, first Lord Chancellor of Great Britain. He began practice as a barber-surgeon in London at the age of twenty-five. At twenty-eight he published *Myotomia Reformata, or A New Administration of the Muscles of the Humane bodies, wherein the true uses of the muscles are explained, the errors of former anatomists concerning them confuted, several muscles not hitherto taken notice of described, to which are subjoined a graphical description of the bones and other anatomical observations*. At thirty Cowper was elected a Fellow of the Royal Society. In 1698 he published at Oxford *The Anatomy of Humane bodies, with figures drawn after life by some of the best masters in Europe*. This work gave rise to a keen controversy with Dr. Bidloo, a Dutch professor, as to Cowper's use of plates taken from a book of Bidloo's on anatomy. Bidloo described Cowper as a highwayman and a miserable anatomist who wrote like a Dutch barber. It was in 1702,

at the age of thirty-six, that he described that pair of racemose glands which are situated beneath the anterior end of the membranous part of the urethra in the male, and are to this day known by anatomists as Cowper's glands.

Cowper had a considerable surgical practice, and his papers prove that his attainments in pathology and comparative anatomy were as respectable as his knowledge of human anatomy and practical surgery. In 1708 he suffered from difficulty of breathing and during the winter became dropsical. He gave up work and retired to his native place, where he died a year afterwards at the age of forty-three.

SACRO-GENITAL FOLD OF DOUGLAS AND DOUGLAS' POUCH.

Douglas, James, was born in Scotland in 1675, graduated M.D. at Rheims, and settled in London about 1700. He soon attained reputation as an anatomist and was elected F.R.S. at thirty-one. He practised midwifery, and was admitted an honorary fellow of the College of Physicians at forty-six. He first lived in Bow Lane, Cheapside, but ultimately settled in Red Lion Square. He was continually engaged in dissection and was occasionally permitted to make a post-mortem examination at St. Bartholomew's Hospital, though never a member of the staff (*Phil. Trans.*, 1716, No. 345). His first publication was *Myographie Comparatæ Specimen*. At forty-one he published a paper on the *Hypertrophy of the Heart*, and it is clear that he actually heard in a ward of St. Bartholomew's Hospital the murmur produced by disease of the aortic valves, and needed but one more step forward to have anticipated the discovery of auscultation by Laennec. His brother, John Douglas, who practised surgery in London, had revived the high operation for stone in the bladder, and in connection with this and with the question of tapping in dropsy, Douglas investigated the difficult subject of the arrangement of the peritoneum in relation to the several viscera of the abdomen. He describes a fold, which always goes by his name: "Where the peritoneum leaves the fore side of the rectum, it makes an angle and changes its course upwards and forwards over the bladder; and a little above this angle there is a remarkable transverse stricture or semi-oval fold of peritoneum which I have constantly observed for many years past, especially in women." In 1726 Douglas took part in the exposure of the imposture of Mary Tofts, who professed to give birth to rabbits at Guildford. He visited the woman and demonstrated the fraud at once. Anatomy (human, comparative and pathological), botany, and the practice of his profession, which was large, as he was physician to the Queen, were not sufficient to exhaust the energy of this laborious physician. He collected editions of Horace and published his *Catalogus Editionum Horatii*. Pope honours the physician with the couplet:

"There all the learned shall at the labour stand,
And Douglas lend his soft obstetric hand."

He died in Red Lion Square at his sixty-seventh year, and was buried in the church of St. Andrew, Holborn.

FORAMEN OF WINSLOW.

Winslow, Forbes Benifauus, was the ninth son of Thomas Winslow, a captain in the 47th Regiment of Foot, and was born at Pentonville in August, 1810. The family lost their American property in the War of Independence and came to England. After education at University College, London, and at the Middlesex Hospital, where he was a pupil of Sir Charles Bell, he became a member of the Royal College of Surgeons of England at twenty-five, and graduated M.D. of Aberdeen at thirty-nine. He had to pay the expenses of his own medical education, and did so by acting as a reporter for the *Times* in the gallery of the House of Commons, and by writing small manuals for students on osteology and on practical midwifery. When he was thirty years old he published the book entitled *The Anatomy of Suicide*, an endeavour to demonstrate that most suicides are not criminal but are victims of mental disease. This was followed in 1843 by *The Plea of Insanity in Criminal Cases*, and in 1845 by *The Incubation of Insanity*. He opened two private lunatic asylums at Hammersmith, where he employed the humane method of treating lunatics which is now universal. He founded the *Quarterly Journal of Psychological Medicine* at thirty-eight, and continued it for sixteen years. When the Earl of Derby was installed as Chancellor of the University of Oxford, the honorary degree of D.C.L. was conferred on Winslow at his forty-third year. He continued to write numerous papers, and one in particular was an essay "On Uncontrollable Drunkenness." He was examined before a committee of the House of Commons in 1872 on this subject. He died at Brighton when sixty-four years of age, and was buried at Epping. The *Medical Circular* for March 16th, 1853, contains his portrait.

A CASE ILLUSTRATING THE ADVANTAGES OF URETERIC CATHETERISATION.

By W. GIRLING BALL, F.R.C.S.(Eng.).



THE following report of a case recently treated in the Hospital is of some interest from the point of view of illustrating one of the advantages of passing a catheter up the ureter. The use of instrumentation as a means of diagnosis and prognosis is becoming familiar, but as a means of treatment the opportunities so seldom arise that little is known of its value.

The case is that of a woman, æt. 24, who had been under the care of Dr. Garrod, and was admitted to Stanley Ward under Sir Anthony Bowlby.

Since twelve years of age she had been subject to attacks of severe pain in the right side suggestive of a renal origin. The attacks had occurred at intervals varying from a week or two to three months, but were becoming more frequent. During the last three years the patient noticed that as the pain disappeared the frequency of micturition was increased. On no occasion had she observed any blood or other abnormal constituent in the urine.

Six days before her admission she was seized with violent pain in the right loin, accompanied by painful and frequent micturition.

Vomiting was also a prominent symptom. The symptoms gradually passed off, but when examined it was found that she had a swelling in the abdomen.

On admission she was looking very ill, temperature 98° F., pulse 84.

The abdomen was distended, especially on the right side, and was observed to be moving badly on respiration. In the right hypochondrium was a large swelling as big as an ostrich egg, intensely tender on palpation, so much so that it was impossible to make out its exact definition. The points of maximum tenderness were at the lower pole of the swelling, which could be felt in the region of the umbilicus and in the posterior renal angle. Bimanually, however, it was felt to pass into the right loin. There was resonance over the swelling in front of the abdomen, but dulness in the loin. The urine was slightly turbid, sp. gr. 1012, no blood, but a small number of pus-cells were present. Under an anæsthetic a catheter specimen of the urine was drawn off, and a cystoscopic examination made. The bladder-wall was natural and showed no evidence of cystitis. The left ureter was working naturally, the efflux of urine from the left kidney being quite clear. A careful observation of the right ureteric orifice was made, but even after a period of some minutes it did not pass any urine into the bladder. A ureteric catheter was then passed through the cystoscope and up the right ureter without difficulty until it reached five inches, where an obstruction was met with; this, however, was overcome, and twelve inches of the catheter were passed up the ureter (after-events showing that this probably curled up in the cavity of a hydronephrosis). Fourteen ounces of urine were withdrawn, coincident with a marked diminution in the size of the swelling; this did not completely disappear, a small lump being still left, hard in consistency, dull on percussion, the dulness being inseparable from that of the liver. On the next day the patient was much better, free from pain, and no swelling was palpable.

The urine drawn off from the kidney by the catheter was faintly turbid, alkaline, sp. gr. 1013, containing pus-cells in small numbers, but was sterile on cultivation.

A week later the patient was in the same condition, there being no evidence of a re-collection of fluid. An attempt was made to pass an opaque catheter into the pelvis of the

kidney again, but the same obstruction was met with at five inches up the ureter which could not be overcome. Collargol was injected through the catheter with the object of outlining the pelvis of the kidney but it only ran down the side of the catheter into the bladder, none of it passing into the renal pelvis, owing presumably to a valvular orifice into it. At the time of this investigation it was noticed that the right kidney was not discharging urine into the bladder.

Skiagrams taken on three occasions failed to demonstrate the presence of a calculus.

The urine obtained from the bladder in a twenty-four hours specimen contained 1.6 per cent. of urea. Right lumbar nephrectomy was performed, the kidney being removed with considerable difficulty owing to the fact that it was adherent to the surrounding tissues, especially high up to the under-surface of the diaphragm.

The patient made an uninterrupted and complete recovery. Up to the time of the removal of the kidney the patient was only passing small quantities of urine, namely, an average of 18-25 oz. *per diem*, but after the operation this amount was increased to 40-55 oz. in the same period.

From the history of the case and the conditions found it was realised that the patient had a hydronephrosis, this diagnosis being confirmed by the ureteric catheterisation and the subsequent operation. It was also thought that in all probability the distension of the kidney was due to some renal abnormality, such as a kinking of the ureter by an abnormal renal vessel, owing to the fact that the symptoms had commenced early in life, appeared in recurrent attacks with Dietl's crises not associated with hæmaturia, and with negative skiagraphic evidence. This proved to be the case; the renal pelvis was markedly distended, and most of the renal tissue was destroyed. The upper end of the ureter about half an inch below its junction with the pelvis of the kidney was kinked over and grooved by a small vessel running into the lower pole of the kidney; the ureter was narrowed at this point, thus accounting for the obstruction to the passage of the catheter and the collargol injection.

The points of importance in this case seem to me to be these: The diagnosis from ordinary clinical observation and without the use of instruments was possible, but on account of the marked abdominal tenderness, the size of the tumour and its relations it was by no means certain. It is true that it was confirmed by the cystoscopic observation that the right ureteric orifice was not working, but the removal of the fluid with the coincident disappearance of the tumour completed the evidence beyond all doubt. The factor of greater importance, however, was the part played by the ureteric catheter in dealing with the conditions found. The patient was extremely ill, and knowing that the swelling was a hydronephrosis, only one line of treatment was possible, namely that by some means the sac had to be emptied and in all probability at one time or other nephrectomy would have to be performed. Had a lumbar exploration been

carried out, a nephrostomy would have been the only operation possible, as the patient was too ill to stand a nephrectomy even had it been possible. Moreover, for other reasons, two operations were imperative, as owing to the urgency of the case time would not have allowed the investigation of the working capacity of the opposite kidney and thus render nephrectomy possible at the first instance. In this way it is obvious that the procedure adopted had considerable advantages over that usually adopted, the discomforts and

W. W. Jacobs and Louis N. Parker, originally produced with great success by Mr. Cyril Maude at the Playhouse. It provides admirable parts for amateurs, though it presents difficulties in staging. These were admirably overcome, however, and the performance went without a hitch, the barge entering promptly on its cue in the last act. The first scene is laid in a corner of Major Smedley's garden. As usual, Mr. Barnsley was a tower of strength. The part of Captain James Barley suited him very well, though not



"BEAUTY AND THE BARGE."

dangers of a nephrostomy being avoided, one operation only being made possible, and time allowed for investigation of the function of the opposite kidney. The opportunities for doing this must be rare, and I am grateful to Sir Anthony Bowlby for allowing me to carry out these procedures in this case.

THE CHRISTMAS ENTERTAINMENT.

AN innovation this year was the repetition of the entertainment on three nights instead of two—a welcome innovation as far as the audience was concerned, judging by the large attendances on each occasion. The play selected was "Beauty and the Barge," by

perhaps so well as that of the old bookseller in "Liberty Hall" last year. For Mr. Barnsley is one of the few amateurs who can really act a pathetic part, and pathos except just before the final fall of the curtain was not in Captain Barley's line. His characteristic was "no 'arm, but too much affability," and Mr. Barnsley gave a most humorous rendering of the troubles that characteristic led him into. Mr. Sherman is fated to play the heavy and usually irascible father, and on this occasion he was very irascible. We presume, however, that his flow of language had passed the Censor, and we congratulate him on the ease with which he uttered it. Mr. Geoffrey Evans was becomingly meek as Mrs. Smedley, and Mr. Thacker made a charming Lucy Dallas. Mr. Whitehead extracted plenty of fun out of the woes of Mrs. Baldwin, and Mr. Just made a

life-like character study of the part of Dibbs, the sour but enamoured gardener, who acted up to the dictum that "all's fair in love." Mr. Cowan looked very pretty as Ethel Smedley; we understand that it was his first appearance on any stage, and with more experience he should do well as an *ingenué*. Mr. Robbins as Lieutenant Seton Boyne made an effective entrance by climbing up the cliff into the garden, and throughout he made an ideal romantic, resourceful hero. Mr. Ogier Ward kissed with great verve, but apart from his passionate first entry did not have much chance.

The second scene, in the bar of the "Old Ship" at Coastham, was very well acted, while the humours were not overdone. Mr. H. B. G. Russell found in Mrs. Porter, the haughty and jealous landlady of the inn, a part which suited him to perfection. Mr. W. F. Thompson's horn-pipe was colossal, and the other sailors' parts were very well done by Mr. Mack, Mr. Aydon, Mr. Roxburgh and Mr. Brock. It is a very difficult thing for amateurs to make a lot out of small parts and to play into each other's hands, and the sailors deserve great praise for the skill with which they did it. Mr. Carte, in a fearsome make-up, gave a graphic portrayal of "the acute abdomen." Mr. Savory was adequately hen pecked as the husband of Mrs. Porter. A special word of praise is due to Mr. Pavey Smith's charming representation of Augustus, third hand on the barge. The third act, laid in an open meadow by the river, owed much of its success to his rigid insistence on what constituted the duty of the third hand and his delightfully shy and naïve wooing. Altogether it was a most enjoyable performance, on which we congratulate actors and stage managers alike, especially Mr. Sherman, who had much to do with all the arrangements. If the prompter, Mr. Kitching, had anything to do, he did it so unobtrusively that we did not notice it, and that, after all, is the chief duty of a prompter.

The Hospital Musical Society, under the conductorship of Mr. Hume, has become an established institution, and they discoursed pleasant orchestral music to us between the acts. Perhaps in the overture there was an occasional difference of opinion between the strings and the wind as to the precise key, but that is a feature of the newest music; at any rate they played with spirit, and in the "Pirates of Penzance" they did justice to the musical humours of Sullivan.

THE PSYCHOLOGY OF DREAMS.

A Paper read before the Abernethian Society.

By M. N. PERRIN, B.C.

DREAMS are perhaps some of the most vivid of our mental experiences. Their glowing realism and brilliancy have conferred upon them—at least from the point of view of the dreamer himself—an importance which has continued unbroken since the earliest times. Ancient literature is full of instances, in which men are said to have dreamed of forthcoming events, which have eventually occurred. Many well known instances occur in the Bible, and in all cases it is clear that a dream was not considered merely a product of a disordered imagination, but that it was a manifestation of a faculty, which in ordinary waking life was in abeyance, a faculty which, in many instances, seemed supernatural. In accordance with the standard of credulity, which existed in earlier times, all these phenomena were tacitly admitted to be supernatural, and no more was said about them. Prophetic dreams were said to owe their inspiration to a higher power, and that was the end of it.

In our own times, since men have studied natural sciences the prevailing tendency has been in the opposite direction, and all these phenomena, which played so important a part in the lives of earlier generations, have been treated with scorn. It is only recently that the materialistic attitude, which pronounced everything which had not a ready explanation according to the laws of Nature as ridiculous or a mere superstition, is being replaced or supplemented by the broader conceptions of psychological inquiry.

When the facts of hypnotism first became known, the medical profession were so intolerant that the pioneers were not only ignored, but were actually persecuted. Braid and Esdaile, who used hypnotic trance as a general anæsthetic for major operations during the last century, were eventually ruined, yet now therapeutics by hypnotic suggestion find a place in every modern book on treatment.

In this paper I shall try to show that dreams are not to be regarded merely as the confused product of a mind partially dulled by sleep, but that they are manifestations of a definite mental unit or personality, which has powers in many respects transcending those of normal waking consciousness—a personality, which is in intimate relation to the subconscious acts of everyday life, those acts whereby the bodily economy is maintained. That though dreams may often appear to be purely reflex abstractions derived from organic sensory stimuli, yet many have an origin far more profound in thought processes, on the nature of which we can at present only speculate.

The study of dreams is beset with many difficulties, as it is almost impossible, in most cases, to eliminate the inter-

pretations and additions of waking thought. The tendency to adjust the apparently disconnected concepts of the dream to the demands of waking reason seems to be an involuntary impulse too strong to be resisted.

Many people, on waking, are perfectly conscious that they have been dreaming very vividly while asleep, and yet they are totally unable to remember the subject. Others have a confused memory, which is subsequently modified. In cases where the dream assumes a definitely motor shape, as in somnambulism, complicated acts may be performed, indicating that there has been some train of reasoning in the sleeper's brain, even though in these cases nothing is usually remembered on waking.

Nurses watching at the bedside of a patient have often noticed the expression of a dream on the sleeper's features, and in some cases, when words were spoken, they have been able to determine the whole nature of the dream. In many cases the sleeper remembers nothing of his dreaming in the morning, even though he is told what he said while asleep. It is therefore not certain that there is any direct continuity at all between sleeping and waking memory—a point which will be discussed later in considering the nature of memory in dreams.

It is said that if the observer make a practice every morning of recording his sleeping impressions on a slip of paper by the bedside at the moment of waking—jotting down any sequence of events, however absurd, immediately they occur to his mind—much more definite results are obtained, and the bond between sleeping and waking memory strengthened.

The distinction between the dream itself, and the dream as remembered, is an important one. Freud, in his book on the *Interpretation of Dreams*, lays great stress on this. He has worked out an elaborate system of psycho-analysis, by means of which he separates the true significance, or "latent content," of the dream from the apparent interpretation, or "manifest content," which is the form in which the dream is related. He considers that all the mental processes of sleep are subject to distortion by virtue of a "dream censor" or controlling influence from waking consciousness, which comes into action as consciousness returns. In order to eliminate this source of error, the patient is directed to state all the points of the dream, however absurd or trivial, which spontaneously occur to him. It is essential that he should repress any tendency to criticise or modify these ideas. In some cases the dreamer is requested to repeat his account of the dream, which he rarely does in the same words. The passages, which are changed, are then taken to be those which have been most affected by the "endopsychic censor," and therefore those which, in their original form, were outstanding features in the "latent content." Starting from these weak points in the dream's disguise, the fabric is reconstructed by a complicated process of psycho-analysis, and the final product,

or elaboration of the "latent content," in most instances is utterly different from the original "manifest content." The interpretation thus obtained depends on a number of fundamental rules which have been laid down by Freud, and its validity only appeals to those who believe in his theory.

There are, therefore, at least two sources of error in the interpretation of any dream, namely, primary defective memory, and what may be called secondary wilful distortion, both of which tend to prevent us from arriving at the true nature of the dream. If it were only possible to approach the mental process itself, which gives rise to dreams, while the waking consciousness is still in abeyance, much more definite results would be obtained.

An instance is quoted somewhere of a medical man who frequently conversed with his patients while they were asleep, receiving consecutive and intelligible answers to his questions, as though the patient were awake. It was only necessary to speak in a soft, monotonous voice so that the words might blend with the thoughts of the sleeper, and not appear to come from someone at the bedside. By this means he was able to get into communication with the sleeper's mind, and tap his thoughts when in that condition. He was able to find out whether the patient had a headache, or whether he felt tired, whether he was in a state of repose, whether his mind was disturbed by unpleasant thoughts. It would be interesting to know how far this statement is corroborated by the observations of others. I have never succeeded myself in obtaining answers from anyone asleep, and I rather doubt the accuracy of the statement. I have no doubt, however, that it is perfectly possible to hold a conversation with a subject in hypnotic trance, and so to arrive at the processes of the subconscious mind, but this method is obviously subject to limitations.

Even though we admit that some form of mental activity may be always present during unconsciousness, yet it is obvious that many nights are spent in absolute oblivion. Dreams are, therefore, to be regarded as abnormal occurrences, for the production of which some form of stimulus is necessary. In many cases this stimulus is not far to seek, as it reaches the brain through the medium of the senses; in others the dreams appear to be spontaneous, and no direct and obvious cause can be assigned. It seems probable that in these cases we must look for some cause directly connected with the functions of the brain itself, a cause which may be due to impressions stored up by conscious or unconscious memory, or which may, in some cases, reach the brain from outside by channels other than those of common sensation.

The factors concerned in the production of dreams may therefore be classified into two groups: Those which are peripheral and those which are central in action. To the first class belong external stimuli acting through the senses and internal stimuli from the visceral organs, while in the second class we must include drugs, and those unknown

factors, which cause apparently spontaneous dreams. It is stated by some that all dreams are derived from a peripheral source, such as some slight discomfort in position, or deviation from the normal diet. This, however, is probably not the case, as subsequent considerations will show.

Considering first the peripheral stimuli, it appears that such dreams occur typically in lighter sleep, during the so-called hypnagogic state, which intervenes between sleeping and waking. This is more particularly the case with those which are due to sensorial stimuli. When a violent objective stimulus is the cause, it often appears that the very same disturbance, which awakens the sleeper, has set off a train of dream thought, which has an ending appropriate to the nature of the stimulus. When awakened by a sudden noise, the sleeper often finds that he has been indulging in a long and complicated dream, the detailed incidents of which have led up to some sudden and explosive catastrophe. One observer states that when he used to be awakened by an alarm clock, it probably happened hundreds of times that the sound of the instrument fitted into a very long and connected dream, as if the entire dream had been especially designed for it.

With regard to external or objective sensory stimuli, we find that all the five senses are common channels, the resulting dreams being in logical sequence with the stimulus, and thus providing direct evidence of the cause.

Internal or organic physical excitations, or those stimuli which reach the brain from the viscera, are more common. In these cases we naturally find that there is no close connection between the nature of the stimulus and the nature of the dream, though the result is equally definite.

That dreams such as these are far the most common may be inferred from the fact that the medullary and sub-cortical brain centres, which are more particularly concerned in visceral control, are constantly in action, whereas those of the cortex are in abeyance during sleep.

Experience points to many disturbed conditions of our internal economy, which cause dreams. The viscera in their healthy state hardly remind us of their existence, though, when their action is intermittent, as in disease, they may become the source of most painful sensations, which must be put on an equality with the external excitants of the pain and sensory stimuli.

Strumpell declares that "during sleep, the mind becomes far more deeply conscious of its connection with the body than in the waking state; and it is compelled to receive and be influenced by stimulating impressions originating in parts and changes of the body of which it is unconscious in the waking state."

Among dreams of this nature, erotic and vesical dreams are perhaps some of the most vivid, and the relation between vesical dreams and nocturnal enuresis in children is obviously of clinical importance in the cure of this condition by hypnotic suggestion.

The heart, lungs, and stomach probably only produce dreams when they are disturbed in action. As a child, I remember well the horror of suffocative dreams, which were presented in various forms, and which were no doubt due to acute attacks of bronchial asthma in which I indulged at that time. These respiratory dreams continued for years after I had my last asthmatic attack, and at this moment I have no more vivid memory than that of being crushed by a locomotive, which always seemed to run up against that particular part of a wall against which I was condemned to stand. This dream and others like it occurred frequently, and I used to dread their appearance.

It is said that the dreams of persons who suffer from diseases of the heart are generally very brief, and terminate in a terrified awakening. Some observers have even distinguished between the dreams associated with mitral and those with aortic disease.

Several instances are on record, in which premonitions of physical diseases and disorders are experienced in dreams. Sleeping consciousness has become aware of disturbances hours, or even days, before they have become manifest to waking consciousness in the form of symptoms. Havelock Ellis states that in one case a man, before an attack of hemiplegic paralysis, repeatedly dreamed that he had been cut in two down the middle and could only move one side of his body. Several other similar cases are recorded by other authors, erythematous conditions of the skin apparently playing an especial part in the production of these dreams. Later an example will be given in which the erythema was apparently produced by the dream, and it will be clear that this dream, with its converse, emphasizes the close relation between mental and bodily processes.

Dreams such as these, dealing with conditions which may at the time be latent in the body, are to be distinguished from the so-called prophetic dreams which deal with future external occurrences, and are probably always fallacious.

It seems possible that use might be made of these symptomatic dreams in diagnosis, though at present we have not nearly enough evidence at our command. At all events, occurring, as they sometimes do, before the causative symptoms have become manifest, they are evidence at least of the enhanced power of perception during sleep.

Certain drugs, which produce sleep, have also the property of exciting dreams. By their direct action on the cells of the brain, through the blood-stream, they modify mental activity, often to a very marked extent. The majority of these appear to act first by paralysing the higher centres by a process of dissolution, which follows an evolutionary order, picking out those centres first which are developed last, the finer degrees of attention, judgment, and association being the first to go. How far this process is analogous to normal sleep is uncertain, but it seems probable that when consciousness is completely lost there is no essential difference except in degree, the subject being less easily

roused. Concurrently with the loss of consciousness, dream activity often appears, and is itself ultimately involved in the general depression, which ends in coma and death. The question to be considered is, how far the flash of vivid mental activity, which interrupts the steady progress of depression, is due to cerebral inhibition only, and how far it is a specific mental product due to the action of the drug on that part of consciousness which still remains? The answer to this question depends very largely on the nature of the drug employed, and whereas some, such as opium, seem merely to emphasise the natural tendencies of the individual by the removal of inhibitory influences, others, such as mescal and hashish, introduce new dream imagery, which is specific to a large extent for the drug employed. The selective action of these drugs for certain cells of the brain is remarkable. On their mode of action we can only speculate until we know the relation, which exists between brain cells and thought processes. In some cases actual microscopic changes are found in the cells, blood-vessels, and neuroglia of the brain, as in the delusional insanity produced by alcohol. Such cases have a more definite pathological significance, and will not be considered. Other drugs, even when taken in small quantities, produce vivid dreams without any recognisable pathological changes in the brain substance.

Nitrous oxide is a powerful stimulant to dreaming. Its chief characteristic is one of emotional disturbance, a fact which was recognised long ago when it was called "laughing gas." From my own observations, however, nearly as many patients awake in extreme despair as in great joy, but a very large proportion of the total number are either roaring with laughter or weeping bitterly. In two consecutive male cases the other day the first was wildly enjoying a beanfeast, and the second was bitterly bewailing the loss of his mother.

Opium produces dreams, in which the actions of everyday life or of particular adventures of the dreamer are presented in glowing and vivid forms. His intellectual faculties are enormously intensified along lines similar to those of normal life, and his whole mind seems exalted. De Quincey says: "If a man whose talk is of oxen should become an opium eater, the probability is that he will dream about oxen." Though his confessions are somewhat disappointing, it is evident that his own experience bears out this theory, for we constantly come across instances of the exaltation of his inherited sensitive temperament, of his marked literary imagination, and of his sentimental reaction to the experiences of life. It is doubtful whether the creative faculty is intensified by this drug, though *Kubla Khan* is said to have been written as the result of a dream, or dreams, while Coleridge was taking large quantities of laudanum.

The Arabians eat a confection of hemp known as hashish, which causes drowsiness and vivid dreams. The chief characteristic of this preparation is the feeling of exaltation and of amplification, which it induces. In this respect it

bears a striking resemblance to the delusions of general paralysis of the insane, though in addition there is a very constant amplification of the sense of time, so that minutes seem like hours. Almost all observers agree in emphasising this characteristic of the drug, which seems to be specific, and Prof. Brown, of Cambridge, has told me that he has experienced it on more than one occasion.

Perhaps the most elegant of all narcotic preparations is the Mexican drug, mescal. Havelock Ellis, the author of various works on psychology, tried the action of this drug upon himself. After a short initial stage of increased energy and intellectual power, he soon became faint and unsteady. Then a constant play of brilliant colour floated before his eyes. The air seemed laden with aromatic perfumes, which appeared as translucent clouds of the most delicate colours. It appears from the comparison of several accounts that this colour property is the result of a specific action of the drug, and that it is not merely an exaggeration of the normal tendencies of the individual.

We now come to those dreams, for which no definite objective stimulus, travelling to the brain by nerves or bloodstream, can be found—dreams which have their elements in memories. These are of frequent occurrence in normal individuals, especially in childhood, and their study is of the greatest value from the psychological standpoint.

There are also dreams, which can only be explained by some process of telepathy, whereby ideas are conveyed to the brain by channels other than those of common sensation.

(To be continued.)

THE CENTENARY OF THE BIRTH OF SIR JAMES PAGET.

SUNDAY, January 11th, was the hundredth anniversary of the birth of Sir James Paget. The occasion was marked by special celebrations at Great Yarmouth, where Paget was born, and where the first twenty years of his life were spent. It seemed as if the town had, for the occasion, put off its modern guise as a seaside resort, and had taken on something of its old character; for so wintry was the weather that the sea-front, swept by a biting east wind, remained deserted and unrecognised, while the more sheltered South Quay became again, as of old, the most important part of the town. And here still stands the house where Paget was born, converted now to a School of Navigation, but bearing a prominent tablet upon which its fame is inscribed. And at no great distance from this the house of Mr. Costerton, the surgeon to whom he was apprenticed, is to be seen, now serving as an eating-house.

The Vicar, the Rev. C. Lisle Carr, had arranged three special commemoration services in the Parish Church, at all of which the Bishop of Stepney (one of Sir James Paget's

sons) was the preacher. At the morning service there attended the Mayor of Great Yarmouth, with the aldermen and councillors of the borough, representatives of the naval and military forces stationed in the town, and a large gathering of medical men.

We might say much of the magnificent church, one of the largest in England, we are told, and capable of seating some 3400 persons. The scene was impressive enough as the church filled with its great congregation; much more so, however, during the beautiful service and the moving sermon on the life of Sir James Paget, which was alive with the personal touch which the preacher was so well able to give.

After the morning service some short speeches were delivered in the Priory Hall, hard by the church. The Bishop of Stepney presented to the town a claret jug, the history of which he supplied. One day there had come to his father's house an accident case, a very unusual event; it was a fracture in a very rare situation. The bone was set, and its possessor was heard of no more until, some years later, on Sir James's birthday, this jug arrived as a mark of the patient's gratitude. Mr. Stephen Paget then presented a silver fruit dish, which had been a gift on the occasion of Sir James and Lady Paget's golden wedding; he also presented the key with which, in 1888, Sir James had opened the Great Yarmouth General Hospital. In this way, Mr. Paget happily remarked, Yarmouth would have mementoes of his father's practice, his married life, and of his connection with the town.

Among the Bartholomew's men who were present were Prof. Howard Marsh, Messrs. H. Blakeway, A. L. Moreton, J. Burfield, Donald Day, H. C. Nance, Haynes Robinson, C. J. Muriel, E. W. Everett, R. Wrigley, and W. Wyllys, and Drs. Herbert Mayo and W. Arnold Smith Wynne. The last-named, who entered at Bart.'s in 1853, when Paget was Assistant Surgeon, could tell us much about Bart.'s in the "fifties," and much about his old master; of his deep religion particularly, which stood plain in his face for all to see, impossible to be hid, animating him in all his doings; of how he seemed to be a person apart, different from other men, totally unsuitable to be made a joke of; so that when, during one severe winter, sly snowballing of the members of the staff was thought to be a good joke, not a man ever aimed at him. Much more we could have heard but for an unkind train that hastened the moment of parting, but we hope for another opportunity.

OBITUARIES.

SIR JAMES JOHN TREVOR LAWRENCE, BART.,
K.C.V.O.



UR Hospital has sustained a loss in the person of one of its former most active and respected treasurers, who served its interests laboriously for twelve years. For some months before his death on December 22nd last Sir Trevor Lawrence had been in failing health, and had he lived to the 30th day of that month he would have attained the age of 82 years.

Not all the present members of the Consulting Staff can remember his distinguished father, who was on the active list of the surgeons at the age of eighty years, and was created the first baronet two months only before his death. Sir William Church was one of his dressers, and the present writer was, as medical tutor, the junior member of the Medical Council when Sir William Lawrence presided at its meetings in 1865, having been examined by him for the M.R.C.S. in 1862.

Mr. Lawrence was educated at Winchester College, and subsequently entered the Medical School of St. Bartholomew's and became a member of the Royal College of Surgeons. He was known as a remarkably proficient student of anatomy, and a most expert dissector. He passed into the Medical Service of the Indian Army, and spent ten years, including the period of the Mutiny, in various parts of India, being stationed for a considerable time near the Himalaya frontiers.

He retired in 1863 and came home. He succeeded his father as second baronet in 1867. Two years later he married Miss Matthew, only child of Mr. John Matthew, of Burford, near Dorking, and subsequently settled in that beautiful property as his country residence.

In 1874 he unsuccessfully contested the city of Gloucester as a Conservative, but was elected unopposed as one of the two members for Mid-Surrey in 1875, and continued to represent that division (and later the Reigate division) till he retired from Parliament in 1902.

His active service for St. Bartholomew's began after Sir Sydney Waterlow's retirement from the treasurership, when Sir Trevor was urged to accept this burdensome office, and held it for twelve memorable years in the history of the Hospital. Many difficulties and troubles awaited him, financial and other. He set himself to face these, and was untiring in carrying out his duties with the Almoners and Governors. He initiated and accomplished much good work, including the rebuilding of the Pathological Block and the Out-patients' Department, the foundation-stone of which was laid by King Edward in 1904.

The Medical Staff can never forget that he was instrumental in securing for it a voice in the management of the Hospital, and it always felt that he was in full sympathy with it as an old member of the School. He inaugurated

the policy of making the Hospital direct landlord of its property, by abolishing the middle man, a policy which proved financially sound, as well as of great advantage to the tenants. He gave annually £100 for a research studentship in the School, and, together with his sisters, founded a Lawrence Scholarship and Gold Medal in memory of their father for similar purposes.

He was, from its inauguration, a member of the Council of King Edward's Hospital Fund, having been appointed on the special recommendation of Lord Lister, and he was for many years vice-chairman of the Distribution Committee.

In 1895 he was gazetted a Knight of Grace of the Order of the Hospital of St. John of Jerusalem, and in 1902 he was appointed a Knight Commander of the Victorian Order.

He inherited from his mother a taste for horticulture, and his practical knowledge of the subject led to his election as President of the Horticultural Society, a position which he held with extraordinary ability and success for nearly twenty years. The Society was at a rather low ebb when he assumed office, but with several leading horticulturists he raised it to a most flourishing condition, numbering 13,000 members, leaving it in possession of a fine hall in Vincent Square, a beautiful garden at Wisley (the gift of the late Sir Thomas Hanbury), and in full financial prosperity. His services were recognised by the Victoria Medal of Honour, conferred on him in 1900, the presentation of his portrait, painted by Sir Hubert von Herkomer in 1906, and, within a month of his death, by the Veitch Memorial Medal in gold.

Sir Trevor Lawrence had other tastes beyond that of horticulture and orchid-growing, for which he was justly famous and in great repute. He possessed one of the finest collections of Japanese lacquer in this country, and printed a finely illustrated catalogue of this for private circulation in 1895. He was a vice-president of the Japan Society.

He had also a fine collection of Chinese and European porcelain, including a valuable and representative collection of early Worcester.

Our late treasurer was a generous and broad-minded man, an unostentatious supporter of charities, and a popular and delightful host.

He was a man of great refinement. The best of everything was not too good for him. His mental activity and his many interests in life, both in town and country, prevented, as they commonly do, any manifestation of premature senility in him, and he remained fresh in mind and hale in body up to his last year of life.

His temperament was naturally bright and optimistic, his temper well controlled. One can recall no memory of any mood of depression or of acerbity in him, although he was by nature keenly sensitive to anything displaying pettiness or vulgarity.

He had a faculty for making and keeping friends. Those who enjoyed his hospitality at Burford, and were present at his various receptions of foreign medical and horticultural

representatives, cannot fail to remember their charming experiences. Many distinguished *savants* and men of note were from time to time his guests, amongst whom may be mentioned Lister, Kelvin, Paget, Charcot, Virchow, Pasteur, Russell Lowell, George Meredith (his neighbour), Lecky, Wolseley, Browning, and Herbert Spencer.

His political instincts were vigorously Conservative, but he never manifested a narrow party spirit. Happily for him, the House of Commons in his day provided a more agreeable environment than it affords at present. His courtesy and geniality won for him regard amongst all political parties.

His funeral took place on the 27th December in the churchyard of St. Michael's Church, Mickleham, near Dorking. A memorial service was held at Holy Trinity Church, Prince Consort Road, in London, at the same hour. At the latter were representatives of St. Bartholomew's Hospital and of the various societies to which Sir Trevor belonged, together with many attached friends.

He has left a widow, three sons, and a daughter. The successor in the baronetcy is Mr. William Matthew Trevor Lawrence, who was born in 1870, and was educated at Shrewsbury, New College, Oxford, Heidelberg, and Berlin. He is an Examiner in the Board of Education. The reputation of the family will be well maintained in his hands.

D. D.

REV. WILLIAM OSTLE.

THE death of the Rev. William Ostle, for so long Chaplain to the Hospital, will delete from the memory of many Bartholomew's men a tender link with the past. In the eighties and nineties his striking figure was a familiar object in the human landscape of the Square. Those who knew him only in his church or as a preacher knew his weakness and not his strength. His earnestness and singleheartedness in his work or his subject was but feebly clothed with the embellishments of diction; matter rather than manner was his characteristic. He was no pusher of cults and the poorest possible exponent of obtrusive sacerdotalism. It is as a man and not as a priest that he will live in the memory of those who were privileged to know him. His life object seemed to be to ingratiate himself into the lives of those whom he thought he could influence, and having done so to influence them for good. Two traits in his character seem to stand out to the writer of these lines in high relief. The first was his intense loyalty to his Hospital and the Medical School attached to it; in his outside life he might occasionally grant that some good medicine and surgery were to be found outside Bartholomew's, but he would never admit that there was anything bad within it. The second trait, which he possessed to a remarkable degree, was the power of making and keeping friends. He took infinite pains to keep in touch not only with present but also past parishioners, and

by this means greatly increased the sphere of his usefulness. He will be missed and remembered by many of those who in the ebb and flow of life through the Hospital and School have from time to time found both comfort and example in his unobtrusive but genuine kindness. F. W. T.

ST. BARTHOLOMEW'S HOSPITAL WOMEN'S GUILD.



HERE are a few changes to record amongst the names of those responsible for carrying on the work of the Guild. Miss Tweed has been obliged to give up the post of Honorary Secretary, which has been taken by Mrs. Norman Moore, 67, Gloucester Place, Portman Square, W., to whom general communications should be addressed. Mrs. Tooth has been elected Vice-Chairman, and has retired from the position of Honorary Work Secretary, which Miss Gask now fills. All letters respecting needlework should be directed to her at the Matron's Office.

The Committee of the Guild would be very grateful if readers of the JOURNAL would make the work of the Guild known amongst their friends.

THE CLUBS.

UNIVERSITY OF LONDON O.T.C., MEDICAL UNIT, "A" SECTION.

A dinner of past and present members of the above section is to be held at the Holborn Restaurant (Queen's Salon) on Tuesday, February 10th, at 7.15 for 7.30.

It is hoped that all members of the section will make a special effort to be present and to bring any likely recruits with them.

Tickets, price 4s., should be obtained as soon as possible from H. K. Griffith, F. G. Barnes, or L. F. Strugnell.

Drills have recommenced on Tuesdays at 5 o'clock in the Old Surgery and are being well attended.

It is hoped that any intending recruit will join as soon as possible so as to complete his drills before camp.

THE BOOKSHELF.

REVIEWS.

THE ANATOMIST'S NOTE-BOOK. By A. M. PATERSON. Pp. 350. (Henry Frowde and Hodder & Stoughton.) 6s. net.

The author of this book has struck out a new line for himself. This book is quite unlike anything we have hitherto seen in use for the elucidation of anatomy, and we have nothing but praise as regards the general scheme and intentions.

The book is not a text-book, nor is it intended to be; it is meant entirely for use in the dissecting room, and for the purpose of dissections very concise directions are given. It is necessary, of course, to use it in conjunction with some general text-book on anatomy, as the author does not attempt to describe the general relations of parts, although giving full directions for finding and dissecting them.

Opposite each page is a blank sheet whereon the student may make his own drawings and notes as he proceeds; this in itself is an excellent innovation if the student can be persuaded to carry out the idea.

The diagrams in this book are some of the best we have seen, no attempt having been made to crowd too much detail into any one figure.

As regards the vexed question of terminology we are glad to see that for the most part the author has confined himself to the old terms, though in one or two places, where the Basle term is already in common use, he has substituted this for the older word. The number of instances in which this has taken place are few and not in any way sufficient to confuse the student.

THE POCKET ANATOMY. Seventh Edition. By C. H. FAGGE. 3s. 6d. net. (London: Baillière, Tindall & Cox.)

This little book is well known to most students as a valuable asset for quick revision work.

While it is extremely concise it is at the same time very thorough, and very few facts of importance are missing from its pages, to which there is a comprehensive index.

On reading the preface we were inclined to think that the book was going to cease its utility for a time, for the author states: "In this edition the chief innovation is the inclusion of those terms from the Basle nomenclature which are in general use and appear to me likely to become established." The author, however, does himself an injustice. Very few alterations have been made. The musculospiral nerve remains as it was; so does the supinator longus! In fact the author's preface, taken in conjunction with his book, would seem to indicate that he does not think many of the Basle terms are likely to become established. The book is an excellent pocket companion for any student.

GRAY'S ANATOMY. Eighteenth edition. 32s. net. Pp. 1311. (Longmans, Green & Co.)

This new edition improves in many ways upon previous ones. But there is one outstanding feature which we receive with more than doubtful feelings.

The Basle nomenclature has been adopted throughout—or rather the Basle nomenclature with modifications. This is hardly the place to discuss the merits or demerits of the said nomenclature, but the use of it in this kind of work previous to any definite acceptance of it for examination purposes by the Council seems rather unnecessary. While students have to master the accepted terminology for examination purposes, it seems a pity to attempt to force them to the difficulty of mastering two languages instead of one—and we know of many students who, having purchased a work in the Basle terminology, promptly have sold it and purchased an older edition of something else.

One feature we notice more particularly in this book than in any other is the style. The long and involved sentences so frequent in text-books are almost wholly absent, and the text, clear and concise, lessens considerably the work of the student.

Another point of excellence consists of the engravings. About two hundred new ones have been added, and, like the text, their quality consists in simplicity and clear outline.

The most noteworthy alterations in the work itself, apart of course from the Basle nomenclature, are firstly that the paragraphs on surface anatomy have been gathered together and cast into one chapter—an arrangement which is more convenient for general purposes, and is of easier reference. The only drawback to this chapter on surface anatomy is that it seems very small when viewed collectively, and indeed it might with advantage be considerably extended in future editions, for it is a pity that a work otherwise so comprehensive should possess one section incomplete.

The other alteration is the shortening of the chapter on histology. This we regard with pleasure, for histology and anatomy, though so closely allied, must be studied by very different means, and it is better to segregate them apart than to try and get both into one monumental volume.

On the whole we have seen no more interestingly or well compiled work on anatomy, if only the Basle nomenclature had been accepted as the orthodox tongue—which is not yet the case.

For those who have the leisure or inclination to use this Basle terminology the work must be sincerely recommended. But to the student preparing for examinations we are afraid we cannot suggest its use.

EXAMINATIONS AND DEGREES.

UNIVERSITY OF CAMBRIDGE.

December, 1913.

First Examination.

Part I.—Chemistry.—P. T. Liang.

Part III.—Elementary Biology.—P. T. Liang.

Second Examination.

Part I.—Anatomy and Physiology.—J. D. Legge-Currie.

Third Examination.

Old Regulations.

Part I.—Pharmacology and General Pathology.—R. E. Barnsley, R. Sherman, G. N. Stathers, S. M. Hattersley, R. Stansfeld, J. W. Stretton, C. R. Taylor.

Part II.—Surgery, Midwifery and Medicine.—The following have now satisfied the Examiners in all three sections: R. G. Canti, S. M. Hattersley, G. Sparrow, W. B. Gourlay, J. M. Postlethwaite, J. W. Stretton, F. W. Watkyn-Thomas.

Third Examination.

New Regulations.

Part I.—Surgery and Midwifery.—D. C. G. Ballingall, G. D. East, L. R. Shore, E. H. R. Brunton, C. J. Scholtz.

Part II.—Medicine.—E. J. Bradley, G. D. East, P. W. Ransom, E. H. P. Brunton, A. R. Jennings, R. L. M. Wallis.

UNIVERSITY OF LONDON.

December, 1913.

First Examination for Medical Degrees.

A. O. Bolton, I. Braun, H. E. K. Eccles, L. C. Goument, L. Handy, C. E. E. Herington, D. C. James, G. F. Juckes, N. Synn, J. A. van Heerden.

CONJOINT BOARD EXAMINATION.

December, 1913.

First Examination.

Chemistry and Physics.—A. E. Parkes, K. E. Shellshear.

Chemistry.—H. Amin, D. R. Thomas.

Physics.—G. Millar.

Biology.—A. E. Parkes, F. E. G. Watson.

Second Examination.

Anatomy and Physiology.—C. H. D. Banks, J. F. Haynes, J. M. M. Marshall, R. R. Powell.

Practical Pharmacy.—G. Aspinall-Stivala, J. D. Bangay, C. D. Day, C. H. Savory, G. S. Stathers.

Final Examination.

The following have completed the examinations for the Diplomas of M.R.C.S. and L.R.C.P.: M. T. W. Steedman, N. Gray, G. D. East, F. G. A. Smyth, P. Dvorkovitz, F. H. Guppy, L. E. Napier, J. G. L'Etang, F. H. L. Cunningham, G. H. S. Letchworth, F. D. Marsh, L. C. Wilkinson, G. Aspinall-Stivala, C. K. Sylvester, R. G. Lyster, A. N. Garrod, J. F. W. Wyer, R. E. S. Waddington.

D.P.H.

The following have taken the D.P.H. of the Conjoint Board: J. H. Wood, A. H. Moore.

LONDON SCHOOL OF TROPICAL MEDICINE.

J. R. Dood, Col. A.M.S., has taken the D.T.M.

NEW ADDRESSES.

ALLNUTT, Lieut. E. B., R.A.M.C., c/o Grindlay & Co., Bombay.
 BROWN, W. G. S., 16, Woburn Place (corner of Coram Street), W.C.
 CORBEN, C., Burdon Lane, Cheam, Surrey.
 DAVIS, K. J. A., 16, Upper Wimpole Street, W.
 EDWARDS, T. P., The General Infirmary, Leeds.

FISHER, A. G. T., 38, Royal York Crescent, Clifton, Bristol.
 GIBSON, T. S., "Newlands," Whitchurch Lane, Edgware, N.W.
 JAGO, W. J., 8, Gelliwastad Road, Pontypridd, Glam.
 JEUDWINE, Capt. W. W., I.M.S., c/o Grindlay & Co., Bombay, India.
 MATTHEWS, Major E. A. C., I.M.S., Xth Lancers, Loralai, Baluchistan.
 O'CONNOR, Capt. R. D., R.A.M.C., c/o Messrs. Holt & Co., 3, Whitehall Place, S.W.
 OSMOND, Lieut. T. E., R.A.M.C., R.A.M.C. Mess, Lucknow, India.
 WILLIAMS, E. C., County Health Offices, The Bulwark, Brecon.
 YETTS, Staff-Surg. W. P., R.N., Junior United Service Club, S.W.

APPOINTMENTS.

ALLNUTT, Lieut. E. B., R.A.M.C., appointed 6th (Poona) Division, India.
 EDWARDS, T. P., M.B., B.S.(Lond.), appointed House-Physician, Leeds General Infirmary.
 GRAHAM, G., M.D.(Cantab.), M.R.C.P., appointed Assistant Physician, East London Hospital for Children, Shadwell, E.
 JOYCE, J. L., M.B., B.C.(Cantab.), F.R.C.S., appointed Surgical Registrar to the Royal Berkshire Hospital.
 NANKIVELL, A. T., M.D.(Lond.), D.P.H.(Cantab.), appointed Medical Officer of Health and School Medical Officer to the Borough of Poole.
 RAMSAY, J., M.D.(Lond.), appointed Honorary Assistant Physician to the Blackburn and East Lancashire Infirmary, and Medical Officer to the Blackburn Post Office.
 WHALE, H. L., M.D., F.R.C.S., appointed Surgeon for Diseases of the Throat, Nose, and Ear, Hampstead General and North-West London Hospital.
 WILLIAMS, E. C., M.D., B.S.(Lond.), D.P.H.(Cantab.), appointed Medical Officer of Health to the Breconshire County Council.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, etc., have been announced since December 20th, 1913:

Staff-Surgeon H. Kellond-Knight to the "Pembroke," additional for disposal, January 23rd, 1914.

Surgeon G. M. Levick to the "President" for five months' course at the Naval Medical School, Greenwich, February 2nd to June 30th inclusive.

Surgeon G. Scott to the "Vivid," additional for disposal, January 31st, 1914.

Surgeon F. C. Wright to the "Snipe" (China), additional, to date January 15th, 1914, and on recommissioning.

Surgeon D. G. Arthur to the "Britomart" (China), additional, to date January 15th, 1914, and on recommissioning.

BIRTHS.

BUTCHER.—On Wednesday, December 24th, at Pittsworth, Australia, the wife of C. B. Deane Butcher, M.R.C.S., L.R.C.P., of a son.
 FAWKES.—On January 3rd, At Church Hill, Midhurst, Sussex, the wife of Marmaduke Fawkes, M.B., B.S.(Lond.), M.R.C.S., L.R.C.P., of a daughter.
 MAIDLOW.—On January 18th, at the Ridge, Ilminster, the wife of William H. Maidlow, M.D., of a daughter.
 PAGE.—On January 11th, at Holly House, North Walsham, the wife of Cecil H. W. Page, M.A., M.D.(Cantab.), of a son.

MARRIAGES.

NEWTON-DAVIS—ATHERTON.—On October 30th, in the Cathedral Bombay, by the Rev. Archdeacon of Bombay, Capt. C. Newton-Davis, I.M.S., 18th King George's Own Lancers, to Mary Atherton, M.B., B.S.(Lond.), daughter of T. Atherton, Esq., of Pinner, Middlesex, and Tiflis, Russia.
 WOOD—KEIR.—On January 20th, at St. Marylebone Presbyterian Church, W., by the Rev. R. C. Gillie, Stanley Wood, M.R.C.S., L.R.C.P., of 22, Accrington Road, Burnley, to Mary Robb Keir, of Laurieston, Falkirk.

TIMES OF ATTENDANCE OF THE STAFF IN THE WARDS AND OUT-PATIENT DEPARTMENTS.

This Time-table will be Published Quarterly and also whenever there are any Important Alterations.

		Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Medical Wards	Dr. HERRINGHAM	—	1.30	—	1.30	1.30	—
	Dr. TOOTH	1.30	1.30	—	1.30	—	—
	Dr. GARROD	1.30	1.30	—	1.30	1.30	—
	Dr. CALVERT	1.30	1.30	—	1.30	1.30	—
	Dr. MORLEY FLETCHER	1.30	1.30	—	1.30	—	—
Surgical Wards (<i>operating days in heavy type</i>)	Sir A. BOWLBY	1.30	—	1.30	—	1.30	—
	Mr. D'ARCY POWER	1.30	1.30	—	1.30	1.30	—
	Mr. WARING	1.30	1.30	1.30	1.30	—	—
	Mr. ECCLES	1.30	1.30	—	1.30	1.30	—
	Mr. BAILEY	1.30	1.30	1.30	1.30	—	—
Gynæcological Wards	Dr. GRIFFITH	2	—	—	—	2	—
	Dr. DRYSDALE	—	1.30	—	—	1.30	—
Medical Out-patients	Dr. HORTON-SMITH HARTLEY	1.30	—	—	1.30	—	—
	Dr. HORDER	—	—	1.30	—	—	1.30
Surgical Out-patients	Mr. RAWLING	9	—	—	—	—	—
	Mr. GASK	—	9	—	—	—	—
	Mr. GORDON WATSON	—	—	—	—	9	—
	Mr. WILSON	—	—	—	9	—	—
Diseases of Women (O. P's.)	Mr. GIRLING BALL	—	—	9	—	—	9
	Dr. WILLIAMSON	—	1.30	—	—	—	9
Diseases of Children	Dr. BARRIS	9	—	—	1.30	—	—
	Dr. MORLEY FLETCHER	9.30	—	—	—	—	—
Orthopædic Department	Dr. THURSFIELD	—	—	9.30	—	—	—
	Mr. ELMSLIE	1.30	—	—	1.30	—	—
Throat and Nose Department	Mr. HARMER	1.30	—	—	1.30	—	—
	Mr. ROSE	—	9.30	—	—	9.30	—
Ophthalmic Department	Mr. JESSOP	—	1.30	—	—	1.30	—
	Mr. SPICER	1.30	—	—	1.30	—	—
Aural Department	Mr. WEST	1.30	—	—	1.30	—	—
	Mr. SCOTT	—	9	—	—	9	—
Skin Department	Dr. ADAMSON	—	9	9	—	9	—
	Mr. ACKLAND	—	9	—	—	—	—
Dental Department	Dr. AUSTEN	—	—	—	—	9	—
	Mr. COLEMAN	—	—	9	—	9	9
Electrical Department	Mr. FAIRBANK	9	9	—	9	—	—
	Dr. CUMBERBATCH	1.30	1.30	—	1.30	1.30	—
Skiagrams	—	(males) 9.30	(females) 9.30	9.30	(males) 9.30	(females) 9.30	9.30
	—	1.30	1.30	—	1.30	1.30	—

DEATH.

HALL.—On January 3rd, at Bankside, Mayfield, Sussex, very suddenly, Henry John Hall, M.R.C.S.(Eng.), L.R.C.P.(Lond.), the second surviving son of the late Henry Acton Hall, of East Hanney, Berks.

ACKNOWLEDGMENTS.

St. Mary's Hospital Gazette, Guy's Hospital Gazette, British Journal of Nursing, The Nursing Times, London Hospital Gazette, The Universal Gazette, University College Hospital Magazine, The Middlesex Hospital Journal, South African Nursing Record, The Hospital, The Medical Review, Giornale della R. Società Italiana d'Igiene.

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: 1436, Holborn.

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St. Bartholomew's Hospital



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

JOURNAL.

VOL. XXI.—No. 6.]

MARCH 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

- Mon., Mar. 2.—Hichens Prize.
Applications for Luther Holden Scholarship to be sent in.
- Tues., „ 3.—Dr. Calvert and Mr. McAdam Eccles on duty.
- Wed., „ 4.—Clinical Lecture (Surgery), Mr. McAdam Eccles.
- Fri., „ 6.—Dr. Morley Fletcher and Mr. Bailey on duty.
Clinical Lecture (Medicine), Dr. Calvert.
- Mon., „ 9.—Kirkes' Scholarship and Gold Medal.
- Tues., „ 10.—Dr. Herringham and Sir Anthony Bowlby on duty.
Harvey Prize. Junior Practical Anatomy.
- Wed., „ 11.—Clinical Lecture (Surgery), Mr. Bailey.
Senior Practical Anatomy.
- Thurs., „ 12.—Senior Scholarship. Junior Scholarships.
- Fri., „ 13.—Dr. Tooth and Mr. D'Arcy Power on duty.
Clinical Lecture (Medicine), Dr. Fletcher.
- Mon., „ 16.—Second Examination for Medical Degrees (London) Part II begins.
- Tues., „ 17.—Dr. Garrod and Mr. Waring on duty.
- Wed., „ 18.—Clinical Lecture (Surgery), Mr. Bailey.
Second Examination for Medical Degrees (London) Part I begins.
- Fri., „ 20.—Dr. Calvert and Mr. McAdam Eccles on duty.
- Tues., „ 24.—Dr. Morley Fletcher and Mr. Bailey on duty.
First Examination Conjoint Board begins.
- Thurs., „ 26.—Second Examination Conjoint Board begins.
- Fri., „ 27.—Dr. Herringham and Sir Anthony Bowlby on duty.
Cambridge Lent Term ends.
- Tues., „ 31.—Dr. Tooth and Mr. D'Arcy Power on duty. **3**
Essays for Wix and Bentley Prizes to be sent in.
Final Exam. Conjoint Board (Medicine) begins.
Winter Session ends.
- Wed., April 1.—Examination for D.P.H. (Cambridge) begins.
- Thurs., „ 2.—Final Exam. Conjoint Board (Midwifery) begins.
- Fri., „ 3.—Dr. Garrod and Mr. Waring on duty. **4**
Final Exam. Conjoint Board (Surgery) begins.
- Sat., „ 4.—Oxford Lent Term ends.
- Mon., „ 6.—Second Exam. of Society of Apothecaries begins.
- Tues., „ 7.—Dr. Calvert and Mr. McAdam Eccles on duty. **5**

EDITORIAL NOTES.

ON January 29th the Mid-sessional Address was delivered to the Abernethian Society by Dr. Henry Head, F.R.S., Physician to the London Hospital. According to the precedent established when Sir William Osler addressed the Society in December last, Dr. Head was admitted as an Honorary Member of the Society, and a large audience then listened with great delight to an address full of wit, wisdom, and instruction. Dr. Head was unwilling that the address should be printed in full, but a few sentences extracted from his notes are printed on another page of the present number. Dr. Head's subject, "Functional Nervous Disorders and their Management," was one upon which he could speak with the authority of great experience, and, since it concerns nurses as much as doctors, was particularly well suited for the occasion. Dr. Head found his audience very appreciative, and appeared to enjoy himself almost as much as they did.

* * *

We offer our most sincere wishes for success to Mr. McAdam Eccles, who is standing as a candidate for the Council of the Royal College of Surgeons of England at the forthcoming election. We hope that all members of the Hospital who are Fellows will support him, and that they will not neglect to send back their voting papers when received in June with at least one vote for him.

We understand that Mr. W. G. Spencer, an old Bart.'s man, now surgeon to Westminster Hospital, will also be a candidate. We hope he will secure a seat.

* * *

We apologise for several omissions from the quarterly timetable published in the last issue. These will be rectified when next we publish the table. They are as follows: Dr. Langdon Brown, Mondays, Tuesdays and Fridays, at 9 a.m.; Dr. Thursfield, Wednesdays, Thursdays and Satur-

days, at 9 a.m.; Dr. Walsham, Mondays, Tuesdays, Thursdays and Fridays, at 1.30 p.m.

* * *

The following interesting extract is taken from the *New York Medical Journal* of January 24th, 1914:

"Alfred Noyes, in his poem, 'Flos Mercatorum,' says among other things of Whittington:

"London sickened from the lack
Of water, and he made fresh fountains flow.
He heard the cry of suffering and disease,
And built the stately hospital that still
Shines like an angel's lanthorn through the night,
The stately halls of St. Bartholomew."

The verse is, we fear, more interesting than accurate, however.

* * *

We extend our heartiest congratulations to Dr. J. W. Trevan, who has been admitted as a Member of the Royal College of Physicians.

* * *

We are glad to say that the amount asked for in connection with the Etherington-Smith Memorial has now been received, the total amount subscribed up to date being £2040.

The Theatre has been in use since Tuesday, January 13th, on which date the first operation in the re-constructed Theatre was performed by Mr. Waring.

The Etherington-Smith Memorial Ward is also completed, and the first patient was Mr. R. W. Mellor, H.P. to Dr. Tooth, who was admitted there on February 2nd.

It is proposed to put up a Memorial Tablet in the Ward as follows:

In Honour of

RAYMOND BROADLEY ETHERINGTON SMITH,
M.D.Cantab., F.R.C.S.Eng.

Born 11th April, 1877. Died 19th April, 1913.

Assistant Surgeon to this Hospital and Warden of the College.
Sometime President of the C.U.B.C. and Captain of the Leander Club.
A Surgeon of Brilliant Promise. A Great Oarsman.

A Beloved Friend.

This Ward Dedicated to the Use of the Medical Staff was Founded
by those who, Having Admired His Character and His Care er,
Desired to Perpetuate His Memory.

A somewhat similar tablet is to be put up in the Theatre. The tablet to be erected in the Ward will probably include a medallion of Etherington-Smith which Mr. George Drinkwater has offered to make.

* * *

It is perhaps a suitable moment for recalling to mind the old Theatre, which will soon be numbered among the forgotten dreams, and we have therefore much pleasure in appending herewith a few recollections with which Mr. Bruce Clarke has kindly provided us:

"My first recollections of the old Theatre were in the early seventies, our only general operating theatre as it was in those days. Operations were only performed on Wednesday and Saturday afternoons, except, of course, in cases of

emergency. All the surgeons and assistant surgeons made a point of being present unless prevented by some important call. Operations were performed by them in the order of seniority. It was by no means an infrequent occurrence to have no operations on a Wednesday, but Saturday was rarely a blank day.

"The Theatre itself, until its present complete metamorphosis, has undergone but little change. The old deal floor was replaced by oak during the time that I was assistant surgeon. I well remember on that occasion suggesting an impervious mosaic floor, or something of a like nature, and being severely taken to task for it on the ground that it would be very cold to the feet.

"Perhaps the most striking change is in the garments of the operators. In those days an old cupboard under the gallery was devoted to the surgeons' coats, which survived for many years, covered with caked blood and pus, until at length the Sister would use one which she deemed disgraceful as a shroud for an amputated limb, which was sent over to the P.M. Room for decent interment. She then, perhaps, tactfully substituted another, but little better, which the wearer promptly put on, like the Dominie's in Sir Walter Scott's novel, in blissful ignorance that his old one had been abstracted during the night.

"Each surgeon owned a peg in the coat cupboard, and his name was painted over it. I well remember seeing the name of Mr. Lawrence over one of the pegs. It was still visible through a coat of white paint by which it was partially obscured. Lawrence had only bid his adieu to the Hospital about eight years previously.

"Sir William, or Mr. Savory as he then was, never tired of referring to the great Lawrence, and, if tradition is to be trusted, copied him in nearly every detail. Indeed, it was a tradition amongst the students of those days that the operating coat which he invariably donned was Lawrence's, so desirous was he that the mantle of Elijah should descend upon the shoulders of Elisha.

"Two operations invariably attracted a full theatre—lithotomy by Tom Smith, which we timed on our watches thirty seconds or more, and an amputation at the hip-joint, which, incredible as it may seem, could be performed almost as rapidly. Five surgeons took part. One compressed the aorta, another seized the anterior flap, two more were ready with forceps—not Spencer Wells', for none existed in the instrument cupboard—and the operator wielded the long knife.

"On these occasions the patients were placed on a special operating table, said to be Percival Pott's. It somewhat resembled the vaulting horse in a gymnasium, and was covered with black leather. The legs were painted red somewhat the colour of a country waggon; a tray pulled out filled with sawdust to catch the blood.

"I must not omit to mention the ring-bolts in the floor and on the walls for the fixation of pulleys for the reduction

of dislocations. I think I once saw them used on a dislocated hip.

"And now we are face to face with the crowning point of our theatre metamorphosis. How soon will it need reconstruction?"

"*Tempora mutantur et nos mutamur in illis.*"

* * *

We understand that among the candidates for election to a scholarship at Epsom College is Malcolm H. C. Dyson, æt. 10½, the son of an old St. Bartholomew's man, the late M. G. Dyson, F.R.C.S., who was in general practice at Rotherhithe, and who died of pneumonia thirteen months ago, three hours after his wife had given birth to a daughter.

The boy obtained 3980 votes at the last election, and we hope old friends of his father will help to secure his election this coming June.

* * *

We also hear that Mrs. Janet E. Haward, the widow of Dr. F. R. Haward, is a candidate for an Epsom College Pension at the coming election in May. Dr. Haward was a house-surgeon here many years ago, and used to have a good practice at Ealing, but had very bad health for ten years before his death and consequently left his widow quite unprovided for. Mrs. Haward is strongly recommended, and we feel confident that old Bartholomew's men who are subscribers to Epsom College will gladly give her their votes if they are not already promised.

* * *

The Catering Committee have decided to institute a r.s. lunch. The experiment was tried before in the first year of the Company, but there was so little demand for it that it was dropped. The Students' Union representative, however, thinks that it is a desirable thing, and it was decided to give it a month's trial from next Monday, March 2nd. If sufficient support is given to it it will be continued. It is proposed to have a choice of a hot or cold dish with a sweet or cheese and bread, the *menu* to be varied daily. It will not, of course, be possible for any other dishes not on the list to be substituted; if such dishes are desired they must be paid for at the *à la carte* prices.

FUNCTIONAL NERVOUS DISORDERS AND THEIR MANAGEMENT.

Definitions and Aphorisms from the Mid-Sessional Address delivered to the Abernethian Society on January 29th, 1914.

By HENRY HEAD, M.D., F.R.C.P., F.R.S.



NEURASTHENIA.—A chronic exhaustion showing itself in loss of nervous control and consciousness of visceral activity.

For the development of neurasthenia it is necessary that something should produce the preliminary exhaustion by lowering vitality; but overwork never hurt anybody; most of these patients have hereditarily lowered resistance.

Marriage without physical affection is an impossible human relationship.

The mental treatment of neurasthenia.—Remove or mitigate underlying worry if possible; but wait till after the *decree nisi* has been obtained.

Treatment by suggestion must be steady and reasonable. Don't make an appointment to see a neurasthenic when you have to catch a train. If you do you will lose your patient or your train.

In the re-education of a neurasthenic never send him back to full work after a holiday. Make him choose what he wants to do and determine to do it. Delegate unimportant work.

Psychasthenia.—Chronic mental exhaustion accompanied by doubt, fear and obsessional ideas; it is due to loss of mental inhibition.

Action is the resultant of two opposing forces, and every act postulates a question suppressed. Doubt arises when the contrary idea is not inhibited, and it therefore appears in dreams and psychasthenia—"Shall I catch my train?"

All children and animals have fear, but it is suppressed in civilised man, who experiences anxiety. Deep down lies panic fear, which comes up in dreams and psychasthenia when inhibition is removed.

Adolescence and the fear of not "keeping fit."—The present-day pre-occupation with physical fitness is a sign of degeneracy. It leads to the cult of the body, not as something beautiful and strong, but simply in order that we may feel "fit," a condition incompatible with efficient intellectual activity. For this end all sorts of quacks have invented many kinds of ritual exercises, which men carry out daily with fear. Golf is in many cases only another instance of the same dismal cult.

Hysteria.—A mental state characterised by an increased power of self-suggestion and dissociation of personality.

For the diagnosis of hysteria it is necessary, not only that all signs of organic disease should be absent, but that positive signs of hysteria should be present.

The mental treatment of hysteria.—Attempt to switch the dissociated part into the continuance of the patient's mental life. Hypnotic suggestion is a failure, but non-hypnotic suggestion or persuasion is extremely valuable. Never bully, but lead. Do not say, "Turn up your eyes," but "Look up at the ceiling." Do not employ a nurse who keeps a diary, and talks to the doctor or the friends about what the patient *cannot* do.

GENERAL CONCLUSIONS.

To the medical man.—Your first duty is to do your patient no harm.

Carefully prune your conversation of antitherapeutic suggestions. Don't think out your diagnosis aloud. Purge your mind of certain phrases which become automatic—"A touch of rheumatism," "Just escaped pneumonia."

Do not think in terms of surgery in cases of functional neuroses. When you hear that a patient is vomiting, do not think first of gastro-enterostomy.

Be natural, but on guard. You will then be ready to deliver your blow at the moment required. At the same time remember that your most brilliant conversation is useless with a neurasthenic. She is interested in herself, not in you.

Nature's moral code, under which we work, is cruel and unrelenting. There is no forgiveness of sins; but in the medical man this knowledge should be tempered towards the patient by clinical curiosity and human sympathy.

To the nurse.—Keep well. When fatigued you cannot exercise the quiet suggestion for good. These patients are vampires, and if you are mentally or physically anæmic you cannot stand the drain. Always have a time off for complete rest and meditation. Cultivate a love of solitude and don't spend your leisure in rushing about. A tired nurse is a danger in the sick-room. Keep your observations apart from your statements. Don't fail to observe signs you think are for the worse, but don't tell the patient what you see.

Don't make statements that are demonstrably false, and never make conditional statements—"I never saw a case like yours that did badly unless the heart was affected." Some little thing will lead the patient to believe his heart is affected and you wonder why he is getting worse.

All conversation should be directed towards the patient's well-being. Don't chatter irresponsibly of operations or other medical cases. In giving massage lay emphasis on what the patient can do, not on what she can't.

Don't be afraid. Nurses are extraordinarily brave with regard to physical danger, but many are terrified at what they do not understand, and to most women things of the mind are full of fear. The frightened nurse is useless as a suggestive agent.

To all who have to deal with these morbid conditions.—Be as honest in thought as you would naturally be in deed. Be without fear and never lose courage. And, finally, call nothing common or unclean.

ELECTROTHERAPY—IN THE PAST AND AT THE PRESENT DAY.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

PART IV.

PATIENTS are sometimes sent to the Electrical Department with the request that "high-frequency" treatment may be given them. What is "high-frequency"? "High-frequency" is the name applied to a certain form of electrical current: the current *oscillates*, that is, its direction of flow is continuously

reversing, and the name refers to the rate of the oscillation, which is exceedingly high. The expression "high-frequency" is, therefore, an abbreviation for "current of high-frequency oscillation." Such a current must not be confused with the "alternating" current, which is supplied on the mains in certain districts, for in the latter the "alternations" or reversals of direction are not more than two hundred per second, whereas in the high-frequency currents the oscillations may be thousands or millions per second. No mechanical current-reverser can be used to produce such rapid oscillation. But if a condenser, such as a Leyden jar, is charged, the current that flows when the jar is discharged, though of momentary duration, is oscillatory in character, providing that certain conditions in the circuit are fulfilled.

The use of high-frequency currents for medical purposes was originated and developed by d'Arsonval, of Paris. He showed, in 1890, that when muscle was excited more than 5000 times a second the contraction became progressively feebler as the frequency of the excitation further increased; and in 1891 he communicated to the Société de Biologie that when the frequency of current oscillation was sufficiently high, muscles and nerves were not excited, and that he had been able to pass through his own body such a current, reaching a magnitude of 3 ampères, with no other effect than a sensation of heat.

The apparatus designed by d'Arsonval for the production of high-frequency currents for medicinal purposes contains two Leyden jars, which act as the condensers. They are charged from a large induction coil which is continuously working, so that the jars can be quickly re-charged each time they discharge. Each discharge produces a group of high-frequency current oscillations, and the current as supplied to the body is made up of rapidly following groups of these high-frequency oscillations. The current reaches a magnitude of half an ampère.

The diathermy apparatus also produces high-frequency currents, but of higher value, $2\frac{1}{2}$ or 3 ampères. It was devised by Nagelschmidt, of Berlin, and the name indicates the all-important action of high-frequency currents, namely, "heat-penetration"—the production of heat through the tissues. The action is much more evident when the diathermy apparatus is used, on account of the stronger currents which it produces.

The principle on which the high-frequency currents are produced in Nagelschmidt's apparatus is the same as in d'Arsonval's. The condensers take the form of metal plates immersed in oil, which insulates one from another. They are charged from an alternating current taken from the mains and raised to a suitably high voltage by means of a transformer fitted to the apparatus.

When a high-frequency current passes through the body, the muscles do not contract, neither is pain felt, although the current surpasses the minimum that would cause death

if it were not of high-frequency oscillation. At first nothing at all is felt; then a sensation of warmth, which may gradually increase, depending on the parts through which the current flows. For many years no one could satisfactorily explain why these currents, though of such magnitude, caused no pain or muscular contortion, but if it be remembered that it is the sudden movement of the ions which constitutes the electrical stimulus, the failure of the high-frequency current to stimulate excitable tissues will be explained. The frequency of the oscillations is so high that the ions cannot keep pace with them. They are unable to move, or to move sufficiently, and, therefore, muscle and nerve are not stimulated, or not stimulated sufficiently to produce a response. As the current is increased in strength, the tissues become hotter, and still no contraction or pain is produced. The blood-stream now acts as a cooling fluid, and prevents a dangerous rise of temperature. If the circulation is impeded, the blood and tissues may be coagulated *en masse*. This has been performed on animals. Heat is developed along the path traversed by the current. The degree to which the tissues are heated depends upon its concentration or density in the path along which it flows. Thus, if it enters the body through a flat electrode covering a large area of skin, there will be a large surface of entry for the current, its density will be small, and the skin will be only slightly warmed; but if the current enters by way of a needle, the current density will be infinitely greater, and the tissues around the needle will be coagulated or even carbonised.

The question may now be asked: "What cases are likely to receive benefit from high-frequency or diathermic treatment?" The recognition of the principle that high-frequency currents produce heat-penetration has furnished the guide for their scientific application. If the whole body is traversed by high-frequency currents heat is "pumped into it" and the katabolic chemical processes are increased. D'Arsonval showed long ago that there was an increased output of CO₂, an increased formation of heat, and a greater output of urea and phosphates. In other words, the physiological fire has burnt more fiercely. Supposing, now, there is a patient with deficient power of digestion and assimilation, with subnormal temperature and insufficient heat formation, a condition to which Bergonié has applied the name "misère physiologique." Heat can be artificially introduced into the body of such a patient by the high-frequency current so as to supply the heat which the body cannot supply, and such patients derive much benefit from high-frequency current applications.

General applications of high-frequency influence the blood-pressure. The pressure is first lowered on account of the vaso-dilatation, but a compensatory rise is, as a rule, produced by the heart. But if the blood-pressure is pathologically raised and if the heart is labouring unduly against it, it falls without a subsequent rise. Nagelschmidt has

reported cases of long-lasting improvement in such conditions. A patient is undergoing treatment in the Electrical Department, and on one occasion when general high-frequency application was made, the blood-pressure fell from 145 mm. to 120 mm., and the pulse-rate increased from 96 to 112.

High-frequency may be applied locally. The resulting heat penetration produces vaso-dilatation, and pain is often promptly relieved. A patient who suffered from neuritis accompanied by much pain has recently been successfully treated in the Electrical Department by diathermy.

A case of post-herpetic neuralgia was cured, also a case of obstinate metatarsalgia which had resisted other forms of treatment, including surgical operation. It has been applied to many cases of rheumatoid-arthritis and osteo-arthritis that have been sent to the Department. As a rule the pain is relieved for a few hours and then it recurs. Perineuritis of the sciatic nerve, when accompanied by much pain, responds well to diathermic treatment. Good results have been reported in the treatment of acute gonorrhœal arthritis, the local rise of temperature of the affected joint being unfavourable to the life of the gonococcus.

High-frequency currents may be applied locally by means of special electrodes. These are held a short distance off the skin or are lightly moved about over it. The gap between electrode and skin is bridged by the current in the form of small sparks. These produce erythema, and they have been used for the destruction of nævi, lupus and rodent ulcer. Ozone and vapours of nitrous and nitric acids are also formed from the atmospheric gases by the sparks, and they may have a bactericidal action in the treatment of infected ulcers.

The heat that is developed during the passage of the high-frequency current can be used for the destruction of new growths, and the high ampère of the current furnished by the diathermy apparatus renders this device particularly suitable for the purpose. Here, again, there is heat-penetration, not merely local heating, as is the case when a red-hot platinum needle is used, so that there is destruction of the growth for a short distance around and below the needle. In addition the blood and lymph are coagulated, so the channels for extension are obliterated. Diathermic cautery has been applied to many cases of inoperable malignant growth that have been admitted to the hospital. The cautery can be very quickly performed. One electrode is of large area and is placed on the skin of some distant part. The other electrode terminates in a needle or group of short needles, which are inserted a few millimetres into the growth. The current is turned on and is gradually increased. Soon, the tissue around the needles pales, and is coagulated. The needles are inserted into different parts of the growth, and the whole mass is gradually coagulated *in situ*. The mass, later on, sloughs off, and, if the destruction of the growth has been complete, the excavation fills up with

granulation-tissue, which quickly forms and has this peculiarity—it does not contract or form adhesions with other parts in contact. Diathermic cautery might be applied to operable growths so as to coagulate them *in situ* and seal the vessels leading from them before using the knife, for it seems that there would then be less risk of spread when the growth was excised and the vessels cut across.

Diathermic cautery has recently been applied to two cases of fibro-angioma of the lip in the Electrical Department, and very satisfactory results were obtained. One case was treated without a general anæsthetic, cocaine being introduced locally by the ionic method. Cases of extensive nævus have also been treated by the same method.

A short account will now be given of static electricity and its physiological effects on the body. As with the other forms of electricity, so with static; when these effects are known, together with the way in which they are produced, the cases to which it may be applied with reasonable prospect of success can be more readily judged.

In the earliest electrical applications for medical purposes static electricity was used. It was generated by frictional machines. It was collected on an insulated conductor, where it accumulated (hence the name "static") till it leaked away or was drawn off on to the body. Modern generators of static electricity are the various forms of influence machine, such as the Wimshurst and the Holtz. They generate electricity with great rapidity, the positive being collected on one conductor, the negative on another. The patient sits on a chair which is insulated from the earth, and is connected to one conductor, usually the positive. He is then positively charged. An electrode is then connected to the negative conductor and brought gradually nearer to the patient until the positive and negative charges neutralise each other in the form of an electric discharge passing between electrode and patient. The nature of the discharge depends on the electrode. If the latter terminates in a point or a number of points a continuous discharge takes place, even when the electrode is some distance away, and the patient feels as if a cool breeze were blowing on him when the skin is uncovered. If the skin is covered by dry cloth a pricking sensation is felt, which becomes stinging and burning when the electrode is brought close to the skin. This form of application is known as the "static breeze." It acts as a strong stimulant of the skin and sensory nerves, probably as the result of the heating of the skin at innumerable minute points. Erythema is produced, and it lasts for some hours, and sometimes urticaria is seen. As a result of this peripheral sensory stimulation the blood-pressure rises. The physiological action of static electricity, applied in the way described, is to raise the blood-pressure. It can easily be shown that there is a rise, by measuring it before and after an application. The raising of the blood-pressure is the therapeutic action of static electricity applied in the way described, and thus

the indication and contra-indication for its use are made more certain. It was mentioned in Part I, in which the history of medical electricity was reviewed, that Golding-Bird obtained good results in the treatment of amenorrhœa in young subjects by static electricity. These patients most probably had low blood-pressure, and to this their symptoms were most likely due. The static treatment cured these patients by raising their blood-pressure.

Patients with headache as the result of low blood-pressure quickly improve under static treatment, and the headache often disappears during the first application.

The erythema and skin stimulation that is produced by the static breeze is often effective in the treatment of some skin diseases, such as eczema and psoriasis. Pruritus is often relieved.

If an electrode ending in a metal ball, 3 in. in diameter, be used, the discharge on to the patient does not take the form of a "breeze," and nothing is seen till the ball is a few inches off the skin, when sparks pass with sharp, snapping clicks. Each spark produces a sudden violent commotion of the muscles in the neighbourhood. Pains which are felt in muscles and fasciæ are sometimes relieved instantaneously. What probably happens is the breakage of adhesions, as the result of the sudden muscular contraction.

A final note will be made of another of the uses of electricity in medicine—for the purposes of diagnosis. When its motor nerve is sufficiently injured or diseased, not only is the muscle paralysed, but a peculiar change takes place in its contractile substance. It can still contract when artificially stimulated, but it now contracts sluggishly instead of briskly. Further, impulses of *brief* duration, such as are given by the induction coil, are powerless to cause the muscle to contract, just as a short sharp slap cannot shut a heavy door: a slow push is required. So also the paralysed muscle requires an impulse of longer duration. Such an impulse is given by the galvanic current. A muscle that the induction coil current, the so-called "faradic" current, cannot cause to contract, but which contracts sluggishly when stimulated by the galvanic current, is said to show the "reaction of degeneration," and it means that there is a lesion somewhere in the lower motor neuron.

The method of testing the reactions of muscles by faradic and galvanic currents was devised in 1868 by Erb, who introduced the term "reaction of degeneration." It is still in general use, but it has serious defects. It causes much pain. It is often difficult to decide whether the contraction is quick or sluggish, as it is often neither quick nor sluggish. But more particularly the method has this defect: no attention is paid to a very important point, the *duration* of the stimulus. It is supposed that the induction coil gives a very brief, or even an instantaneous, stimulus. Dr. Lewis Jones has taken graphic records of the waves of discharge of medical coils, and he has found that their duration varies, but in most of them it lasts about $\frac{1}{400}$ sec. A normal muscle

will respond to an impulse of infinitely shorter duration, and it will have passed some way along the downward path of degeneration if it requires an impulse as long as $\frac{1}{400}$ sec. before it will contract. Yet during the past forty-six years muscles have been labelled as having normal reactions because the coil current causes them to contract. Again, the muscles which respond sluggishly and only to the galvanic current have all been grouped together under the heading "complete R.D." But if the duration of the *shortest* exciting impulse be measured it will be found that some require $\frac{1}{200}$ sec., others $\frac{1}{50}$ sec. or even longer; others require intermediate duration of stimulation. The whole subject is badly in need of further investigation. The condenser method, in the form devised by Dr. Lewis Jones, is destined to render valuable service. Science is measurement, and in place of the coil, which gives an impulse which is not short enough, and the battery current, which gives an impulse the duration of which is unmeasured and always too long, we have a box of twelve condensers which give impulses of *known* duration varying between $\frac{1}{24000}$ sec. and $\frac{1}{200}$ sec., and, by slight modification, between $\frac{1}{200}$ sec. and $\frac{1}{25}$ sec. The muscle is tested with each condenser in turn, and the shortest impulse that can cause it to contract gives the measure of the condition of the muscle. Instead of the three conditions as expressed by the terms "normal reaction," "partial R.D.," and "complete R.D.," with which we have hitherto been satisfied, we can, by the condenser method, recognise twelve or more, and each can be expressed by a figure indicating either the minimum duration of the exciting stimulus, or the capacity of the condenser which produced it.

ANATOMICAL MONUMENTS.*

(Continued.)



SOME writers claim for anatomy the highest antiquity. The descriptions of wounds in the *Iliad* have been supposed adequate to prove that in the time of Homer, who lived about ten centuries before the Christian Era, man had distinct notions of the structure of the human body.

Hippocrates has been justly honoured as the Creator of the Science of Medicine and Anatomy. The knowledge

* The foramen of Winslow has been erroneously credited to Forbes Winslow in the last JOURNAL. It has since been pointed out that the entrance into the lesser sac of the peritoneum is guarded not by an English but by a Danish anatomist, who was a pupil and successor of Duverney, as well as a convert to Catholicism. He became a naturalised Frenchman, and finally was appointed Professor of Anatomy at the Royal Garden in 1732. Winslow's exposition of the human structures is distinguished for being not only the first treatise of descriptive anatomy divested of physiological details and hypothetical explanations foreign to the subject, but for being a close description derived from actual objects without reference to the writings of previous anatomists.

possessed by the Hippocrates family was transmitted in various treatises which have long been known to the learned world under the general name of the "Hippocratic Writings." But it may indeed, without injustice, be said that the anatomy of the Hippocratic school was not only erroneous, but fanciful and imaginary.

Amidst this general obscurity in which the early history of anatomy was involved there appeared Aristotle, who was born about 384 years before Christ; and among the services which the philosopher of Stagira rendered to mankind, one of the greatest and most substantial is that he was the founder of Comparative Anatomy.

Hitherto anatomical inquiry had been confined to the examination of the bodies of brute animals. There is, indeed, no testimony of the human body being submitted to examination previous to the time of Erasistratus and Herophilus. It is vain to look for authentic facts on this point before the foundation of the Ptolemaic dynasty of sovereigns in Egypt. This event collected into one spot the scattered embers of literature and science which were beginning to languish in Greece under a weak and distracted government and an unsettled state of society. The sons of her soil, mainly due to internal strife, wandered into Egypt and found, under the fostering hand of the Alexandrian monarchs, the means of keeping alive the sacred flame of Anatomical Science. Among these, Herophilus and Erasistratus have the distinction of being known to posterity as the first anatomists who dissected and described the parts of the human body. The modern student will be able to pay his respects to Herophilus at the "wine-press" by the internal occipital protuberance. It is to be regretted, however, that Erasistratus has not laid his seal on any structure to remind us of his greatness, although he is said to have described correctly many structures for the first time.

After the decay of the school of Alexandria, anatomical knowledge languished in neglect and obscurity. During the first century of the Christian Era, it began to be revived in Rome under the reign of Nero. In this connection, mention must be made of Claudius Galenus, whose anatomical writings are preserved even to the present day. The death of Galen, which took place about 180 A.D., may be regarded as the downfall of anatomy in ancient times. Anatomical learning, thus neglected by European nations, is believed to have received a temporary cultivation from the Asiatics. Of these, several nomadic tribes known under the general denomination of Arabs and Saracens had gradually coalesced under various leaders. The works of Greek and Roman authors were translated into Arabic, which speedily raised a succession of learned Arabians.

Notwithstanding the diligence of the Arabian physicians, little was done for anatomy, and the science made no substantial acquisition. The Koran denounces as unclean the person who touches a corpse. The rules of Islamism forbid dissection, and whatever their instructors taught was

borrowed from the Greeks. The era of Saracen learning extends to the thirteenth century, and after this we begin to approach happier times. The University of Bologna, which as a school of literature and law was already celebrated in the twelfth century, became, in the course of the following one, not less distinguished for its medical teachers. It seems to have been written in the Book of Destinies that the science of anatomy was to be cultivated first in Italy, and that this country should be honoured in giving birth to the first eminent anatomists in Europe. This distinction she long retained; and this glory she acquired in the names of Achillini, Mondino, Columbus, Vesalius, Fallopius, and Eustachius.

The sixteenth century had commenced before France began to gain any anatomical distinction in the names of Dubois (Sylvius), Fernel, and Etienne. From this period onwards the study of anatomy began to diffuse into all the nations of the world.

GLISSON'S CAPSULE *ensheathing the "Portal Canal" in the Liver.*

Glisson, Francis, an English physician, was born in 1597, at Rampisham, in the county of Dorset. He was educated at Cambridge, and during forty years occupied the chair of medicine in the University. At thirty-seven he was admitted into the College of Physicians in London, of which he afterwards became president. Five years later, this body appointed him professor of Anatomy. He filled this situation with much credit at the commencement of the civil war, when he took refuge in Colchester; but after the surrender of that city to the Parliamentary forces, he went to London, and became a member of that association of learned men which afterwards became the Royal Society.

In 1654 appeared his *Anatomia Hepatis*, in which Glisson first described the capsule of the vena porta, hepatic artery and bile-duct which goes by his name at the present day. Glisson was also the first who attributed the contraction of the heart, and of the other muscles, to the action of a stimulus on their irritable principle, but his views on physiology are now held in little estimation. He died in the year 1677, aged 80 years.

BARTHOLIN'S GLANDS *in the Female, analogous to Cowper's Glands in the Male and Duct of Bartholin (Sublingual).*

Bartholinus, Thomas, a very celebrated physician, son of a learned writer, was born at Copenhagen in 1619. After studying for some time in his native country, he went to Leyden, where he studied medicine for three years. He then travelled into France, and resided two years at Paris and Montpellier in order to improve himself under the distinguished physicians of those Universities, after which he visited Italy, remained for three years at Padua, and

then went to Basle, where he obtained the degree of doctor in philosophy. Returning to Copenhagen, he was nominated to the chair of Anatomy in his twenty-ninth year, which he held for thirteen years. He then retired to a little estate he had at Hagestaed, near Copenhagen, where he hoped to spend the remainder of his days in peace and tranquility, but his house having been burnt in 1670, his library, with all his books and manuscripts, was consumed. In consideration of this loss, the King of Denmark appointed Bartholin his physician, with a handsome salary, and exempted his land from all taxes; the University of Copenhagen also chose him for their librarian; and, in 1675, he was honoured with a seat in the Grand Council of Denmark. He died on December 4th, 1680, at the age of sixty.

FALLOPIAN TUBES; AQUÆDUCTUS FALLOPII; HIATUS FALLOPII AND MUSCLE OF FALLOPIUS (PYRAMIDALIS NASI).

Falloppio, Gabriello—in Latin, Fallopius—is described as one of the three great anatomists to whom may be assigned the honour of having restored, if not actually created, the science of human anatomy, Vesalius and Eustachius being the other two. Eustachius and Vesalius were contemporaries. Fallopius was a pupil of the former. He was a native of Modena, and though the year of his birth is not accurately known, it is assigned to the end of the first quarter of the seventeenth century. He received his medical education at Ferrara, and in that city he established himself as a teacher of anatomy, after completing a scientific tour through the most civilised portions of Europe. From Ferrara he removed to Pisa, attracted thither by the liberal offers of Cosmo I, Grand Duke of Tuscany, and from Pisa to Padua, where the Venetian Senate appointed him to succeed Vesalius.

His career in his new sphere, though brilliant, was short, as he died in 1562 at the age of forty, after holding his various appointments for only eleven years.

His only work, the *Observationes Anatomicae*, was first published at Venice in 1561, and has been frequently reprinted. Fallopius is said to have described better than heretofore the internal ear, especially the tympanum and its osseous ring, the two fenestræ, and their communication with the vestibule and cochlea, and to have given the first good account of the stylo-mastoid hole and canal, of the ethmoid bone and cells, and of the lacrymal passage. In myology he rectified several mistakes of Vesalius. He made some curious researches into the organs of generation in both sexes, and discovered the utero-peritoneal canal which still bears his name.

MALPIGHIAN BODIES, ETC., OF THE KIDNEY AND SPLEEN; MALPIGHIAN LAYER OF THE SKIN.

Malpighi, Marcello, an eminent physician and anatomist was born near Bologna in 1628. He studied medicine in that

city, and graduated as doctor in his twenty-fifth year. Three years later he became professor of medicine in the University of Bologna, and was promoted during the same year by Frederick II of Tuscany to the medical chair at Pisa. There his intercourse with Borelli, the mathematician, tended greatly to convince Malpighi of the propriety of applying experimental researches to the study of medicine. He was soon forced, however, by declining health to return to his former situation in Bologna. From Bologna he was summoned in 1691 to Rome, to occupy the position of principal physician to Pope Innocent XII.

The discharge of his new duties was rendered burdensome by attacks of gout, palpitation and other diseases, and he died of apoplexy in 1694, at the age of sixty-six. Malpighi's discoveries relate chiefly to the structure of the skin, spleen and kidney.

He also devoted much of his time to the organisation of plants and the lower animals.

His grand work, *De Anatome Plantarum*, appeared in 1669.

MECKEL'S DIVERTICULUM; MECKEL'S CARTILAGE (EMBRYONIC); MECKEL'S GANGLION; CAVUM MECKELII.

Meckel, Johann Friedrich, was born at Halle in Germany in 1781, of a family of some note in the annals of medicine. On receiving his doctor's degree at the University of his native town, he already gave evidence of the possession of distinguished talents for physical research by his inaugural thesis, *De Conditionibus Cordis Abnormibus*. Having directed his attention almost exclusively to the study of comparative anatomy, he undertook travels into Italy and France to widen the sphere of his observation and perfect his knowledge of his favourite science. After his return to Halle in 1809, he was appointed Professor of Anatomy and Physiology in his native university; and gave to the world, at the age of thirty-two, his essay on *Comparative Anatomy* which established Meckel's scientific reputation. He laboured for a long time with great industry in perfecting the excellent collection commenced by Reil, and known at the present day by the name of *The Physiological Archives of Meckel* (12 vols. 8vo, Halle, 1815-1827). After gaining for himself a distinguished name among the most eminent scientific men of Germany, Meckel died in his native town on October 13th, 1833, aged 52 years.

"RECTAL VALVES AND COLUMNS OF MORGAGNI"; HYDATIDS OF MORGAGNI; SINUS OF MORGAGNI; CARUNCULA MORGAGNI (MIDDLE LOBE OF PROSTATE).

Morgagni, Giovanni Battista, one of the greatest physicians of the eighteenth century, was born at Forli in Italy on February 25th, 1682. He studied medicine at Bologna, and subsequently proceeded to Venice and Padua, where he

pursued his investigations, both in physics and in comparative anatomy, with great ardour. At the age of twenty-four he published his *Adversaria Anatomica prima*, a work of great originality; and at the age of thirty was appointed professor of the theory of physic at Padua. He then occupied himself in describing the structure of a number of organs which had been ill-observed before his time. Morgagni was now promoted to the first chair at Padua, and successively admitted a member of the Royal Society of London, of the Academy of Sciences at Paris, and of the Academies of Petersburg, Berlin, and several learned Italian institutions. He continued to labour till the close of his long and honourable career, which terminated on December 6th, 1771, at the age of nearly ninety. The knowledge of Morgagni was not confined to the medical art. His vast erudition embraced philology, criticism, history, and antiquities, as may be gathered from the list of his various works. His most celebrated work, *De Sedibus et Causis Morborum per Anatomen indagatis*, is still a standard reference on pathology and has been translated into most of the European languages.

POUPART'S LIGAMENT. (*Montreal Medical Journal*, 1904.)

Poupart, François, naturalist, anatomist and surgeon, was born at Mans in France in the year 1661. Until his death in 1709 he lived in a state of comparative poverty, but this he bore without discontent. His early education was received from the fathers of the Oratory in his native place. His love for science took him to Paris where he studied at the Jardin du Roi. Entomology had a special charm for him, and he devoted much time studying the habits of live insects and the anatomy of dead ones. The smallness of his means was sufficient to discourage him from pursuing his investigations, but this did not thwart his purpose. He applied himself seriously to the study of anatomy and surgery. He finally presented himself for examination in the latter at the Hôtel-Dieu in Paris and is said to have passed with credit, although he subsequently astonished everybody by announcing that he had studied but the theory and did not even know from experience how to bleed a man. Opportunity to practise surgery was therefore given to him, and at the end of three years he took his degree at Rheims.

Some articles published in the *Journal de Savants* gained him an immediate reputation. At the age of thirty-eight he was admitted to the Academy of Science as a pupil of the celebrated Mery, anatomist and Court surgeon. Mery was the first to show that in hernia the peritoneum is not pierced, but is carried down as a covering of the protrusion. Not satisfied with the labours of the day, he is said to have spent his nights secretly dissecting in his bedroom—a practice not always to be commended where sanitary inspectors make their rounds. Mery's pupil, Poupart, was not less diligent

than his master. Poupart's *Complete Surgery* was his masterpiece. Eley credits him with the discovery that the sacrum and coccyx are but modified vertebræ. He seems to have made a study of deficiencies compatible with a continuation of the bodily functions; thus he describes the case of a patient who went through the world short of one kidney, and gives an account of how a woman from whom he had removed half of the skull used to gain her livelihood by receiving alms in the receptacle thus provided. It is an interesting fact to note that his description of the so-called ligament was neither new nor accurate, but that Vesalius should be given the credit! So says the biographer.

SCARPA'S FASCIA, *Deep Fascia on the Anterior Abdominal Wall*; SCARPA'S TRIANGLE *in Front of the Thigh*; FORAMINA OF SCARPA; GANGLION OF SCARPA.

Scarpa, Antonio, was born at La Motta, in Italy, in the year 1748. He early distinguished himself as an anatomist and surgeon, and his works in both these branches of science have spread his reputation throughout all Europe. For many years he occupied the chairs of clinical and operative surgery in the School of Pavia. Scarpa was an exact as well as a laborious observer, and did more than most men of his time to advance the progress of surgery. Surgical anatomy, which has given a particular direction to the researches of surgeons, owes its first development to the labours of Scarpa, and forms, in some sort, the distinctive character of his productions. Scarpa commenced his career as an anatomist, but afterwards directed his attention principally to the practice of surgery. The plates which represent the nerves of the heart, and those which accompany his treatises on hernia and aneurysm, are the most perfect productions of their kind. Scarpa died at Pavia on October 30th, 1832, at the age of 84.

ON APHASIA, WITH NOTES OF TWO CASES.

By ANTHONY FEILING, M.B., M.R.C.P.



CASES of genuine aphasia are sufficiently uncommon to render their study both interesting and important. Of course, in many cases of right hemiplegia a temporary disturbance of speech is present, and to this condition the term "aphasia" is often somewhat loosely applied; such a condition is more correctly termed "anarthria," indicating by that expression a defect due to injury of the fibres arising from the cortical motor centres

governing the muscles of articulation. But apart from these motor centres there are other more specialised areas in which sensory impressions are gathered and stored and movements initiated, both of which are essential for the production of language, whether oral or written. Disturbances of these more specialised centres give rise to any or all of the various forms of aphasia.

There have recently been in the wards of the Hospital two cases which exemplify very well the two principal forms of aphasia commonly recognised, namely, the sensory aphasia of Wernicke and the motor aphasia of Broca. It will be convenient to refer to the history and condition of these two patients, and to discuss briefly the pathological anatomy of aphasia in relation to them. For the purposes of this article I will only mention the facts which are relevant to the question at issue, namely aphasia, and will not enter into any discussion as to the exact nature of the pathological processes at work. Within the limits of such a paper as this it is obviously impossible to discuss all the evidence, anatomical and pathological, which has been brought to bear on the localisation of function in the cortex with regard to aphasia; consequently the dogmatic nature of any subsequent statements must be excused on this ground.

For permission to examine and report these cases I am much indebted to the kindness of Dr. Calvert and Mr. Rawling.

CASE I.—A. W—, male, æt. 45. Admitted to hospital in an unconscious condition on December 6th, 1913. The history was difficult to obtain, as we were entirely dependent on the statements of the patient's relatives. Except for an attack of epistaxis two days before, accompanied by headache, he was in his usual health till the day of admission, when he was found unconscious on a seat in a public garden. One interesting point in the previous history was that in August, 1913, while watching a cricket match, the patient suddenly suffered from a feeling of "pins and needles" in the left side of the face, which appears to have been followed by an inability to swallow properly lasting for about three days. From this he made a perfect recovery. Except for this his previous history showed nothing unusual.

The family history is interesting. His father and two paternal uncles are all said to have died from cerebral hæmorrhage; one brother is an epileptic.

He recovered consciousness shortly after his admission to hospital. Examination then showed that he was suffering from a right hemiplegia, with aphasia. I examined him particularly with regard to the question of aphasia, and noted the following points:

- (1) He was right-handed, and could safely be assumed to have been able to read and write intelligently.
- (2) His hearing and vision were both quite good.
- (3) He could not understand spoken language, except a

few simple remarks such as "Good morning," "Put out your tongue," etc.

(4) He could not read either printed or written matter.

(5) He could speak spontaneously in an ordinary voice. There was no articulatory defect; his words were for the most part well-formed and intelligible, but his speech was a meaningless jargon of words.

(6) He could indicate his meaning by signs with his left hand.

(7) He could recognise objects, though he could not name them; he was evidently also perfectly familiar with the use of common objects, such as a knife, a pen, paper, etc., and was able graphically to indicate their use. There was therefore no apraxia.

(8) Since his right arm was paralysed no test of his power of spontaneous writing was possible, but from what will be said later, it is safe to assume that it would have been impossible.

(9) Considering the grave disadvantages under which he laboured, his mental condition appeared perfectly good, except for an uncontrollable tendency to relapse into tears—not unnatural under the circumstances.

Though slight exceptions to the truth of the above statements could be found—and it is very rare for an aphasia to be absolute—we may assume what I have stated to be the approximate extent of his aphasia.

CASE 2.—F. M—, male, æt. 35. In July, 1910, he received a blow on the left side of the head; one week later loss of speech, reading and writing were discovered; he was never unconscious; never vomited, had no headache, no fits. Some loss of memory. Has been able to do his work. The power of reading has returned.

When examined with regard to the nature and extent of his aphasia the following points were noted:

(1) He was right-handed and perfectly intelligent; he had been able to read and write quite well.

(2) There was no paralysis of any kind detected.

(3) Hearing and vision were normal.

(4) He could understand language easily, whether spoken, written or printed.

(5) He could not utter spontaneous speech beyond a few short words and simple sentences such as "Yes," "No," or "Good morning"; he could, however, indicate his meaning by signs.

(6) He could not repeat words nor read aloud.

(7) He could not write spontaneously, except a few familiar names, such as his own name and address, and these only imperfectly. He could, however, copy letters and numerals fairly well.

(8) He could recognise, though he could not name, objects, and could by suitable signs indicate their proper use.

Looking at these cases we see that although they both present one feature in common, namely that neither can utter nor write intelligible language, yet they present many

points of difference, and it does not required much penetration to suspect that the lesion cannot be situated in exactly the same area of the brain in both cases.

Take Case 1. This patient exhibits in a fairly typical form the so-called "sensory aphasia of Wernicke." This depends upon a lesion in Wernicke's zone in the left temporoparietal region, an area roughly comprising the angular and supra-marginal gyri and the first two temporal convolutions. This zone includes the two centres which on the sensory or preceptive side are essential for the production of language, namely the auditory word and the visual word centres. The auditory word or audito-psychic centre is located in the posterior part of the first temporal convolution, the visual word-centre in the angular and supra-marginal gyri. Destruction of both these centres entails, therefore, a complete loss on the preceptive side. There will ensue, therefore, as this patient shows:

(1) Word-deafness, *i. e.* inability to understand spoken language.

(2) Though speech is possible, only a jargon is produced, the patient not recognising it as such.

(3) Inability to name objects, though the use of the object may be known and the patient may be able to indicate its use by some pantomime.

(4) Word-blindness, *i. e.* inability to understand written or printed language. Hence he cannot read aloud, write from dictation, nor copy. In the case under discussion the paralysis of the right arm rendered such tests impossible, but we may safely assume that the patient could perform none of these functions. Again, since the power of recognising letters is lost, ordinary writing is interfered with, even if no paralysis be present.

On the other hand, there is in this patient no evidence of any real interference with the motor side of speech; he forms words perfectly; he can utter quite long sentences with words well articulated, but they are meaningless, a "jargonaphasia" as it has been termed. Unable to understand what is said to him, unable to express his own meaning either in oral or written language, such a person is in a most pitiable condition, and we need not be surprised to find him bursting into tears on apparently slight provocation and manifesting other signs of mental distress.

Case 2, on the other hand, presents a very different picture. Able to understand all that is said to him, able to read to himself, able to copy and to some slight extent to write spontaneously, he merely exhibits an inability to express his thoughts and desires in spoken language. The centre for the production of words is damaged. This is Broca's centre; injury to it causes motor aphasia or Broca's aphasia. The centre is situated in the third left frontal convolution, and is closely connected with the centre for the production of written language in the second left frontal convolution, the so-called cheiro-kinæsthetic centre. In this second case it is to be particularly noticed how isolated is

the defect, unaccompanied by any motor paralysis or any loss on the sensory side.

Such a case is, in my opinion, a strong argument against the views held by Marie and others. Space forbids any discussion of the arguments for and against the two views. I have, so far, adhered strictly to the generally accepted opinion as to the existence and situation of the various centres discussed. But a brief reference to Marie's hypothesis seems desirable. He says that there is really only one form of aphasia, that described in Wernicke's aphasia, and only one speech centre situated in Wernicke's zone; he does not admit the existence of any auditory word or visual word centre, but regards the whole region as one of "intelligence specialised for language." In his opinion the association of anarthria with Wernicke's aphasia constitutes the picture of Broca's or motor aphasia. To produce this defect, two lesions are necessary, says Marie, one in Wernicke's zone and one in a region which he calls the "quadrilateral." The limits of this quadrilateral are anteriorly and posteriorly vertical planes level with the anterior and posterior limiting sulci of the island of Reil, externally the surface of the island, internally the wall of the lateral ventricle. The weakest point in his argument is the fact that as yet, I believe, no lesion has been found in this area in any case presenting the symptoms of Broca's aphasia. In connection with these two opposing views it is interesting to notice that DeJaine, in a paper contributed to the International Congress of Medicine, adheres to the orthodox views, and does not support Marie in his contentions. There is one anatomical point to which I have not referred; it is that in the discussion of the situation of the lesions producing aphasia cortical lesions are meant; lesions involving the depth of the subcortical white matter will not produce these phenomena in so restricted a form. Further, the close and complex nature of the connections between the various centres renders the occurrence of an absolutely pure or unmixed type of aphasia extremely rare.

THE PSYCHOLOGY OF DREAMS.

A Paper read before the Abernethian Society.

By M. N. PERRIN, B.C.

(Continued from p. 81.)



SHALL now proceed to some of the main characteristics of dreams, considering more especially those which are apparently spontaneous, as it seems probable that they will afford the most direct route to the normal activities of the mind during sleep.

The first point, which strikes us when we consider a dream, is the vivid manner in which objects are presented; the faculty of observation seems to be intensified, and a vast amount of detail to be perceived in what seems to be a moment of time. Dreams are indeed sometimes so vivid, especially in childhood, that they are not infrequently confused with real events. Havelock Ellis states that in imaginative children, a rich and vivid dream-life may be the direct source of literary ability in later life. It seems possible, however, that both faculties may be due to the same cause.

This faculty of minute observation which is so marked in dreams has been called the power of "spontaneous attention," and has been contrasted with "voluntary attention," which is characteristic of waking life and depends largely on muscular activity and co-ordination. Spontaneous attention is no doubt present to some extent during waking life, though it appears to be inhibited by efforts at voluntary attention. In emphasising the importance of the absence of voluntary attention in the production of visual images, Leroy points out that even the after-image of a bright object in waking life is much more vivid when it occurs in a state of inattention. I have noticed, too, that greater success is to be obtained in that appalling game, in which one is shown trays covered with small objects, if no conscious effort at attention is made. This rapidity of visual perception may possibly account for the constant change, which is characteristic of dream imagery, giving a rapid series of mental pictures, which follow one another like the sections of a cinematograph film.

Most dreams, like a photograph, are monochromatic, and colour perceptions are seldom remembered on waking. The dreamer may even notice this defect at the time. This consideration makes the power of colour-perception, which is so marked in the dreams of mescal, all the more remarkable.

It is a matter of common experience that any one dream of a particularly vivid nature may be frequently repeated after longer or shorter intervals for years, even though no thought is given to the dream during waking hours. The dreamer is aware at the time that at each recurrence no detail is omitted, though on waking he may be unable to give an account of the dream.

As a child I used frequently to dream that I was falling down a deep well or lift-shaft, and that at successive stages a landing would lead on to the streets of some familiar district. At a certain depth the district in which I lived would appear, and I used to make a distinct effort to stop there, so that I might find my way home. After a time I got to know the order of these stopping-places, and was often successful in alighting at the right one, when I could proceed to further adventures. Each time the dream recurred the stopping-places were in the same order, and the panorama at each was as accurate as a map. Whether the intermediate stages were places I had been to when awake, or

whether they were products of my imagination, I cannot say. At all events this was a very striking example of the continuity of dream memory, which was very much more perfect than ever it was in waking life.

Since then I have seen accounts of dreams beginning on each successive occasion at the point at which they left off before. In many cases the dreamer could not clearly remember the dream on waking, but it all came back to him subsequently during sleep.

In the recent account of a great mine disaster, it was stated that one of the victims was completely deprived of his memory, but that during sleep he frequently dreamed of crowds of men working in the dark with picks and shovels. The continuity of dream memory was thus undisturbed, while waking memory, even of the commonest things, and of the disaster itself, was completely blotted out. It therefore appears that man has two memories, one for sleeping, and one for waking thoughts, just as during sleep his power of spontaneous attention is increased, and that for voluntary attention in abeyance.

It has been stated that every act and thought, whether consciously perceived at the time, or not, is registered somewhere on the brain, never to be forgotten. We have normally a certain very limited faculty for recalling some of these facts by an effort of will, but by far the greater number are stored away in the inmost recesses of the brain, and are only at the disposal of our subconscious memory. We are aware of this often enough, when we try to remember a name and cannot do so. We say to ourselves, "Oh! it will come to me soon"—and so it does, without any apparent effort on our part, either when we are thinking of something else, or in a dream.

A special form of lost or unconscious memories recurring in sleep is seen in those cases in which people when asleep can speak languages, which they have forgotten or have never consciously known when awake, such recollections being the remnants of knowledge acquired in childhood spent abroad. A similar explanation may possibly apply to those who, under the influence of religious excitement, "speak in tongues."

Many dreams, which seem to indicate clairvoyance or perception at a distance, may be explained when considered from this point of view. An instance is recorded of a maid-servant, who dreamed at night that a friend had been drowned while on a sea voyage. She had been at home all day, and had not read the papers for several weeks, nor had any of her friends spoken to her on the subject. On inquiry it was found that she had used a piece of newspaper to draw up the fire, and that while doing so her eyes must have caught the announcement of the disaster, which was found afterwards on the sheet she had used. The news was altogether of too great importance to be forgotten, if once realised.

The appreciation of time, which seems to be merely a

phase of memory, is a faculty which may be greatly intensified during sleep. Many people, by an effort of will, are able to wake at a given time, and with practice it is possible to hit off the desired time to the minute. Numerous explanations have been given to explain the process whereby the habit of a lifetime can apparently be broken at will during sleep, though none are satisfactory. It has been suggested, for instance, that the lapse of time is calculated by counting the pulse and by working out the ratio of pulse-rate to seconds during sleep. There seems to be little doubt that this power of waking to time is possessed by the majority of people, and that it is not a special gift. It is all the more remarkable when we consider that it is a common experience that a few moments of sleep may seem like hours, while ten hours of unconsciousness may seem like so many minutes, our limited waking powers time sense being completely upset.

The time sense is still more strongly developed in the sleep produced by hypnosis, when the dreamer will count many thousands of seconds, and perform a suggested act strictly at the time stated. In one example out of many given by Milne Bramwell in his work on hypnotism, a subject was hypnotised, and it was then suggested to him that he should perform a certain act in 2550 minutes from the time when the suggestion was given. He was awakened, and continued his ordinary life with no waking knowledge whatever of the command, and punctually to the minute he felt compelled to perform the act, which was a trivial and foolish one, being unable, when asked, to give any reason for doing it. Bramwell has one of the largest hypnotic practices in London, and, as I have met him personally and discussed his methods with him, I am able with some confidence to recommend his remarkable results to your serious consideration. Though in normal dreams this faculty is naturally not so striking, and though I am anxious not to press the hypnotic analogy too far, yet there seems to be no doubt that in normal sleep this phase of memory is very well marked, and it is evidence of a very definite power—almost of a sixth sense—which only becomes manifest during sleep.

It has been found by experiment that dreams, which have been forgotten, can be recalled in hypnotic trance, and also that successive trances are bound together by a memory, which does not act during hours of waking. There is, therefore, an ever-active memory, which links together the various processes of subliminal thought and runs in a continuous stream through sleeping and waking life. Like an underground river, it comes to the surface occasionally, when the superimposed strata of waking consciousness are absent, in the form of dreams in sleep, and it disappears from view under the active processes of the day. Myers considers that the inspirations of genius, as well as the delusions of hysteria, are due to the sudden uprush into waking consciousness of this and other faculties, and it is

possible that Macaulay and others, whose memories are famous, possessed some power of removing the inhibitory influence of conscious attention, thereby enabling the hidden memory to show itself.

The next step in the consideration of dream psychology is an important one, as it strikes at the foundations of most of the theories of dream formation.

We have seen that dream processes show evidence of marked power of spontaneous attention and of ability for storing the impressions so gained subconsciously in the form of dream memory. The question now arises whether or not there is evidence of any original thought in dreams. Are the vivid pictures and imagery, which often differ so much from the ideas of waking life, the result of some spontaneous thought process, or are they all founded on past experience—experience which may have been acquired consciously or subconsciously at an earlier date? There is no doubt that a very large majority of the dreams recorded show immediate or remote waking experiences in a "manifest content," the origin of which is unmistakable.

Many dreams also can be shown to be symbolic representations of waking impressions, and Freud considers that not only is this so in *all* dreams, but that they are all the direct or indirect expression of a wish formed during waking life. Thirst, for instance, during sleep, often produces the dream experience of drinking large quantities of water. A medical student, working for his finals, dreamt one night that he saw the papers some days before the examination. Though all dreams do not show the wish fulfilment in such undisguised form, Freud makes them all conform to type by symbolical interpretation. He traces a parallel between dreams of this nature and the delusions of the insane, who see bright pictures of happiness, riches, estates, and the fulfilment of wishes, the denial or destruction of which served as the original psychic cause of the insanity.

While admitting that symbolism is an important characteristic of the dream processes, one cannot lose sight of the possibility that by so interpreting dreams we may not be begging the question entirely by substituting a number of arbitrary symbols for the real thoughts expressed in the dream. If we are unwilling to adjust all dreams to our preconceived theory by a substitution of symbols, we shall find that many bear no relation either to the organic exciting stimulus, or to past conscious experiences. Some may be ultimately explained as products of the subconscious memory, but there is still a remainder, which seems to present new thoughts and concepts entirely from without.

Stevenson, in his chapter on dreams in the collection of essays called *Across the Plains*, describes how by self-suggestion before sleep he could secure dreams, which were not only of remarkable intensities, but also furnished him with the plots for some of his most striking romances. The plot for Dr. Jekyll and Mr. Hyde was derived, as he says, from "the little people who manage man's internal theatre."

In other cases, mathematical problems are said to have been solved in sleep, their solutions not having been apparent during waking hours. Prof. Newbold records a case where a certain German professor was able to decipher in his sleep a Babylonian manuscript over which he had been puzzling by day for several weeks.

Other examples such as these might be found, and it seems that, if any reliance at all is to be placed on the testimony of those who are not actually our personal friends, dreams may open up a train of activity which has no parallel in waking life. As Myers says, the internal sensory perceptions of sleep may exceed those of vigilance in something the same way as the recuperative faculty of sleep surpasses the *vis medicatrix* of waking hours.

Finally, dreams sometimes occur in which external unseen events are portrayed at the time of their occurrence, or two independent people may have the same dream at the same time. Such dreams, if they exist, can only be explained by telepathy.

In *Phantasms of the Living*, a colossal work, published under the auspices of the Society for Psychical Research, hundreds of examples of such dreams are given, each of which has been subjected to the most minute scientific scrutiny. In this connection many here would doubtless be able to produce first-hand examples, though, failing this, it is impossible to disregard the opinions of such men as Professor Balfour Stewart, Lord Rayleigh, Mr. Balfour, Sir William Crookes, Alfred Russel Wallace, Sir Oliver Lodge, and of Prof. J. J. Thompson, Alec Macalister, and Henry Sidgwick of Cambridge, all of whom have been on the council of the Society, and with whose sanction the book was published.

Telepathic communication has been shown to exist to some extent during waking life. It is, however, in sleep and in hypnotic trance that its occurrence is most frequent. In *Phantasms of the Living*, 150 coincident dreams are analysed and concluded to be telepathic. Of these, 79 have represented or suggested death, and the definite character of this event forms a fit basis for statistical calculation. Each dream has been written down or in some way acted upon before the confirmation arrived, and in nearly every case full names are given.

In considering such dreams, the question arises as to what proportion of striking correspondences we are to demand before we consider that the hypothesis of chance is strained in accounting for them. With this end in view, the following letter was sent by the Society to 5360 people: "Have you ever had a dream of the death of some person known to you, which dream you marked as an exceptionally vivid one, and of which the distressing impression lasted as long as an hour after you rose in the morning?" 166 affirmative answers were received, or one twenty-sixth of the total number asked. As the persons asked were quite a promiscuous body, we may conclude that one twenty-sixth

of the population of this country have had similar experiences. By mathematical calculation this was shown to be twenty-four times larger than the doctrine of chance would allow.

If we accept the validity of the mass of evidence before us, we are led to the inevitable conclusion that the human mind is susceptible to impressions of thought, which reach it by channels other than those of the special senses. The nature of this evidence makes it clear that the mind is more susceptible to such impressions during sleep.

Examples of thought transference under waking conditions are rare, though, as Lodge has shown, they may be conclusively demonstrated experimentally. In our consideration of dreams, therefore, we must include psychic as well as organic causes among the exciting factors, and we must broaden our conception of the dream process so that we can trace its affinities not only with the mental process of the individual himself, but also with the thoughts of others.

Considerations such as these, taken in conjunction with experiments during hypnotic trance, have given rise to the theory of dual personality, and it is the object of this paper to show that dreams are not merely reflex processes representing what remains of a mind already dulled by sleep, but that they are manifestations of a definite phase of personality; that they are the keynote to the subconscious, or that state, which occurs, when the higher centres are in abeyance, as the result of normal sleep or of hypnotic trance.

Sleep, the medium of dreams, cannot be considered from the purely negative aspect. It has a definite positive value, and is possessed of attributes at least as important as those of its counterpart in waking life. A few moments of sleep will suffice in some unexplained way to regenerate the vital faculties, which have been exhausted by day, while hours of lying down in darkness and silence would have no such result. The human mind is, therefore, a complex structure consisting of at least two alternating phases which, like a planet and its moon, are bound together by ties of action and reaction.

It is in the study of mental diseases of functional origin that the study of dreams, and through them the investigation of the hidden phases of our personality, is of the greatest value. Numerous examples are recorded, in which ideas first encountered in a dream, as in the historic case of Joan of Arc, have led to a conversion or marked religious change, so that from the moment of the dream onwards Mr. Jekyll has replaced Mr. Hyde or *vice versa*. Other dreams have been shown to be the starting-point of an insistent idea, or of a fit of actual insanity. They are analogous to powerful post-hypnotic self-suggestions, which the self that inspired them can be induced to countermand. Herein lies the importance of their careful study, for a complete knowledge of the causal ideas is necessary before any antagonistic treatment by suggestion can be of any avail. Paine gives an example of a dream in which a gendarme, impressed by an

execution at which he had assisted, dreams that he himself is to be guillotined, and is afterwards so influenced by the dream that he attempts suicide.

Hughlings Jackson once remarked, "Find out all about dreams and you will have found out all about insanity." Jastrow goes a step further, and considers that not only insanity, but all forms of delirium, including drug intoxications and the many manifestations of hysteria, are variants of dream consciousness.

It is well known that by means of suggestion during hypnotic trance the functions of many organs in the body can be modified. For instance, the subject may be made to blush, the skin may be rendered anæsthetic, or sweating may be produced. Kraft-Ebing gives instances of dreams, which produced, possibly by some process of auto-suggestion, visible changes in the body of the dreamer, which changes persisted on waking. In one instance there was a definite patch of hyperæmia corresponding in shape and size with imaginary marks made by a character in the dream, and there was marked pain in this situation, though the details of the dream were forgotten. In subsequent hypnotic trance the memory of the dream was revived, and by suggestion based on this the pain and hyperæmia were removed. This subsequent removal of the signs and symptoms by suggestion based on the dream content certainly points to their being the effect rather than the cause of the dream.

If we are to accept the evidence before us, we have therefore still further proof of the close connection which exists between dream thought and bodily functions. The facts also point to a direct continuity between dream personality and the subconscious state of hypnotic trance, or that state in which the mind is most amenable to suggestion. It is not my purpose to enter into the many therapeutic possibilities of hypnotic suggestion. My aim has been merely to show that in dreams we may have one important channel of approach in the investigation of subconscious activities, the study of which may lead to a far more accurate knowledge of many functional nervous derangements.

ST. BARTHOLOMEW'S HOSPITAL EMPLOYEES' FIRE BRIGADE.

THE second annual competition took place on Saturday, October 27th, at 3 p.m. in the Hospital Square. Lieut.-Col. Fox, of the London Salvage Corp, kindly acted as Judge, assisted by Supt. Blyth, Chief Officer Webb and Fireman Kirby.

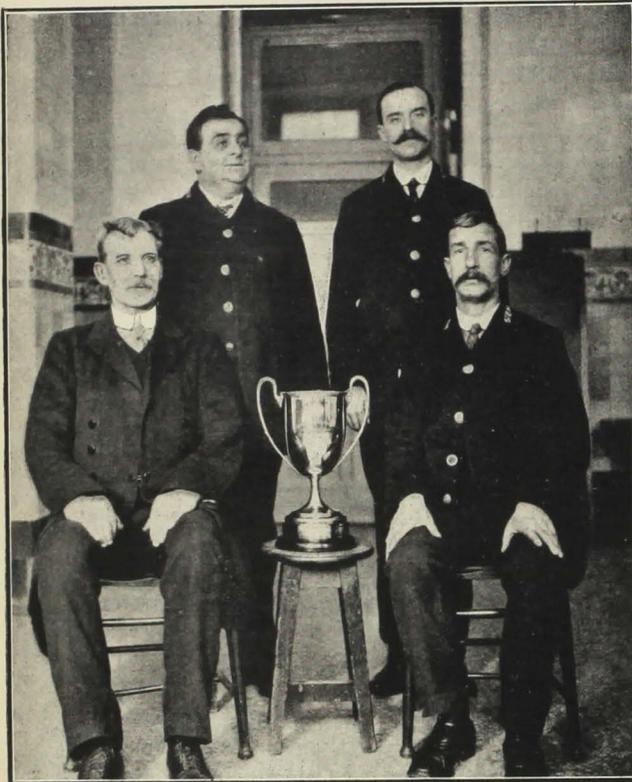
The events were as follows :

CHALLENGE CUP, 4 MEN (Surgery Team Holders).

- (1) *Surgery*.—Tutton, Evans, Herbert, Wilson. 17 $\frac{3}{8}$ sec.
- (2) *Mr. Murray's team*.—Pocock, Harding, Horn, Carter. 18 sec. Four teams competed.

FIVE-MEN PUMP DRILL.

(1) *Surgery team*.—Tutton, Evans, Herbert, Wilson, Peat. 34 sec. (2) *Steward's staff*.—Hassell, Ware, Scottow, Day, Herbert. 35½ sec. Four teams competed.



THE WINNING TEAM.

ONE-MAN DRILL.

(1) Wilson. 12⅔ sec. (2) Evans. 12⅕ sec. (3) Ware 13¼ sec. (4) Tutton. 14 sec. Twelve men competed.

Mr. Latham addressed the men in the Library on behalf of the acting treasurer; Sir Lionel and Lady Cohen were also present, also several of the Governors. Mr. Hayes, Mr. Gask, and several of the Junior Staff were present.

Lady Cohen kindly presented the Cup and prizes.

THE CLUBS.

RUGBY FOOTBALL CLUB.

ST. BART'S v. COVENTRY.

Played at Coventry on January 10th. For various reasons we could only raise a very weak team, Fiddian, Kitching, MacBryan, Eberli, Little, Savory, Jukes and Evans all being absent. However, they supplied us with three capable substitutes. A very interesting and exciting game resulted. Coventry being too good in the second half, and eventually winning by 16 points to 8. Wilson and Williams scored for the Hospital and Dill played an excellent game at full back.

ST. BART'S v. CAMBRIDGE UNIVERSITY.

Played at Cambridge on January 19th. Barts's were well represented. MacBryan, owing to a dislocated shoulder, and Fiddian were unable to come. Cambridge were in great form, their backs being brilliant, the hard ground and dry ball being all in their favour. The forwards, well led by Mudge and Kitching, played a good bustling game and quite held their own. But whenever the backs got the ball they could do nothing right, being far too slow for the Cambridge backs; 23 points were scored against us in the first half and 24 in the second; thus we were well beaten by 47 points to 0.

ST. BART'S v. R.N.C., GREENWICH.

Played at Winchmore Hill on January 28th. Barts's played well in the first half, scoring four times. Savory scored twice, Eberli and Davies each scoring a try. The forwards were good, especially in the loose, Mudge and Kitching being most prominent. In the second half Greenwich improved and scored twice, the final score being 18 to 11 in our favour.

ST. BART'S v. OLD MILLHILLIANS.

Played at Winchmore Hill on January 31st under favourable conditions. Barts's did most of the attacking, thanks to the forwards, but the backs were continually dropping passes, and at half-time there was no score. It was not till well in the second half that we started to score, when we put on 14 points in a very short time. Higgins dropped a goal, and Kitching and Joyce scored tries, Williams converting both, Barts's winning, 14 points to 0.

ST. BART'S v. CHARING CROSS HOSPITAL.

Played on London Scottish Ground, Richmond, on January 12th, in this, our first appearance in the Inter-Hospital Cup Ties, Barts's played very badly, but managed to win by 14 points to 0. In the first half we played against a strong wind, but secured a 3 points lead from a try by Higgins, who put the finishing touch to a long dribble. In the second half innumerable passes were dropped, but eventually Williams scored from a cross-kick by Savory, and later Eberli and Mudge obtained tries, Williams converting one of the tries.

ASSOCIATION FOOTBALL CLUB.

ST. BART'S v. ILFORD AVENUE.

This match was played at Ilford on Saturday, January 24th, and resulted in a win for our opponents by four goals to three.

Ilford Avenue opened the scoring about ten minutes after the start; but after some play, which was mostly in our half, Braun got away with the ball, and, breaking through their defence, scored for the Hospital. Shortly before half-time was called Braun scored again.

A short while after the interval Ilford Avenue equalised. After this there was some fast mid-field play, of which it must be said our opponents had the advantage, but the Hospital forwards soon broke away and Braun scored off a good pass from McFarland. However, it was not long before fitness began to tell, and as most of the Hospital team had not played since before Christmas, the pressure became too great for our defence, two more goals being scored by our opponents before time was called.

On the whole a win for the Hospital was hardly to be expected, as besides not being fit, we were without the services of Stretton and Jameson, the mainstays of the defence.

The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, G. C. Wells Cole (backs); E. M. Grace, G. M. Cowper, and R. H. Maingot (halves); A. O. Courtis, J. B. McFarland, L. Braun, T. B. Bailey, K. D. Atteridge (forwards).

CORRESPONDENCE.

ALPINE HEALTH RESORTS.

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

SIR,—In reading Dr. Bernard Hudson's interesting article on "Davos-Platz as a Health Resort" in your November issue, I feel that he has, doubtless unintentionally, not quite done justice to a

sister resort when he characterises the absence of wind and presence of sanitary precautions as "practically unique" in Davos. In these matters Arosa has had the advantage of an elder sister's example, is equally particular in the matter of disinfection of rooms, and has even gone a little further in avoiding that slight morning and evening air-current which characterises all Swiss valleys over a certain length. The inhabitants of Davos are also *ipso facto* burgesses of Arosa, and H. B. M. Consul in Davos will be very welcome in Arosa at any time to witness these facts by ocular demonstration. His remarks on the value of sports to an alpine health resort are very well chosen. They prevent the atmosphere of invalidism which is otherwise inherent to a resort of health seekers, besides affording opportunity for "graduated labour" in an agreeable form.

AROSA, SWITZERLAND;
November 8th, 1913.

I am, etc.,
EGBERT MORLAND.

THE BOOKSHELF.

REVIEWS.

GERMAN-ENGLISH DICTIONARY OF MEDICAL TERMS. Second Edition. Edited and Revised by MILTON K. MEYERS, M.D. (London: J. & A. Churchill.) Price 18s. net.

This is the second edition of the well-known Lang and Abrahams' Dictionary (now published as by Lang and Meyers), and it comprises, in addition to medical terms, a large number employed in the ancillary sciences, particularly chemistry, biology and pathology. Together with the additions made since the last edition the present volume contains over 50,000 definitions.

This admirable dictionary, which has several imitators, but so far as we are aware, no equal, is an absolute necessity to anyone desiring to read German scientific literature. Its comprehensiveness is such that it permits the most elementary student to obtain a clear if crude translation, whilst not even the laziest could complain that he is called upon to work out the meaning of any compound word. He is not told, for example, that *Schenkel* means thigh, *bein* means bone, and *bruch* means fracture, and then be left to reason for himself that *Schenkelbein* means femur and *Schenkelbeinbruch* fracture of femur. (Actually, sixty-seven words all compounded with *Schenkel* are included.) It is obviously futile to grope for omissions in any dictionary, even the largest, for it is always left to the compiler to establish his own criteria as to the inclusions. We have found omissions ourselves in this volume—why, for example, is the familiar colloquial, *sich halten* to take care of one's health, excluded?—but nobody need cavil at the liberality of the authors. There is just one detail which we think might well be worth considering in subsequent editions. German literature abounds in abbreviations, such as *d.h.*, *s.u.*, *s.o.*, *s.d.*, *ev.*, *d.s.*, *z.b.*, *u.s.w.*, and so on. These could be easily collected, and their inclusion would be of distinct service to the beginner in German translation.

THE SURGERY OF THE STOMACH. A HANDBOOK OF DIAGNOSIS AND TREATMENT. By HERBERT T. PATERSON, M.A., M.C., M.B., F.R.C.S. Med. 8vo. Pp. xiv + 312. Illustrated. (London: James Nisbet & Co.) Price 12s. 6d. net.

The author tells us in his preface that his aim has been to give a practical account of the diagnosis and treatment of those affections of the stomach which are amenable to direct surgical interference. A work by so prominent an exponent of the art of gastric surgery as Mr. Paterson is bound to be authoritative, and one in which are embodied the opinions resulting from a very large clinical experience.

The first chapter deals with methods of investigation of gastric cases. The great importance of the examination of "test-meals" is insisted on. We note that in examining the abdomen, palpation should be practised "both before and after distension of the stomach with an inflating bellows," as in this way an otherwise impalpable tumour may sometimes be felt. The author has not obtained great assistance from the gastroscope, but he very properly insists on the value of an exploratory incision in a doubtful case of cancer.

The various operations on the stomach are described at length. With regard to gastrojejunostomy, Mr. Paterson, like most surgeons

nowadays, usually performs the posterior operation, though he considers that in the ultimate results there is no difference between the two methods. The illustrations to this section are particularly good.

There is a good description of malignant disease of the stomach. The differential diagnosis is given at length. Mr. Paterson is strongly of opinion that with the routine use of the stomach-tube for diagnostic purposes in all cases of persisting indigestion, the number of inoperable cases of gastric cancer would be diminished greatly, the operation mortality reduced, and the number of cures proportionately increased.

Details for the use of the stomach-tube and of the examination of the material obtained by its use are given in an appendix. There is a good index and a useful bibliography. Though the volume is of moderate size, Mr. Paterson has written a full account of his subject, and a very fair statement of the present position of gastric surgery.

DISEASES OF CHILDREN. By JOHN MCGAW. Pp. 524. 10s. 6d. net. (Baillière, Tindall and Cox.)

This excellent manual should prove of considerable value to both students and practitioners. The diagnosis and treatment of children's diseases is admittedly a difficult matter to those who have only been accustomed to dealing with adults, for here the eyes must be used more than the hands and the ears more than the tongue. The author has succeeded in conveying a succinct and clear idea of the way in which such difficulties should be overcome. The book is of moderate dimensions and price, but it covers the subject in a complete manner. In places it is concise almost to terseness, but this is no disadvantage as the text is always lucid. The chapters on diseases of the digestive and respiratory systems are especially to be commended, but we could have welcomed a longer chapter on diseases of the liver, which have been dealt with rather shortly. The plates and charts are very clear and well described.

EXAMINATIONS AND DEGREES.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.D.—A. J. Clark, F. W. W. Griffin, J. P. Hill.

M.B., B.C.—P. W. Ransom, W. B. Gourlay, H. A. Douglas.

B.C.—J. P. Hill.

ROYAL COLLEGE OF PHYSICIANS.

J. W. Trevan, M.B.Lond., M.R.C.S., L.R.C.P., was admitted a member.

ROYAL ARMY MEDICAL CORPS.

In the examination for Commissions in the R.A.M.C., L. R. Shore took third place and S. M. Hattersley sixth.

INDIAN MEDICAL SERVICE.

In the examination for Commissions in the I.M.S., A. C. L. O'S. Bilderbeck took ninth place and B. C. Roy thirteenth.

NEW ADDRESSES.

ASPINAL-STIVALA, G., Nottingham General Dispensary (Broad Street Branch), Nottingham.

BUMSTED, H. J., Elmfield, 34, Leigham Court Road, Streatham, S.W. (Tel. 21 Streatham.)

BURKE, Capt. G. T., I.M.S., 11, Pembridge Mansions, Bayswater, W. (Home till October.)

COLLINGS, D. W., Grantbourne, Chobham, Surrey.

EWEN, G. S., Ryde House, Richmond Bridge, Twickenham. (Tel. unchanged.)

FISON, J., Royal London Ophthalmic Hospital, City Road.

HAMILTON, Capt. A. F., I.M.S., 114, Denbigh Street, S.W. (temporary).

HASSARD, Lieut.-Col. E. M., R.A.M.C., c/o Messrs. Holt & Co., 3, Whitehall Place, S.W.

HODGE, W. H. S., General Hospital, Nottingham.
 ILLIUS, Capt. J. W., I.M.S., c/o Surgeon-General with the Government of Madras, Madras.
 JONES, W. H., 43, Cambridge Street, Hyde Park, W.
 LEONARD, Major W. H., I.M.S., c/o Messrs. T. Cook & Son, Ludgate Circus, E.C.
 MASTERMAN, E. W. G., Iona, St. John's Road, Tunbridge Wells, (temporary).
 MORSE, C. G. H., "Toronto," Christchurch Road, Boscombe, Hants.
 NANKIVELL, A. T., Medical Officers' Department, Municipal Buildings, Poole.
 RANSOM, P. W., King Edward VII's Hospital, Cardiff.
 RIMINGTON, H., King Edward Holiday House, Sandown, Chelmsford.
 SCOTT, W. H., Atherton Estate, Silian, Federated Malay States.
 SLADDEN, A. F. S., 9, The Manor House, Marylebone Road, N.W. (Tel. Padd. 1469.)
 SNOWDEN, ERNEST, 21, New Cavendish Street, W. (After March 12th.)
 WITH, Lieut. P. A., R.A.M.C., R.A.M.C. Mess, Bangalore.

APPOINTMENTS.

ASPINAL-STIVALA, G., M.R.C.S., L.R.C.P., appointed Assistant Resident Surgeon at the Nottingham General Dispensary (Broad Street Branch).
 FISON, J., B.C.(Camb.), appointed Second House-Surgeon to Royal London Ophthalmic Hospital.
 GILLIES, H. D., F.R.C.S.(Eng.), appointed Chief Assistant in the Throat Department, St. Bartholomew's Hospital, and Aural Surgeon to the Alexandra Hospital for Children.
 HODGE, W. H. S., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Nottingham General Hospital.
 MORSE, C. H. G., M.R.C.S., L.R.C.P., appointed Hon. Registrar to the Boscombe Branch of the Royal Victoria and West Hants Hospital, Bournemouth.
 RANSOM, P. W., M.R.C.S., L.R.C.P., appointed Gynæcological House-Surgeon at King Edward VII's Hospital, Cardiff.
 SCOTT, W. H., M.R.C.S., L.R.C.P., appointed Medical Officer to Consolidated Malay Rubber Co.
 WINTER, L. A., M.D.(Durh.), M.R.C.S., L.R.C.P., appointed Police Surgeon at Sheerness.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, etc., have been announced since January 20th, 1914:
 Staff-Surgeon H. B. Hill to the "Highflyer," and for Physical Training duties, to date February 14th, 1914.
 Surgeon L. C. Murphy has been placed on the Retired List, February 12th, 1914.

ARMY MEDICAL SERVICE.

Surg.-Gen. H. G. Hathaway has been appointed a Companion of the Order of the Bath.
 Col. W. G. Bedford, C.M.G., has been promoted to be Surgeon-General and appointed Deputy Director of Medical Services, South Africa.
 Col. F. H. Treherne, V.H.S., has been transferred from Bangalore to the Meerut Division as Assistant-Director of Medical Services.

R.A.M.C.

Majors W. E. Hardy, J. E. Brogden and F. W. Begbie have been promoted to be Lieut.-Colonels; Lieuts. G. O. Chambers and L. F. K. Way have been promoted to be Captains; and Lieutenant-on-Probation R. B. Price has been confirmed in his rank, and appointed to Queen Alexandra's Military Hospital, London.

At the recent examination for commissions in the Corps, at which forty-two candidates competed for twelve appointments, L. R. Shore (3rd) and S. M. Hattersley (6th) were successful.

At the termination of the Junior Course at the Royal Army Medical College last autumn, Lieut. R. B. Price obtained the Parkes Memorial, the Tulloch Memorial and the Herbert prizes, thereby repeating the successes of Lieuts. Dive and Biggar in recent years.

Major C. H. Hopkins has been transferred from the Half Pay to the Retired Pay List on account of ill-health.

Lieut.-Col. J. Girvin has been appointed to the Curragh; Lieut.-Col. O. R. A. Julian, C.M.G., to be Physician-Surgeon to the Royal Hospital, Chelsea; Major C. H. Hopkins to Devizes.

Lieut.-Col. B. J. Inniss has been transferred to India from Mauritius; Lieut.-Col. H. E. Winter has gone to India, as has Captain A. H. Hayes. Capt. T. H. Dickson has exchanged from Gibraltar to India.

BIRTHS.

CANDLER.—On January 28th, at Shenley, Barnfield Road, Exeter, the wife of A. L. Candler, F.R.C.S.(Eng.), of a son.
 FORD.—On January 31st, at Rushmere, Wimbledon Common, S.W., the wife of Frank C. Ford, M.B., of a daughter.
 GAUVAIN.—On January 24th, at 57, Beaumont Street, W., the wife of H. J. Gauvain, M.A., B.C.(Cantab.), of 130, Harley Street, W., and Alton, Hants., of a daughter.
 ROPER.—On February 14th, at 5, Dix's Field, Exeter, the wife of Frank A. Roper, M.A., M.B., of a son.

MARRIAGES.

NICHOLSON—DENTON.—On February 17th, at St. Cuthbert's Church, Ackworth, by the Rector, the Rev. J. L. Bouch, assisted by the Rev. W. Gell, Vicar of Pontefract, Cuthbert John, only son of Mr. and Mrs. Cuthbert Ismay Nicholson, of Nursted Lodge, Devizes, to Jane Luis, youngest daughter of the late Mr. J. P. Denton, of Darlington, and niece of Mr. H. W. L. Fernandes, of Ackworth House, Ackworth.
 SIDGWICK—MILLER.—On February 17th, at the Parish Church, Wimbledon, by the Rev. Allan Bell and the Rev. J. Benson Sidgwick, of Ashby Parva, Leicestershire, father of the bridegroom, Capt. H. C. Sidgwick, R.A.M.C., to Marjorie Molyneux, only daughter of the late Robert Miller, of Wimbledon.

DEATH.

FENOULHET.—On February 16th, at Durban Hospital, Natal, South Africa, Dr. James Peter Fenoulhet.

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: 1436, Holborn.
A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

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APRIL 1ST, 1914

[PRICE SIXPENCE.

CALENDAR.

Wed., April	1.—Examination for D.P.H. (Cambridge) begins.
Thurs., "	2.—Final Exam. Conjoint Board (Midwifery) begins.
Fri., "	3.—Dr. Garrod and Mr. Waring on duty. Final Exam. Conjoint Board (Surgery) begins.
Sat., "	4.—Oxford Lent Term ends.
Mon., "	6.—Second Exam. of Society of Apothecaries begins.
Tues., "	7.—Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., "	8.—Oxford Easter Term begins. First Examination of Society of Apothecaries begins.
Fri., "	10.—Good Friday. Dr. Morley Fletcher and Mr. Bailey on duty.
Sun., "	12.— Easter Sunday.
Tues., "	14.—Dr. Herringham and Sir Anthony Bowlby on duty.
Fri., "	17.—Dr. Tooth and Mr. D'Arcy Power on duty.
Sat., "	18.—Cambridge Easter Term begins.
Mon., "	20.—D.P.H. (Conjoint) Examination begins.
Tues., "	21.— Summer Session begins. Dr. Garrod and Mr. Waring on duty.
Fri., "	24.—Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., "	28.—Examination for Part II of Second M.B.(Camb.) begins. Dr. Morley Fletcher and Mr. Bailey on duty.
Fri., May	1.—Dr. Herringham and Sir Anthony Bowlby on duty.
Mon., "	4.—Examination for M.B., B.S.(London) begins.
Tues., "	5.—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., "	6.—Primary F.R.C.S. Examination begins.

EDITORIAL NOTES.

IT is with very much regret and grief that we have to announce the death of Mr. Bruce Clarke, F.R.C.S., our late Senior Surgeon. He was in fairly good health, and none would have expected this sudden termination of his great career at the comparatively early age of 64. But pneumonia followed an attack of influenza and he died at Eastbourne on Saturday last. It was only in our last issue that we published some of his reminiscences

concerning the old theatre, and we had been hoping shortly for an article from his pen, but that now will never be.

The sad news comes just as we are in press, and it is impossible here to do adequate justice to his memory, but we shall, in our next issue, say more about him, for Mr. Bruce Clarke was here during the great transition of ancient to modern practice. He was one of the great men of St. Bartholomew's Hospital in more senses than one. *Requiescat in pace.*

* * *

Much surprise and interest has recently been aroused by the publication of a widely advertised *Family Encyclopædia of Medicine*, with which were associated the names of a number of distinguished members of the medical profession, including several members of the staff of this Hospital. It was evident from the manner of advertisement that some serious misunderstanding had arisen, and we therefore reprint the following authorised statement, which has already appeared in some other medical journals:

"We are informed that at a meeting of those members of the profession whose names have been associated with the recently published *Family Encyclopædia of Medicine* the following statement was unanimously agreed to: 'As prominence has been given to our names in the advertisements of a book entitled *The Family Encyclopædia of Medicine* we desire to state: (1) That we are in no sense responsible for the plan or the scope of the book in question, or for the manner in which it has been introduced to the public. (2) That our sole connection with it consists in our having obliged a fellow medical man by agreeing to correct, at his request, made to us individually and privately, certain articles which he had in preparation for a book on domestic medicine. (3) We never gave authority for the use which has been made of our names. We may add that we have received assurances from the editor and publishers of the book in question that our names will be removed from such future numbers as are not already in print. It is needless to add that in no case was there any pecuniary consideration.'"

* * *

It is with the deepest regret that we record, in another column, the death of R. E. S. Waddington, which took place suddenly on February 26th, while he was on his way to this Hospital. We wish to extend to his mother our sincere sympathy in her loss.

* * *

The Annual General Meeting of the Abernethian Society was held on March 19th. The Secretaries' Report was read and approved, and a ballot was held for the office of President. The following were elected for the coming year:

Presidents: Mr. G. L. Keynes, Mr. C. W. B. Littlejohn.

Secretaries: Mr. E. Brunton, Mr. P. H. Wells.

Committee-men: Mr. R. L. Kitching, Mr. J. B. Welch.

No nominations were received for the office of Vice-President, who will consequently be elected later in the year.

* * *

Considerable interest has been exhibited in many of the papers read before the Society during the past year, and the attendance at the ordinary meetings has averaged forty. There appears, however, to be a growing dislike among members voicing their opinions, and the discussions have suffered somewhat in consequence. The most discouraging feature during the session has been the small amount of interest shown in the Clinical Evenings. These are an old-established and essential part of the proceedings of the Abernethian Society, and it would be a pity if they should be suffered to die of inanition.

* * *

All Cambridge graduates will have felt some interest in the vote which took place in the Senate House on March 14th concerning the proposed application on behalf of the Medical School for the Government grant to which the School is entitled.

Opinion in Cambridge was very sharply divided, and there was a deluge of fly-sheets. The bogey of State interference was very persistently raised by the *non-placets*. The proposal, however, was approved in the Senate House, though the majority in its favour was not a large one. An annual grant of about £4600 will be the result, and it is clear to an outsider, uninfluenced by the tides of university politics, that the certain advantages by far outweigh the hypothetical disadvantages.

* * *

The volume of *St. Bartholomew's Hospital Reports* for 1913 is just published, and this will be the last of the series to take the form to which everyone has been for so many years accustomed. It is proposed radically to alter its constitution; it will in the future be issued in parts at intervals of three or four months and will contain accounts, as far as possible, of the latest research

which has been done in the various departments of the Hospital. It will be under the control of an editorial committee consisting of Dr. Andrews, Mr. Eccles, Mr. Gask, Mr. Harmer, Dr. Thursfield, and Dr. Williamson.

MEDICAL OUT-PATIENTS.

FROM April 1st the time-table of the Medical Out-Patient Department will undergo a re-arrangement. In future, the Physicians in charge of out-patients will attend at 10.0 a.m. daily, instead of in the afternoons. The times of attendance will be as follows: Monday: Dr. Horton-Smith Hartley. Tuesday: Dr. Langdon Brown. Wednesday: Dr. Drysdale. Thursday: Dr. Horder. Friday: Dr. Langdon Brown. Saturday: Dr. Thursfield.

The times of attendance in some of the special departments have also been altered so that they may fit in with this new scheme. Skin Department: Monday and Wednesday at 1.30. Ophthalmic Department: Monday, Tuesday, Thursday and Friday at 2.30. Throat, Nose and Ear Department: Monday and Thursday at 2.0; Tuesday and Friday at 9.0.

Students are advised to combine Medical Out-patients with the Skin Department and the Children's Department, and Surgical Out-patients with the Ophthalmic, and the Throat, Nose and Ear Departments.

THE SERUM DIAGNOSIS OF PREGNANCY AND OF VARIOUS PATHOLOGICAL CONDITIONS.

By R. L. MACKENZIE WALLIS.

INTRODUCTION.

ABDERHALDEN'S work, extending over several years, has been mainly directed to the influence of foreign substances in the blood, and the reaction of the blood towards such substances. This reaction of the blood forms the basis of the tests devised by Abderhalden for the diagnosis of pregnancy. The blood produces specific ferments for every foreign substance, and these ferments we can detect outside the body by the application of suitable methods. These ferments therefore act as guards to the blood, and I propose to call them collectively the phylacozymes or guardian ferments. In order to comprehend the action of these phylacozymes we must briefly review the more minute processes of protein diges-

tion which can be followed in the gastro-intestinal tract, and also *in vitro* experiments.

The pepsin in the gastric juice attacks the proteins in the foodstuffs in the presence of hydrochloric acid, breaking them up into albumoses and peptones. These latter substances are further attacked by the trypsin in the pancreatic juice, and the erepsin in the intestinal secretion with the formation of peptides and amino-acids. The proteins in the food are therefore reduced by ferments in the alimentary tract, and the resulting products—the amino-acids—constitute the "Bausteine" of Abderhalden. These "building stones" are absorbed into the blood-stream, and each cell takes from the blood amino-acids in proportion to its individual requirements. Over this absorption and distribution of amino-acids the liver exerts a protective influence, preventing any foreign elements from passing into the circulation by acting upon undigested protein. It also controls the quantity of these amino-acids entering the blood-stream. The lymphatic system likewise prevents the entrance of body-cells into the circulation. The existence of such defences makes it possible to keep the blood fairly constant in composition, and also protects the blood from invasion. Any foreign material entering the blood-stream at once excites the production of a specific ferment, which breaks up the foreign substances into the molecules originally entering into their formation. Physiologically the introduction of foreign materials from the alimentary tract produces ferment changes which have a special character according to the chemical nature of the body introduced. An example is the change which cane-sugar undergoes when introduced into the circulation through the intestinal tract. The cane-sugar produces an increase in the ferment invertin which destroys it. Another similar phenomenon is the observed increase of fat-splitting power of the serum after an excessive absorption of fat from the intestine. It will be seen, therefore, that not only does the foreign body give rise to ferment production, but the ferment so produced has a specific nature. Experimental work with these specific protective ferments indicates that they may be used not only for the diagnosis of pregnancy, but also for the diagnosis of various pathological conditions. The invasion of the blood-stream by chorionic villi, malignant tumour-cells, broken-down gland-tissue, bacillary proteins, and, in fact, any foreign cell, is sufficient to excite the production of ferments. The action of such ferments is to digest the foreign cells and return them to the blood in their original state, *i. e.* as the "Bausteine."

Foreign substances are known to produce anaphylaxis, and these are broken down and lose their individuality. The kidney tissue of a dog when introduced into the circulation of a second dog results in the production of a ferment capable of digesting kidney tissue. Therefore, even those substances which actually form part of the normal tissues when thrown into the circulation excite

the formation of ferments which bring about their own cleavage.

Schmorl, Veit, and Weichardt have demonstrated that chorionic epithelium enters the circulation during pregnancy, but they did not state that this change took place during the first month of gestation. That chorionic villi are present in the fertilised ovum in the first month of pregnancy has, however, been proved by Peters, Stahl and Beneke, Brice and Teacher. With this knowledge Abderhalden evolved the two tests for the diagnosis of pregnancy. The presence of chorionic villi circulating in the blood of a pregnant woman as a foreign substance calls for the specific ferment. The serum of a pregnant woman should, therefore, be capable of digesting placental tissue with the production of amino-acids, and this was found by Abderhalden actually to occur. Two tests have been devised, known respectively as the optical test and the dialysation test, and have been subjected to a thorough examination by Abderhalden.

That placental tissue plays a prominent part in the production of a protective ferment has been proved conclusively by Abderhalden, by a number of animal experiments. The serum of a pregnant animal can be inactivated by heating to 60° C., thus demonstrating that the ferment is destroyed by exposure to this temperature. The serum of the foetal blood and foetal tissue, on the other hand, does not contain this ferment. An extract of human placental tissue in salt solution, and also human placental peptone, was injected into dogs, rabbits, and guinea-pigs, either intravenously or intraperitoneally, the blood of normal animals mixed with placental peptone being also used. In the case of the dogs, two injections of 1 grm. of placental peptone were given on successive days, the blood collected eight days afterwards, and the serum tested against placental peptone by the optical method. In every case a breakdown of the placental peptone had occurred. The rabbits received four intravenous injections of 2 to 3.5 c.c. of placental extract, and six days afterwards the serum, when tested, gave a similar result. The same changes occurred in guinea-pigs after injections of 0.6 c.c. of placental extract into a shin vein. These results conclusively proved that a ferment is present in the blood-serum of pregnant animals, capable of detection by the optical method. The presence of this ferment in the blood-stream was further demonstrated by dialysis.

A large number of investigators have since clearly and sufficiently proved the value and reliability of these tests for pregnancy, and an extensive literature has already accumulated upon this subject. The application of the tests to pathological conditions, particularly cancer, tuberculosis, and nervous diseases has also received attention.

THE OPTICAL TEST.

The growing placenta is regarded as the agent providing the foreign protein substances which excite the production

of a protective ferment in the maternal blood-stream. Owing to its proteolytic nature we are enabled to recognise the breakdown products which are the essential factors in both the tests described. The materials necessary are, first of all, the blood-serum of the patient to be examined and a supply of fresh human placenta. The optical test requires the use of a good polarimeter capable of giving readings below 0.01° , and, in addition, special polarimeter tubes for maintaining a constant temperature. After some practice the readings are readily made and differences of rotation determined. The material used upon which the ferment is to act is a 5 per cent. solution of placental peptone. This is prepared by the digestion of placental proteins with acids, the hydrolysis being allowed to proceed to the stage of peptones and then arrested. The placental peptone is prepared as follows: Fresh human placenta is carefully washed free from blood with salt solution and thoroughly macerated. The residue is then treated with sulphuric acid and allowed to remain at the temperature of the laboratory for four days. The acid slowly hydrolyses the proteins present, and this change is on the fourth day arrested by the addition of several volumes of distilled water. The sulphuric acid is then removed by the quantitative addition of baryta water and the resulting dense white precipitate removed by filtration. This barium sulphate precipitate is ground up in a mortar with distilled water and the decanted and filtered extracts collected. The extracts must now be carefully freed from all traces of acid, or barium hydrate, as otherwise the hydrolysis would proceed further and the yield of peptone be diminished considerably. The extract is now concentrated in a large distilling flask heated over a water bath, and in order to prevent frothing the peptone mixture is introduced in small quantities at a time. A thick syrup possessing a yellow colour finally results, and this is dissolved up in warm methyl alcohol. The placental peptone may then be thrown out of solution by absolute alcohol as a fine yellow powder, which is readily soluble in water. For the polarimeter test a 5 per cent. solution of this peptone in salt solution is used, and this is placed in a sterile flask and kept sterilised ready for use. All the materials used throughout the work are also sterilised.

Into the polarimeter tube 1 c.c. of the placental peptone solution is placed, and 1 c.c. of the clear serum to be tested.

The remaining space is filled with salt solution, and the tube is now ready for insertion into the polarimeter. The solution always shows a *laevo*-rotation, and the actual rotation is noted. The tube and its contents are now placed in an incubator at 37° C., and at the end of one hour another reading made. The tube is replaced in the incubator and examined at intervals of from six to eight hours, the examination not extending beyond forty-eight hours in all. As far as possible it is advisable to use the same volume of serum in every test, and the size of the polarimeter tube must not be altered, as otherwise com-

parable results are not obtained. The splitting of the placental peptone into amino-acids produces an alteration in the optical activity of the solution, and the amount of rotation gives an indication of the activity of the ferment present in the serum. A difference of rotation below 0.05° is disregarded, the serum of pregnant women usually producing a rotation of at least 0.2° , and even higher.

THE DIALYSATION METHOD.

The optical method has been proved by Abderhalden to demonstrate the presence of a specific ferment in the blood of pregnant animals. The dialysation method has consequently been devised to detect the end-products resulting from the splitting of placental protein outside the body. For the dialysation test a preparation of placental tissue is required, and this is prepared in the following way: A fresh placenta from a normal case of labour is obtained and carefully cleaned with water or saline. The foetal surface and also the membranes are cut away, and the remaining tissue cut up in small pieces and washed in running tap-water until every portion is quite white. This washing is absolutely necessary, as the placental tissue must be quite free from blood before use. The pieces of tissue are then placed in a large basin containing about ten times their volume of distilled water, two drops of glacial acetic acid added and thoroughly boiled for ten minutes to coagulate the proteins present. The coagulated placental albumen is thoroughly washed with cold distilled water, and again boiled in the same volume of water as before. The filtered extract is now tested with the ninhydrin reagent to determine whether any dialysable substances are still present in the placental tissue, as these would produce a serious error and completely invalidate the test. The ninhydrin test is made upon 10 c.c. of the filtrate with 0.2 c.c. of a 1 per cent. solution of ninhydrin, the mixture being boiled for one minute. A positive test points to the presence of dialysable substances, but in most cases these are usually absent at this stage. The tissue is again washed in distilled water, and then heated with five times its volume of distilled water. In order to detect even smaller amounts of dialysable substances 5 c.c. of the water is tested with 1 c.c. of ninhydrin solution, the test being frequently positive with this amount. The distilled water generally contains small fragments of placental tissue, so that before applying the ninhydrin test to any sample of the washings it is first of all necessary to filter. When the ninhydrin test proves negative the placental tissue is placed in a glass vessel containing chloroform water and covered with a layer of toluol, and stored in a cool place until required. The tissue before actual use in a test is again subjected to boiling in five times its volume of distilled water until a negative ninhydrin reaction is obtained.

It is only in this way that we can exclude dialysable substances in the placental preparation which interfere with the

test. The writer has also found it necessary to make fresh preparations of placental tissue at frequent intervals as the stock material cannot always be relied upon. The placental tissue is obviously one of the most important factors in the test and the greatest source of error. Hence the necessity for exercising the utmost care during the steps in its preparation. The dialysers used in the test are those specially prepared by Schleicher and Schüll and labelled No. 579A, the size most suitable for ordinary use being 16 by 50 mm. These dialysers are allowed to soak in distilled water containing toluol for some days and then tested as to their capability of separating peptones and amino-acids from colloidal substances. For this purpose a preparation of peptone is required, that used by Abderhalden being the "seiden" peptone. The writer has used a peptone solution made from "Darby's fluid meat." Five cubic centimetres of a 0.1 per cent. solution of "seiden" peptone are placed in a dialyser tube and surrounded by 20 c.c. of distilled water contained in a special glass vessel, all the materials being previously sterilised. The vessel is then placed in an incubator for sixteen to twenty-four hours, and then 10 c.c. of the dialysate tested with 0.2 c.c. of a 1 per cent. solution of ninhydrin. A dialysing tube giving a moderate blue colour is accepted as reliable, those giving either a very strong reaction or a negative result being discarded. After passing this test they are carefully washed in distilled water for some weeks and tested in the same way with serum albumen or egg albumen, only those giving a negative ninhydrin test being used. The dialysers can be used repeatedly, provided they are subjected to careful washing after each test and stored in sterile distilled water containing toluol as a preservative. The glass vessels used for the test are provided with a narrow neck and are easily sterilised. They should be of such a size that when the dialyser is in place there is a space of $\frac{1}{2}$ cm. between the dialyser and the vessel-wall. For the test the glass vessel contains 20 c.c. of sterile distilled water covered with a layer of toluol. The serum for the test is obtained in the same way as described for the polarimeter test, and must be quite fresh, as the slightest hæmolysis in the serum is sufficient to produce an erroneous result. The removal of 10 to 15 c.c. of the patient's blood from the median basilic vein when carried out with the usual precautions and the transference of the blood directly into a sterile centrifuge tube generally avoids these sources of error. Since the blood-serum may contain dialysable substances in the form of amino-acids after meals, it is always advisable to remove the blood on an empty stomach. The writer has also found it preferable to take the blood in the evening, as the dialysable substances tend to be reduced in amount when the body is fatigued. The ninhydrin reagent (triketohydrindene hydrate) is now manufactured and sold in 0.1 gm. tubes, in the form of a yellowish-coloured salt, which is readily soluble in water giving a colourless solution. The solution used in the

dialysation test is made up to a strength of 1 per cent. This compound reacts with any amino compound, where the amino group is in the α position to the carboxyl group, and the resulting condensation compound possesses a violet colour. The ninhydrin solution should be kept in the dark and properly sealed, as the reagent rapidly deteriorates, and, further, it is advisable not to keep the solution longer than one week.

METHOD OF APPLYING THE DIALYSATION TEST.

A series such as the following is made up in carrying out the test for the diagnosis of pregnancy :

- (1) Serum of patient (1.5 c.c.).
- (2) Serum of non-pregnant woman (1.5 c.c.)
- (3) Heated placental tissue (about 1 gm.).
- (4) Heated placental tissue + 1.5 c.c. serum of patient.
- (5) Heated placental tissue + 1.5 c.c. serum of non-pregnant patient.
- (6) Heated placental tissue + 1.5 c.c. serum of patient heated to 60° C. for thirty minutes.

In the actual test 1.5 c.c. of serum is placed in a properly tested dialyser together with a small quantity of the placental tissue, and the dialyser surrounded by 20 c.c. of sterile distilled water, toluol being added to both. The whole series of tests as given above are placed in an incubator at 37° C., and allowed to remain for sixteen to twenty-four hours. At the end of this time they are taken out and the dialysates examined separately with the ninhydrin reagent. During the earlier stages of this work the biuret test was used to demonstrate the presence of peptones in the dialysate, but since the introduction of the much more delicate reagent of Ruhemann known as ninhydrin the former test has been discarded. To carry out the biuret test a solution, possessing only a faint blue colour, made up from a 30 per cent. solution of sodium hydrate and a very dilute solution of copper sulphate is used. The solution is placed in a reagent glass, and the addition of the dialysate produces a blue ring at the junction of the fluid. Test No. 4, however, should always give a reddish-violet colour indicating a positive reaction.

The ninhydrin test, on the other hand, owing to its extreme delicacy, requires a much more careful manipulation, and, further, is full of pitfalls. Ninhydrin or triketohydrindene hydrate when heated with peptones and amino-acids forms condensation compounds which possess an intense blue colour.

The sensitiveness of this reagent depends upon the concentration of the reacting substances present, and will show the presence of the amino-acid glycine in 1 part in 65,000 of water and 1 part of the other amino-acids in 15 to 25,000 of water. Further, every protein and protein-containing material will on dialysis give this test—*e. g.* fresh milk, saliva, urine, blood-plasma, lymph, sweat, fresh and

boiled egg-white, fresh and cooked meat, although containing no biuret-yielding bodies. From this list of substances alone it will be clear that all proteins must be purified by dialysis before use. Further, the materials used in the test must not be handled with the fingers, and pipettes must not be placed in the mouth, owing to the danger of contamination with the sweat and saliva respectively. Since hæmoglobin is a diffusible protein when free it follows that hæmolyzed serum cannot be used for the diagnosis of pregnancy.

The solution is made up in distilled water to the strength of 1 per cent., and it is advisable to use moderately fresh solutions, as the reagent does not keep well. To carry out the test 10 c.c. of the dialysate are placed in a clean sterile boiling tube, care being taken to avoid contamination with toluol, and 0.2 c.c. of ninhydrin solution added. The mixture is then boiled for one minute, a boiling stick being inserted to prevent frothing. A positive result is indicated when the solution assumes a blue colour. Carried out in this way the dialysation method gives results which always confirm the optical tests, and provided attention is paid to the details of technique, the test is of value in the diagnosis of pregnancy. Alone, however, the test cannot be said to be of absolute value, as there are still fallacies over which we have no control. As shown above, the sensitiveness of the reagent depends upon the concentration of the reacting substances. Now, if we assume that one unit of substance is required to give the blue colour, the dialysate from the serum of pregnant women must contain one unit or above to give a positive test. In the crucial test we are using two materials, namely, serum and placental tissue. The serum alone may only contain 0.5 unit, and so give a negative reaction when dialysed alone, and similarly the placental tissue may yield 0.5 unit. When, however, the two are mixed together one unit of dialysable substance is obtained without any actual ferment changes taking place, and a positive test results. Again, a serum which has been obtained after a meal will contain an increase of diffusible substances, as much possibly as 0.9 unit, and this, when mixed with the placental tissue, will also give a positive test. Such results have been met with, and a number of experiments have been made in an attempt to eliminate this error. To a certain extent this possible source of error is overcome by inactivation of the serum, as in experiment (6) in the series given above. All that can be said at present is that certain definite rules must be laid down before applying the test. In the first place, the patient must have abstained from food at least four hours previously, and the blood contains less of these diffusible substances giving the ninhydrin reaction. The placental tissues also requires careful preparation, and particularly long-continued dialysis before use.

The sensitiveness of the ninhydrin reaction depends upon the concentration of the dialysate, and also of the reagent

itself. The dialysate from all the tests, therefore, requires boiling for exactly one minute, and the same gas flame must be used so that evaporation is constant in all. The best method of checking this is to use specially graduated test-tubes for the ninhydrin test, and the amount of fluid left in each tube after boiling should be compared.

THE VALUE OF THE TESTS IN THE DIAGNOSIS OF PREGNANCY, AND OF VARIOUS PATHOLOGICAL CONDITIONS.

Having proved that the blood of pregnant women or of recently delivered women contains a ferment specific for placental tissue, and also eliminated to a large extent the possible sources of error in the tests for demonstrating this ferment, the test should prove of value in clinical medicine.

In order to test the correctness of the methods used the sera of fifty cases of women who were known to be pregnant were investigated by the writer. Of these twenty women were either in the last three months of pregnancy or had recently been delivered. In every case the optical test and the dialysation test proved to be positive. The remaining thirty women were in the earlier months of pregnancy, ranging from the eighth week to the fourth month, and all gave a positive reaction with the dialysis test. The optical test was only applied to ten of these cases and was positive on every occasion.

In thirty non-pregnant women the reaction was always negative to both the dialysis and optical methods. These patients comprised women suffering from a variety of diseases, including eight with malignant disease and fourteen with syphilis. The sera of thirty males suffering from various diseases were also tested by both methods and on no occasion was a positive reaction found. A large number of these men suffered from syphilis in its various manifestations.

The test has therefore been applied to 110 cases, in some instances on more than one occasion, and in every instance has proved to be correct.

Not only have these sera been used for the diagnosis of pregnancy, but a number have been tested for malignant disease and tuberculosis by the same test. In eight cases the sera of cancerous patients digested cancer-tissue, but did not digest placental tissue. A larger number of cases have since been investigated by Brockman, working in my laboratory, with successful results. The sera of five cases of tuberculosis have also been investigated by means of the dialysation method, using an emulsion of human tubercle bacilli, with positive results in each case. One case of tuberculous salpingitis gave a positive reaction with the tubercle emulsion, and a negative result with placental tissue. The control sera in ten cases gave negative results to tubercle, including one case of hydrosalpinx, which was proved at operation not to be tuberculous. Repeated attempts to apply the test for the diagnosis of syphilis have failed, there

being no evidence of the presence of a specific ferment in the blood-stream capable of digesting the syphilitic tissue.

The satisfactory results obtained by these tests in the demonstration of a specific ferment in the blood of pregnant women led to the application of the test in the diagnosis of pregnancy in special cases. In all, eighteen cases were investigated for this purpose, and were as follows:

Suspected ectopic gestation 3; pelvic and abdominal tumours where it was suspected that the whole or part of the tumour might be the pregnant uterus, 6; suspected chorion-epithelioma, 3; chorea in a woman of twenty-one 1; heart disease with amenorrhœa, 1; nephritis with exacerbation of symptoms and amenorrhœa, 2; late puerperal sepsis, 2.

The optical test was applied in almost every instance, and gave a correct result. There were, however, two failures in the dialysation method, and these occurred in the two cases of inflammatory adnexal disease, where, unfortunately, owing to lack of material, the optical test was not used. A full description of the clinical history of most of these cases has been given by Dr. Williamson in the *Journal of Obstetrics and Gynecology*, October, 1913.

The tests of Abderhalden have been applied to the diagnosis of pregnancy with favourable results, and the principle upon which they are based has since been extended to the diagnosis of cancer (both carcinoma and sarcoma), tuberculosis, and certain nervous and mental diseases. In connection with the latter some interesting observations have been made upon the proteolytic powers of the serum towards various antigen-like substances, particularly testicular, ovarian, and brain-tissue. The sera of cases of dementia præcox when examined in this way gives very striking results as regards the digestion of the above tissues. The serum of a male patient with dementia præcox will digest testicular tissue, whereas that of a female patient under the same conditions splits up ovarian tissue.

This power of digesting the genital gland-tissues does not apply to cases of epilepsy, hysteria, or manic-depressive insanity. When brain-tissue is used (*i. e.* the cortical tissue of the brain) a positive result occurs in epilepsy, particularly when an attack is approaching, also in severe cases of dementia præcox, and in the majority of cases of general paresis. It would appear from these results that in the Abderhalden tests we have a valuable aid in differential diagnosis in psychiatry, more especially in dementia præcox in its early stages.

The results of the Abderhalden method for the diagnosis of pregnancy, and also some pathological conditions, have so far proved reliable. Many other possibilities of the test are foreshadowed, particularly the diagnosis of infectious diseases as well as of organic diseases in various parts of the body. By this test also we may learn more concerning the inter-relationship of the ductless glands, and the part these organs play in disease.

CONCLUSIONS.

(1) The serum of pregnant women contains a specific ferment capable of digesting placental tissue, and this ferment can be detected from the eighth week of pregnancy until ten days after delivery, both by the optical and by the dialysation test.

(2) That both tests should always be applied to the serum from the same case, and that the accuracy of the results depends entirely upon the most scrupulous care in details.

(3) That the tests appear to be of value in diagnosis, more especially in the following conditions:

(a) The early diagnosis of pregnancy.

(b) The differential diagnosis between fibromyomata and pregnancy.

(c) The diagnosis of ectopic gestation.

(d) The diagnosis of chorion-epithelioma.

(e) The presence of retained placenta.

(4) That there is at present no justification for stating that the serum of pregnant women will digest other than placental tissue.

(5) The tests may be applied to the diagnosis of cancer (carcinoma and sarcoma), tuberculosis, and also in various nervous and mental diseases.

(6) The claims of Abderhalden that the optical and dialysation tests are of value in the diagnosis of pregnancy are established.

A CASE OF SEPARATION OF THE LOWER EPIPHYSIS OF THE TIBIA.

By J. V. FIDDIAN, M.R.C.S.



R. D'ARCY POWER has asked me to place on record a case of separation of the lower epiphysis of the tibia, on account of the comparative rarity of this injury.

The patient, F. W—, a van-boy, æt. 16, was climbing on to his van when his left foot slipped between the spokes of the wheel, and as the van was in motion at the time his foot was severely twisted.

He was admitted with a deformity that looked at first sight like a dislocation backwards of the foot on the leg. There was very little swelling and no eversion or inversion of the foot. Soft crepitus could be obtained. Passive movement at the ankle-joint was painless within a small range. The accompanying skiagram shows the position of the epiphysis before reduction and also the fact that the lower end of the fibula was fractured. Reduction was accomplished under an anæsthetic and after tenotomy of the tendo-Achillis.

Poland records forty-six cases of separation of the lower epiphysis of the tibia, twenty-three of which had also fracture of the fibula.

The great majority of these cases occurred between the ages of nine and seventeen years, and forty-four out of the forty-six were boys.

According to Poland, the force required to separate this epiphysis is very great, much greater than that required to cause a Pott's fracture. The injury is nearly always caused by indirect violence. The prognosis, with careful treatment, according to the same author, is good, firm union with free



SKIAGRAM TAKEN BEFORE REDUCTION.

movement of the foot being the rule. Arrest of growth is uncommon, but is nevertheless recorded in a few instances, and in these the great feature has been marked inversion of the foot owing to the continued growth of the fibula without corresponding growth of the tibia.

Mr. Power's case was discharged to Swanley after three and a half weeks, and at that time there was firm union and free passive movement, though active movement was still weak, presumably owing to the tenotomy of the tendo-Achillis. The notch caused by the separation of the divided ends of the tendon had almost completely disappeared.

BODY-SNATCHERS—AND AFTER.

A PLEA FOR ANATOMY.

PART I.

By ALEXANDER MACPHAIL, M.B., C.M., F.R.F.P. & S.G.,
Lecturer on Anatomy.

OULD any sensible man entrust the cure of his precious chronometer to the hands of a workman who had never before, even in his 'prentice days, probed beneath the face of a watch, or handled its delicate and complex mechanism?

Yet, for many centuries, our fellow-men were content to entrust the cure of their own much more precious interiors to the hands of medical men, whom they persistently debarred, by all the laws of Church and State, from gaining any but the most superficial knowledge of the infinitely more delicate and complex mechanism of the human body.

Indeed, antipathies die hard, and even in our own day there are men, otherwise sensible, who question still the righteousness of the study of human anatomy, and who do all within their power to hamper its progress. It is partly to show that the claims of human anatomy must for ever be heard, and its need served, that certain dark pages in its history are here re-written.

Now the watchmaker and the medical man have this in common, that they are called on daily to deal with patients, inorganic and organic respectively, whose disorders are often but little apparent on the surface, and whose only hope of cure demands an accurate and first-hand knowledge of all their inmost parts. But there is a great difference between them when we come to consider their training: the watch-doctors have always enjoyed the fullest liberty to learn their job; from their earliest 'prentice years they have free access to the whole intricate anatomy of their inanimate patients. The man-doctors, on the other hand, have had to glean the vastly more important knowledge of the enormously more intricate anatomy of *their* patients very gradually, often surreptitiously, through many centuries when the slow progress of the science was hampered, ever and anon, by restraints begotten of superstition and unthinking prejudice.

Even in this our own enlightened day their opportunities of becoming familiar with its fundamental facts are limited to some few months in their 'prentice years. Think of it! while the doctor of to-day can trace his long and noble pedigree straight back, through nearly twenty-four centuries, to Hippocrates, the great father of us all, yet it is only some eighty years since the laws of this land recognised the need of any adequate provision for the medical student to acquire that first-hand knowledge of anatomy, which is indeed the only real foundation of the whole art and craft of medicine.

What, then, took the place of the "subjects" which the statutes of all civilised countries now provide, more or less satisfactorily, for their medical schools? Apes and dogs and pigs, in the hands of Hippocrates, Aristotle and others, in the earliest centuries B.C.; an occasional criminal (and sometimes, 'tis said, a *living* one!) in the hands of the bold innovators of Alexandria, Herophilus and Erasistratus, in 250 B.C.; and apes and the like again, for the most part, in the hands of Galen in the second century A.D. Evidently Galen used these animals to some purpose, for his observations seem to have amply satisfied the non-progressive science which Medicine remained for many centuries thereafter.

It was not till the renaissance of learning in Italy that any great advance was made in the science of anatomy, but in the midst of that glorious age Vesalius, the Father of Modern Anatomy, risked his life—and lost it—in his zeal to utilise every opportunity of probing to their utmost the hidden secrets of the human frame. Up to this time, and, indeed, for some centuries afterwards, the only chance any zealous anatomist of our own country had of seeing the dissection of a human body was to journey abroad to some such school as the "far-fam'd Padua."

As late as the beginning of the eighteenth century the then Professor of Anatomy in the University of Edinburgh confessed to having seen the dissection of a human body only once in two or three years! And yet the worthy men of the Town Council of Edinburgh deserve all credit for having been the pioneer authority in this country to make any provision at all for the teaching of anatomy. As early as 1505 they passed an Act granting the surgeons "the body of one malefactor" annually "to make an anatomic of"—with the cautious addendum, "after he be deid"!

The latter end of the eighteenth century saw a great wave of anatomical and surgical enthusiasm sweep over this country from end to end, with great workers like Knox and Liston in the north and Hunter and Astley-Cooper in the south, towering on its crest. Students began to troop in hundreds to their rooms, clamouring to be taught, and yet the law of the land allowed them nothing more than such occasional bodies as the gallows of the country might provide.

Little wonder that so urgent a demand for bodies led, before long, to clandestine sources of supply! There soon appeared on the scene a Cinderella among the professions—the new craft of body-snatching. We must do these men who practised it fair justice; in literature these knights of the shovel and sack are always heralded as "*professional body-snatchers*." We must do them this further and real justice, too, that, revolting to the best feelings as their doings undoubtedly were, they nevertheless played an invaluable part in that rapid progress of anatomical study which has proved of such lasting benefit to suffering humanity. The new army of professional "body-snatchers," "grabs,"

"resurrection men," or "sack-'em-up gentlemen," as they were variously called, grew rapidly in numbers, and could at one time be counted by the hundreds in the London district alone. Many hundreds more lay scattered in ominous groups at every centre of medical teaching in the British Isles; nor lacked they combination, for it needed but the signal of distress to fly on the battlements of Edinburgh for a heavy-laden coach to creep out of the heart of London at dusk on a long journey over the Great North Road; it needed but a cry for help to rise from the riverside University of Glasgow for a heavy-laden sloop to slip out of Dublin Harbour under cover of night, with her hull full of strangely silent passengers.

It was a dangerous game, but some who played it made much profit out of it, and not only lived happily ever after, but developed so great a pride in their "profession" as to nourish the fond hope that its badge, the grimy earth-stained sack, might fall, like the mantle of Elijah, on to the shoulders of the sons of their loins; thus hoped Jerry Cruncher, sen., in the *Tale of Two Cities*:

"*Father*," said young Jerry, as they walked along, taking care to keep at arm's length and to have the stool well between them, "*What's a resurrection man?*"

Mr. Cruncher came to a stop on the pavement before he answered: "*How should I know?*"

"*I thought you knowed everything, Father*," said the artless boy.

"*Hem! Well!*" returned Mr. Cruncher, going on again and lifting off his hat to give his spikes fair play—"he's a *tradesman*."

"*What's his goods, Father?*" asked the brisk young Jerry.

"*His goods*," said Mr. Cruncher, after turning it over in his mind, "*is a branch of scientific goods*."

"*Persons' bodies, a'int it, Father?*" asked the lively boy.

"*I believe it's something o' that sort*," said Mr. Cruncher.

"*Oh, Father, I should so like to be a Resurrection Man when I'm grow'd up!*"

Mr. Cruncher was soothed, but shook his head in a dubious and moral way. "*It depen's upon how you develop your talents. Be careful to develop your talents and never to say no more than you can help to nobody, and there's no telling at the present time what you may not come to be fit for*." As young Jerry, thus encouraged, went on a few yards in advance . . . Mr. Cruncher added to himself: "*Jerry, you honest Tradesman, there's hopes wot that boy will yet be a blessing to you and a recompense to you for his mother!*"

Remaining with the body-snatcher for a little, as met with in fiction, we return grateful thanks to Dickens and Stevenson for the two notable tales in which the gruesome occupation and something of the domestic life and trials of these men are so faithfully described. The nocturnal trade of Jerry Cruncher, with his poor shame-faced praying wife

and loyal little blackguard of a son, is used with immortal skill to unravel the plot of the *Tale of Two Cities*; the description of his midnight journey to the distant cemetery of St. Pancras, and his mysterious operations there, show how keenly the imagination of Dickens had been fired by what he had read or heard of the doings of the "resurrection-men." Stevenson's tale of the "Body-Snatcher" is also full of circumstantial detail, telling of a raid on the lonely graveyard of a country village near Edinburgh, and in this case, as will appear later, the fertile brain of that Prince of story-tellers had evidently been stimulated by the gruesome facts of an actual recorded occurrence.

Poets, too, have tuned their lyre to sing the grave doings of these men; but the verse is for the most part poor, and the moralising feeble. The immortal Tom Hood, however, did not let them escape the shafts of his merry punning wit:

" 'Twas in the middle of the night
To sleep young William tried;
When Mary's ghost came stealing in
And stood at his bedside.
" Oh, William, dear! Oh, William, dear!
My rest eternal ceases;
Alas! my everlasting peace
Is broken into pieces.
" I thought the last of all my cares
Would end with my last minute,
But when I went to my last home
I didn't stay long *in it*.
" The body-snatchers, they have come
And made a snatch at me.
It's very hard them kind of men
Won't let a *body* be.
" You thought that I was buried deep
Quite decent like and chary;
But from her grave in Mary-bone
They've come and *bon'd* your Mary!
" The arm that us'd to take your arm
Is took to Dr. Vyse,
And both my *legs* are gone to *walk*
The Hospital at Guys.
" I vow'd that you should have my hand,
But Fate gave no denial;
You'll find it there at Dr. Bell's
In spirits and a phial.
" As for my feet—my little feet
You used to call so pretty—
There's one, I know, in Bedford Row,—
The other's in the *City*.
" I can't tell where my head is gone,
But Dr. Carpué can;
As for my trunk, it's all pack'd up
To go by Pickford's van.
" I wish you'd go to Mr. P.
And save me such a ride;
I don't half like the outside *place*
They've took for my inside.

" The cock it crows—I must be gone;
My William, we must part;
But I'll be your's in death, altho'
Sir Astley has my heart.

" Don't go to weep upon my grave
And think that there I be:
They haven't left an atom there
Of my anatomie." *

This international guild of ghoulish workmen was composed for the most part, as can well be imagined, by disreputable or lazy characters who had failed to secure a decent livelihood in any honest trade; but in so large a battalion of workers there were sure to be many, drawn from higher grades of Society, who were ever ready to take a sporting chance of increasing their income "out of office hours," as in the case of our friend, Mr. Jerry Cruncher, the bank-porter, and others, too, who followed the trade mostly on account of the exciting adventures it offered. All, no doubt, were attracted most of all by the high pay, for sums varying from four guineas (the usual charge for a body) to the huge figure of £500 (known to have been paid by John Hunter for the body of Murphy, the Irish Giant), were far beyond the wages to be earned in any ordinary employment.

Most of them have gone their way unrecorded and unknown, *ignoti longa nocte, carent quia vate sacro*—or, in other words, lacking the company of a recording Boswell—but much of the actual *personnel* of two groups of them has been preserved for us by cultured men who knew them well. The one, a motley Edinburgh band, is fully described by Leighton in the *Court of Cacus*; the other, a notorious London gang, absorbs a whole chapter of Bransby Cooper's voluminous *Life* of his distinguished uncle, Sir Astley Cooper.

The Edinburgh group, strange as it may appear, were fond of a joke and took their gruesome trade light-heartedly enough. The very nick-names given to them by the students betokened their willingness to work away in spite of good-natured chaff. Their leader was called "Merry-Andrew," and the others were named—more appropriately—"Spune," which means a spoon of sorts, "Moudiewart," which means grave-mould, and "Screw"—so dextrous was this last in the art of raising bodies. Many good stories are told, in that somewhat rare book, of these men.

The London group is unfortunately unredeemed by any gleam of humour. A very exact record of their mode of life and work is preserved in the remarkable diary written by one of their number, which was presented to the Library of the Royal College of Surgeons by Sir Thomas Longmore, and since published in book form, with much interesting comment, by Mr. James Blake Batley, Librarian of the College. Some of these were men of good education and of considerable ability, but it is very evident that dissolute

* "Mary's Ghost," in *Hood's Whims and Oddities*.

habits had brought them low, and all through the pages of the *Diary* runs the almost daily entry that one or another or all of the party got drunk, or, as he somewhat naïvely spells it, "intoxicated." It was all the same whether they had fared well or ill, as the following entries show: "*Monday, 27th*: At 2 in the morning got up; got 4, took them to Bartholomew's. Tom and Bill got drunk." "*Wednesday, 11th*: Went to the Big Gates to look out; at night the party went to the above place and again miss'd; all got drunk." "*Monday 24th*: Bill, Jack and Tom and Ben with Nat Ure getting drunk, oblige to come home in a coach."

It is therefore not surprising that, when they roamed abroad in the dark early hours of the morning, they occasionally proved to be "off their game," as witness such entries as: "Could not get horse out of stable"; "Jack all most buried"; "Butler horse and cart taken"; "Coming back with ladder Bill got taken unto the Watch House." We read, however, that the unlucky Bill got clear all right the next day, and by night was once again down on the old trail by St. Bartholomew's Churchyard.

However, in their sober intervals they would appear to have been not without compensations for the trying nature of their work; in one entry the party figures as having fore-sworn the nightly prowling for the pleasures of the Dance, and visits to the Play or to the Fight are recorded several times.

There were frequent quarrels among them, mostly on the score of the division of profits, and the harmony of this particular band would be disturbed for a time by its fission into several jealously competing cliques, plotting to spoil each other's pitch—sometimes by stealing, sometimes by so mutilating the harvest of the night as to render the bodies useless for the schools, and even, at the worst, by turning informers and actually landing their erstwhile colleagues in the hands of the police.

The "terms" of the "profession" were strictly "cash on delivery" plus two substantial payments in the way of a retaining fee—one at the beginning and one at the end of the School terms. In one page of the *Diary* it is recorded that "goods" to the number of "15 large and 1 small" were secured in St. Pancras Cemetery in one night, and two more the next day, and all taken to St. Bartholomew's. Surely the demonstrators of operative surgery must have gone about wearing a less anxious look in these golden days! Ben Crouch, the leader of the gang, declared, in his evidence before the Committee of the House of Commons, that he had handled as many as twenty-four bodies in four nights. Another of the gang, having by an ingenious ruse gained entry into the vaults of a chapel, in one night secured a haul of teeth for which alone he was paid the sum of £60.

There is little wonder that drink ran free and that quarrels were rife among this evil camaraderie, or even that, in spite of large sums so easily earned, we find the diarist, at the end of a blank night, thus cursing their ill-

luck—"which was a very bad thing for us, for we wanted some money to pay our debts to several persons who were importunate."

On the other hand, it is all the more extraordinary to find two of the gang coming through the sea of dissolution pictured in the *Diary* with something laid aside for the proverbial rainy day: Ben Crouch, their leader, with the money he had made built a large hotel at Margate, and another of them, Jack Harnett, at his death left nearly £6000 to his family!

The writer of the *Diary*, Naples, the son of a respectable stationer and bookbinder, who had himself seen active service on one of His Majesty's ships of war, shows great caution from beginning to end, never mentioning the word cemetery, corpse, body or hospital. The graveyard he calls the "*Crib*," the contents of the rifled coffins he calls either simply "*1 large*" or "*2 large and 1 small*," as the case may be, sometimes with the letters "*M*" or "*F*" to designate the sex, and sometimes with a hint of rude diagnostic power, such as "*1 Large Yellow Jaundice*"; more succinctly still the body is sometimes referred to as "*The Thing*," or simply as "*It*."

Though the word "Hospital" is never used in describing their destination, the oft-recurring names of Bartholomew, Guy's, St. Thomas's, leave no doubt on this point. It would appear, from the large number of bodies that are recorded as being taken to St. Bartholomew's, as well as by the frequent note of their removal thence next day to other schools, that somewhere within the precincts of this ancient institution some obscure but capacious out-house had been placed more or less officially at the disposal of these indispensable general providers, to be used by them as a professional clearing-house. The very last entry in the *Diary*, in fact, reads thus: "Saturday, 5th December, 1812: Remained at Bartholomew* all day packing up for Edinboro. Sent 12 to the Wharf for the above place."

Many famous names figure in the debit side in the rude invoices in which the *Diary* abounds—Charles Bell, Astley Cooper, John Taunton, Abernethy, Stanley, and Dr. Carpue.

This was no work for weaklings, and the body-snatchers as a rule were big, powerful men, capable of great physical endurance, and necessarily endowed with considerable pluck and daring. Merrylees, the leader of the Edinburgh gang, is described as "a man of gigantic height," and Ben Crouch, the most noted of the London group, as "a tall, powerful, athletic man (with coarse features, marked with the small pox), and well known as a prize-fighter." Their work had always to be done in the early hours of the morning, often at great speed and often under the most disagreeable conditions of weather and surroundings. They required much sharpness of wit to avoid detection and untimely interference at the hands of the alarmed friends of the dead or from the arm of the law; but in this last regard there can be no doubt that "The Law" was somewhat given to

winking at a practice which its pillars fully realised was not wholly bad, if not actually wholly *good*, in light of its ultimate application. There seems no doubt that the arm of the Law could have stifled this profession in its infancy, or, at any rate, could have suppressed its sturdy adolescence, had it been inclined to rigorously police the happy hunting-grounds of the "sack-'em-up gentlemen."

These men had also to face and overcome the natural repugnance and the common superstition with which the bodies of the dead used to be regarded. Many amusing tales are told of the trying ordeals they sometimes had to go through, trials through the discovery of demented relatives mourning by the grave, trials by the sudden tread of four-footed intruders nosing their quiet way in search of fresh pasture between the tomb-stones, trials through the sudden flash of lightning and crack of thunder, and trials of many a more innocent origin, all calculated to strike terror to the already over-strung nerves of the novice.

In the *Diary of a Late Physician* Warren gives a graphic description of a raid on a country churchyard with the object of securing a pathological specimen of unique interest, in which the enterprising doctors engaged the services of a noted body-snatcher, and saw their dangerous expedition nearly wrecked through a few natural but unlooked-for incidents working up the brain of this highly superstitious expert into a state of panic.

Many stories are told of expeditions nipped in the bud or foiled on the eve of fruition through the superstitious fears of the participants. One concerns two body-snatchers who, caught in a rain-storm when driving back with their prize to a city in the north, sought the shelter of a roadside inn. Leaving the body safe, as they thought, in the sack in the bottom of the cart in the stable-yard, they regaled themselves in the warm parlour. They lingered long enough to give some loafers in the yard time to whet their curiosity as to the contents of the cart. There was no uproar when those stood revealed, for the nature of the business was only too well known, and these honest hostlers and their friends took no steps to interfere with the probable destination of the corpse, till a bright idea struck one of the crowd who was due that night to tramp the long weary miles back to the city; inducing the others to help him to take the quiet occupant out of the sack in he got himself, and was more or less comfortably fixed up by his confederates; in due course the body-snatchers emerged from the inn and drove briskly off, with the precious burden propped up between them on the seat of the cart. But all did not go well. Both men, without saying anything for a while, were beginning to feel uneasy, till, finally, one could keep silence no longer. "Man, Sandy," said he, "it's a queer thing the corpse feels warm, and is like to be getting warmer a' the time." Forthwith came a sepulchral voice from the depths of the sack: "If you had been where I have been these seven nights past you would be getting warm too!" The

terrified tradesmen waited to hear no more; leaping from the cart in horror they left the well-satisfied "corpse" to direct the horse at his own sweet will to the particular road-end where he wished to alight!

On another somewhat similar story, also from the North, R. L. Stevenson no doubt based his tale of "The Body-Snatcher." The wife of a farmer in a small village near Edinburgh died and was decently buried in a lonely little kirk-yard on the moor. Some days afterwards, on going to visit the grave, he was horrified to find the body of his wife lying by the roadside, covered only by her dishevelled shroud. His suspicions that this had been the work of body-snatchers were quite right, but he probably never knew the real story of how she came to be there, though in the course of time it became widely current among the students. The burial in the lonely graveyard had not escaped the Intelligence Department of the Medical School—be sure they kept a sharp eye on all such doings in these days!—and three students set out by themselves in a gig one dark night on an adventure of body-snatching. They drove up as near to the grave as they might and then stole cautiously towards it on foot. They were amateurs at the work, but success attended their efforts till they found that the necessary sack had been left behind in the gig. As dawn was beginning to break, one of them volunteered to hasten their return by hoisting the body on to his back by means of the shroud, and all hurried back to the gig. The burden-bearer, lagging last and clinging firmly to the shroud, had, however, a less secure hold of the corpse than he thought; for, gradually slipping downwards through the shroud, the feet of the poor woman at length reached the ground and rebounded thence a time or two in step with the hurrying feet of the bearer. The sudden conviction of life at his heels fired his strained nerves to frenzy, and "uttering a roar," says the chronicler, he threw his burden off and crying to his friends "By G—, she's alive," rushed for the gig, jumped in with his companions, and all drove off in terror. There seems little doubt that this story, given as authentic in Leighton's *Court of Cacus*, gave origin in Stevenson's fertile brain to the still more weird conclusion of his well-known tale.

"*Cherchez la femme*" is an oft-quoted aphorism in history, and a passing reference may be made to the part played by women in the story of the body-snatchers. To the credit of the sex it has to be said that no record is to be found of women at any time plying this trade independently of men. But there is, unfortunately, no doubt that the wives of Burke and Hare, who, coming later in history, were the direct successors of the body-snatchers, were actually the willing accomplices of these villains in the dreadful murders which they committed in Edinburgh. Nor is there any doubt that the wives of the regular body-snatchers were, for the most part, quite aware of the loathsome trade of their spouses. In London, at any rate,

where the clay soil, accumulating on boots and clothes, made these unfit to be seen by day, the devoted wife must sooner or later have been let into the secret. It may be remembered that Jerry Cruncher's clay-soiled boots are among the "properties" faithfully adhered to by Charles Dickens. The women, however, were not all so ashamed of their man's trade as was Mrs. Cruncher; on the contrary, they sallied forth and gave a helping hand in it. Clad in deep mourning they would scout the graveyards, marking the position of the spring-guns and such-like precautions devised by alarmed relatives to foil the nightly depredations. Similarly clad, they would sneak to the bedsides of the dying in the workhouses, professing kinship and claiming the corpse. In his confession, Bishop, one of the body-snatchers who turned murderer, describes the part played by the wife of Williams, who was his accomplice in three dreadful crimes. After describing how they packed the body of their victim into a trunk, he says: "I told Shields (a porter) he was to carry that trunk to St. Thomas's Hospital. He asked if there was a woman in the house who could walk alongside of him so that people might not take any notice. Williams called his wife up and asked her to walk with Shields and to carry the hat-box we gave her to carry. There was nothing in it, but it was tied up as if there were. We then put the box with the body on Shields' head, and went to the hospital, Shields and Mrs. Williams walking on one side of the street and I and Williams on the other." What a gruesome procession was this for the wayfarers of the Strand to feast their curiosity on, had they suspected the nature of the contents of the box moving slowly onwards through the crowded street.

In my student days in Glasgow we used to remark that if ever there was a street row of anything more than normal dimensions timid folk on the fringe of the crowd could always be heard to say, "Oh! it is the students!" with an inflection in the tone of voice which manifestly implied the corollary, "May the Lord help us!" I suppose there was this germ of truth at the bottom of the remark that it *is* really part of the student's temperament when there is a row going on anywhere to join in it if at all possible.

Surely the medical students of the period now under review might be relied on to join fervently in a fray wherein success meant so much to their teachers and themselves. Here was a ploy calling for considerable physical strength and offering great scope for the genius of artful dodging—well calculated to give full vent to the pent-up energy and strategy which spend themselves, in modern times, in the Hospital Cup-Ties! Little wonder, then, if the older representatives of the species must bear the soft impeachment that they, too, were often to be found swelling the ranks of the body-snatchers! Though never in actual league with any of the gangs of "professionals," they learned their methods, and soon became apt undergraduates of the craft.

Probably the palm in this regard must be awarded to Liston, the famous surgeon, who, in his student days in Edinburgh, performed prodigious feats of daring and strength in pursuit of this calling. The City Watch discovered him one night, with a party of medicals, busy at work. The watch were armed with guns, and did not stint to use them, but Liston, nothing daunted, laid hold of two large adults, that moment disinterred, and carrying one under each arm made good his escape.

Lonsdale, who records this and several other heroic incidents in his *Life of Robert Knox*, pays this tribute to Liston as a body-snatcher: "He was a Napier in action, bold, dexterous, aye ready and in the van of danger, and single-handed equal to any three of the regular staff of workmen."

That his contemporaries "across the water" did not lag behind in daring is shown in the evidence given before the Committee of the House of Commons by Professor Macarteny, of Trinity College, Dublin, wherein he stated that "the resurrection men go provided with firearms, and are frequently accompanied by several students armed in the same manner."

The dangers involved might well be counted on to make the work attractive to the students, but these sometimes led to tragic results. MacGregor, in his *History of Burke and Hare, and of the Resurrectionist Times*, records such in the case of a raid on a Glasgow churchyard. Three students arriving there in search of a body found the graveyard plentifully sprinkled with trapguns, and had not gone far before one of their number, stumbling over a gun, was instantly killed. When his companions saw that he was dead they were horrified, but the fear of discovery led them to adopt an extraordinary method of taking away the body of their unfortunate friend. They placed the dead man on his feet, propping his body against the cemetery wall, while each tied a leg to one of theirs, and, taking the corpse by the arms, passed slowly along the dimly lit street to their lodgings, shouting and singing as if they were three roysterers returning from a carouse!

With regard to the part played by the London students, Bransby Cooper states, "The hospital students would occasionally join the depredators in their nightly exploits. They were, however, most frequently kept apart from the more important operations, being employed either in looking out or some subordinate occupation, never, so far as I know, being allowed to engage themselves actively in the proceedings at the grave."

One can well imagine some hefty "forward" of a hundred years ago "turn in his grave" at this impeachment of his "activity," questioning its veracity by some more or less classical ejaculation! It certainly will not appear likely to anyone knowing the breed, that, with such sporting adventures afield, with lanterns, trap-guns, blunderbusses, pistols in the air, the Hospital student of that time always played

so subordinate a part as Mr. Bransby Cooper would have one believe! In support of this doubt, one need only look across the narrow street which separates the Abernethian Room of St. Bartholomew's Hospital from the grave-yard of St. Sepulchre's and contemplate the imposing Watch Tower there: the solid architecture and commodious apartments of the Tower (erected in 1791) certainly suggest that their nearest neighbours at any rate did not repose the same simple trust in the young Abernethians of that far-off day!

One group more completes the ranks of this medley army, namely, the sextons and keepers of grave-yards and vaults. These, if not actively in league with the body-snatchers, were often easily "squared," either at once by the offer of drink or by the promise of a share in the profits. Quickly and quietly as the body-snatchers worked, it is impossible to imagine them successfully removing such large numbers of bodies as are recorded, in one night, without the security and protection gained by the connivance of these officials. Indeed, it is well known that some of the most noted Resurrectionists graduated as respectable sextons and watchmen.

Now as to the methods employed: these no doubt varied in different parts of the country, but none have been so minutely described as those of the most notorious of the London gangs, partly in the *Diary* already referred to and partly by some of their employers, to whom, when the game was up, they afterwards made full confession.

First came the systematic vigil by cemetery gates, day by day, in little groups of two or three; the "look-out" they called it; sometimes an isolated member of the gang would fall in with a funeral and cautiously stalk it to its lair. "*Thursday 22nd,*" enters one succinct diarist, "*followed a black from Tower Hill, came home and met at White Horse: the party, except Butler, went to Lambeth.*" Sometimes the Resurrectionists were saved these preliminary anxieties by being sent by their well-informed employers to some distant town, frequently more than a hundred miles away, to secure some specially desirable prize—some unique pathological or post-operative subject of whose death they had been advised. Bills which have been preserved by Sir Astley Cooper's biographer show that on such occasions the minions "did themselves well," charging £3 12s. for "Coach for two there and back," 6s. for "tips to Guards and Coachmen," and £1 14s. for "Expenses," in addition to their professional fee. But the "other side of the shilling" is shown in another of Sir Astley's bills—"Paid Mr. — half the expenses for bailing Vaughan from Yarmouth £41 7s. Paid Vaughan's wife 6s., ditto, Vaughan for twenty-six weeks' confinement at 10s. per week, £13." Poor Vaughan had evidently lagged behind and been made to suffer for the sins of the rest of the party, but it would be some additional compensation to him when he was duly returned to the bosom of his family and to the counting-

house of his confederates, to draw his overdue share of the £57 14s. which Sir Astley had had to pay the three villains who got away safely with the subjects. The four subjects thus secured accordingly cost that distinguished anatomist the good round sum of £86!

The hour selected by these grim birds of prey for their ghoulish enterprise varied, of course, with the time of year and their carefully fore-gained knowledge of the times and phases of the moon as well as of the times and habits of the police and watchers; hours ranging from 11 p.m. to 3 a.m. are mentioned in the *Diary*.

So, too, the *impedimenta* of the expedition varied with the extent of the harvest they anticipated. For two or three "large" and "small" a corresponding number of large, coarse canvas sacks were sufficient, and in addition to shovels, a hefty crowbar and ropes. Bradawls were usually included in the outfit, too, to extract, possibly, a marketable quantity of teeth from subjects whose condition was otherwise too disappointing for words! The body-snatchers were known, as has been seen, to be strong, powerful men, and by these simple means were able to get their prizes quickly removed to a place of safety.

But when a larger "haul" was in the wind, or when a greater distance had to be travelled than a man could carry the laden sack on his back or head, a light cart and horse were added to the sinister procession.

Arrived at the grave-side, their mode of proceeding to work varied, of course, with the nature of the soil and the interval that had elapsed since the burial of their quarry. If the grave was recent and their aim to secure a single subject, they quickly dug a narrow shaft, wide and deep enough to give one of their number easy access to the exposed end of the coffin; breaking open the lid, the "man down below" then inserted the crowbar and levered up the whole lid with its superincumbent weight of undisturbed soil, freed the body from the shroud, slipped a rope under the neck or armpits and gave the word to "haul away."

Scrupulous care was usually taken to leave the shroud in the emptied coffin, and this was accounted for by the curious fact that, while, in the eye of the law, the procuring of the body was simply a *misdemeanour* and therefore punishable only by lighter terms of imprisonment, the removal of a single shred of the shroud, on the other hand, constituted a theft of property, which, if proved against them, laid them open to the much heavier scale of punishment awarded for a *felony*.

The really ingenious *praxis* thus devised by them was a great saving of time both in digging out and in filling in, and made it an easy matter to leave the surface of the grave showing little or no trace of the speedy resurrection that had been carried out. The entire proceedings, in the hands of an expert and under favourable conditions, were said to have occupied less than a quarter of an hour. But where the earth over the coffin was more solid, or where several

coffins had been buried in one grave (as was often done in the case of pauper burials) there was often nothing for it but to dig the whole coffin clear. In such cases, too, they were credited, especially when dealing with gravelly soil, with a special way of working their spades so as to throw the earth out of the grave with a minimum of noise.

Simple as these operations may seem they required considerable practice as well as the resolute preliminary victory over all the natural feelings of revulsion and superstition.

Gradually these methods became so well known as to lead to equally ingenious counter-moves on the part of the *anti*-body-snatchers, who, not content with keeping up for hours a weary watch in the wet and cold, blunderbuss in hand, by the fresh graveside, or, not content with the greater comfort and snug fireside gained by building substantial watch-towers on cemetery-walls, with spring-guns spread among the graves to keep them on the alert to any goings-on outside, sought by various other means to foil their foes of the prey.

Thus, on the freshly made grave odd articles, such as flowers or oyster-shells, would be placed, apparently haphazard but really in carefully noted positions.

But the body-snatchers again would check each move in turn.

If they found their "pitch" populous with watchers, they were content to outweary them, hanging around in the dark, biding their time like vultures watching for the last sign of life to depart. If blunderbusses were anticipated, powder and shot could be met with powder and shot; and many exciting tales are told of resounding "general engagements" of this kind.

They learned to send their wives, clad in deep mourning, to the graveyards at dusk, just as the gates were closing, to draw the teeth of the dangerous trap-guns; they themselves became wise to note the exact position of all extraneous objects and to replace them carefully exactly where they had been deposited.

Driven to desperation by the persistent way in which these minor obstructions were overcome, recourse was at length taken in many cases to more really effective precautions. In the Greyfriars churchyard at Edinburgh grim reminders of these days of panic are still to be seen in the shape of huge cages of strong iron bars mortised securely in the stonework of deep-set graves, and in Mr. Bailey's interesting introduction to the *Diary of a Resurrectionist* there is figured a much-advertised patent wrought-iron coffin, with strong iron clamps fit to withstand the leverage of the most powerful crowbar, the whole so nicely calculated as to strike despair in the heart of the most virile body-snatcher the imagination could picture.

Nevertheless, precautions such as these did little to abate the zeal or diminish the ever-increasing profits of this enterprising "tradesman in scientific goods."

One event, however—and one alone in this stage of his

history—was every now and then lying ready to strike dismay in his heart; an event more potent than any of the inventions of man, and that the natural process of decay, which so often foiled his labours just when he hoped they had reached their fruition. There was nothing left for him then but to pack up and get back to bed for the few remaining hours of the night; on one occasion he is known to have satiated his disappointment by the following brief entry in his oft-quoted *Diary*: "Friday 7th Feb. 1812. Met together me and Butler went to Newington. *The Thing Bad*!"

CLINICAL JOTTINGS.

NO. XXII.

By SAMUEL WEST, M.D.

LOSS OF WEIGHT IN VISCERAL CANCER.



HE loss of weight in visceral cancer is sometimes astoundingly rapid. Thus I have seen a man of about 12 stone with cancer of the liver lose half his weight in three months, at the rate, that is, of nearly one pound a day. Such rapid emaciation as this is very rare.

Appearances may be deceptive. Thus I remember a woman with cancer of the spleen who was enormously fat for her height and weighed 16 stone at the time of her death. Yet she had lost 4 stone in as many months.

Loss of weight more or less rapid is, of course, characteristic of cancer, yet patients who are ultimately proved to have visceral cancer by post-mortem examination may retain their weight unaltered for months together, or even after having lost weight may, when carefully nursed, regain much that has been lost. This latter is most frequently seen in cancer of the stomach, where, from want of proper assimilation of food, the emaciation of starvation is added to that incidental to the disease. Careful feeding and treatment may remove the former, and so the nutrition is improved and weight increased.

MOUTH TOILETTE IN SEVERE ILLNESS AS A MEANS OF PREVENTING MANY COMPLICATIONS.

Many of the complications of severe disease are preventable. This is obvious if we consider that they are comparatively rare in hospitals, where the nursing is good, and only common where the conditions are unsatisfactory.

Bed-sores, for example, were not at all uncommon years ago when nursing was less understood. In case of nervous disease, under the then dominant theory of trophic lesions, they were regarded as the almost natural consequence of the lowered vitality of the tissues and as almost unpreventable and incurable. Their frequent occurrence was

often quoted as proof of the existence of trophic nerves—a splendid example of arguing in a circle.

Not only were bed-sores common then, but patients not infrequently died of them.

Now, with proper nursing, bed-sores are hardly ever seen, and if patients are admitted into hospital with them they are readily cured.

The constant attention to prevent and cure them in some cases of course makes heavy demands upon the nurse; but if bed-sores develop it is generally due to want of care. The nurse should be held responsible and blamed as she deserves.

Cystitis is another case in point. This also was once regarded as more or less unavoidable, but we now know that it is generally the result of either neglect of catheterisation or of the ordinary antiseptic precautions.

The group of complications, however, to which I wish specially to refer is that which is the result of want of proper care of the mouth, for this connection is not so generally recognised.

In many cases of grave illness, especially if associated with fever, the tongue is heavily coated. Most of these patients lie on the back and breathe through the mouth, with the result that the mouth and tongue become dry and caked.

The air inspired brings with it germs of many kinds which grow readily under the conditions present.

The fur consists of inspissated epithelium, mucus and saliva, mixed with remains of food, and teems with bacteria. The breath becomes very foul and offensive from the putrefactive decomposition which takes place, so that the condition well deserves the name given to it of sordes or filth.

Sordes has been described as if almost a necessary part of severe fever, yet it is accidental, not essential, and can and ought to be largely prevented and cured by appropriate treatment.

If the air inspired passes over such foul surfaces what more likely than that it should carry infection to the lungs, and set up inflammation there—pneumonia as it is commonly called, though the infecting germ need not be the pneumococcus only. This is especially liable to occur in children where the inflammation is of the patchy multiple bronchopneumonic type.

Some of the foul products will be swallowed, and may then set up infective irritation, and thus impair appetite, cause vomiting, or excite various troubles both in the stomach and intestines, while the absorption of putrefaction products from the mouth and pharynx as well as from the gastro-intestinal tract may produce toxic symptoms and greatly aggravate the patient's general condition.

Again the infection may spread directly to the various passages which are in connection with the mouth and pharynx. The commonest Eustachian inflammation with

otitis media as its consequence is most likely to occur where the pharynx is gravely involved as in scarlet fever and diphtheria, but it is frequent enough in all fevers alike both in children and adults.

The posterior nares may be involved, and from thence the lachrymal duct, or the infection may extend upwards through the cribriform plate to the meninges, and excite acute meningitis, the origin of which it is sometimes so difficult to account for.

If the parotid duct be involved, swelling or even abscess of the parotid gland may result.

The curious association of parotid affections with diseases and operations of the abdomen is probably explained by the fact that in such cases the patients lie on the back, breathe through the mouth, have a very restricted diet and nothing to masticate, so that the mouth is not kept moist and cleansed by the saliva and movements of mastication. When patients are well enough to notice it, much discomfort is produced by this dryness of the mouth, which is not relieved by the mere drinking of water. A dry powdery biscuit given to munch once or twice a day is a great enjoyment, and goes far to remove this complaint.

All these complications may be referred to the condition of the mouth, and can all be easily and largely prevented by systematic mouth toilette.

The mouth should be treated as it is in babies, washed out with a piece of rag or flannel after every feed, or, at any rate, three or four times a day, to get rid of the remains of milk or food, and afterwards rubbed all over with an antiseptic mouth-wash, containing, for instance, glycerine and borax or chlorate of potash.

Simple precautions such as these—that is, mouth cleanliness and disinfection—will go far to obviate many of the complications referred to. In cases of severe illness it is as important to look carefully to the mouth as it is to the back or the bladder.

OBITUARY.

R. E. S. WADDINGTON, M.R.C.S., L.R.C.P.

Entered Hospital, October, 1905. Left, January, 1914.

Died, February 26th, 1914.

THE news of Waddington's sudden death came as a great shock to his many friends at the Hospital, where he was so well known and liked. He had been especially prominent in games at the Hospital, having been in the Rugby Football Cup Tie team in 1911, Secretary and Captain of the second Rugby fifteen, and Secretary of the Boxing Club. At the time of his death he was acting as Assistant Medical Officer of Health for the Willesden District. We wish to express our sincere sympathy with his relations in their great loss.

THE CLUBS.

RUGBY FOOTBALL CLUB.

RUGBY FINAL.

ST. BART'S v. LONDON.

The Hospital Rugby Final ended in an easy victory for London by 2 goals, 2 tries (16 points) to *nil*.

This score does not represent the game from the point of view of



territorial advantage, as mainly by the good work of the Bart.'s forwards the game was of a mid-field character. The London backs, however, were so much faster and more experienced than ours that only sterling defence prevented a larger score. Dive, at full-back, made several blunders, which proved costly, but his position behind a slow three-quarter line was unenviable.

The three-quarters as a whole showed no scoring ability, the ball on several occasions travelling across the line without any ground being gained.

The half-backs gave their three-quarters a good service of the ball early in the game, but later went to pieces, Kindersley being slow and easily outplayed by his opponent and Williams unfortunately was completely out of form, being often tackled with the ball. Collectively the forwards were good both in the scrum and in the loose, Mudge and Joyce standing out, the former making some brilliant tackles and showing exceptional speed.

The tackling of the team as a whole was excellent, besides Mudge, Eberli, Williams and Hodson being best. The latter's kicking was also conspicuous, being the only back to kick with any judgment, the rest being erratic, and consequently gave their forwards more work than was necessary.

For the first fifteen minutes Bart.'s pressed the forwards, time after time getting the ball. At length Dive, misfielding a kick, let in the London three-quarters, and good play by Watson and Stewart resulted in Stewart cross-kicking, from which London scored in a good position; the try was converted.

Play continued even for some time, but then Watson, intercepting a wild pass, made a fine run and scored, Wilson just failing to reach him.

Half-time: London, 8; Bart.'s, 0.

From the re-start Bart.'s again pressed, a fine dribble by Fiddian and several good combined forward rushes being noticeable.

From a fine kick by Hopkins the play was transferred to the Bart.'s "25," and from a line-out a London forward got over; this try was not converted. In the last minute of the game another brilliant run by Watson ended in a score behind the posts, a goal resulting.



Final score: London, 16; Bart.'s, 0. The teams were as follows: ST. BART.'S XV.—H. R. Dive (back); T. Higgins, W. F. Eberli, R. Hodson, W. E. Wilson (three-quarters); C. E. Kindersley, R. H. Williams (halves); J. V. Fiddian, J. B. Mudge, R. L. Kitching, E. J. Bradley, H. C. C. Joyce, J. Pearce, G. F. Juckes, C. W. B. Littlejohn (forwards).

LONDON HOSPITAL.—Hopkins (back); Stewart, Watson, Powell, Batchelor (three-quarters); Morris, Rowlands (halves); Russell, Brown, Hartgill, Atkinson, Molesley, Deighton, Crouch, Dev (forwards).

ASSOCIATION FOOTBALL CLUB.

SEMI-FINAL OF THE INTER-HOSPITAL CUP.

ST. BART.'S HOSPITAL v. UNIVERSITY COLLEGE HOSPITAL.

This cup-tie was played at Chiswick on Tuesday, February 24th, and resulted in a win for Bart.'s by 7 goals to *nil*.

As Bart.'s won the toss, U.C.H. kicked off, and for a short while gave the opposing defence a good deal to do. Bart.'s, however, soon rallied from the attack, and Bailey taking the ball up the wing sent in a good centre to MacFarland; he, however, passed it back to Braun, who easily scored.

Shortly after this U.C.H. made a vigorous attempt to equalise, and but for the good display of Mack in goal they certainly would have done so.

Just before half-time Braun made a good attempt to head in a corner kick from Courtis, but the ball went over the bar.

In the second half Bart.'s had most of the game, and our second goal was scored by Bailey off a centre from Courtis. This was very soon followed by two more for Bart.'s by MacFarland.

After this although U.C.H. made one or two good attempts to pull

up, the Bart.'s backs were too strong for them, and they began to show signs of being played out.

Shortly before the end of the game three more goals were added for Bart.'s, the first two by Braun, and the third by MacFarland.

Bart.'s showed very good form in the match, and should do well in the final. Bailey at outside left was excellent.

The following represented Bart.'s:

R. G. Mack (goal); E. G. Dingley, J. W. Stretton (backs); K. D. Atteridge, G. D. Jameson, G. M. Cowper (halves); A. O. Curtis, J. B. MacFarland, L. Braun, R. H. Maingot, T. B. Bailey (forwards).

ST. BART.'S HOSPITAL v. THE CASUALS.

This match was played at Winchmore Hill on Saturday, March 14th, and resulted in a win for the Casuals by 3 goals to 2.

Bart.'s kicked off against the wind, which was blowing very strongly down the field, and for the first half the Hospital defence had about as much as it could do to keep the visitors out. After about the first ten minutes of play, Green, the Casuals' centre-forward, got away on his own and scored. Shortly after this the Hospital equalised through Braun, the ball just falling over the goal line.

In the second half the rain came down in torrents, and the wind increased to such an extent that the game became very scrambling. Curtis, however, added another goal for the Hospital, but after this the Casuals rallied, and in spite of the wind made several attacks on the Hospital goal, two of which were successful.

The following represented the Hospital:

R. G. Mack (goal); E. G. Dingley, J. W. Stretton (backs); K. D. Atteridge, L. Blair, G. M. Cowper (halves); A. O. Curtis, J. B. MacFarland, L. Braun, T. Owen, R. H. Maingot (forwards).

HOCKEY.

HOSPITAL CUP.

First Round.

ST. BART.'S v. LONDON.

This match was played at Richmond, a draw resulting—two goals each. It was an exceedingly fast game from start to finish.

Territorially we had the worst of the game, but our back division put up a very stubborn defence, Mawer (in goal) and Ackland being in great form.

Our goals were obtained by Sylvester and Stathers.

Re-play.

The re-play resulted in a win by two goals to one. London again had most of the game, and the winning of the match was due almost entirely to our strength in defence, Little, Glenny and Ackland being most conspicuous. Our goals were scored by Sylvester and Stathers, who of the forwards showed most dash.

The following represented the Hospital:

P. U. Mawer (goal); A. H. Little, E. H. Glenny (backs); R. R. Powell, J. G. Ackland, D. R. Thomas (halves); H. J. Bower, W. V. Hughes, G. S. Stathers, C. K. Sylvester, G. Wells-Cole (forwards).

Semi-final.

ST. BART.'S v. ST. GEORGE'S.

This match was played at Winchmore Hill, and resulted in an easy win—7 goals to 0. Our forwards combined well, and no doubt would have scored more goals had we been at all pressed. Goals were scored by Stathers (5), Upton, and Glenny.

The team was similar to the above, except that Atkin, Upton and Macfarland took the places of Sylvester, Hughes and Wells-Cole.

Final.

ST. BART.'S v. MIDDLESEX HOSPITAL.

This match was played at Richmond, and, after being in the final for many years in succession, we obtained a well-earned victory by 5 goals to 0.

For the first fifteen minutes of the game play was very fast and even; then Stathers obtained the ball just outside the circle, and, beating several men, drew the goalkeeper, and scored with a beautiful push shot. Immediately from the bully-off Upton was given the ball, and took it cleverly up to the circle, when he passed to Steedman, who scored with a brilliant shot. These two goals, scored in quick succession, had the effect of greatly improving our play and of taking the heart out of the Middlesex men. Several excellent combined movements by our forwards, who were well fed by the halves, resulted in another goal being scored by Upton.

The second half saw Middlesex making several strong attacks on their right wing, but Thomas marked the wing man well, and play was soon carried to the Middlesex goal, where Stathers scored with an excellent shot. For the rest of the game play was more even, but superior work in front of goal enabled us to score again through Upton from a splendid centre by Bower.

All the forwards played exceedingly well, Glenny being especially prominent with some excellent runs. Amongst the back division Atkin was the outstanding feature; he played brilliantly all through.

The following represented the Hospital:

P. O. Mawer (goal); A. H. Little, C. S. Atkin (backs); R. R. Powell, J. G. Ackland, D. R. Thomas (halves); H. J. Bower, M. T. W. Steedman, G. S. Stathers, A. R. Upton, E. H. Glenny (forwards).

CORRESPONDENCE.

CENTENARY OF SIR JAMES PAGET.

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

DEAR SIR,—When I was attending the service in commemoration of the centenary of the birth of Sir James Paget at Great Yarmouth a few weeks ago, I remembered that I had a very interesting letter from the late Sir Joseph Hooker about Paget's early life. I enclose a copy of this in the belief that your readers may like to see it. Some may remember the now remote fact that Sir Joseph Hooker was born in 1817 at Halesworth in Suffolk, and that he was surgeon and naturalist on the "Erebus" in the Antarctic Expedition under Sir James Ross 1839-43, and afterwards travelled in almost every part of the world as a botanist. He was president of the Royal Society from 1872-77. Mrs. Marsh and I once visited him at the camp near Sunningdale where he lived after his retirement from the Directorship of the Royal Gardens at Kew in 1875. He had vacated this office, after holding it for ten years, in order that he might have time to arrange his specimens and pursue original research relating to the trees of India. At our visit we found him in his ninety-first year examining under the microscope sections of various kinds of wood from the slopes of the Himalayas and other localities. He was quite charming, tall and spare in figure, dressed in a suit of light-coloured dittos and wearing a brown broad-brimmed hat dignified with picturesque dilapidations. He had a finely modelled head and very effective features, with a most pleasing old-world courtesy and ease of manner in which native amiability and years of travel amongst all sorts and conditions of men, many of them the most cultured and distinguished of the time, had smoothed away all traces of stiffness and formality. In three minutes we felt as if it was a meeting of old familiar friends. Although over ninety, nothing would content him but to show us all round his extensive grounds, and point out his chief valuables and pets amongst trees which he had collected anywhere between Syria or Palestine and the Rocky Mountains, of course excluding the Atlantic. We had a most delightful two hours and came away with his photograph with his signature appended, which together are among our most valued treasures. We saw him last during the Darwin Centenary at Cambridge in 1909, at the age of 92 attending the *soirée* in the Fitzwilliam Museum where he stayed, receiving hosts of congratulations, and as the principal figure of the party till 10 p.m. He showed his sense of humour by remarking, when he was in his official scarlet gown and wearing his numerous medals, and just starting for the meeting "Now I am ready for Madame Tussaud's." There were giants, and most delightful ones, too, in those days.

Yours faithfully,

HOWARD MARSH.

CAMBRIDGE.

"THE CAMP,
"SUNNINGDALE,
"September 19th, 1906.

"DEAR MR. MARSH,—I thank you cordially for your charming memoir of my dear old friend Paget; it is so searching and so true.

"I first met him in 1829 when on a visit to my grandfather, who had him up to be introduced to my father. In 1834 I was lodging in Yarmouth and used to rise at 5 a.m. to go botanising with him. He used to sing at the top of his voice as he walked along. 'The Sea, the Open Sea,' was, I think, his favourite air, and he trolled it forth lustily. Later in the day I entomologised with his brother Charles, also a delightful companion.

"The father was a most estimable man, worthy of all you say

of him. He was partner with my grandfather in a brewery not far from the Bank. He died in financial difficulties, and Paget's poverty during his early years was due to his paying up *every shilling* due to his late father's creditors. To this end he delayed his marriage for seven years. This he told his godson, my son Charles Paget, now a practitioner at Cirencester, who had adumbrated a foolishly early marriage.

"The next time I visited Paget was when he occupied a tiny house belonging to the Hospital, which faced into Little Britain; I think this was the street. There he played the flute to Mrs. Paget's piano.

"But I saw most of him as fellow examiner, first for medical officers for the Indian Army, held at the old East India House twice annually, and subsequently for candidates for the Army generally at Chelsea Hospital. There were four of us:

Surgery	Anatomy	Physic	Botany
Paget,	Busk,	Parkes,	myself;

and the effects were revolutionary. Every candidate had to produce his qualification as belonging to one of the three Colleges of Surgeons—London, Edinburgh or Dublin—and the result was the rejection of often more than half the candidates as *being unfit to practise!* The Colleges were furious, and made representations to Government, who ordered us to send in the examination papers, which condemned them at once. Up to this time operative surgery on the dead subject had been taught only by Sir G. Ballingate, in Edinburgh, after whose death the chair was most unwisely abolished. We insisted on every candidate performing a major and a minor operation on the subject. The results were an eye-opener. You can form no conception of the ignorance displayed. I remember asking Paget how such men ever could have operated on a field of battle. He answered that they would read the operation up and learn by experience!

"The effect of our work, and of Paget's in particular, on the examining bodies was very great. Operative surgery was taught, and after a few years a very different set of men came up, improved in every subject. This great work of Paget's occupied him for some fifteen or more years. I served on it for twelve. We always met at Paget's house to discuss our examination papers, and again, sometimes twice, to discuss the answers. The examination took two or three whole days, when the East India Company gave us a splendid lunch daily. At Chelsea we had to repair to the nearest tavern.

"But I fear I weary you with an old man's reminiscences. I am sending 'In Memoriam' to my son at Cirencester.

"With our kind regards to Mrs. Marsh and with hopes of seeing you both again,

"Sincerely yours,
"JOS. W. HOOKER."

THE NEW COVER.

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

DEAR SIR,—It is always a somewhat distressing sight to meet an elderly and valued friend tricked out in the extravagant fashions of the day, and when the JOURNAL appeared some months ago with a very inadequate photograph of the New Pathological Buildings on the cover I am convinced that most of your readers, with myself, looked upon it merely as a temporary concession to the claims of modern journalism, and hoped for the time when the old block should be again taken into use.

The continued appearance of the JOURNAL in its new guise has prompted me to suggest that you should revert to the old cover, which has for twenty-one years been familiar to St. Bartholomew's men in all parts of the world. The old picture of the various candidates for the Orthopædic Department painfully making their way to the Henry VIII Gate never gave one the impression conveyed by the modern cover that one was about to open a book of views or a prospectus of the Hospital.

Finally, Sir, if a change of cover is considered necessary, in view of the prominence now given to things anatomical (which must be relatively uninteresting to a large proportion of your great number of subscribers), may I suggest a photograph of the Anatomical Department or a panoramic view of Basle as a suitable indication of the contents one may expect to find in the Hospital JOURNAL.

I am, Sir, yours, etc.,

March 24th, 1914.

R. E. BARNESLEY.

UNIVERSITY OF LONDON.

WESTMINSTER ABBEY SERVICE COMMITTEE.

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

DEAR SIR,—I should be glad if in the next issue of your magazine you would insert a notice to the effect that a special service for

members of the University of London will take place, as in the past six years, in Westminster Abbey at 6 p.m. on Presentation Day, May 13th; the sermon will be preached by the Lord Bishop of London. Admission to the Abbey will be by ticket only, which can be obtained by any graduate or undergraduate members of the University. Applications for tickets should be addressed to the Secretary of the Westminster Abbey Service Committee, 88, Gower Street, W.C., and a stamped addressed envelope enclosed.

I remain,

Yours faithfully,

J. DUDLEY WHYTE

(Hon. Secretary

Westminster Abbey Service Committee).

88, GOWER STREET, W.C.;

February 28th, 1914.

THE GIFT TO MR. TWEEDY.

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

ST. BARTHOLOMEW'S HOSPITAL,
LONDON, E.C.

March 23rd, 1914.

DEAR MR. EDITOR,—If you could find space for the enclosed letter in the next issue of the JOURNAL I should be obliged.

Yours very truly,

LANGFORD MOORE.

DEAR MR. LANGFORD MOORE,—In acknowledging the receipt of the very handsome gold watch with which you, on behalf of my colleagues and friends at Bart's., have presented me, I wish to express my sincere thanks for the gift and my appreciation of the kindly thought which prompted it.

The watch will ever be a valuable memento of the many pleasant years I spent at the Hospital and a lasting witness to the many friendships it was my good fortune to make.

Will the Editor of the JOURNAL allow me a small space to say "Thank you" to you all?

With kind regards,

Yours very truly,

March 11th, 1914.

SIDNEY C. G. TWEEDY.

THE BOOKSHELF.

REVIEWS.

RADIUM THERAPEUTICS. By N. S. FINZI. Pp. 112. (Henry Frowde and Hodder & Stoughton.) 6s. net.

The subject of the therapeutic action of radium and the methods of its application is one that has received an exaggerated amount of attention in the daily press, and the ears of the public have consequently been filled with a great deal of nonsense concerning it. We therefore welcome in the present volume a clear and succinct account of the present position of radium in the treatment of malignant and non-malignant disease.

The subject is necessarily one of which comparatively little is known as yet, but Dr. Finzi writes with the authority of one who has had considerable personal experience of radium and its action. An introductory chapter is devoted to the chemical and physical properties of radium.

MODERN ANÆSTHETICS. By F. W. SILK, M.D. (Edward Arnold.) Pp. 200. 3s. 6d. net.

This little book should prove of considerable value to the student. The author has succeeded in condensing the main facts very clearly, and he has included all the latest methods of procedure. The early part of the book is devoted to a short history of anæsthetics, to the phenomena of anæsthesia in general and to the preparation of the patient. He then deals with the choice of anæsthetic for the patient, with various details of administration. An account of the various anæsthetics used follows. The chapters on difficulties and their treatment and after-treatment are well chosen and should prove a serviceable guide to the beginner. The last part deals with exceptional operations and local and regional analgesia.

The book is quite a small one, but it is sufficiently large for the requirements of the average student, and it is clearly written.

There are nearly forty illustrations of apparatus, which, however, are not up to the standard of the letter-press.

HUMAN EMBRYOLOGY AND MORPHOLOGY. By ARTHUR KEITH, M.D., F.R.C.S., etc. Third edition. Revised and Enlarged. 8vo, pp. viii + 475. With many illustrations in the Text. (London: Edward Arnold.) Price 12s. 6d. net.

There must be few departments of biological science in which greater advances have been made during the last few years than in the science of embryology.

The last edition of Professor Keith's well-known manual appeared in 1904. Consequently the amount of new material that the author has had to embody in the new (third) edition is considerable. The book has been increased by nearly one hundred pages and by over one hundred illustrations; but owing to the employment of thinner paper and somewhat closer type the volume is not materially increased in bulk.

We notice a great improvement in the arrangement of the text. In the volume before us the opening chapters are devoted to an account of the early development of the ovum and embryo, whereas in previous editions the book began with a consideration of the development of a well-known part of the body like the face. The present arrangement is more logical, and has been rendered possible owing to the great increase of knowledge during recent years of the earlier stages of human development.

Embryology is a subject that is apt to be neglected by the medical student. In Prof. Keith's manual he will find the most suitable presentment of it from his point of view.

THE JUNIOR STAFF.

The following gentlemen have been nominated as Resident Medical Officers:

DR. HERRINGHAM	{	April	R. L. Kitching.
		October	F. G. A. Smyth.
DR. TOOTH	{	April	H. L. Cronk.
		October	W. Frank Thompson.
DR. GARROD	{	April	G. D. Jameson.
		October	J. F. West.
DR. CALVERT	{	April	C. S. Atkin.
		October	(Not appointed.)
DR. FLETCHER	{	April	R. G. Lyster.
		October	E. Brunton.
INTERN MIDWIFERY ASSISTANT		April	R. St. L. Brockman.
EXTERN MIDWIFERY ASSISTANT	{	April	R. Sherman.
		July	P. C. Cole.
OPHTHALMIC HOUSE-SURGEON		April	W. Farrer Thompson.
HOUSE-SURGEON TO EAR, THROAT, AND NOSE DEPARTMENT		April	G. W. Carte.
RESIDENT ANÆSTHETISTS	{		E. A. P. Brock.
			H. J. Bower.

NEW ADDRESSES.

BOWEN, O. H., Highfield, Church Street, Lower Edmonton.
DORAN, A., 6, Palace Mansions, Kensington, W.
GRANT-JOHNSTON, J., The Oaks, Bracknell, Berks.
HEWER, J. L., Innellan, St. Albans.
TATCHELL, P., 29, Barkston Gardens, S.W.

APPOINTMENTS.

HEASMAN, F., M.R.C.P.(Ed.), M.R.C.S., L.R.C.P., appointed Physician to the Royal Victoria and West Hants Hospital, Bournemouth.
KNIGHT, C. V., M.D.(Lond.), M.R.C.S., L.R.C.P., appointed Hon. Surgeon to the Gloucestershire Royal Infirmary and Eye Institution.
PRENTICE, H. R., M.B., M.R.C.P., appointed Assistant Physician to the Dreadnought Hospital.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, etc., have been notified at the Admiralty since February 20th, 1914:
Fleet-Surgeon R. C. Munday to the "President," additional for service at the Admiralty, temporarily, to date April 8th, 1914.

Staff-Surgeon H. W. B. Shewell to the "President," additional, for Senior Medical Officer's course at R.N. Medical School, Greenwich, from April 1st to June 30th, 1914, inclusive.

Staff-Surgeon H. Kellond-Knight to the "Vanguard," to date March 31st, 1914.

BIRTHS.

EDE.—On March 8th, the wife of A. Gordon Ede, M.B., of Wolsey Road, E. Molesey, of a son.
FORD.—On January 31st, at Rushmere, Wimbledon Common, S.W., the wife of Frank C. Ford, M.B., of a daughter.
POOLEY.—On March 21st, at 15, Gladstone Road, Sheffield, the wife of G. H. Pooley, F.R.C.S., of a son.
TURNER.—On March 2nd, at 18, Harley Street, W., the wife of William Aldren Turner, M.D., of a son.
WAY.—On March 6th, at 7, Convent Road, Wynberg, S. Africa, the wife of Leslie Way, of a son.
WINTER.—On March 19th, at John of Gaunt's House, Lincoln, the wife of Edward Stuart Winter, M.R.C.S.(Eng.), of a daughter.

MARRIAGE.

ORMEROD—CATON.—On March 23rd, at the Church of St. Matthew and St. James, Mossley Hill, Liverpool, by the Rev. Canon Hartford, Henry Arderne Ormerod, third son of J. A. Ormerod, M.D., of 25, Upper Wimpole Street, to Mildred Robina, younger daughter of Richard Caton, M.D., of 3, Livingston Drive South, Liverpool.

DEATHS

CLARKE.—On March 28th, at Oakleigh, Eastbourne, William Bruce Clark, M.B.(Oxon.), F.R.C.S., late of 51, Harley Street, and late Senior Surgeon, St. Bartholomew's Hospital, of pneumonia following influenza, aged 64.
WADDINGTON.—On February 26th, 1914, in London, Rupert Edward Shawe Waddington, M.R.C.S., L.R.C.P.(Lond.), Assistant Medical Officer of Health for Willesden.

ACKNOWLEDGMENTS.

The Student, The Nursing Times, The British Journal of Nursing, L'Ospedale Maggiore, The South African Nursing Record, The Hospital, The Medical Review, St. Mary's Hospital Gazette, Long Island Medical Journal, Guy's Hospital Gazette, The Stethoscope, St. Bartholomew's Hospital League News, Middlesex Hospital Journal.

NOTICE.

All Communications, Articles, 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: 1436, Holborn.

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

St. Bartholomew's Hospital



"Æquam memento rebus in arduis
Servare mentem."

—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXI.—No. 8.]

MAY 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

Fri., May	1.—Dr. Herringham and Sir Anthony Bowlby on duty.
Mon., "	4.—Examination for M.B., B.S. (London) begins.
Tues., "	5.—Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., "	6.—Primary F.R.C.S. Examination begins.
Fri., "	8.—Dr. Garrod and Mr. Waring on duty.
Tues., "	12.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., "	15.—Dr. Morley Fletcher and Mr. Bailey on duty.
Mon., "	18.—Examination for Mathews Duncan Medal.
Tues., "	19.—Dr. Herringham and Sir Anthony Bowlby on duty.
Thurs., "	21.—Final F.R.C.S. Examination begins.
Fri., "	22.—Dr. Tooth and Mr. D'Arcy Power on duty.
Tues., "	26.—Dr. Garrod and Mr. Waring on duty.
Wed., "	27.—Examination for Brackenbury Medical Scholarship begins.
Thurs., "	28.—Examination for Brackenbury Surgical Scholarship begins.
Fri., "	29.—Dr. Calvert and Mr. McAdam Eccles on duty. Oxford Easter Term ends.
Sat., "	30.—Sir G. Burrows Prize. Skynner Prize. Oxford Trinity Term begins.
Sun., "	31.— Whit Sunday.
Tues., June	2.—Dr. Morley Fletcher and Mr. Bailey on duty.
Fri., "	5.—Dr. Herringham and Sir Anthony Bowlby on duty.
Sat., "	6.—Applications for the Lawrence Scholarship to be sent in.

EDITORIAL NOTES.

THERE is no doubt that the prospects for those who are beginning their course of training for the medical profession are exceedingly bright. For several years past the authorities of most of the hospitals in the neighbourhood of London and in the provinces have found it difficult to fill the post of House-Surgeon and House-Physician. Whereas formerly there was good competition for these resident posts, it not uncommonly happens

that no candidates whatever apply, even though the salaries have in many cases been largely increased. The dearth of young doctors has not for many years been so acute as at the present time, and local authorities in London and throughout the country are finding the greatest difficulty in filling vacancies. Some of the Borough Councils are now paying as much as £500 a year for medical officers in dispensaries, positions which only a short time ago were easily filled, although the salaries were only half that amount.

The position now is that any young qualified medical man can, immediately on obtaining his diplomas, secure a post worth at least five guineas a week and all found.

The chief reason for this dearth of young medical men is the decreased number of students who for some years past have entered the profession.

The Dean tells us that the average number of students entering to the full curriculum during the decade 1880-1889 was 130 per annum; for 1890-1899 the average was 105 per annum; whereas in the decade 1900-1909 the number of full students fell to an average of 71 per annum, and last October the entry of full students reached the lowest figure on record, namely 53 full students.

Instead of the Insurance Act having worked detrimentally to the medical profession, the contrary has been the result, for in many cases doctors, whose practices were small and insignificant, are now busy with panel patients, and are receiving good fees. With the recent increase in the number of lucrative public appointments and the probability of still further increase in the near future, this dearth of medical men becomes a serious public question.

* * *

An appeal worthy of support comes to us from China, in which country an old Bart.'s man, James Glenny Gibb, M.D., F.R.C.S., distinguished himself so much in the eyes of the Chinese Government that they gave the sum of \$1000 to his widow for a memorial to him. There is no doubt that the strenuous life he led in Pekin had undermined his constitution, so that when his last illness overtook him he had not the vitality left wherewith to combat it.

We cannot do better than to quote from a letter we have received on this subject :

"In the pneumonic plague epidemic he was among the first to volunteer, and went to Harbin to assist in staying the progress of the dread scourge.

"On his lamented death the Chinese Government, through their Red Cross Society, gave a sum of \$1000 to his widow for a memorial to him, in recognition of the distinguished service he had rendered to the cause of humanity during the Revolution. This sum she generously placed at the disposal of the Union Medical College towards the equipment of a Bacteriological Laboratory, an object dear to his heart.

"But to carry out this scheme properly a sum of \$3000 will require to be spent on the extension of one of the present buildings to render it suitable for a laboratory. The provision of such an extension would leave the above-mentioned gift free for the purchase of the necessary equipment.

"The Faculty of the Union Medical College make this urgent appeal to Dr. Gibb's many friends to do their utmost to perpetuate his memory by the erection of this Gibb Memorial Laboratory, which will not only be very useful for purposes of Medical Diagnosis and Research, and for the better training of students, but will also be a fitting testimony to the life of one who was so highly esteemed and respected during the time he was in Pekin."

Subscriptions should be forwarded to "The Warden, St. Bartholomew's Hospital, E.C."

* * *

The second annual report of the St. Bartholomew's Hospital Women's Guild is just issued. The report shows on subscriptions, etc., a gain of £16 3s. 8d. over last year's receipts. Unfortunately the total receipts are not so great as this year there was no dance, while last year's dance realised £56 13s. 0d..

The membership is now 447—an increase of 84 over last year's figures.

An effort is to be made this year to raise the membership to 1000, and once again we appeal to the relatives and friends of Bart.'s men to join this Guild, which is accomplishing so much useful work.

Names and addresses of those willing to start a branch or to help in any way should be sent to the Hon. Secretary, Mrs. Norman Moore, 67, Gloucester Place, Portman Square, W., who will give all the assistance in her power.

* * *

The following awards have been made: Kirkes Medal and Scholarship, C. R. A. Thacker; Senior Scholarship, H. M. C. Macaulay; Harvey Prize, A. Morford. Hichens Prize, C. C. Okell; Junior Scholarship in Anatomy and Physiology, 1st, L. F. Ross, 2nd, E. M. Atkinson, G. H. Glenny, *ex aequo*.

The Department for Diseases of Children is now held at 1.30 on Monday and Wednesday afternoons instead of in the mornings of those days. We stated last month that the Skin Department would be held on those afternoons, but that was an error—due to a mistake in a notice which was put up—and the times of attendance remain as before, viz. Tuesday, Wednesday and Friday, at 9 o'clock.

NOTES ON MEDICAL PRACTICE IN EDMONTON, ALBERTA, CANADA.

By R. N. BARROW, M.B., B.S.



TWICE have I attempted to write my impression of life and practice in Edmonton, and each time I have failed to complete the paper. It is hard not to drift into a description of the city, the people, or the climate, all of which have respectively a bearing on medical practice. I came to Edmonton on pure speculation, and I do not regret having done so.

We, my wife and I, knew only one Englishman in the place on our arrival, and one Canadian whom we met on the journey out.

The essentials to success in Western Canada are not present in every Englishman; and the more English he is the harder will he find it to succeed. To get on in anything, particularly in any of the professions, one must adopt, and that quickly, the methods and ways of the Canadians, borrowed to a great extent from their neighbours of the U.S.A.

This is a difficult matter for the average Englishman, and those in this country who have failed to get on have done so from their inability to embrace the above fundamentals. One sees many of the latter I am afraid. There are several refinements of an old-established civilisation, like that of England, which one must throw off to begin with, at any rate.

Push, energy and advertisement are the keynote of success in the West, and these are hard to adopt for the educated and refined man. Here feelings are hurt with great difficulty, and, in fact, are little considered at all.

One just has to blunt one's own sensitiveness and keep pushing and striving to bring oneself to the notice of anyone and everyone, whether by starting conversation with strangers in the street, on tram-cars, or in any public place, telling them who you are, where you come from, what your business or profession is, etc., or by getting any friends or acquaintances residing in the place to introduce you to all and sundry of *their* friends.

If you know, or if you do not know, that you are any

good at your work, tell all you meet that you are. Tell them where you were trained, what appointments you have held—in fact, blow your own trumpet for all you are worth.

This appears to be a strange and unnatural procedure to educated andrefined gentlemen in England, but I am convinced that unless you adopt methods such as these in Western Canada you will be forgotten in a week.

You must acquire the brass and audacity of a commercial traveller or an insurance agent.

The undertaking is a big one—bigger than I ever imagined it to be when I decided to come to this country. However, having grasped the idea that I must either do this or starve, I just shut my eyes to the repugnance I felt at my conduct and kept my mind intent on the result I desired to accomplish, which was to be earning some sort of a living before my capital ran out.

The waiting business is bad, but it must be ten times worse in the old country, where one is compelled to remain inactive.

Here you can keep moving, pulling strings here and there, putting your card in the papers (which all professional men do here), and worrying your friends to get to know new people every day.

I know a Canadian doctor, but recently come to Edmonton from the south of the Province of Alberta, who, whenever he rings a wrong number on the telephone, excuses himself and says he is ringing up Dr. "X," his own, "office"—as a consulting-room is called here. All the same, the first few months were a trying and anxious time, and I have no wish to go through it again, though it is wonderful what stimulus to exist will do. I was lucky, too, from the beginning.

On the voyage from Liverpool to Quebec we met a man who is in business in Edmonton, and with whom we made friends.

He was interested in us, and his father having been English he was interested in every Englishman coming to Canada.

When we reached Edmonton he exerted himself in every direction to help us get on.

His business, which is selling pianos, brought him into contact with more ladies than men, and as he has made a success of it, he gave us introductions to most of the best known ladies in Edmonton.

We could not have met a more useful or kinder man. We never went into his establishment without his giving us three or four cards to various people. It was much against the grain, and with many misgivings on the part of my wife, who in true British fashion thought it was not right for a new-comer to call on older residents, that we invaded the houses of those good people.

We thought they would mind, but not a bit of it. They rather liked us, or my wife at any rate, and she was invited

to all kinds of social functions. So it went on till at the end of three months we were quite well known in Edmonton.

The importance of cultivating the social side of the practice has been well shown by cases which have come my way indirectly by this channel.

Professionally, I was very fortunate to get an introduction from England to a doctor here, than whom none could have been kinder or more helpful.

He gave me advice of every kind, he sent patients to me that he did not want himself, and even went so far as to offer me financial help if necessary. This man, by name Dr. Allin, has a large surgical practice here. He was trained in Canada, but took the "Colleges" examination in England and held house appointments in hospitals there as well.

No Englishman coming first to this town could meet a better man.

He has confined his practice to general surgery alone for the last two years, though he has been in the city for eight years, and he is very busy.

He is one of the most progressive men here, sound in his work, and very conscientious—valuable traits of character in a get-rich-quick country.

Dr. Allin, as I have said, gave me great assistance professionally.

He introduced me to other members of the profession, proposed me as a member of the medical society, showed me round all the hospitals, and generally brought me in touch with the work here.

He employed me as his anæsthetist whenever he could, and turned what work he could, such as medical cases, in my direction.

Before becoming actually a licensed practitioner of the province of Alberta, I had to sit and pass the provincial examination and also pay my registration fee.

This, with examination fee, amounted to \$100, or £20. The provincial examination is now being replaced by the Dominion examination, which entitles those passing it to practise in any part of Canada.

Those who have practised for ten years or more in any province are exempt.

I succeeded in passing the provincial examination, which was long and somewhat tedious, and obtained my licence to practise.

The next question was, Where was I to have my "office" or consulting-room. Within a week of our arrival we found a nice modern flat in the western part of the city. Edmonton is a much scattered town, owing to the land boom of two years ago, which inflated the price of land and consequently caused many people to live some distance out.

Our flat is about two miles due west from the centre of the city, in about the best residential district.

I considered, therefore, that the locality was a good one

in which to put up my plate, and I did so, turning one of the rooms of the flat into a consulting-room, there being a second door from it on to the corridor of the building.

Most of the other doctors told me they thought it would not pay, and said I would be wiser to have an office in the town, as most other men had.

Certainly very few patients came my way.

I then prospected round the town and found an outlying district in the S.E. quarter where there was a large working-class population and no doctor within a mile. Rent was very cheap there, so I took two rooms in a small wooden building, where there was also a grocer's shop and a land agent's or "real estate" office. I put up another plate, painted my name and office hours on the side door, which opened into my waiting-room, and spent my afternoons there.

Nothing came of it, however.

The man who kept the grocer's shop, a Yankee from Nebraska, told me that if he could not make expenses in two months "he pulled up stakes and quit."

I took his tip and left that office after two months.

Things were going too slow for me, and something had to be done. I therefore gave up my consulting-room at our flat and decided to open up down town.

A new block had just been built opposite the house of my friend, Dr. Allin, on the main street, and I took two rooms in it immediately.

It proved a successful move and bore out the advice of the other men.

Rent is high in Edmonton, and my two establishments cost me £18 a month, after which light, telephones, and living are extra.

One must start with a certain amount of capital, though when patients begin to come they soon pay for one's living expenses, if one is not extravagant.

The telephone is much used here. The system is automatic, obviates an exchange, and is quick and convenient. It would be much appreciated in England.

To return to business, my prospects then began to improve. My doctor friends could depend on cases reaching me when sent on, and it was in every way more central.

The practice began to grow steadily, so that at the end of January after five months' stay in the city I was just making expenses, somewhere about £30.

Considering that the financial depression has been very bad for the last year or so, I feel more or less satisfied with results.

When starting to practise in any Western Canadian city, a doctor, providing that he is a licentiate of the province, may send his cases to any of the public hospitals of the city and attend them there.

There are no free hospitals in Western Canada, which in some ways is a good thing; but from the point of view of

teaching or advancing the science of medicine I think it is bad.

I think that the old system of apprenticing students to practitioners could be profitably employed in a country where clinical teaching is so deficient.

The University of Alberta, now founded at Edmonton, has lately opened its medical school, and in two years' time the question of clinical teaching for the students will become a very important one.

While the hospitals are just large nursing-homes, you cannot expect the patients to allow themselves to be subjects for demonstration.

As it is, the patients here resent any form of restraint or discipline unless they are very ill.

In true Western style they think they know as much or more than the doctor. They may be right.

Of course if one knows anything at all of one's job and takes up an independent attitude, one can show such people the folly of their ways. If you let them go far enough they pay for disobedience to orders, and then one explains carefully how the result might have been avoided.

There are no post-mortems at the hospitals, and this, too, is a great drawback to advance in medical progress.

There are four general hospitals in Edmonton and one isolation hospital.

Two of the former are run by Roman Catholic bodies, who were the pioneers of hospital work all through Canada. The other two general hospitals are run by the city, and are more up to date and better equipped.

Three of the general hospitals are situated on the north side of the river in Edmonton proper, and the other, the latest built one, on the south side in South Edmonton. There is a hospital board controlling the two city hospitals and the isolation hospital.

No doctor is on the board, but a medical superintendent has lately been appointed to manage them. There is talk also of appointing residents, but nothing has come of it so far.

The Edmonton Medical Society has lately been asked to appoint an advisory committee to the hospital board, which the Society is going to do.

The scale of payment in the hospitals is as follows: For private rooms, \$2.00 (8s. 4d.) a day; semi-private rooms holding two beds, \$1.50 (5s. 3d.) a day; public wards, \$1.00 (4s. 2d.) a day.

This does not include the charge for the nurse in the case of the private rooms, which is \$2.00 a day more.

The city and province make a grant of £20 a year towards all the hospitals in the province and cities, and in return for that the Public Health Department can send destitute patients to hospital at the rate of \$0.25, or 1s. per day.

It may be as well here to mention the usual scale of fees of the profession in Edmonton.

Consultations at "office"	\$ 2'00 each.
Visits (night \$3'00)	\$ 2'00 ,,
Hospital visits	\$ 2'00 ,,
<i>Minor operations</i> : Opening abscesses, etc.	\$ 5'00 ,,
Removing fingers, etc.	\$ 10'00 ,,
Tonsils and adenoids	\$ 25'00 ,,
<i>Major operations</i> : Varicocele	\$ 50'00 ,,
Hernia	\$ 50'00 ,,
Appendicectomy	\$ 100'00 ,,
Hysterectomy, gastro-enterostomy, ovarian cysts, gall-stones	\$ 150'00 ,,
Cæsarian section	\$ 150'00 ,,
<i>Amputations</i> : Hand, arm, foot, leg, thigh	\$ 50'00 ,,
Hip, shoulder	\$ 100'00 ,,
Confinements, including four visits following	\$ 25'00 ,,
Anæsthetics: T. & A. Minor operations	\$ 5'00 ,,
Major operations	\$ 10'00 ,,
<i>Fractures</i> : Colles', Pott's	\$ 25'00 ,,
Leg, thigh, upper arm	\$ 50'00 ,,
Vaccination	\$ 1'00 ,,
Charges for country work are the same + \$1'00 per mile for mileage.	

These are the fees for some of the commoner things.

The ear, nose and throat people, who all combine eye work as well, have their own scale of fees on a slightly higher level.

As one can see, the remuneration is not bad for the G.P., and one must remember that this scale holds good for working-class as well as other patients.

At present there is a kind of club being worked in the city on the system of monthly subscription by members. The people running it are Americans, and profits seem their chief object.

They have a doctor in their employ who gets a percentage on the cases he attends, but he has been greatly discredited lately in the profession, and has been requested to resign from the Medical Society.

I am sorry to say that many "old country" people have joined this club, some with dire results to themselves.

On the other hand, the profession in general thinks that some sort of a contributory association should be formed to enable the really poor to obtain good doctoring for a small monthly subscription and to obviate bad debts.

The Medical Society approached the Trades and Labour Council in the matter, but, as is the way with such people, they wanted full control of the whole business—an impossible attitude. The result was that the scheme fell through.

An attempt is now being made to form a sick benefit association controlled by the medical men and certain well-known business men.

One other matter which has an effect upon practice, or

at least upon the complaints of the patients and their treatment.

I refer to the climate of Edmonton.

Edmonton is situated just about one hundred miles south of the centre of the province of Alberta.

It is 1600 ft. above sea-level, and the air is extraordinarily clear and dry.

Diseases benefiting from this condition are—chest diseases in general.

Early phthisis patients improve in Edmonton. Late phthisis is not much benefited, owing to the severity of the winters and the close atmosphere of the houses at that season.

Bronchitis of every kind is much benefited.

Asthmatic subjects are completely cured after living any time in Edmonton.

Cardiac conditions are much relieved by the benefit to the lungs.

Diseases which are more often seen are: Acute Bright's disease, due probably to the cold in winter; rheumatic fever of a mild type, not usually affecting the heart, and found in adults as a rule; pneumonia; typhoid endemic in some districts; various types of subacute rheumatism or pains in joints.

The fact that rheumatism of any kind is common in such a dry air dispels the idea that rheumatism is a disease of moist climates alone. The effect of the climate of Edmonton upon the nervous system has attracted my attention since I have been here. The result is summed up in one word—over-stimulation.

This effect makes itself apparent in many ways, both socially and medically.

The mental attitude of everyone here is optimistic.

Here is a desire to move quickly and get on.

On the other hand, concentration of mind is less in everything. People forget easily, facts, faces, worries, friends—everything, in fact.

One feels it oneself. It is more of an effort here to remember what one was doing yesterday at a certain time than it would be in England, for instance.

The whole outlook appears to be ahead. This spirit invades business transactions and the whole social life. Everything is done at high pressure. The result is that nervous breakdowns are frequent. Most people here say that they must go to the "Coast"—that is, Vancouver—once a year, just to be soothed by the low altitude and relaxing air.

Children are very apt to become overstrung and nervous. They are certainly precocious. I have twice been called to young children with high temperatures, and have found nothing to account for it but some excitement they have been through, such as a picture show or some performing bears.

I am told that the clinical thermometer reads higher here than in lower altitudes.

Alcohol and tobacco both affect the nervous system sooner in this climate. Personally I have reduced my smoking nearly one half.

Drunkenness is prevalent in the city, and though many blame the quality of the liquor and the intemperance of the population, I am disposed to think that alcohol combines more rapidly with the nerve-cells in high altitudes.

Certainly I have found in giving anæsthetics that chloroform does so, and the surprise it gave me was not a very pleasant one.

Open ether is used for the most part here, but chloroform can be used for induction if carefully handled. I generally use the open method, beginning with ether, 2 parts, chloroform, 1 part, proceeding to open ether when the patient is sufficiently under.

Eclampsia, I understand, is quite common here, and last year, out of a dozen cases in the town, only two were saved. I am therefore inclined to keep a watchful eye on any obstetric cases I have if I can get them early enough.

Then I have heard of several cases of headache due to high blood-pressure, which I think is due to the effect of the climate on the nervous system.

Insanity is common in the Province. Most of it is said to be caused by the lonely life in the country; but the over-stimulation of the nervous system has some predisposing action upon it I am sure.

As far as I have gone already, I feel inclined to include pot. brom. and pot. iod. in most of the prescriptions I write.

As regards the latter and dispensing, very few doctors dispense their own drugs.

The chemists charge very highly for medicine. I think the rate is 10 cents (5*d.*) a dose in a mixture. If there are ten doses in the bottle the charge is one dollar (4*s.* 2*d.*).

The drugs obtainable are not up to the English standard as a rule, but that is the same with a great many commodities in the north-west.

I have no more to add to this letter, and I hope it will be of service to some who read it. I may say that more English people come to Edmonton every year, and I would welcome any other Bart.'s man if he were to come out. At present there is only one other English trained man here, and he is a "London" man practising in an outlying suburb.

A CASE OF EMBOLISM OF THE FEMORAL ARTERY.

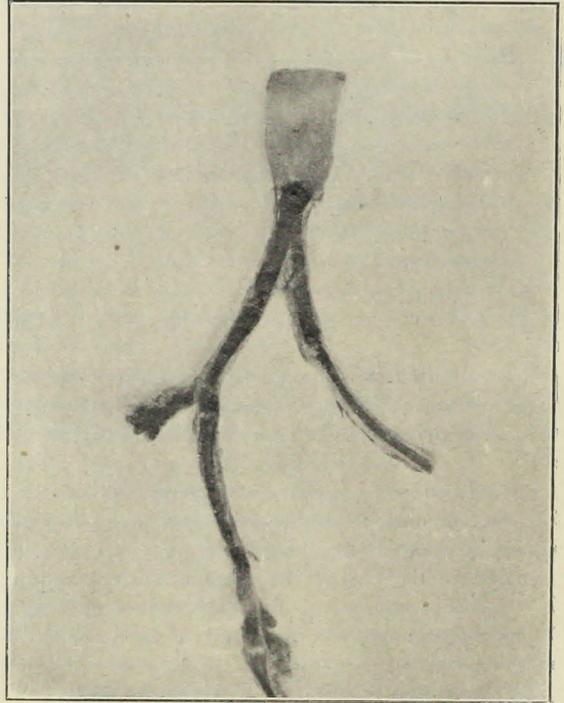
By R. StL. BROCKMAN, M.R.C.S., L.R.C.P.

 R. C. GORDON WATSON requested that this case should be reported in the JOURNAL:

History.—A woman, æt. 17, was admitted to Elizabeth Ward on March 2nd, 1914, under Dr. Barris, her pregnancy being complicated by mitral incompetence.

On examination she was found to have well-marked mitral stenosis. The heart was not compensated, there was fluid at the bases of both lungs, and a large quantity of albumen in the urine. On March 4th, 1914, she was safely delivered, and all went well till March 12th. About mid-day of that date the woman was seized with a sudden acute attack of pain in her right foot and leg below the knee. Pulsation was not felt in the limb below the femoral artery in Scarpa's triangle.

On March 13th, about thirty hours after the onset, Mr. Gordon Watson was asked to see the patient. Her condition was desperately bad. There was no pulsation to be



CLOT FOUND AT POST-MORTEM EXAMINATION.

felt in the right lower limb anywhere, and by now the pulsation in the left lower extremity had disappeared. Mr. Watson said he thought an attempt ought to be made to remove the embolus from the right femoral artery. Accordingly, under a local anæsthetic, the vessel was exposed in the upper portion of Scarpa's triangle. Two Crile's clamps were applied, and the vessel opened. A small fibrinous mass at once protruded, followed by marked hæmorrhage, which ceased when digital pressure was applied to the profunda branch. When the upper clamp was now loosened a slow stream of blood escaped. Mr. Watson thought there was probably some more clot up above, but did not think it was worth while going any farther. The vessel was closed with fine vaseline silk. The woman died about one hour later.

Post-mortem report.—There was a large pleural effusion on both sides of the chest. The mitral valves were the site of recent vegetations, which almost closed the mitral orifice. An incision had been made into the right common femoral artery for the extraction of an embolus. The sutured wound had not healed, as no blood was found in the wound. A little clot was found adhering to the stitches internally, but not in any way occluding the vessel. A firm clot was found extending from just above Poupart's ligament up to half an inch above the bifurcation of the aorta and down to the division of the common iliac on the left side. On the right side the clot extended down the internal iliac artery for a distance of an inch. Mr. C. Gordon Watson has reported two other cases in the *Clinical Journal*, December, 1912, while a *précis* is given of most of the reported cases by Mr. Gask in the *St. Bartholomew's Hospital Reports* for 1913.

A CASE OF EXTENSIVE AND PROLONGED SUPPURATION SUCCESSFULLY TREATED BY THE X-RAYS.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

THE case to be described illustrates the beneficial action of the X-rays upon some cases of chronic suppuration. The patient, a girl, æt. 10, was sent to the writer for treatment in October, 1913. Her right hand was very swollen, dusky red, and discharging pus profusely from incisions made on the palm and the front of the wrist.

In 1908 a compound palmar ganglion was excised from the right hand, and there was no history of further trouble in this hand till May, 1912, when a swelling of the palm of the same hand was noticed. It slowly increased in size.

In May, 1913, the swelling was opened, synovial fluid escaped and the cavity was scraped out. Soon after leaving hospital the swelling reappeared and spread over the palm, which became red and very painful. Incisions were made, and pus escaped and continued to discharge profusely.

On October 22nd, 1913, the writer exposed the palm to the action of the X-rays. Short applications were made and repeated once each week. No improvement was noticed till the latter part of November, 1913, when a striking change took place. The swelling rapidly subsided after the fifth application, the erythema disappeared except from over a small area at the centre of the palm, and the discharge stopped from all but three incisions. The X-ray treatment was continued week by week. A small amount of pus occasionally exuded from the remaining incisions. The patient rapidly recovered the use of her fingers. At the end of January, 1914, the remaining sinuses closed and all

erythema disappeared, and the patient could use her hand quite well.

At the beginning of February, 1914, some erythema reappeared on the front of the wrist and pus began to discharge from the site of an old incision. The wrist was then exposed to the action of the X-rays, the palm being shielded. The discharge considerably lessened, and when last seen by the writer had ceased to appear.

The writer has had some successful results in the X-ray treatment of some other cases of prolonged suppuration, three being cases of infective periosteitis, one being a case of suppuration in connection with a tendon-sheath. Suppurating tuberculous glands are, in the writer's experience, very amenable to the influence of the X-rays.

The writer is indebted to Mr. Cozens Bailey, who has allowed him to publish the particulars of the case described, which was formerly under his care.

OBITUARY.

WILLIAM BRUCE CLARKE, M.B. Oxon., F.R.C.S.



NEARLY forty years ago, at a meeting of the Abernethian Society, during a disputation on its management and the direction of its discussions, in which several of the customary debaters took part, a relative stranger, looking older than his years, rose up and spoke with considerable eloquence, relating his experience of a somewhat similar society at his university. "That's Bruce Clarke, an Oxford man," said one member. He was already known at his university, but as he only entered our medical school in 1873 he had not hitherto put himself forward at St. Bartholomew's. From his skilful debating on this occasion he became distinguished as a student likely to do honour to his Hospital. A sketch of the state of surgical practice and teaching at our famed institution as it was when Bruce Clarke was a student, and as it, with his aid, developed up to its present condition, will enable us to understand his professional career and to do justice to his merits.

In 1874 the surgeons of the mid-Victorian type had nearly all passed away, although a few were living and taking an active part in medical education as examiners at the College of Surgeons, three ultimately becoming presidents. They were, on the whole, easy-going men, who taught clinical surgery very well indeed, and understood what surgical anatomy really meant. None of them, however, reaped high fame as an operator like Fergusson and Thompson, nor played an active part in advancing surgical art, whilst the one great pathologist among them had pursued his investigations in days already long past, when section-cutting was but ill-understood and staining unknown. The new men replacing them on the senior staff

included several surgeons of a different type—fine, tall men of strong physique, but also far above the average as operators, yet untainted by the faults of many general surgeons who endeavour to be specialists at the same time. A few years passed on, and then the mantle of Paget fell on the shoulders of an eminent scientific pathologist elected on the staff. Butlin knew how to make use of those improvements in microscopical technique which were not at the disposal of Quekett and Paget. After him came an admirable surgical anatomist, a first-rate teacher of students, dexterous, and endowed with high mechanical ability. Unfortunately both lacked the fine physique of several of their senior colleagues, and, like Bruce Clarke, neither lived to enjoy his retirement, Walsham dying long before he had attained the age-limit.

The honourable rivalry of these distinguished men and of two others still living and flourishing proved highly stimulating to Bruce Clarke. As he was free both from envy and from despondency, no obstacles were made for him by others, and he dreaded none of those shadows which Ratcliff advised Richard III not to be afraid of. "It is a paltry and inglorious mistake to let the shadow have its disheartening will of us. It is only a shadow after all!" says Mr. A. G. Benson in *Where no Fear Was*. These shadows come in the way of every hospital surgeon throughout his career and of every one else in any other career. Bruce Clarke faced the specialist and understood his real merits. He distinguished what was good from what was bad in the methods of Spencer Wells and Lawson Tait, and also saw clearly that renal surgery was capable of high developments. Bruce Clarke recognised how the establishers of variotomy had opened the door of abdominal surgery, perhaps more widely than they intended, to the general surgeon. Tait and Knowsley Thornton had already passed beyond the threshold. In 1881 Bruce Clarke became assistant-surgeon to the West London Hospital, and in 1884 full surgeon, holding for a year (1883-4) a similar appointment at St. Peter's Hospital. Thus opportunities favoured him, and he made the best of them. By 1883 he was an assistant surgeon at his own medical school. In 1885—let us mark the above succession of dates—he took the Jacksonian prize on "The Diagnosis and Treatment of such Affections of the Kidney as are amenable to direct Surgical Interference," and, after the fashion of most Jacksonian prizemen, he published his essay, with suitable addenda. It was already in the press when Sir Henry Morris's *Surgical Diseases of the Kidney* was issued, and was as a literary composition an original work. By 1911, after years of ripe experience, Bruce Clarke issued his *Hand-book of the Surgery of the Kidney*. During the same years that Bruce Clarke was engaged in witnessing these developments of renal surgery and in introducing the new methods into the hospitals where he held appointments, he did likewise in respect to the surgery of the liver and gall-ducts. At the same time, while assisting in the

transference of these branches of the surgical art from the specialist to the general surgeon he never neglected general operative work. For that reason he never fell into error and into questionable ways like certain specialists—mostly foreign we are glad to say—who open the peritoneal cavity on the slightest excuse, and perform wonderful operative feats, which, however, are not surgery. Bruce Clarke was unfortunate in having to wait nineteen years before, in 1902, he became senior surgeon to St. Bartholomew's, but, like most other assistant surgeons, he had already reached his professional prime, and we have shown above how well he had made use of his time when technically a junior. He took charge of the gynæcological ward at St. Bartholomew's Hospital on the resignation of Mr. Harrison Cripps. Unfortunately his health had long been failing, and he resigned his appointment as surgeon in 1912.

In the case of a man so honoured and beloved as Bruce Clarke, it is somewhat disagreeable to feel compelled to introduce into an obituary notice matter more suited to *Who's Who* and the *Medical Directory*. For that reason we have endeavoured to make his hospital appointments read as facts rather than as dates. Yet our readers may expect some chronological records of the departed surgeon. We can inform or remind them that William Bruce Clarke was the son of the Rev. W. W. Clarke, of North Wootton, near King's Lynn, Norfolk, where he was born on March 25th, 1850. Educated at Harrow, he afterwards studied at Pembroke College, Oxford, where he took first-class honours in Natural Science and the Burdett Coutts University Scholarship. In 1872 he held the appointment of Demonstrator of Comparative Anatomy at Oxford. For a time he attended the teaching and practice of Thiersch, Ludwig, and Volkmann at Leipzig and Halle, but his professional studies were mainly pursued at St. Bartholomew's. In 1877 he qualified as M.B.Oxon. and M.R.C.S.Eng., taking the Fellowship in 1879. He was house-surgeon to Sir William Savory in 1878 and house-physician to Dr. James Andrew a year later, suffering when in the latter appointment from that ill-health which often troubled him through his entire career, and his place was filled for a time by Mr. Lockwood. In 1880 Bruce Clarke became Assistant Demonstrator of Anatomy and full Demonstrator in 1881. From 1889 to 1903 he held the chair of Anatomy, and at the end of that long term he became Lecturer on Surgery, resigning in 1912. Both these chairs are joint appointments. He was active in preparing papers for the London medical societies and joining in discussions. In 1896-7 he was President of the West London Medico-Chirurgical Society, and when the British Medical Association met at Oxford in 1904 he was selected as Vice-President of the Section of Surgery. He was Examiner both at Oxford and at the College of Surgeons, and in 1905 the well-deserved honour of election on the Council of the College of Surgeons was insured to

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LONDON—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.	
London School of Tropical Medicine.	L. W. Sambon, <i>Lect. H. Williams, Lect. on Port Hygiene.</i>	Mildmay Mission Hospital.	S. H. Habershon, <i>Con. Physician.</i>	Hampstead Provident Dispensary.	E. Jessop, <i>Con. Surg.</i>	
	Sir F. H. Lovell, <i>C.M.G., Dean.</i>		W. McA. Eccles, <i>Con. Surgeon.</i>		G. D. Pidcock } <i>Med. Offs.</i>	
	F. W. O'Connor, <i>Demonstrator.</i>		G. B. Price, <i>Hon. Phys.</i>		W. N. Evans } <i>Offs.</i>	
Lister Inst. of Prev. Medicine.	J. A. Arkwright, <i>Asst. Bacteriologist.</i>	Miller General Hospital.	H. Marsh, <i>Con. Surg.</i>	Hanwell Cottage Hospital.	G. H. Bennett, <i>Med. Officer.</i>	
Royal Institute of Public Health.	Prof. W. R. Smith, <i>Principal.</i>		E. Clarke, <i>Con. Ophth. Surgeon.</i>	Haverstock Hill Dispensary.	W. H. Pepler, <i>Med. Officer.</i>	
King Edward Memorial Hospital, Ealing.	J. G. French } <i>Hon. Con. Staff.</i>		W. Willes, <i>Con. Phys.</i>	Incorporated East Dulwich Prov. Dispensary.	P. Barham, <i>Medical Officer.</i>	
German Hospital.	D. N. Ruck } <i>Staff.</i>	Poplar Hospital.	H. Pritchard } <i>Phys. wark</i>	Kennington Provident Dispensary.	H. Taylor } <i>Med. Offs.</i>	
	F. P. Weber, <i>Phys.</i>		A. S. Wood } <i>Phys. wark</i>		L. L. Winter-botham } <i>Offs.</i>	
Gt. Northern Central Hospital.	A. Compton, <i>Asst. Surg.</i>	West Ham General Hospital.	J. K. Murphy, <i>Surg. R. E. Scholefield, O.P. Physician.</i>	Kensington Dispensary.	G. L. Turnbull, <i>Surg.</i>	
	C. M. Hinds Howell, <i>Physician.</i>		P. Kidd, <i>Hon. Con. Physician.</i>		Kilburn, Maida Vale, and St. John's Wood General Dispensary.	J. A. Smith } <i>Med. Offs.</i>
	J. Gay French, <i>Aural & Throat Surgeon.</i>		C. J. Stocker, <i>Con. Physician.</i>			M. Davson } <i>Med. Offs.</i>
Hampstead General and N.W. London Hospital.	E. H. Shaw, <i>Path.</i>	Passmore Edwards Cottage Hospital, Acton.	C. Worth, <i>Con. Ophth. Surgeon.</i>	Kilburn Prov. Med. Institute.	F. E. Scrase } <i>Med. Offs.</i>	
	Sir W. J. Collins, <i>Ophth. Surgeon to In-Patients.</i>		E. W. Woodbridge, <i>Med. Officer.</i>		J. A. Smith } <i>Offs.</i>	
	M. L. Hepburn, <i>Ophthalm. Surgeon to Out-Patients.</i>		Sir Dyce Duckworth, <i>Con. Phys.</i>		J. Oldfield, <i>Medical Officer.</i>	
Italian Hospital.	H. L. Whale, <i>Surg. for Dis. of Throat, Nose and Ear.</i>	All Saints Hospital, Buxton St., E.	A. Wall, <i>Hon. Con. Physician.</i>	Metropolitan Dispensary, E.C.	V. D. Harris, <i>Con. Physician.</i>	
	Sir Dyce Duckworth, <i>Con. Phys.</i>		Anti-vivisection Hospital and Battersea General Hospital.		M. J. Anderson, <i>Med. Officer.</i>	T. H. A. Chaplin, <i>Physician.</i>
	F. Melandri, <i>Phys.</i>		Battersea Provident Dispensary.		Sir F. Eve, <i>Con. Surg.</i>	D'Arcy Power, <i>Con. Surgeon.</i>
Kens. and Fulham General Hospital.	T. P. Legg, <i>Surgeon.</i>	Billingsgate Christian Mission and Dispensary.	H. J. Bumsted, <i>Med. Officer.</i>	Public Dispensary, Drury Lane.	T. P. Legg, <i>Consulting Surgeon.</i>	
	C. A. Horsford, <i>Aural Surgeon.</i>		Blackfriars Prov. Dispensary.		R. C. Gully, <i>Medical Officer.</i>	Queen Adelaide's Dispensary, Bethnal Green Road.
Leyton, Walthamstow and Wanstead General Hospital.	J. H. Swanton, <i>Obst. Physician.</i>	Blackheath and Charlton Hospital.	J. H. Drysdale, <i>Con. Physician.</i>	Royal General Dispensary, Bartholomew Close.	Sir W. S. Church } <i>Con. Phys.</i>	
	A. S. Worton, <i>Ophthalm. Surgeon.</i>		Bolingbroke Hospital, Wandsworth Common.		D'Arcy Power, <i>Con. Surgeon.</i>	C. B. Lockwood, <i>Con. Surgeon.</i>
London Temperance Hospital.	C. J. Horner, <i>Medical Officer.</i>	Brixton Dispensary.	A. G. Williams, <i>Med. Officer.</i>	St. George's Prov. Dispensary.	W. Langdon-Brown } <i>Phys.</i>	
	Sir W. J. Collins, <i>Con. Surgeon.</i>		Camberwell Provident Dispensary.		F. Norman, <i>Medical Officer.</i>	H. Thursfield } <i>Phys.</i>
	H. J. Paterson, <i>Surg.</i>		Chiswick and Turnham Green Dispensary.		H. H. Butcher } <i>Med. Offs.</i>	C. G. Watson, <i>Surg.</i>
Memorial Hospital, Mildmay Park.	H. Whale, <i>Thrt. Surg.</i>	Eastern Dispensary, Leman St., White-chapel.	G. French } <i>Offs.</i>	St. John's Hospital, Morden Hill, Lewisham.	J. Kearney, <i>Res. Med. Officer.</i>	
	A. Abrahams, <i>Med. Registrar.</i>		Edmonton Medical Club.		E. A. Dorrell, <i>Ophth. Surgeon.</i>	H. N. Burroughes, <i>Physician.</i>
	S. H. Habershon, <i>Con. Physician.</i>		Farringdon General Dispensary.		J. A. P. Barnes, <i>Med. Officer.</i>	A. C. Butler Smythe, <i>Surgeon.</i>
H. H. Tooth } <i>Con. Phys.</i>	W. J. Horne, <i>Laryngologist.</i>	St. John's Wood Dispensary.		E. J. Moore, <i>Medical Officer.</i>		
A. T. Davies } <i>Phys.</i>				H. N. Burroughes } <i>Phys.</i>	C. Horsford, <i>Con. Throat Surgeon.</i>	
A. Haig } <i>Phys.</i>			H. Rhodes } <i>Phys.</i>	J. F. H. Dally, <i>Phys., & Phys. in Charge Tuberc. Dept.</i>		
Metropolitan Hosp.	H. J. Waring, <i>Con. Surgeon.</i>	Finchley Cottage Hospital.	J. Morrison, <i>Physician Accouch.</i>	St. Marylebone Gen. Dispensary.	Sir Dyce Duckworth, <i>Con. Physician.</i>	
	W. T. Holmes } <i>Con. Oph. Surgs.</i>		C. Barker } <i>Med. Staff.</i>		C. S. de } <i>Phys.</i>	
	E. W. Brewerton } <i>Surgs.</i>		F. A. Spreat } <i>Med. Staff.</i>		Segundo } <i>Phys.</i>	
Memorial Hospital, Mildmay Park.	C. J. Ogle, <i>Con. Anæsthetist.</i>	Finchley Dispensary.	E. T. M. Tunnicliffe } <i>Staff.</i>	St. Pancras Dispensary.	T. G. M. Hine } <i>Phys.</i>	
	E. Cautley } <i>Phys.</i>		C. Barker } <i>Med. Staff.</i>		C. Horsford, <i>Con. Throat Surgeon.</i>	
	W. Langdon-Brown } <i>Phys.</i>		F. A. Spreat } <i>Med. Staff.</i>		F. L. Provis, <i>Surgeon Accouch.</i>	
Memorial Hospital, Mildmay Park.	H. Thursfield } <i>Phys.</i>	Finsbury Dispensary.	J. S. Sharman, <i>Surg.</i>	Seamen's Hospital Society, Greenwich.	Sir Dyce Duckworth, <i>Visit. Physician.</i>	
	C. G. Watson, <i>Surg.</i>		Forest Hill Prov. Dispensary.		A. H. Beadles } <i>Med. Offs.</i>	C. E. Robbs, <i>Surg.</i>
	A. E. Stansfeld } <i>Asst. Phys.</i>		Greenwich Provident Dispensary.		A. S. May } <i>Offs.</i>	W. H. Oxley, <i>Medical Officer.</i>
Metropolitan Hosp.	A. Feiling } <i>Phys.</i>	Greenwich Provident Dispensary.	W. Willes, <i>Medical Officer.</i>	Surrey Dispensary.	D. Smart, <i>Surgeon.</i>	
	R. C. Elmslie } <i>Phys.</i>		W. Willes, <i>Medical Officer.</i>		Surrey Dispensary.	D. Smart, <i>Surgeon.</i>
	R. M. Vick } <i>Surgs.</i>					
A. F. S. Sladden, <i>Path. and Regist.</i>	W. Willes, <i>Medical Officer.</i>	Surrey Dispensary.				
A. H. Brewer } <i>Med. Offs.</i>			W. Willes, <i>Medical Officer.</i>	Surrey Dispensary.		
L. U. Young } <i>Offs.</i>					W. Willes, <i>Medical Officer.</i>	Surrey Dispensary.

LONDON—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.
Tottenham Medical Club (Met. Prov. Med. Association).	J. A. P. Barnes } <i>Med.</i> G. H. Vos } <i>Offs.</i>	Alexandra Hospital for Children.	J. Berry, <i>Con. Surg.</i> H. M. Fletcher, <i>Phys.</i> Sir A. Bowlby, <i>Con. Surgeon.</i> W. T. Holmes Spicer, <i>Ophth. Surgeon.</i> W. G. Ball, <i>Surg.</i> H. D. Gillies, <i>Aural Surgeon.</i> H. N. Burroughes, <i>Visit. Med. Officer.</i> A. W. D. Coventon, <i>Pathologist.</i> H. G. Adamson, <i>Dermatologist.</i>	Queen Charlotte's Hospital.	W. S. A. Griffith } <i>Con. Phys.</i> W. J. Gow } C. H. Roberts, <i>Phys. to In-Patients.</i> J. H. Drysdale, <i>Phys.</i> Sir Dyce Duckworth, <i>Con. Physician.</i> T. B. Archer, <i>Con. Surgeon.</i> Ernest Clarke, <i>Surg.</i> A. Levy, <i>Asst. Surg.</i> R. Foster Moore, <i>Asst. Surgeon.</i> Sir W. J. Collins, <i>Surgeon.</i> E. A. Dorrell, <i>Asst. Surgeon.</i> A. L. Weakley, <i>Reg.</i>
Walthamstow Dispensary.	R. Jones, <i>Medical Officer.</i> W. G. Spencer, <i>Con. Surgeon.</i>	East London Hospital for Children (Shadwell).	H. M. Fletcher } <i>Phys.</i> C. Riviere } G. Graham, <i>Assistant Physician.</i> J. E. H. Roberts, <i>Asst. Surgeon.</i>	Royal Eye Hospital, Southwark.	J. H. Parsons } <i>Surgs.</i> C. Worth } M. L. Hepburn, <i>Asst. Surgeon.</i>
Western Dispensary, Westminster.	G. D. Robinson, <i>Con. Accoucheur.</i> H. Troutbeck, <i>Att. Medical Officer.</i> J. B. Nias, <i>Con Phys.</i> G. L. Johnson, <i>Con. Ophth. Surgeon.</i> B. Myers, <i>Physician.</i> L. A. Lawrence } <i>Surgs.</i> L. Evans } J. A. Willett, <i>Phys. Accoucheur.</i>	Evelina Hospital for Sick Children.	Sir Frederick Eve, <i>Con. Surgeon.</i> A. E. Garrod } <i>Phys.</i> F. E. Batten } H. Thursfield, <i>Phys. to Out-Patients.</i> Howard Marsh, <i>Con. Surgeon.</i> J. G. Forbes, <i>Clin. Path. and Bact.</i>	Royal London Ophth. Hospital.	J. H. Parsons } <i>Surgs.</i> C. Worth } M. L. Hepburn, <i>Asst. Surgeon.</i>
Western General Dispensary, Marylebone Road.	L. A. Lawrence } <i>Surgs.</i> L. Evans } J. A. Willett, <i>Phys. Accoucheur.</i>	Hospital for Sick Children (Gt. Ormond Street).	Sir L. Brunton, Bart. } <i>Con.</i> W. P. Heringham } <i>Phys.</i> W. H. Jessop, <i>Con. Ophth. Surgeon.</i> H. Davis, <i>Skin Department.</i> L. G. Guthrie, <i>Phys.</i> J. K. Murphy, <i>Surg. to Out-Patients.</i>	Royal Westminister Ophth. Hospital.	H. W. Dodd } <i>Surgs.</i> E. Brewerton } E. Laming Evans, <i>Surgeon.</i> W. H. George } <i>Anæ.</i> R. Pollard }
Westminster General Dispensary	K. R. Hay, <i>Phys.</i>	Queen's Hospital for Children, Hackney Road.	S. Neave, <i>Physician.</i> A. E. Gow, <i>Asst. Phys.</i> J. H. Connolly, <i>Ear, Thrt. & Nose Surg.</i> A. W. G. Woodforde, <i>Pathologist.</i> D'Arcy Power, <i>Con. Surgeon.</i> H. D. Rolleston, <i>Phys.</i> J. Cunning, <i>Surgeon.</i> H. W. Wilson, <i>Out-Patient Surgeon.</i> W. B. Grandage } <i>Anæ.</i> W. W. Wells }	Royal National Orthopædic Hospital, Gt. Portland St.	J. D. Grant, <i>Con. Surgeon.</i> W. Stuart Low, <i>Surg.</i> W. H. George } <i>Anæ.</i> J. D. Mortimer } A. Ryland, <i>Reg.</i>
Whitechapel Dispensary.	T. Jones, <i>Medical Officer.</i>	Victoria Hospital for Sick Children.	H. W. Wilson, <i>Out-Patient Surgeon.</i> W. B. Grandage } <i>Anæ.</i> W. W. Wells }	Hospital for Diseases of the Throat, Golden Square.	F. A. Rose } <i>Hon. Med. Staff.</i> T. J. Faulder } H. D. Gillies, <i>Path.</i>
Willesden, N.W., Passmore Edwards Hospital.	A. H. Levy, <i>Ophth. Surgeon.</i> J. A. Smith, <i>Hon. Medical Officer.</i>	National Hospital for Diseases of the Heart.	F. J. Halls } <i>Phys.</i> Dally } P. Hamill }	London Throat Hospital.	E. B. Waggett, <i>Con. Surgeon.</i> W. W. Wells, <i>Anæ.</i>
Wimbledon Cottage Hospital.	J. A. Hayward } <i>Med. Offs.</i> F. C. Ford }	Lock Hospital.	J. A. Bloxam, <i>Con. Surgeon.</i> H. J. Paterson } <i>Surgs. to O-Donagh pnts.</i> J. E. R. Mc-Donagh }	Metropolitan Ear, Nose and Throat Hospital.	J. Pickett, <i>Con. Surg.</i> F. Spicer } <i>Surgs.</i> W. J. Horne } H. Whale, <i>Asst. Surg.</i>
SPECIAL HOSPITALS, ASYLUMS, ETC.		City of London Hospital for Diseases of the Chest, Victoria Pk.	City of London Lying-in Hospital.	Hospital for Women, Chelsea.	F. L. Provis, <i>Surg. to Out-Patients.</i>
Hospital.	Name and Post.	Paddington Green Children's Hosp.	J. F. Halls Dally, <i>Asst. Physician.</i>	Hospital for Women, Soho Square.	C. J. Ogle, <i>Anæsth. and Registrar.</i> R. H. Paramore, <i>Path.</i>
Cancer Hospital, Brompton.	T. J. Horder, <i>Phys.</i> W. E. Miles } <i>Surgs.</i> J. Cunning } H. W. Wilson, <i>Asst. Surgeon.</i> N. W. Bourns, <i>Con. Anæsthetist.</i>	Queen's Hospital for Children, Hackney Road.	H. Dobell } <i>Con. Phys.</i> P. J. Hensley } A. T. Davies } <i>Phys.</i> J. Calvert } J. H. Drysdale } A. C. Jordon, <i>X-ray Department.</i>	Hospital for Consumption and Diseases of the Chest, Brompton.	A. Haig } <i>Phys.</i> A. S. Woodwork } W. J. Gow } H. William-son } <i>Gyns.</i> J. C. Marshall, <i>Surg.</i> J. D. E. Mortimer, <i>Anæsthetist.</i>
City of Lond. Hosp. for Diseases of the Chest, Victoria Pk.	V. D. Harris } <i>Con. Phys.</i> Sir W. Church } T. H. A. Chaplin } <i>Phys.</i> H. Walsham } C. Riviere, <i>Phys. to Out-patients.</i>	Victoria Hospital for Sick Children.	Mt. Vernon Hospital for Consumption and Diseases of the Chest.	Royal Hospital for Diseases of the Chest, City Road.	J. Attlee } <i>Con. Phys.</i> E. C. Bridges }
Hospital for Consumption and Diseases of the Chest, Brompton.	P. Kidd, <i>Con. Phys.</i> S. H. Habershon } <i>Phys.</i> P. H. S. Hartley } J. Dundas Grant, <i>Surg., Throat and Ear Department.</i>	National Hospital for Diseases of the Heart.	Royal National Hospital for Consumption and Diseases of the Chest, Ventnor.	Belgrave Hospital for Children.	E. Cautley, <i>Phys.</i> F. J. Stevens, <i>Sanitary Officer.</i>
Hospital for Consumption and Diseases of the Chest, Brompton.	P. Kidd, <i>Con. Phys.</i> S. H. Habershon } <i>Phys.</i> P. H. S. Hartley }	Lock Hospital.	City of London Lying-in Hospital.	Infants' Hospital, Westminster.	Sir L. Brunton, <i>Con. Physician.</i> R. Vincent, <i>Senior Physician.</i>

LONDON—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.
St. Monica's Home and Hospital for Children.	O. Lankester, <i>Con. Surg.</i> T. B. Archer, <i>Ophth. Surgeon.</i> J. A. Smith, <i>Medical Officer.</i>	London County Asylum, Colney Hatch	H. C. Waldo, <i>Asst. Med. Officer.</i>	London Radium Institute.	A. E. H. Pinch, <i>R.M.S. and General Director.</i>
Cripples' Nursery, Regent's Park.	H. F. Baker, <i>Con. Surgeon.</i>	St. Luke's Hospital for Lunatics.	R. W. Gilmour, <i>Asst. Med. Officer.</i>	Gordon Hospital for Rectal Diseases.	C. J. Ogle } <i>Hon.</i> W. E. Miles } <i>Surgs.</i>
Lord Mayor Treloar Cripples' Home.	F. E. Batten } <i>Hon.</i> J. Berry } <i>Med. Brd.</i> Sir Frederick Eve } Howard Marsh } H. J. Gauvain, <i>Senior Resident Medical Superintendent.</i>	West Ham Borough Asylum, Goodmayes.	J. C. Shaw, <i>Asst. Med. Officer.</i>	St. Mark's Hospital for Cancer, etc., of Rectum.	F. S. Edwards, <i>Surg.</i> C. G. Watson, <i>Asst. Surg.</i> R. W. Lloyd, <i>Senior Anæsthetist.</i>
St. Peter's Hospital for Stone.	F. Swinford Edwards, <i>Surgeon.</i>	East End Mothers' Lying-in Home.	W. J. Gow, <i>Hon. Con. Obst. Physician.</i> C. Mansell Moullin, <i>Hon. Con. Surgeon.</i> W. T. H. Spicer, <i>Hon. Con. Ophth. Surg.</i>	British Skin Hospital	C. F. Marshall, <i>Surg.</i>
Friedenheim Hosp. for the Dying.	S. H. Habershon, <i>Con. Physician.</i> W. McA. Eccles, <i>Con. Surgeon.</i> P. J. F. Lush, <i>Med. Officer.</i>	General Lying-in Hospital.	Sir F. H. Champneys, <i>Bart., Con. Phys.</i>	London Skin Hosp.	W. D. Butcher, <i>Surg. to X-ray Dept.</i>
Home for Confirmed Invalids (Women).	F. de H. Hall, <i>Hon. Con. Physician.</i> E. S. Tait, <i>Hon. Med. Officer.</i>	Hosp. for Epilepsy, Maida Vale.	G. Ogilvie } <i>Phys.</i> L. G. Guthrie } J. A. Ormerod } <i>Phys.</i> H. H. Tooth } W. A. Turner } <i>Phys. to O. pts.</i> F. E. Batten }	St. John's Hospital for Diseases of the Skin.	W. Hampson, <i>Med. Officer in charge.</i>
Hostel of God (Free Home for Dying)	L. G. Guthrie, <i>Hon. Con. Physician.</i>	National Hospital for Paralysed and Epileptic.	C. M. H. Howell, <i>Asst. Physician.</i> A. E. Cumberbatch, <i>Con. Aural Surg.</i> S. Scott, <i>Ear and Throat Surgeon.</i>	St. Paul's Hospital for Skin and Genito-Urinary Diseases.	G. French, <i>Casualty Surgeon.</i>
London Homœopathic Hospital.	C. E. Wheeler, <i>Asst. Physician.</i> J. C. Powell, <i>Asst. Ophth. Surgeon and Anæsthetist.</i>	West End Hospital for Diseases of the Nervous System.	A. E. Cumberbatch, <i>Con. Aural Surg.</i> S. Scott, <i>Ear and Throat Surgeon.</i> T. O. Wood, <i>Con. Physician.</i> H. Campbell, <i>Phys.</i> G. D. Robinson, <i>Gyn.</i> H. W. Dodd, <i>Ophth. Surgeon.</i> D. Grant, <i>Throat and Ear Surgeon.</i> Laming Evans, <i>Surgeon for Orthopædic Cases.</i> R. Pollard, <i>Anæsth.</i>	Royal Surgical Aid Society.	E. Laming Evans, <i>Surgeon.</i> G. E. Gask, <i>Con. Surg.</i> W. G. Ball, <i>Surg.</i> J. E. H. Roberts } <i>Asst. Surgs</i> H. Blakeway }
Royal Hospital for Incurables	J. Gay, <i>Med. Officer.</i>	Western Ophthalmic Hospital.	Sir W. J. Collins, <i>Con. Surgeon.</i> L. G. Guthrie, <i>Phys.</i> G. K. Campbell } <i>Surgs.</i> R. D. Batten } J. C. Marshall, <i>Asst. Surg.</i>	City of London Truss Society.	J. E. H. Roberts } <i>Asst. Surgs</i> H. Blakeway }
Woodside Home for Incurables.	E. T. M. Tunnicliffe, <i>Hon. Med. Attend.</i>			Florence Nightingale Hospital for Invalid Gentlewomen	H. M. Fletcher, <i>Con. Physician.</i>
Willesden Isolation Hospital, Neasden.	N. H. Walker, <i>Asst. Med. Supt.</i>			Medical Aid Society for Gentlewomen in Reduced Circumstances.	A. E. Cumberbatch } <i>Con. Surgs.</i> E. Waggett }
Claybury Asylum	Robert Armstrong-Jones, <i>Med. Supt.</i> F. H. Guppy, <i>Asst. Med. Officer.</i>			New Hospital for Women	J. Berry, <i>Con. Surg.</i> A. H. G. Doran, <i>Con. Surg.</i> C. H. Roberts } <i>Surgs.</i> A. C. Butler } <i>to In-Smythe Pts.</i> J. A. Willett, <i>Surg. to Out-Patients.</i>

PROVINCIAL.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.
BEDFORDSHIRE.					
Bedford Co. Hosp.	E. C. Sharpin } <i>Con. Surgs.</i> R. H. Kinsey } R. Coombs } <i>Phys.</i> W. G. Nash } H. Skelding } R. H. Coombs }	Reading Provident Dispensary.	W. T. Freeman } <i>Surgs.</i> G. F. Murrell } G. L. Ranking } J. L. Joyce }	Newbury Children's Cottage Hospital.	Howard Marsh, <i>Con. Surgeon.</i> T. Martin, <i>Med. Off.</i>
Bedford Provident Dispensary.	H. Skelding } <i>Med. Offs.</i> V. S. A. Bell } C. H. Perram }	Windsor: King Ed. VII's Hospital.	W. Fairbank, <i>Con. Surgeon.</i> W. F. Lloyd } <i>Hon. Phys.</i> W. H. W. Attlee } F. J. Hathaway, <i>Hon. Surgeon.</i> E. Burstal, <i>Hon. Asst. Surgeon.</i>	Newbury District Hospital.	A. Thompson, <i>M.O.</i> E. G. B. Adams, <i>Anæst.</i>
BERKSHIRE.					
Reading: Royal Berkshire Hospital.	W. T. Freeman } <i>Asst. Phys.</i> G. F. Murrell } G. L. Ranking, <i>Med. Registrar.</i> J. L. Joyce, <i>Surg. Reg.</i>	Abingdon Cot. Hosp.	P. Martin, <i>Med. Off.</i>	Wantage Cottage Hospital.	J. O. Sankey, <i>Con. Surgeon.</i>
BUCKINGHAMSHIRE.					
		Maidenhead Cottage Hospital.	A. J. Edge } <i>Hon. Med. Offs.</i> E. M. Baylis } A. Thompson }	Newbury Dispensary	A. Thompson, <i>M.O.</i>
				Wokingham: Pine-wood Sanatorium.	A. T. Davies, <i>Examining Physician.</i>
				Aylesbury: Royal Bucks. Hospital.	J. Berry, <i>Con. Surg.</i> J. C. Baker, <i>Surg.</i>
				Marlow Cottage Hospital.	Selbourne Bailey, <i>M. Officer.</i>

PROVINCIAL—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.
CAMBRIDGESHIRE.		DEVONSHIRE.		DORSETSHIRE.	
Cambridge: Addenbrooke's Hospital.	P. W. Latham } Con.	Plymouth: S. Devon and E. Cornwall Hospital.	E. L. Fox, Phys.	Barnstaple and N. Devon Infirmary.	W. Cooper } Surgs.
	Sir D. MacAlister. } Phys.		W. L. Woollcombe } Surgs.		Exeter Dispensary.
	G. Wallis, Con. Surg.		G. F. Aldous } Surgs.	Exeter Lying-in Charity.	
	L. Humphry, Phys.		H. G. Pinker, Asst. Surg.		Exeter: West of England Eye Infirmary.
E. Lloyd-Jones, Asst. Physician.	C. H. Whiteford } Anas.	Exmouth Dispensary.	J. D. Harris } Con.		
Howard Marsh, Surg.	E. G. Smith } Anas.		Dorchester: Dorset Co. Hospital.	E. A. Brash } Surg.	
W. Malden } Clin. Path.	W. L. Pethybridge, Pathologist.	Shaftesbury: Westminster Memorial Cottage Hospital.		A. C. Roper } Surgs.	
G. S. Haynes, Hon. Anæsthetist.	C. A. Hingston, Con. Phys.		Swanage Cott. Hosp.	R. Pickard } Surgs.	
Newmarket: Rous Memorial Hosp.	J. H. S. May, Surg.	Wimborne: Victoria Cottage Hospital.		J. T. Langley, Con. Surg.	
J. H. Maund } Surgs.	C. R. Crowther, Med. Off., Prov. Dept.		Portland: Royal Portland Dispensary.	E. L. Sturdee, M.O.	
	CHESHIRE.			Weymouth and Dorset Co. Royal Eye Infirmary.	DURHAM.
Chester General Infirmary.	J. Elliott, Hon. Phys.	Plymouth Royal Eye Infirmary, Mutley.	E. L. Fox, Hon. Phys.		Durham Co. Hosp.
	J. J. Blagden, Hon. Assistant Surgeon.		J. E. Square, Surg.	J. E. Square, Surg.	
Macclesfield General Infirmary.	C. Averill } Hon. Surgs.	Plymouth: Devon and Cornwall Ear and Throat Hospital.	W. L. Pethybridge, Anæsthetist.	Gateshead: Children's Hospital.	G. H. Norris, Hon. Phys.
	John B. Hughes }		C. A. Hingston, Con. Physician.		Stockton and Thornaby Hospital.
Altrincham Prov. Disp. and Hosp.	A. T. Blease, Disp. Medical Officer.	Barnstaple and N. Devon Dispensary.	E. G. Smith, Surg.	Sunderland: Royal Infirmary.	
Crewe Memorial Cottage Hospital.	J. R. Atkinson, Med. Off.		Exeter: Royal Devon and Exeter Hosp.		C. H. Ashford, Dental Surgeon.
Liscard: Victoria Central Hospital.	R. J. Hamilton, Ophthal. Surg.	Ashburton and Buckfastleigh Cottage Hospital.		W. Cooper, Con. Med. Off.	Durham Co. Hospital.
Chester and District Skin Dispensary.	J. J. Blagden, Phys.		Bideford and District Hospital.	A. W. Le-marchand } Med. Offs.	
CORNWALL.		Budleigh Salterton Cottage Hospital.		A. J. Kendrick } Offs.	Sunderland: Monkwearmouth and Southwick Hosp.
Fowey Cottage Hospital.	S. Morse } Med. Offs.		Dartmouth Cottage Hospital.	J. D. Harris } Surgs.	
	E. E. S. Davis }	Dawlish Cottage Hospital.		A. C. Roper } Hon. Con. Surg.	ESSEX.
Liskeard: Passmore Edwards Cottage Hospital.	W. Nettle, Med. Off.		Exmouth Cottage Hospital.	R. Martyn, Hon. Med. Officer.	Colchester: Essex Co. Hospital.
Redruth: West Cornwall Miners' and Women's Hospital.	L. Phillips, Med. Off.	Ilfracombe: Tyrrell Cottage Hospital.		C. W. E. Toller, Surgeon.	
Helston Public Dispensary.	M. R. Taylor, Surg.		Kingsbridge and District Cottage Hospital.	E. L. Fox, Hon. Con. Physician.	Chelmsford and Essex Hosp. and Disp.
Launceston Infirmary.	H. H. Serpell, Med. Officer.	Newton Abbot Hosp. and Dispensary.		J. Scrase } Med. Offs.	
Penzance: West Cornwall Infirmary and Dispensary.	J. B. Montgomery, Con. Physician.		Paignton Cottage Hospital and Provident Dispensary.	A. W. L. Jones }	Tilbury: Passmore Edwards District Cottage Hospital.
Truro: Royal Cornwall Infirmary.	H. Clarke } Med. Offs.	Sidmouth: Victoria Cottage Hospital.		B. J. Collyer, Med. Officer.	
CUMBERLAND.			Tavistock Cottage Hospital and Disp.	A. C. Roper, Hon. Con. Surg.	Bristol General Hosp.
Millom and Bootle Joint Isolation Hospital.	P. B. Stoney, Med. Supt.	Torquay: Western Hosp. for Incipient Consumption.		B. G. Pullin, Med. Off.	
	Carlisle: Cumberland Infirmary.		N. Maclaren, Surg.	Torquay: Torbay Hosp. Prov. Disp. and Eye Infirmary.	Bristol General Hosp.
Whitehaven and West Cumberland Infirmary.	W. I'Anson, Visiting Surgeon.	Torrington Cottage Hospital.	F. T. Thistle, Phys.		
DERBYSHIRE.			Ashbourne: Victoria Memorial Cottage Hospital.	E. Morse } Med. Offs.	Bristol General Hosp.
Buxton: Derbyshire Hospital and Buxton Bath Charity.	G. H. Thompson, Con. Physician & Surg.	Derby: Derbyshire Royal Infirmary.		H. Compton-Parsons }	
	Ilkeston Cottage Hospital.		W. H. Roache, M.O.		
Derby: Derbyshire Royal Infirmary.	J. L. Wright, Con. Surg.				

PROVINCIAL—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.
Bristol Royal Hosp. for Sick Children and Women.	C. A. Morton, <i>Surg.</i>	Portsmouth and S. Hants. Eye & Ear Infirmary.	C. A. S. Ridout and A. M. Barford } <i>Surgs. Nose, Thrt. Ear Dept.</i>	Hitchen: North Herts. and S. Beds. Hospital.	C. G. Grellet, <i>Hon. Con. Med. Officer.</i> J. H. Gilbertson, <i>Hon. Med. Officer.</i> C. P. Charles } <i>Offs.</i>
Cheltenham General Hospital and Disp.	C. J. Bennett, <i>Con. Surgeon.</i> E. J. Tatham, <i>Hon. Anæsthetist.</i> O. H. Fowler, <i>Hon. Con. Surgeon.</i>	Aldershot Hospital.	F. Stroyan, <i>Med. Off.</i>	Royston Cott. Hosp.	C. F. Wightman, <i>Surg.</i>
Cirencester Cottage Hospital.	C. P. Hooker } <i>Med. Offs.</i> H. Marshall } L. Hughes } H. E. Graham } F. Lewarne, <i>Hon. Surgeon.</i>	Alton: Inwood Cottage Hospital.	W. Kay, <i>Med. Officer.</i>	Royston Joint Isolation Hospital.	C. F. Wightman, <i>Med. Supt.</i>
Fairford Cott. Hosp.	H. E. Bloxsome, <i>Med. Officer.</i>	Cowes Cottage Hospital.	T. A. Mayo } <i>Med. Offs.</i> H. E. Hoffmeister } Sir T. Lauder Brunton, <i>Hon. Con. Phys.</i>	HUNTINGDONSHIRE.	
Gloucester Free Hospital for Sick Children.	W. W. Grosvenor } <i>Con. Phys.</i> C. V. Knight } C. F. Cuthbert, <i>Surg.</i>	Fleet Cottage Hosp.	J. G. Slade } <i>Med. Offs.</i> H. Maturin } W. Balgarnie } P. E. Adams } H. J. May, <i>Ophthalmic Surgeon.</i>	KENT.	
Hambrook Village Hospital.	F. W. Crossman, <i>Hon. Medical Officer.</i>	Ryde: Royal Isle of Wight Co. Hosp.	J. L. Jeaffreson, <i>Med. Officer.</i>	Ashford Cott. Hosp.	E. G. Colville, <i>Med. Officer.</i> H. Tooth, <i>Hon. Con. Physician.</i>
Redland, Bristol: Orthopædic Hosp. and Home for Crippled Children.	E. H. E. Stack, <i>Hon. Surgeon.</i>	Shanklin: Arthur Webster Memorial Hospital.	J. F. Bullar, <i>Con. Surgeon.</i>	Bromley Cott. Hosp.	D'Arcy Power, <i>Hon. Con. Surg.</i> H. J. Ilott, <i>Med. Off.</i>
Tewkesbury Hospital.	G. Barling } <i>Con. Surgs.</i> T. S. Ellis } G. Parker, <i>Con. Phys.</i>	Southampton Free Eye Hospital.	H. J. Godwin, <i>Surg.</i>	Canterbury: Kent & Canterbury Hosp.	E. D. W. Reid, <i>Surg.</i>
Bristol Dispensary.	H. Finzel, <i>Med. Off.</i> E. H. E. Stack, <i>Hon. Surg.</i>	Winchester: Royal Hants. County Hospital.	J. F. Bullar, <i>Hon. Ophth. Surgeon.</i>	Chislehurst, Orpington and Cray Valley Hospital.	P. S. Abraham, <i>Con. Surg. Dis. of Skin.</i> J. M. Bennion, <i>Med. Officer.</i>
Bristol Eye Disp.	H. Waldo, <i>Cons. Phys.</i> J. A. Nixon, <i>Phys.</i>	Bournemouth Home for Invalid Ladies.	W. A. Smith, <i>Hon. Con. Surgeon.</i>	Dover Borough Fever Hospital.	E. Elliott, <i>Med. Supt.</i>
Bristol Royal Infirmary.	H. F. Mole } <i>Surgs.</i> E. H. E. Stack } W. W. Grosvenor, <i>Con. Physician.</i>	Ryde Dispensary.	K. W. I. Mackenzie, <i>Medical Officer.</i>	Dover: Royal Victoria Hospital.	I. D. C. Howden, <i>Hon. Med. Officer.</i> H. W. Dodd } <i>Hon. Con. Surg.</i>
Gloucester Provident Dispensary.	O. Clark } <i>Med. Officers.</i> E. S. Ellis } J. P. Wilton } <i>Con. Surgs.</i> T. S. Ellis }	Southampton Dispensary.	A. J. Bathe } <i>Acting Medical Officers.</i> C. P. le Quesne }	Eltham and Mottingham Cott. Hosp.	F. de H. Hall } <i>Hon. Con. Phys.</i> H. Walsham } H. S. Smith, <i>Med. Off.</i>
Gloucester Royal Infirmary and Eye Institution.	O. W. Clark } <i>Phys. Offs.</i> W. W. Grosvenor } C. V. Knight, <i>Assist. Surgeon.</i>	West Cowes Provident Dispensary.	T. A. Mayo, <i>Surg.</i>	Folkestone: Royal Victoria Hospital.	E. J. G. Calverley, <i>Hon. Asst. Med. Off.</i>
Minchinhampton Dispensary.	B. E. Church, <i>Med. Officer.</i>	Winchester Prov. Dispensary.	G. W. Wickham } <i>Med. Offs.</i> H. J. Godwin }	Gravesend Hospital.	C. Firth } <i>Surgs.</i> C. E. Robbs }
Winterbourne Gen. Dispensary.	F. W. Crossman, <i>Surgeon.</i>	HEREFORDSHIRE.		Herne Bay: Queen Victoria Memorial Cottage Hospital.	C. K. Bowes } <i>Med. Offs.</i> T. A. Bowes }
HAMPSHIRE.		Bromyard Cottage Hospital.	A. A. Beck, <i>Medical Officer.</i>	Holmesdale Cottage Hospital.	J. F. Alexander } <i>Hon. Med. Offs.</i> F. M. Burnett } J. Sterry }
Bournemouth: Royal Victoria and West Hants. Hospital.	W. A. Smith } <i>Hon. Con. Surgs.</i> P. W. G. Nunn } F. Belben, <i>Surgeon.</i> F. Heasman } <i>Assist. Phys.</i> E. H. White } M. B. Scott, <i>Assist. Surgeon.</i> F. Heasman, <i>Anas. Med. and Surg. Regs.</i> F. Belben } E. H. White } C. G. H. Morse, <i>Hon. Registrar.</i> H. Rundle, <i>Con. Surgeon.</i>	Leominster Cottage Hospital.	C. A. Robinson, <i>Med. Officer.</i>	Maidstone: West Kent Gen. Hosp.	A. H. B. Hallows, <i>Con. Surgeon.</i> W. Shaw, <i>Physician.</i>
Portsmouth: Royal Portsmouth, Portsea and Gosport Hospital.	C. A. S. Ridout } <i>Asst. Surgs.</i> H. Burrows } H. Lamplough, <i>Hon. Assistant Surgeon.</i>	Ross Dispensary and Cottage Hospital.	L. Green, <i>Hon. Med. Officer.</i>	Ramsgate: General Hospital.	F. Woods, <i>Hon. Phys. Surg.</i> T. G. Styant, <i>Vis. Surg.</i> D'Arcy Power, <i>Con. Surg.</i> F. M. Burnett, <i>Med. Officer.</i>
		HERTFORDSHIRE.		Sevenoaks: Children's Hospital for Hip Disease.	H. A. Andrews } <i>Med. Offs.</i> E. S. Cardell } H. J. M. Watts } E. Lammiman, <i>Con. Surgeon.</i>
		Hertford Co. Hosp.	J. T. Tasker Evans, <i>Hon. Con. Med. Off.</i> C. E. Shelley, <i>Hon. Med. Officer.</i>	Tonbridge: Queen Vict. Cott. Hosp.	G. L. Pardington, <i>Physician.</i> W. T. Storrs, <i>Asst. Surgeon.</i>
		Barnet: Victoria Cottage Hospital.	W. J. Harnett } <i>Hon. Con. Surgs.</i> W. Rough-ton } F. C. Evill } <i>Med. Offs.</i> J. W. Nunn }	Tunbridge Wells General Hospital.	G. L. Pardington, <i>Physician.</i> W. T. Storrs, <i>Asst. Surgeon.</i>
		Bushey Heath Cottage Hospital.	H. Morley Fletcher, <i>Hon. Con. Phys.</i> L. P. Shadbolt, <i>Hon. Medical Officer.</i>	Barming Heath: Co. Asylum.	W. E. Collier, <i>Asst. Medical Officer.</i>
		Cheshunt Cottage Hospital.	F. H. Best, <i>Medical Officer.</i> H. D. Rolleston, <i>Con. Physician.</i>	Deal and Walmer Victoria Hospital.	E. Ll. Davey, <i>Med. Officer.</i>
		Hemel Hempstead: West Herts. Hosp.	S. A. Bontor, <i>Hon. Surgeon.</i> C. E. Shelley, <i>Hon. Con. Surgeon.</i>		
		Hertford and Ware Joint Isolatr. Hosp.	R. A. Dunn, <i>Med. Superintendent.</i>		

PROVINCIAL—continued.

Hospital.	Name and Post.	Hospital.	Name and Post.	Hospital.	Name and Post.	
Nottingham General Dispensary.	T. D. Pryce, <i>Hon. Con. Surgeon.</i>	Taunton and Somerset Hospital.	R. L. Meade-King, <i>Phys.</i>	Richmond Disp.	S. S. Burn } <i>Med.</i>	
	W. T. Williamson, <i>Resident Surgeon.</i>		Weston-super-Mare Hospital and Dispensary.		C. P. Crouch, <i>Hon. Surg.</i>	H. F. Chapman } <i>Offs.</i>
	W. H. S. Hodge, <i>Asst. Res. Surgeon.</i>		Bath: Eastern Dispensary.		O. A. G. Collins, <i>Hon. Med. Off.</i>	C. Blair, <i>Hon. Ophth. Surgeon.</i>
	E. W. Whiting, <i>Asst. Res. Surgeon.</i>		Wivelescombe Dispensary.		W. H. Randolph } <i>Surgs.</i>	H. B. Boulter, <i>Visit. Med. Off.</i>
Nottingham General Disp. (branch).	R. G. Hogarth, <i>Surg.</i>	Bath Maternity Charity.	G. H. H. Almond, <i>Surg.</i>	Carshalton and District Hospital.	W. Gripper, <i>Hon. Surg.</i>	
Nottingham Children's Hospital.	G. A. Coulby, <i>Assist. Physician.</i>		STAFFORDSHIRE.			
Nottingham: Midland Institution for the Blind.	T. D. Pryce, <i>Medical Attendant.</i>				Cranleigh Village Hospital.	J. K. Willis, <i>Surg.</i>
OXFORDSHIRE.						
Oxford Eye Hosp.	Surg.-Gen. Sir A. F. Bradshaw, <i>K.C.B., Hon. Secretary.</i>	Wolverhampton and Staffs. Gen. Hosp.	W. H. T. Winter, <i>Con. Surg.</i>	Croydon Prov. Med. Dispensary.	E. Morris } <i>Med. Offs.</i>	
	E. B. Gray, <i>Con. Phys.</i>		W. F. Cholmeley, <i>Surg. & Gynaecol.</i>		W. G. Paget } <i>Offs.</i>	
Oxford: Radcliffe Infirmary and Co. Hospital.	A. Winkfield, <i>Hon. Surgeon.</i>	Stoke-on-Trent: N. Staffs. Infirmary Hartshill.	H. H. C. Dent } <i>Asst. Surgs.</i>	East & West Molesey & Hampton Court Cottage Hospital.	T. Compton, <i>Med. Off.</i>	
	R. H. Sankey, <i>Radiographer.</i>		S. K. Alcock } <i>Phys.</i>	Egham Cott. Hosp.	H. E. Giffard, <i>Med. Off.</i>	
Oxford: St. John's Home and Hosp.	J. O. Sankey, <i>Med. Officer.</i>	Burslem: Haywood Hospital.	H. Nicholls } <i>Phys.</i>	Epsom and Ewell Cottage Hospital.	E. N. Reichardt } <i>Med. Offs.</i>	
Banbury: Horton Infirmary.	E. Franey, <i>Con. Med. Officer.</i>		Hammerwich and District Cottage Hospital.	G. H. Sowry, <i>Asst. Phys.</i>	Farnham: Trimmer's Cottage Hospital.	J. Hussey } <i>Med. Offs.</i>
SHROPSHIRE.						
Shrewsbury: County Hospital.	H. W. Gardner } <i>Phys.</i>	Leek Memorial Cottage Hospital.	E. E. Young, <i>Asst. Surg.</i>	Haslemere & District Cottage Hospital.	A. Lyndon } <i>Med. Offs.</i>	
	R. H. Urwick } <i>Surgs.</i>		A. H. John, <i>Elect. Med. Off.</i>		G. Smith } <i>Offs.</i>	
	A. Jackson } <i>Phys. Ex-tiaord.</i>	Longton Cottage Hospital.	S. K. Alcock, <i>Hon. Med. Off.</i>	Reigate and Redhill Hospital.	C. S. Palmer, <i>Con. Medical Officer.</i>	
	L. J. Godson } <i>Phys. Ex-tiaord.</i>	Walsall and District Hospital.	W. H. Horton, <i>M.O.</i>	Sutton Hospital.	W. S. Danks, <i>Med. Off.</i>	
	E. Burd } <i>Phys. Ex-tiaord.</i>	Burton-on-Trent Infirmary.	E. Brunt, <i>Med. Off.</i>	Woking: Vict. Cott. Hospital.	F. E. A. Colby, <i>Hon. Med. Off.</i>	
W. Edmond, <i>Radiog.</i>	Stafford: Staffs. Gen. Infirmary.	E. E. Young, <i>Hon. Med. Off.</i>	Co. Asyl., Netherne, near Merstham.	F. C. Gayton, <i>Med. Superintendent.</i>		
Broseley: Lady Forester Hospital.	H. W. Gardner, <i>Con. Physician.</i>	Stafford: Staffs. County Asylum, Cheddleton, Leek.	E. E. Young, <i>Hon. Med. Off.</i>	Egham Dispensary.	H. E. Giffard, <i>Med. Off.</i>	
Ludlow Cottage Hospital.	W. H. Farmer, <i>Hon. Surgeon.</i>	SUFFOLK.			Godalming: Meath House of Comfort for Female Epileptics.	W. H. Jessop, <i>Hon. Con. Oculist.</i>
Much Wenlock: Lady Forester Memorial Hospital.	H. W. Gardner, <i>Con. Physician.</i>	Ipswich: East Suff. and Ipswich Hospital.	J. Gutch, <i>Med. Off.</i>	SUSSEX.		
Oswestry and Ellesmere Cottage Hospital.	J. P. Cartwright, <i>Med. Officer.</i>	Beccles Hospital.	C. K. Moseley, <i>Asst. Med. Off.</i>	Brighton: Royal Sussex Co. Hosp.	W. A. Hollis, <i>Con. Physician.</i>	
Whitchurch Cottage Hospital and Dispensary.	E. A. Perram, <i>M.O.</i>		W. M. Crowfoot, <i>Hon. Con. Surg.</i>		W. Turner } <i>Con. Surgs.</i>	
Baschurch: Shropshire Convalescent & Surgical Home.	H. W. Gardner } <i>Hon. Med. Offs.</i>	Bury St. Edmunds: West Suffolk Gen. Hosp.	G. R. Fox } <i>Hon. M.O.</i>	T. J. Verrall } <i>Surgs.</i>		
Bridgnorth and S. Shropshire Infirmary.	R. Stawell } <i>Hon. Med. Offs.</i>		G. Master, <i>Med. Off.</i>	R. F. Jowers } <i>Surgs.</i>		
Ironbridge Dispensary.	R. H. Urwick } <i>Hon. Med. Offs.</i>	Gorleston Cottage Hospital.	H. Wood-Hill } <i>M.O.</i>	A. H. Buck } <i>Phys.</i>		
Ludlow Dispensary.	J. C. Padwick, <i>Surg.</i>	Lowestoft Hospital.	P. G. Gilmour, <i>Hon. Med. Off.</i>	M. Rigby, <i>Anaest.</i>		
SOMERSETSHIRE.						
Bath: Royal Mineral Water Hospital.	R. Waterhouse, <i>Phys.</i>	Sudbury: St. Leonard's Hospital.	P. W. Latham, <i>Hon. Consulting Phys.</i>	T. S. Worboys, <i>Asst. Dental Surgeon.</i>		
	G. H. H. Almond, <i>Hon. Pathologist.</i>	SURREY.			T. H. Wadd, <i>Con. Surgeon.</i>	
Bath Royal United Hospital.	F. K. Green, <i>Con. Surg.</i>	Guildford: Royal Surrey Co. Hosp.	A. M. Mitchell } <i>Med. Offs.</i>	Hastings: E. Sussex Hospital.	C. Christopherson, <i>Asst. Physician.</i>	
	E. J. Cave, <i>Phys.</i>		F. K. Weaver } <i>Offs.</i>		L. E. Jowers, <i>Asst. Surgeon.</i>	
	R. Waterhouse, <i>Asst. Phys., Path. and Curator of Muscum.</i>	Richmond: Royal Hospital.	H. F. Parker } <i>Med. Offs.</i>	Brighton, Hove and Ear Hospital.	A. S. Wilson } <i>Phys.</i>	
	H. G. Terry } <i>Surgs.</i>		H. B. Butler } <i>Med. Offs.</i>		A. W. Brodribb } <i>Phys.</i>	
Frome: Victoria Hospital.	F. Fraser } <i>Surgs.</i>	H. F. Chapman } <i>Med. Offs.</i>	S. S. Burn } <i>Med. Offs.</i>	C. Christopherson, <i>Asst. Physician.</i>		
	P. T. Jones, <i>Hon. Med. Off.</i>	J. Williamson } <i>Offs.</i>	C. S. Blair, <i>Ophth. Surgeon.</i>	W. C. Chaffey, <i>Con. Physician.</i>		
				E. Grinstead: Queen Vict. Cott. Hosp.	F. C. Poynder } <i>Med. Offs.</i>	
					R. A. Fegan } <i>Offs.</i>	

PROVINCIAL—continued.

<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
Haywards Heath: Eliot Mem. Cott. Hospital.	Evan Alban, <i>Med. Off.</i>	Rugby: Hospital of St. Cross.	C. R. Hoskyn, <i>Hon. Med. Off.</i>	Hull: Victoria Hosp. for Sick Children.	W. C. F. Harland, <i>Hon. Asst. Phys.</i>
Horsham Cott. Hosp.	E. I. Bostock } M. H. H. } F. W. E. } Vernon } Kenneir } <i>Med. Offs.</i>	Stratford-upon-Avon Hospital.	H. Lupton, <i>Hon. Con. Med. Off.</i>	Leeds Hospital for Consumption.	J. E. Eddison, <i>Hon. Con. Physician.</i>
Worthing Hospital	H.L.Harrison } <i>Med.</i> H. F. Hyde } <i>Offs.</i>	Birmingham General Dispensary.	G. Heaton } <i>Con.</i> A. Lucus } <i>Surgs.</i>	Leeds Hospital for Women and Child.	J. E. Eddison, <i>Con. Physician.</i>
Brighton, Hove and Preston Disp.	H. Langton, <i>Hon. Con. Surgeon.</i>	Leamington Prov. Dispensary.	C. Martin, <i>Con. Gyn.</i>	Mexborough: Montagu Hospital.	J. J. Huey } <i>Med.</i> F. Harvey } <i>Offs.</i>
Brighton and Hove Lying-in Institute.	D. W. Giffard, <i>Con. Surgeon.</i>	Rugby Provident Dispensary.	F. H. Haynes } <i>Con.</i> B. Rice. } <i>Staff.</i>	Middlesboro': North Ormsby Hosp.	H. Walker, <i>Surgeon.</i>
Brighton, Hove and Preston Provident Dispensary.	W. A. Hollis, <i>Hon. Con. Physician.</i>	Leamington: Royal Midland Counties Home for Incurables.	C. R. Hoskyn } <i>Med.</i> H. J. Beddow } <i>Offs.</i> F. H. Haynes, <i>Con. Physician.</i>	Rotherham Hospital and Dispensary.	H. E. Knight, <i>Surg.</i>
Chichester: West Sussex, East Hants. & Chichester General Infirmary & Disp.	H. Langton, <i>Hon. Con. Surgeon.</i>		F. Thorne } <i>Surgs.</i> B. Rice } T. H. Butler, <i>Hon. Ophth. Surgeon.</i>	Scarborough Hosp. and Dispensary.	W. C. E. Taylor, <i>Con. Surgeon.</i>
Eastbourne Provident Medical Assoc.	A. Upton, <i>District Med. Off.</i>	WILTSHIRE.		Sheffield Free Hosp. for Children.	L. Giles } <i>Med.</i> H. B. Maingay } <i>Offs.</i> W. B. Griffin, <i>Asst. Hon. Surgeon.</i>
East Grinstead Gen. Dispensary.	F. V. Paxton, <i>Con. Physician.</i>	Chippenham Cottage Hospital.	F. K. Green, <i>Hon. Con. Surgeon.</i>	Sheffield: Jessop Hosp. for Women.	J. H. Wilks, <i>Med. Off.</i>
Lewes Disp. & Infir. & Victoria Hosp.	G. C. Garratt, <i>Phys.</i>	Devizes Cott. Hospital.	G. S. A. Waylen, <i>Surgeon.</i>	Bradford Royal Infirmary.	R. Favell } <i>Med.</i> P. E. Barber } <i>Offs.</i> A. Hall, <i>Physician.</i>
	F. Skaife, <i>Surgeon.</i>	Melksham Cot. Hosp.	C. F. Rumboll, <i>M.O.</i>	Dewsbury and District Gen. Infir.	A. E. Naish, <i>Asst. Physician.</i>
	A. M. Barford, <i>Asst. Surg. & Surg. Thrt., Nose & Ear Dept.</i>	Salisbury and South Wilts. Prov. Disp.	J. E. Gordon } <i>Med.</i> J. O. March } <i>Offs.</i>	Halifax Royal Infirmary.	T. Wilmot, <i>Phys.</i>
	A. C. Gurney, <i>Med. Off.</i>	Salisbury Gen. Infirmary.	J. E. Gordon } <i>Con.</i> G. G. Morrice } <i>Phys.</i>	Hull and Sculcoates Dispensary.	H. Meade, <i>Con. Surg.</i> W. Wrangham, <i>Asst. Physician.</i>
	F. C. Poynder, <i>Med. Officer.</i>				J. W. Applegate, <i>Hon. Med. Off.</i>
	R. F. Jowers, <i>Con. Surgeon.</i>	WORCESTERSHIRE.			J. E. Wright } <i>Med.</i> F. Whitaker } <i>Offs.</i>
	W. A. Dow, <i>Surgeon.</i>	Worcester: General Infirmary.	M. Read, <i>Physician.</i>	Harrogate Infirmary.	E. S. Steward, <i>Ophth. and Aural Surgeon.</i>
	W. E. Roberts, <i>Med. Officer.</i>		T. Bates (jun.), <i>Surg.</i>		F. F. Walton } <i>Surgs.</i> A. F. Perl } T. M. Evans, <i>Con. Surgeon.</i>
WARWICKSHIRE.		Kidderminster Infirmary and Children's Hospital.	M. Bates, <i>Hon. Anas. and Pathologist.</i>	Hull Royal Infirmary.	A. G. Francis, <i>Surg.</i> G. B. Nicholson, <i>Asst. Surgeon.</i>
Birmingham General Hospital.	G. Barling } <i>Surgs.</i> G. Heaton } A. Lucas } E. M. Woodman, <i>Asst. Surgeon.</i>	Redditch: Smallwood Hospital.	S. Stretton, <i>Hon. Con. Surgeon.</i>	Leeds Gen. Infirmary.	J. E. Eddison, <i>Con. Physician.</i>
Leamington: Warneford, Leamington, and S. Warwicksh. General Hospital.	R. H. Rollinson-Whitaker, <i>Anas.</i>	Worcester Disp. and Prov. Med. Institution.	E. H. Addenbrooke, <i>Con. Surgeon.</i>	Leeds Public Disp.	G. L. Wells, <i>Surg.</i>
	O. F. Wyer } <i>Hon. Con.</i> F. H. Haynes } <i>Phys.</i>		J. L. Stretton } <i>Surgs.</i> O. C. P. Evans } W. H. Moore } J. E. Pierce, <i>M.O.</i>	Middlesborough-on-Tees: North Riding Infirmary.	W. S. Dickie, <i>Med. Officer.</i>
	T. E. C. Cole, <i>Hon. Physician.</i>	YORKSHIRE.		Pontefract Gen. Disp. and Infirmary.	A. Hillaby, <i>Hon. Con. Med. Off.</i>
	B. Rice, <i>Hon. Surg.</i>	York County Hosp.	G. W. Micklethwait } <i>Phys.</i> J. S. Gayner } G. S. Hughes, <i>Surg.</i>	Ripon Dispensary & Cottage Hospital.	S. Hey, <i>Hon. Surg.</i>
	T. Harrison Butler, <i>Ophthal. Surgeon.</i>		H. E. Bateman, <i>Elec. Therap. Dept.</i>	Ripon Union Workhouse.	S. Hey, <i>Med. Off.</i>
Birmingham & Midland Ear & Throat Hospital.	C. B. Dale, <i>Anas.</i>	Barnsley: Beckett Hospital and Dispensary.	F. J. Sadler } <i>Hon. Surgs.</i> E. W. Blackburn } F. J. Sadler, <i>Phys.</i>	Scarborough: Royal Northern Sea-Bathing Infirmary.	C. E. Taylor, <i>Con. Med. Off.</i>
Birmingham & Midland Eye Hosp.	T. H. Butler, <i>Hon. Assist. Surgeon.</i>	Barnsley: Kendray Hospital.		Sheffield Royal Infirmary.	G. H. Pooley, <i>Ophth. Surgeon.</i>
Birmingham & Midland Free Hospital for Sick Children.	G. Heaton, <i>Con. Surg.</i>	Barnsley: Smallpox Hospital.	W. G. Burnie } <i>Hon. Con. Med. Offs.</i> H. Meade } T. Wilmot, <i>Vis. Phys.</i>	Willerby: Hull City Asylum.	W. D. Mart } <i>Anas.</i> V. Favell } J. S. Anderson, <i>Asst. Med. Off.</i>
Birmingham & Midland Hospital for Women.	A. W. Nuttall, <i>Surg.</i>	Bradford Children's Hospital.		York Dispensary.	H. E. Bateman, <i>Con. Surgeon.</i>
Birmingham Lying-in Charity Maternity Hospital.	C. Martin } <i>Surgs.</i> J. Hewetson }	Bradford City Fever & Infect. Dis. Hosp.	J. J. Huey, <i>Med. Off.</i>	York: Friends' Retreat.	J. P. Wightman, <i>Hon. Med. Off.</i>
Birmingham: Queen's Hospital.	J. T. Hewetson, <i>Surg.</i>	Denaby Main: Fullerton Hospital.	G. G. Oakley, <i>Hon. Surgeon.</i>		B. Pierce, <i>Med. Supt.</i>
Birmingham Royal Orthopaedic and Spinal Hospital.	A. W. Nuthall, <i>Cas. Surgeon.</i>	Halifax Eye, Ear and Throat Hospital.		CHANNEL ISLANDS.	
Coventry & Warwickshire Hospital.	W. E. Bennett, <i>Surg. Med. Off.</i>	Harrogate: Royal Bath Hospital.	H. Walker, <i>Hon. Med. Off.</i>	Guernsey: Victoria Cottage Hospital.	J. F. Bullar, <i>Ophth. Surgeon.</i>
	W. E. Bennett, <i>Hon. Med. Off.</i>			Jersey: Gen. Disp. and Infirmary.	H. Smith, <i>Hon. Med. Officer.</i> C. N. Le Brocq, <i>Asst. Hon. Med. Off.</i>

WALES.

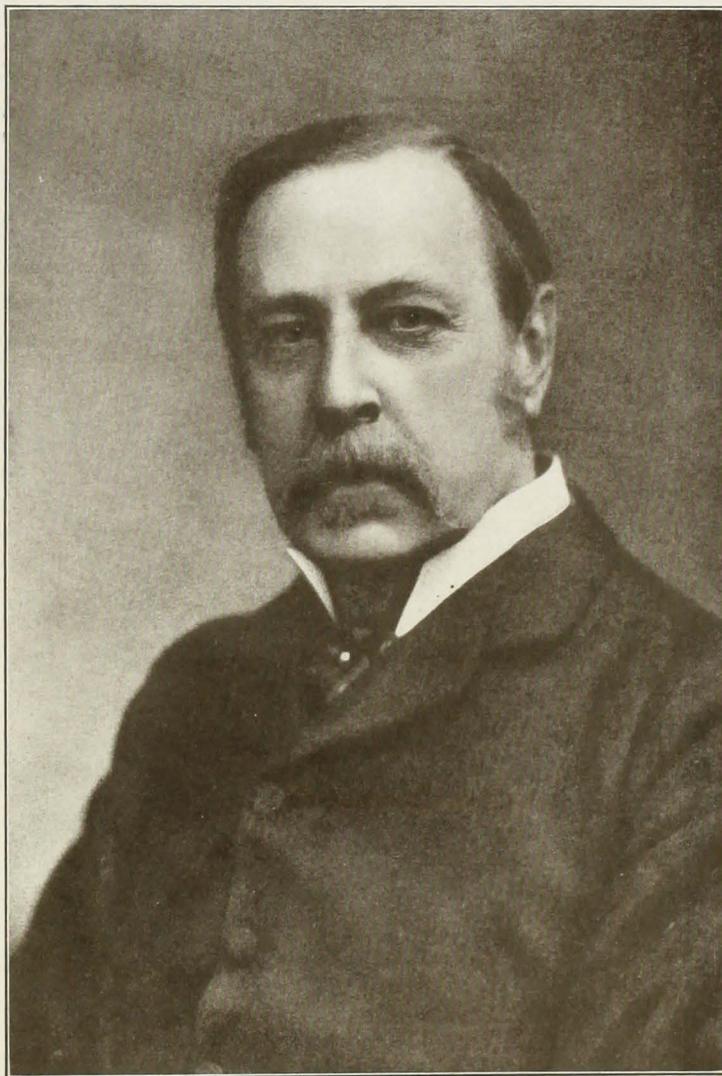
<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
BRECONSHIRE.					
Builth Cottage Hospital.	B. Jones, <i>Med. Off.</i>	Wrexham Infirmary.	R. Williams, <i>Hon. Con. Surg.</i> R. G. Williams, <i>Hon. Surg.</i>	Pontypridd and Dist. Cottage Hospital.	H. A. Schöberg, <i>Hon. Pathologist.</i> I. Morris } <i>Med.</i> L. Roberts } <i>Offs.</i>
CARMARTHENSHIRE.					
Carmarthen: Carmarthenshire Infirmary.	E. R. Williams, <i>Med. Officer.</i>	FLINTSHIRE.		Porth Cottage Hospital.	C. A. Griffiths, <i>Con. Surgeon.</i>
CARNARVONSHIRE.					
Bangor: Carnarvonshire and Anglesea Infirmary and Dispensary.	E. J. Lloyd, <i>Hon. Con. Med. Off.</i>	Holywell: Flintshire Disp. and Cottage Hospital.	J. Williams, <i>Hon. Surg.</i>	Bridgend: County Asylum.	W. Brown, <i>Assist. Med. Off.</i>
DENBIGHSHIRE.					
Chirk: Miss Moyra Hill Trevor's Nursery Hospital.	J. D. Lloyd } <i>Med.</i> J. D. S. Lloyd } <i>Offs.</i>	Rhyl: Royal Alexandra Children's Hospital and Convalescent Home.	W. Goodwin, <i>Hon. Med. Off.</i>	MONMOUTHSHIRE.	
Denbigh: Denbighshire Infirmary and General Disp.	F. W. Jackson, <i>Hon. Med. Off.</i>	GLAMORGANSHIRE.		Monmouth Hospital and Dispensary.	T. G. Prosser } <i>Hon.</i> P. G. Harvey } <i>Med.</i> K. Armstrong } <i>Offs.</i>
SCOTLAND.					
ABERDEENSHIRE.					
Aberdeen Royal Infirmary.	J. W. Milne } <i>Asst.</i> G. H. Colt } <i>Surgs.</i>	FORFARSHIRE.		RENFREWSHIRE.	
IRELAND.					
ANTRIM.					
Belfast: Royal Victoria Hospital.	T. K. Wheeler, <i>Con. Surgeon.</i>	CORK.		Cork: North Charitable Infirmary.	N. H. Hobart, <i>Surg.</i>
KERRY.					
Belfast: Ulster Hospital for Children and Women.	T. K. Wheeler, <i>Surg.</i>	Cork: County & City of Cork Lying-in Hospital.	N. H. Hobart, <i>Phys.</i>	Listowel: Union Workhouse and Fever Hospital.	J. T. Dillon, <i>Med. Off.</i>
		Cork: Eye, Ear and Throat Hospital.	N. H. Hobart, <i>Con. Surgeon.</i>		
		Cork: Victoria Hospital for Women and Children.	N. H. Hobart, <i>Med. Off.</i>		

SCOTLAND.

<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
ABERDEENSHIRE.					
Aberdeen Royal Infirmary.	J. W. Milne } <i>Asst.</i> G. H. Colt } <i>Surgs.</i>	FORFARSHIRE.		RENFREWSHIRE.	
IRELAND.					
ANTRIM.					
Belfast: Royal Victoria Hospital.	T. K. Wheeler, <i>Con. Surgeon.</i>	CORK.		Cork: North Charitable Infirmary.	N. H. Hobart, <i>Surg.</i>
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		Cork: Eye, Ear and Throat Hospital.	N. H. Hobart, <i>Con. Surgeon.</i>		
		Cork: Victoria Hospital for Women and Children.	N. H. Hobart, <i>Med. Off.</i>		

IRELAND.

<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
ANTRIM.					
Belfast: Royal Victoria Hospital.	T. K. Wheeler, <i>Con. Surgeon.</i>	CORK.		Cork: North Charitable Infirmary.	N. H. Hobart, <i>Surg.</i>
KERRY.					
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		Cork: Eye, Ear and Throat Hospital.	N. H. Hobart, <i>Con. Surgeon.</i>		
		Cork: Victoria Hospital for Women and Children.	N. H. Hobart, <i>Med. Off.</i>		



W. BRUCE CLARKE, M.A., M.B., F.R.C.S.

him by his numerous friends amongst the Fellows. He remained on the Council till 1913.

In 1883 the popular and promising Mr. James Shuter died suddenly, and Bruce Clarke was elected assistant surgeon in his place, defeating another able young man, the late Mr. Macready.

For a time he was in charge of the Orthopædic Department at St. Bartholomew's, an appointment for which he was admirably fitted. He was a man of mechanical talent, and set up a carpenter's shop in his own house in Harley Street. He caused that residence to be rebuilt, working himself at the decorations and fittings. He was ever ready to give hints to his friends about how to keep their costly professional residences in repair. He was likewise an experienced virtuoso and spent much on *bric-à-brac* and oil paintings. At the time of his death he was engaged in altering and improving a Wiltshire farm which he had bought, loving amateur building. From the first he was beloved by his friends, who increased in number down to his last years. He was a delightful companion, whether for a country walk or for an evening at a club. After his retirement in 1912 he suffered from acute cardiac mischief, from which he recovered, and at his convalescence all his numerous friends sincerely hoped that he might enjoy his retirement for many years. Unfortunately he contracted influenza, followed last month by pneumonia, and he died at his sister's residence at Eastbourne on March 28th, three days after his sixty-fourth birthday. He had married twice, and had one son, who survives him. A memorial service was held in the church of St. Bartholomew-the-Less on April 1st, the day on which he was buried in the churchyard of his native village, North Wootton. Thus passed away one of the worthiest of the many worthy sons of St. Bartholomew's.

ALBAN DORAN.

W. BRUCE CLARKE: AN APPRECIATION.

THE first emotion that came to me when I read of the death of Mr. Bruce Clarke was one almost of anger. Such men should not die; we cannot afford to lose them. It was my good fortune to be surgical dresser to this splendid man. I always regarded him as a type of the complete English gentleman, and it is given to few men to be so loveable as he was. He was without affectation or any meanness of spirit, he hated anything artificial or disingenuous, or indirectness of speech. I remember in the early days of my surgical dressing reading out in the note, "His belly is blown up with wind." He said "What?" and I replied, "Distended with flatulence." "No, no," he said, "what did you say?" "Blown up with wind," said I. "That's right, good English word, isn't it? it is, His belly is blown up with wind." Anything unnecessary he could not abide, and it was always said of him that he went out to private operations with a knife and a few

pressure forceps jangling in his pocket and little else. Everyone who dressed for him will remember the way he would peer into the dish of instruments, take out any particularly superfluous ones and send them scuttling over the floor. Great modesty, a pleasing bluntness, and the kindest of hearts characterised him.

He was a fine surgeon, and his life spanned the time from the old surgery to the new. He saw the ward sponge, with which the purulent wounds of each patient were mopped in turn, replaced by tow, a fresh piece being used for each patient, and the mortality of the surgical wards greatly reduced thereby, and he saw the tow give place to the elaborate ritual of scrupulous cleanliness of modern surgery. Not only was he a fine surgeon, but he was an able and, I believe, expert mechanic. He preserved an enthusiasm for the ordinary things of life and saw the wonder of the universe.

The stories told of him are many; I wish they could be preserved. One I can vouch for is this, that once when going on a journey he fell from the hansom-cab at the station and cut through his lip, and happening to have an ordinary sewing-needle and some thread in his pocket, went and sewed it up in front of the waiting-room looking-glass.

For the whimsical humour that would lead him to pick up some passing tramp in the country, take him in his car, and deposit him in style at the nearest inn or workhouse whither he would go; for his enjoyment of every touch of humour that occurred in the wards; for the spirit that could enable him to break the jaw of a rough who in the earlier days set upon him, take him into hospital, mend his jaw, and send him away without a reproach; for his fine presence; for his genial personality; for his simplicity of taste, which showed itself in many ways; and in one most pleasingly by the garden of hardy weeds and wild flowers which he cherished on a flat roof in Harley Street. For these, and for many things besides, the dear old man, as he was often called, will ever have a place of honour and affection in the memories of more than one generation of Bart's men.

F. G. C.

BART'S DINNER AT DELHI.

THE distances separating medical officers in India and the difficulties generally experienced by them in leaving their professional and administrative duties, even for a day or two, prevent the frequent meeting together of any considerable number of Bart's men, except in the Presidency cities. But in spite of this a very successful gathering took place at Delhi on February 7th, when a large number of old students of the Hospital were able to accept the kind invitation of the Honourable Surgeon-

General Sir C. Pardey Lukis, K.C.S.I., D.G., I.M.S., to a Bart.'s dinner.

During dinner Sir Pardey Lukis received telegrams from Col. G. W. P. Dennys, I.M.S., Inspector-General of Civil Hospitals, Central Provinces, and from the Bart.'s men in Calcutta, which conveyed their good wishes for and added to the success of the evening. It is hardly necessary to say that the toast to the prosperity of Bart.'s Hospital was duly observed.

A special feature were the menu cards, which had been prepared by Lady Lukis, each bearing the Bart.'s shield; besides enhancing the effect of the table decorations they formed excellent mementos of the occasion.

As is natural on these occasions, conversation was centred on the Hospital, the many changes that have occurred there since each of us first entered the School, and the stories and incidents we had heard and witnessed. In a land where one's thoughts and conversation so often recur to the hopes and plans for its future welfare, and to one's individual duties, it is a very pleasant change to meet with others, and recall our student days at the Hospital to which we owe our personal prosperity, and it was the general feeling among all present that a Bart.'s dinner should in future be annually held in some such central city as Delhi.

The guests present on this occasion were: Col. H. Hendley, I.M.S., Deputy Director of Medical Services in India; Col. B. G. Seton, V.H.S., I.M.S., Deputy Director-General, I.M.S.; Lieut.-Col. F. W. C. Jones, R.A.M.C., Commanding Station Hospital, Meerut; Lieut.-Col. B. J. Inniss, R.A.M.C., Commanding Station Hospital, Delhi; Lieut.-Col. W. Selby, D.S.O., V.H.S., I.M.S., Principal, King George's Medical College, Lucknow; Major F. A. Smith, I.M.S., Residency Surgeon, Indore; Major J. H. Hugo, D.S.O., I.M.S., Agency Surgeon, Bundelkhand; Major H. Boulton, I.M.S., Deputy Assistant Director Medical Services, 7th (Meerut) Division; Capt. F. N. White, I.M.S., Deputy Director General, I.M.S. (Sanitary); Capt. W. H. Hamilton, I.M.S., Deputy Assistant Director Medical Services, 8th (Lucknow) Division; Capt. R. H. Bott, I.M.S., Professor of Surgery, Medical College, Lahore; Capt. R. S. Townsend, I.M.S., Plague Duty, Aligarh; Capt. T. L. Bomford, I.M.S., Medical Officer, 1st—2nd K.E.O. Gurkhas; Capt. C. Newton-Davis, I.M.S., Medical Officer, 18th K.G.O. Lancers; Lieut. T. E. Osmond, R.A.M.C., Station Hospital, Lucknow.

ST. BARTHOLOMEW'S HOSPITAL WOMEN'S GUILD.

THE invitation of the Editor of the JOURNAL to write a short article about the Women's Guild gives a welcome opportunity of removing a misapprehension about it which hinders its progress. An impression exists that an invitation is required to become a member, but this is far from being the case. We are most anxious that all interested in St. Bartholomew's should join the Guild. Subscriptions should be sent to Mrs. Jessop, 73, Harley Street, W., applications for needlework to Miss Gask, the Matron's office, and correspondence on all matters of organisation, such as the formation of new branches, to Mrs. Norman Moore, 67, Gloucester Place, W.

The date of the second annual meeting has been fixed for View Day, May 13th, at 4.45, to be preceded by tea at 4.15. Lady Sandhurst has promised to take the chair, and Mr. Acton Davis to address the meeting. Invitations will be sent to all members of the Guild, but the Hon. Secretary would gladly send cards to anyone who would like them either for themselves or for others. And if readers of the JOURNAL would be so kind as to interest their friends in the Guild a large increase of membership and augmented powers of usefulness would doubtless speedily result. Up to the present time the work done has been limited to the provision of clothes and of feather pillows, with certain grants to wards, linen and blankets, but much more remains to be done. It is the season of growth and progress, and the St. Bartholomew's Women's Guild should now put forth new and vigorous shoots.

MILICENT MOORE, Hon. Sec.

THE PROFESSOR'S EXPERIMENTS.

By PAUL BO'LD.

[From the memoirs of his assistant and secretary, Gertrude Delaney, D.Sc.]

III.—THE GREEN PASTE.

SOME people in attempting to roar like lions only succeed in braying like asses. Professor Mudge-wood was one of those who succeeded in being leonine without an effort, but during the present memoir I shall show that even he was capable of becoming asinine sometimes.

I attribute the great value of the Professor's work—its originality and wonderful conception—to the fact that it was imprescriptible to a great extent. He never let pre-conceived ideas interfere with his reasoning, and his work was in the fullest sense original.

The Professor was recovering from a sharp attack of

pneumonia, through which I had nursed him, and he was still unable to leave his room. He was sitting in a deep arm-chair, clad in a voluminous grey dressing-gown, and with his inseparable red silk handkerchief spread over his knee.

I had been reading to him for half an hour, but with the impatience of a fractious invalid, he raised a thin white hand in feeble protest, and asked me to stop. After a few moments of silence, he spoke to me in dreamy tones, quite unlike his usual brisk expositions.

"During my illness I have been letting my mind run upon Psychological Science. One day, I feel sure, it will be reckoned as exact a science as physics or chemistry. Two hundred years ago chemistry was regarded as a heterogeneous collection of isolated details—its great underlying



THE POOR LITTLE MAN WAS A MERE WRECK.

laws and principles were unguessed. Even so is psychology to-day."

"Do you think so?" I asked doubtfully, yet with the respect due to one's employer, and an invalid at that.

"I feel sure of it—sure of it—*quite* sure of it," he replied, in his old pseudo-pleonastic manner, with which he irritated me time and again; "yes—I am *quite* sure of it. There is law everywhere—everywhere. It is unthinkable that there should not be law in the higher or psychical world just as there is in the lower and physical world. I have determined at last to try one experiment which my observation has suggested to me in the realm of physico-psychology—"

"I beg your pardon?" I interrupted.

He looked at me interrogatively.

"I mean, what is that?" I exclaimed.

"*That?* You mean physico-psychology? The borderland of physics and psychology—just as electro-chemistry

is the borderland of electricity and chemistry—the common ground where the two meet and coalesce, and where the factors of one may be partially expressed in terms of the other."

He frowned and stared into the fire, rubbing his unshaven, bristly chin with the palm of his hand the meanwhile.

After a few moments' silence he removed his glasses and thoughtfully scratched his nose with them. Then he polished them on his large red handkerchief, and I knew by this sign that he was collecting his thoughts before making some important announcement. I was right. He replaced the glasses upon his fat little nose, placed a hand upon either knee, and looked at me abruptly—quite in his former disconcerting manner.

"Do you know anything about eyes?" he asked.

I knew when he said "do you know" he did not mean knowledge in the ordinary sense, but was referring to knowledge he alone possessed, and although biology had been one of my subjects when studying for the D.Sc., I shook my head, intending to convey thereby that my knowledge on the subject was entirely rudimentary, and not worth considering.

"Well, well," he said, "it is of no matter. The experiments which I am thinking of will not necessitate much that is known upon the subject; we shall have to strike out for ourselves. You will probably have noticed the peculiar compelling or so-called magnetic power which some eyes possess. Many people put the fact down to strength of will, but I am personally inclined to think that the strength of will more often follows as the corollary to a certain type of eye."

"That's a very unorthodox opinion," I remarked, "and I hardly feel justified in agreeing with you as the result of my own observations."

"Perhaps not, perhaps not," snapped the Professor a little impatiently. "However, it is not a matter of much moment, but it may become so after our experiments have been concluded. The serpent which can fascinate its prey does not appear to have much will power; yet what more magnetic eye is known? The hypnotist, whose will power is quite a variable quantity, can, under certain conditions, compel with his eye. Many men of strong will power can force ideas or wishes upon others *when using their eyes*, and fixing their glance directly upon the eyes of the person to whom they are speaking. But—and here is a curious thing—many a man with enormous will power, many a man who can undertake and carry through, quite fails to impress one through the medium of his eyes. I am such a man."

I laughed. It was quite true. The will power of the Professor was enormous—his continuity of purpose and his perseverance were proverbial, yet his look was mild, and he could never influence with that magnetism which some men wield.

"Are you going to prove your theory?" I asked, perhaps more facetiously than was respectful.

The Professor eyed me sternly. "I never set out to *prove* a theory—never," he replied. "I ascertain facts. The theories must be modified to suit the facts. Many people, I know, find it more easy to twist the facts to fit the theories. I do not call such people scientists." He sniffed contemptuously.

"What is precisely your idea?" I asked with more diffidence in my tones, for the Professor had a way of subduing one in a quiet, dignified manner.

"In the first place I believe that chemical or physical action in the brain produces various 'forces,' which are emitted as rays. There is nothing very surprising if such should be the case. Marconi, with a simpler apparatus than the brain, sends messages through space. Telepathy would seem to be of a similar nature. The vibrations known as 'X rays' are very powerful and extraordinary, and they are formed in apparatus less complex than the brain. Again, Delaney, actinic rays, which will, as you know, assist chemical action—cause chlorine and hydrogen to combine, or affect the silver salts on a photographic plate—are still more simply formed. Yes—decidedly—it would be no strange thing if the brain were the seat of more than one type of powerful ray."

"It does seem possible—even probable," I ventured, "but I can hardly conceive of it being in the realm of experimental science."

"Dear me—I think our absence from the laboratory has dulled your perceptions, Delaney," was the cutting rejoinder, followed by silence, during which the Professor again polished his glasses.

Soon, however, he took up the thread of his discourse.

"The difficulty we have is in focussing these rays," he said. "The eye is specially adapted to the transmission of light rays, and just as glass is more or less opaque to 'X rays,' so the eye may be more or less opaque to mental rays, as one may term them."

I nodded. I was beginning to catch a glimmer of the Professor's idea. Then abruptly he asked me a question.

"What would you do if the lens of a magic lantern were covered with lamp black?"

"Wipe it off," I replied—but I knew that questions from the Professor always forestalled some startling development, so I listened more attentively.

"Suppose the lens were filled with air bubbles—how could you theoretically cause it to give good definition?" he asked slowly.

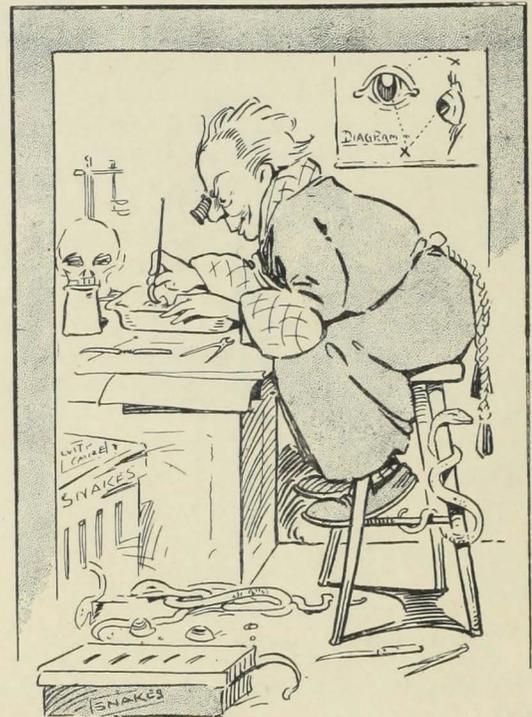
I considered a moment. "Well," said I, "practically I could not do anything, but if I could fill the bubbles with glass or with some other substance of the same refractive index, the result would be achieved."

"Quite so—quite so," he exclaimed excitedly, "that is the point. I believe the eye—for various reasons I need

not go into at the moment—to be opaque, or partially opaque, as far as mental rays are concerned. I believe in every eye there is a small portion of some substance which causes the opacity to be less pronounced. If we can find that substance—if we can artificially give more of that substance to the eye—we shall achieve a great thing. Do you understand that—eh? Do you see how big a thing it is?"

I nodded—but I did this more to avoid irritating the Professor than because I thought that great results would follow.

"As soon as I am strong enough we will commence to



A GRIM LITTLE CHUCKLE WOULD DENOTE HIS SUCCESS WHEN ANALYSING THE EYES.

investigate the matter," was the final dictate of the Professor. He was tired, and having finished with the subject for the time being, felt the strain of his conversation, so I helped him back into bed.

In a few weeks the Professor was back in his laboratories, working sometimes twenty hours a day to make up for lost time.

He went to work systematically, and it may be added expensively. First of all, he obtained snakes' eyes, and of these made very careful chemical and physical analyses. Then he went through a similar set of experiments upon monkeys' eyes, and other less expensive optic elements. Finally came human eyes. The way he went about this last piece of work was decidedly gruesome. He would go

to hospitals and study patients who were *in extremis*, or hopelessly incurable; he would watch the expression of the eye, the strength of the glance, and make voluminous notes. He remarked that he would have preferred to experiment on normal healthy persons, but, of course, he could not carry out subsequent experiments upon these, because as soon as one of the patients under observation died, the Professor was supplied with the eyes of that person. In passing, I may remark that he had to pay heavily for these gruesome objects. Then he analysed the eyes, and compared the results with his notes about their appearance during life. Sometimes the sound of a grim little chuckle as he did this would denote that he had advanced one small stage nearer the goal.

One day, some ten months after he had commenced, he came to me as I sat by the library fire.

"I feel sure that I have it now, Delaney," he said excitedly. "There is no doubt—really no doubt."

"I am glad," I remarked coldly. I dare not show my own excitement, for though the Professor was very excitable himself, he hated anything but a stoical calm in others.

"Yes—I have found it—a complex organic compound associated in its incipience with the formation of the visual purple. The latter is imperfect in those eyes containing most of the new substance."

He rubbed his hands together like a gleeful schoolboy, and stood first upon one little leg and then upon the other.

"Have you tested it in any way?" I asked, trying to restrain my excitement.

"Not yet—no—not yet. But I have made sufficient of the Green Paste—"

"The Green Paste?" I queried in astonishment.

"Yes—it—the substance is a green paste. I tried to synthesise it, but failed. However, I obtained a lot by the fractional distillation of the visual purple of human eyes—eight or nine grammes, I should say."

"Eight or nine grammes?" I echoed. "How many eyes—?"

He laughed. "Thousands—thousands."

"But the expense?" I said.

"Thousands also—I can afford it." He chuckled and removed his glasses, wiping them carefully on his red silk handkerchief, and then breathing upon them before replacing them. Truly, in some ways, he was absent-minded. However, I never think it is to anyone's discredit to be absent-minded. Absent-mindedness means present-mindedness. The man whose thoughts are not on his surroundings is generally concentrating them upon something else.

"Shall we test it at once?" I asked.

"No—we will not. I shall," was the uncompromising reply. Then, seeing that I looked disappointed, the Professor smiled kindly. "It is quite sufficient for one of us to risk his eyesight—that is all—that is all."

He spoke as though losing one's eyesight might have been about as unlucky as losing a sovereign. A marvellous man, the Professor!

We went through into the laboratory. The Professor lifted up a little china box, like an ointment box, and, removing the lid, disclosed a bilious green paste—with a horrible odour.

"You're not going to put that stuff into your eyes?" I exclaimed in horror.

"Certainly—now—*most* certainly," he replied, looking at me with equal astonishment. I sometimes wondered whether the Professor were human.

Forthwith he took a small quantity upon the end of a spatula and deliberately placed some in the corner of each eye. He dropped the spatula, and, clapping his hands to his eyes, spun round in apparent agony. Then he sat down in a chair, gasping. In a few moments he was better, and motioned me to remain quiet. In ten minutes he opened his eyes—and laughed!

"Of all weird experiences," he commenced. Then, apparently shocked at having admitted anything to be "weird," he went on in more even tones. "Most strange—most unusual!"

"Do you feel all right now, Professor?" I asked, very much relieved that he had not lost his sight.

"Quite right—quite—thank you. This paste has affected my sight wonderfully. In the first place, everything seems less real—quite solid—*quite* solid, you know—but less real. I seem to be more powerful—I feel a kind of mastery over what I see." I could tell that—the Professor's eyes fascinated me; I felt that without a great effort of will I should fall under his influence in any way that he pleased. He continued: "Besides that, I am colour-blind—monochroic vision. Everything is a dull grey—an indigo grey. Evidently the substance, though beneficial to the eyes so far as the passage of mental rays is concerned, is deleterious as far as light rays are concerned. Have you observed the fact that many men of power are colour-blind—more or less?"

"No," I remarked.

"It is so," he replied. "It certainly is so—I know several scientists—tut, tut! Delaney—I feel quite funny—so powerful, you know. I can't express quite what I mean. I think a little fresh air will be good for me; will you come for a walk?"

I assented, and, having put on my hat, accompanied him into the street.

We had not proceeded far when the Professor was unfortunate enough to knock the back of his hand against the sharp angle of a garden gate. Everyone knows the exquisite momentary agony that such a thing causes sometimes, and how a kind of fury rises in one's mind against the inanimate object—a fury unexpressed in word or feature—which passes as quickly as it comes. The Professor

afterwards told me that such a change took place within himself. He turned towards the gate and looked at it. In an instant it bent, trickled, and then suddenly melted before our eyes, while the wooden gate posts flared up. We gazed at the rapidly cooling iron puddle upon the ground, and the Professor murmured quite unconcernedly, "Something more than actinic rays focussed there—I'm sure of that."



"FOR HEAVEN'S SAKE GO AWAY, OR I SHALL MELT YOU."

So was I.

Unfortunately the frock-coated, silk-hatted owner of the house emerged at this moment, and after one puzzled glance at the puddle, the flaring gate posts, and ourselves, he broke into a torrent of abuse.

"Now, then, come along to the police-station," he concluded. "I'll teach you to commit arson in this way—come along."

The Professor meanwhile kept his eyes on the ground.

"My good man," he replied, "for heaven's sake, go away I'm angry. If I look up I believe I shall blast you—or melt you—like I did the gate."

At this the man got more furious; but I whispered to the Professor, and as the result we both started running in different directions.

I reached home safely, the stranger following the Professor. When the latter arrived, breathless and hatless, he laughed. "I could not shake him off," he gasped, "so I looked at his boots—that stopped him."

He volunteered no further information, but I gathered from his tone that nothing very serious had happened to the man.

The Professor forthwith attempted several feats of ignition and illumination, but without success. He tried to light the gas and to set fire to a piece of paper—but nothing happened. It seemed clear that *mere* "will" was not sufficient, that some kind of emotion or "brain storm" was necessary simultaneously with the desire. We soon had evidence of this.

During the evening we sat in the library discussing the events of the day. The night was cold, and we shivered somewhat.

Now, one thing that the Professor hated was cold. He grew irritable under its effect.

"Why have not the servants lighted the fire?" he grumbled, glancing at the grate.

"But, Professor, they were not told—" I commenced. Then my tongue was tied. With a merry crackle, paper, wood and coal burst into a fierce blaze.

"Good Lord!" I ejaculated.

But the Professor looked serious—very.

"I shall have to be careful—very careful," he remarked thoughtfully.

Later we were in the laboratory—one of his fractional distillation tubes had cracked. He frowned, and looked at the bench. He must have been slightly irritated, for in a moment the whole of the woodwork was in a blaze!

"My God!" cried the Professor in sudden despair. "What am I to do? I shall be burning the house about my head—I shall

destroy everything I come across!"

We soon got the fire under with a few buckets of water and sand, but the Professor was absolutely unstrung—and at a moment when he needed his self-possession most.

"It is attitude of mind that counts," he said despairingly. "The deed is merely an expression of the thought. Our sins lie in our thoughts, Delaney. The mere refraining, from personal motives, is of no use to our characters. We

might just as well commit them unless a higher force within us is the reason of our refrainment."

I could not help realising this as I saw thought transformed into active force in this way.

For some time we had little conflagrations and other similar events to contend with, but on the whole the Professor managed to restrain himself wonderfully well.

One day, however, he gave me a shock of quite another kind.

"Delaney," he cried as he came in from the street, "Delaney—I am engaged to be married!"

St. Paul as a clown at the Hippodrome! The Pope at the Palace of Varieties! But—the Professor engaged! To a woman, too! If it had been to a brother scientist—a man—I could have passed it over. But the picture of the Professor at the marriage altar!

I did not congratulate him.

It was several days before I saw the lady in question, but when I did so I was astounded. I had expected her to be an intelligent and somewhat scientific member of the human race, with a *penchant* for short hair and plain clothes like myself—the Professor had conveyed this idea to me somehow. I found her the reverse—a regular fluff-and-butter girl, with a weak face, voluminous curly hair, and too much light drapery hanging about her person. Her mind was as solid as fluff, her manner and *tout ensemble* resembled soft, yielding, yellow butter. How on earth the Professor had been attracted by her I could not imagine.

When I had studied her in his presence a few times I saw what it was, however. His will had so strongly affected her, that she was a mere echo of his thoughts. She agreed with all he said, she thought as he thought, she did as he did, until the foolish man had been flattered into a proposal of marriage. He looked upon her as a paragon of all the virtues of reason, and overlooked her essentially feminine dress and mannerism. What he admired in her was the reflection of himself!

It was all quite clear to me, and I dreaded the thought of later—if his power waned—if the effect of the Green Paste wore off. I determined at least to try and show the woman up in her true colours, to make her express some of her own feeble and commonplace thoughts. This, I thought, would postpone matters, or, at any rate, enable the Professor to enter the state of matrimony with his eyes open. But how was I to do this? How was I to exercise control? For two or three days I ruminated on the subject, and then a solution came. The Green Paste! I would use the same method as the Professor, but I would not take such a heavy dose.

So I stole some of the ointment. I did not use so much as the Professor, and my ordinary vision was not so greatly affected. I only became partially colour-blind—trichroic was the stage. I had gathered from the Professor that the effect was wearing off with him, and that his own vision

was now also trichroic. I mention this as I believe it had some bearing upon what happened afterwards. The difference in the strength seemed to affect the transparency of the eye to mind rays in a curious manner; never did I succeed in causing a conflagration. But I found the egress and ingress of telepathic rays to be very considerably affected. I could *sense* the thoughts of people. I could not put them into words, but a kind of visualisation of their thoughts took place in my mind—it is difficult to explain what I mean. I also felt an exuberant sense of power, for I found that I could control other people with but little effort, in many ways.

I had a kind of shock on one occasion. I was out cycling, and a little dog ran out and tried to snap at my right foot. Everyone knows the feeling of helplessness on such an occasion.

A senseless flicker of rage passed over me.

I looked at the dog, with this feeling in my mind. It rolled head over heels with its own momentum, and lay still. I had killed it—I knew I had killed it. I tried to persuade myself that accidental death from natural causes should have been the verdict, but I did not succeed. I was *positive* that I had killed it. The momentary wish had been translated into fact.

I cannot describe the horror that overcame me. Not so much on account of the dog's death, but on my own account. I possessed a power which needed a powerful curb. Was I strong enough to bear it? I was tortured lest I should bring this power into play unintentionally. To wander through the world as a kind of glorified lucifer match is one thing, but to be a human lethal chamber is quite another. Was this on account of the smaller quantity I had used?

I dare not go to the Professor for advice. I knew not what to do, and for many days I went about rigorously guarding every wish and curbing every spirit of temper, and I was pleased to find that I was simultaneously losing power.

Then my opportunity came. Mary Thompson and the Professor and I sat at tea. As usual, he was talking, she was echoing. Then I looked at her and caught her eye.

"Don't you think that the present system of educating men and women on different lines is very wrong?" asked the Professor genially.

"No—I like it," she replied, still looking at me. "Let men have the brains; we will amuse them," she laughed, and seemed to seek my commendation.

I shook my head. Her views were awful, but they had to be expressed. The Professor looked pained and grieved.

"Surely—surely—my dear—you don't mean that? Why—reason is the great difference between man and brute. You do not intend to say that you prefer women to remain in mind more akin to brutes than men are? More severed

from the higher ideal after which we are striving? You have often expressed a contrary opinion."

It was Mary Thompson's turn to look puzzled. She passed a hand across her brow rather wearily—I don't wonder, for the Professor's will was endeavouring subconsciously to make her echo, while I was pulling her in the opposite direction and intending to make her speak like her own feeble, silly self.

"I don't quite see what you mean," she replied. "Isn't it enough for us to look after you men, and to be pretty and look nice for you? You are very bad, you know, you men!" She shook a forefinger playfully at the Professor.

He rose from his seat rather abruptly, and paced the room rapidly on his little legs. He pulled out his red silk handkerchief and mopped his brow—unnecessarily.

"Dear me—dear me!" he exclaimed. "This is extraordinary. Bad men! Yes—but you help—you make yourselves so attractive—physically! By heavens, woman, you do all you can to bring the animal in man out!—subconsciously, of course, subconsciously. You are still half savage—half animal—so, of course, are men; but *you*, Mary—to say that *you* are content to remain there! With the whole world of mind to be conquered, with the whole development of reason to be attained!"

His force overcame mine for the moment, try as I would to conquer. She changed back like a weathercock.

"You are quite right—I agree with you," she said forcibly.

The Professor stood still in surprise; he could not make her out. For the moment his force was weaker, and mine triumphed; Mary went on without a pause. "Oh, what nonsense we are talking. How do you like my new dress, dearest? Leave your silly old ideals and ambitions, and come down to the world of woman for a bit!"

The Professor grew icy in his manner. "Come down to the world of *fools*, of unthinking fools, who eat and drink and laugh—content with the mire in which they live. That is what you mean. I have always heard that the only certainty about woman is her uncertainty. It seems there is some truth in the saying."

Mary Thompson looked rather frightened. She had fired a hidden mine and felt uncomfortable, and she tried to set the matter right in her own feeble way. "Do be reasonable, dear," she pouted.

It was the last straw—that word "reasonable"—from an unreasoning to a reasoning being. Nothing could have been more calculated to stir the Professor to the depths.

"Reasonable!" he almost shouted, and turned towards her. "Did you say *reasonable*? Reasonable—*reasona*—?"

He stopped short, while I sprang to my feet. Mary Thompson was looking very strange. Her face became set. She gave a quick gasp, and a little half-choked cry. It was the last sound she ever uttered. Her figure stiffened, and her eyes stared vacantly into nothing.

She never recovered. For two years she lived—a house without a tenant; then her body died, too.

It was a long time before the Professor became normal again. Then he would refer to the Green Paste. The last time he mentioned the matter he was quite enthusiastic.

"It is wonderful—wonderful," he exclaimed. "Even the miracles no longer seem unreasonable."

His face grew drawn and sad. The old scene haunted him again. He went on, half to himself:

"Why I did not kill the body, too, I know not. Perhaps my thoughts were not concentrated upon that. I do not know. I hardly seemed to think. Perhaps the effect of the Green Paste was wearing off. I remember that at the time my vision was trichroic, and shortly afterwards I lost these powers and my vision became normal. However—there it is—I learned to realise that attitude of mind counts most. Ah, Delaney, there are some powers which we men are not strong enough to wield. There are hidden secrets which we are not great enough to learn—yet. Sometimes we tumble upon them prematurely, and they blast us with their force. They blast us."

We were sitting before the library fire at the time, and as he finished speaking a solemn silence pervaded the room. I rested my chin upon my hands, and stared into the glowing embers. "*Per aspera ad astra*," I murmured.

THE CLUBS.

STUDENTS' UNION.

The following is a list of newly elected officers and Council of the Students' Union:

President: Mr. Waring. Hon. Treasurers: Mr. Gask, Mr. Girling Ball. Vice-President: J. G. Ackland. Hon. Secretaries: Senior, O. B. Pratt; Junior, C. H. D. Banks.

Council.—*Constituency A*: E. Catford, R. R. Powell, C. H. Savory, E. G. Dingley, R. H. Williams.

Constituency B: C. H. D. Banks, R. H. Maingot.

Constituency C: N. F. Norman, C. E. Kindersley, P. H. Wells.

Constituency D: W. T. Thompson.

Constituency E: Mr. Sargent.

Finance Committee.—The President, two Treasurers, two Secretaries, Messrs. Ackland, Norman and Savory.

College and Catering Representative: N. F. Norman.

General Meeting Sub-Committee: Mr. Gask, the two Secretaries, Messrs. Kindersley and Wells.

THE BOOKSHELF.

REVIEWS.

A SYSTEM OF SURGERY. Edited by C. C. CHOYCE, M.D., F.R.C.S. Vol. iii. (Cassell & Co.) Price 21s. net. Pp. xvi + 901.

This is the last volume of an exhaustive work, which has been written by a large number of contributors. The present volume deals, among other things, with the surgery of the cardio-vascular

system, of the throat, nose and ears, of the lungs and pleura, of the nervous system, and of the bones and joints. The information in most of the sections is concise and to the point, and there do not appear to be any notable omissions. There are a large number of illustrations, some of them in colours.

THE FÆCES OF CHILDREN AND ADULTS. CAMMIDGE. (Bristol: John Wright and Sons.)

Few persons might believe that the investigation of fæces could be made a subject requiring 467 well-filled pages of a fat book for its complete exposition; still less, perhaps, that the perusal of those pages could become a matter of absorbing interest. Readers of Dr. Cammidge's book will be astounded at the number of unexpectedly simple clinical investigations of fæces that are possible, and more particularly at the very real practical bearing of most of them. Particularly interesting are the data throwing light on the problems of constipation. The chapter, too, on the bacteriology of fæces should appeal to all students of "summer diarrhoea." In the chemical examination of fæces Dr. Cammidge is more than ever on his own ground. This part of the subject is dealt with as exhaustively as the rest, and deductions are drawn from the smallest observations of colour and reaction up to the most complex estimations of the percentage of fat or starch which has escaped digestion. An interesting feature of the chapter on intestinal parasites is the illustration of a large number of food residue substances, which by the inexperienced may be mistaken for parasites. A very helpful appendix on diets in gastro-intestinal disorders closes a book which we feel may be profitably studied as much by practising physicians as by those engaged in more remote physiological and pathological investigations.

THE MEDICAL ANNUAL FOR 1913. Thirty-second issue. Pp. cxxxvi + 951. (Bristol: John Wright & Sons.) Price 8s. 6d. net.

This book is now so well known that it is hardly necessary to review it in detail. It should be on the book-shelves of every practitioner and student, because it is a mine of useful and up-to-date information which would be very difficult to collect and keep in one's mind.

Among many noteworthy features of the book, the Glossary near the beginning will be found very useful; it is astonishing how many extraordinary and, in many cases, horrible words have been invented in medicine and surgery in the past few years. We read recently in a periodical, which produced no small disturbance on its publication, that the medical profession had decided to give up their Latin and Greek works and to speak plainly. One wishes this could come to pass. Certainly, if things go on as they are at present, a medical dictionary will be an absolute essential to every medical man who wishes to keep up to date, and we congratulate the publishers of this book on their effort to help us.

The volume is a very able and comprehensive review of modern methods and appliances in surgery, medicine, and obstetrics, and no practitioner should be without it.

ANÆSTHETICS: THEIR USES AND ADMINISTRATION. By DUDLEY W. BUXTON, M.D. Fifth Edition; enlarged. Pp. xiv + 477. Demy 8vo. Price 10s. 6d. net.

This book should prove extremely valuable to practitioners and students who are interested in anæsthetics.

We must confess to a feeling of bewilderment on reading of the enormous number of ways in which anæsthetics can be administered nowadays, but we managed to recover to some extent when we realised that, with some experience and practice, the simple methods are quite effective still. However, the book will be found a useful guide to modern methods, as, except that the rectal administration of ether with oil is not mentioned, it is quite up-to-date. Dr. Buxton is to be congratulated on the way in which he has dealt with what is rapidly becoming a very important and difficult subject.

DISEASES OF THE HEART. By JOHN COWAN. Pp. 438. (London: Edward Arnold, 1914.)

This book is a bold attempt to present an account of the present knowledge of diseases of the heart within the compass of a single volume. The treatment of the subject is comprehensive, and includes

chapters on the pathology of the heart and blood-vessels, with many good illustrations of the conditions described.

The recent additions to knowledge gained by the use of the polygraph, sphygmomanometer and electro-cardiograph are fully dealt with, and their clinical bearing brought out by a description of illustrative cases. By thus giving a clinical account of cases with pulse and polygraph tracings and electro-cardiographic records taken during life, together with macroscopical and microscopical findings post-mortem, the gap which often appears to exist between the clinician and the pathologist is largely bridged. This real gain, of necessity, makes the book somewhat discursive for a text-book.

A. J. Ballantyne has contributed a concise account of the ocular manifestations in arterio-sclerosis, and W. T. Ritchie a useful chapter on the interpretation of electro-cardiograms. The book has a great attraction, containing, as it does, data which are chiefly drawn from the author's own experience, and tracings which, with only one exception, are his own.

EXAMINATIONS AND DEGREES.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.B. and B.C.—G. N. Stathers, G. D. East, E. J. Bradley, R. W. Willcocks.

B.C.—F. W. Watkyn Thomas.

UNIVERSITY OF LONDON.

Second Examination for Medical Degrees.

Part I.—E. M. Atkinson, K. N. G. Bailey, J. E. A. Boucaud, G. Bourne, N. J. Boxall, T. Carlyle, E. H. Glenny, R. G. Mack, J. P. Ross, C. M. Titterton.

Part II.—C. F. Beyers, J. D. Constantin, L. W. Evans, J. L. R. Fortier, W. B. Heywood-Waddington, J. B. Hume.

CONJOINT BOARD EXAMINATION.

First Examination.

Chemistry.—G. K. Arthur, A. J. C. Eland, J. C. W. MacBryan, G. Millar.

Physics.—G. K. Arthur, A. J. C. Eland, J. C. W. MacBryan, W. A. Jolliffe.

Elementary Biology.—G. K. Arthur, A. J. C. Eland, W. A. Jolliffe, H. Amin, M. V. Boucaud, T. G. Evans, A. V. Lopes, K. E. Shellshear.

Practical Pharmacy.—G. W. Parry.

Second Examination.

Anatomy and Physiology.—P. S. Clarke, E. G. P. Bousfield, G. A. Beyers, A. Arias, T. F. Zerolo, H. M. Wharry, D. S. Pracy, P. G. Horsburgh, W. R. Dickinson.

Final Examination.

The following have completed the examination for the diplomas of M.R.C.S. and L.R.C.P.—C. J. Scholty, V. M. Métivier, R. A. R. Wallace, R. Ellis, B. Z. Shah, D. C. G. Ballingall, H. A. Bell, E. C. Bradford, G. B. Richardson, J. B. Randall, E. Donaldson, G. C. Fairchild, A. N. Rushworth, F. H. Cleveland.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

F. Heasman, M.R.C.S., L.R.C.P., has been admitted a member.

LONDON SCHOOL OF TROPICAL MEDICINE.

B. Haigh has taken the diploma of D.T.M.(Lond.).

DEATHS.

COLLYER.—On April 9th, at Paignton, South Devon, Bertram Joseph Collyer, M.R.C.S., L.R.C.P., son of the late James Collyer, of the Old Hall, Hurworth-on-Tees, aged 44.

WILLIAMS.—On April 17th, at Ty-Clyd, Govilon, Abergavenny, William Edwin Williams, F.R.C.S.(Edin.), after a short illness.

NEW ADDRESSES.

- ANDREWS, S. H., Unstead Villas, Rushmere Road, Ipswich.
 ARMIT, H. W., B.M.A. Building, 30-34, Elizabeth Street, Sydney, N.S.W.
 BARROW, R. M., 105, Balmoral Block, Edmonton, Alberta, Canada.
 BURNE, T. W. H., The General Hospital, Singapore, Straits Settlements.
 GRAHAM, G., 17, Bentinck Street, W. (Tel. 2209 Padd.)
 HADFIELD, G., Dreadnought Hospital, Greenwich.
 LETCHWORTH, G. H. S., St. Bartholomew's Hospital, Rochester.
 MAW, G. O., Metropolitan Hospital, Kingsland Road, N.E.
 NICHOLSON, C. J., Ailsa Lodge, Wokingham.
 OGDEN, W. E., 58, Avenue Road, Toronto.
 SHAH, B., Miller Hospita', Greenwich.
 SMITH, H. GORDON, 7, St. Mary's Road, Doncaster.

APPOINTMENTS.

- ARMIT, H. W., M.R.C.S., L.R.C.P., appointed Editor of the *Medical Journal of Australia*.
 BROCK, E. A., M.R.C.S., L.R.C.P., appointed Junior Resident Anæstheticist to St. Bartholomew's Hospital.
 BOWER, H. J., M.R.C.S., L.R.C.P., appointed Junior Resident Anæstheticist to St. Bartholomew's Hospital.
 BURNE, T. W. H., M.B., B.S.(Lond.), appointed Medical Officer in the Straits Settlements.
 FENTON, T. G., F.R.C.S., appointed Surgeon in charge of Throat and Ear Department of the Torbay Hospital, and Hon. Laryngologist to the Western Hospital for Consumption.
 HADFIELD, G., M.D.(Lond.), appointed Medical Registrar to Dreadnought Hospital, Greenwich.
 JOYNT, I., B.C.(Cantab.), appointed Clinical Assistant to the West End Hospital for Diseases of the Nervous System.
 LETCHWORTH, G. H. S., M.R.C.S., L.R.C.P., appointed House Physician to St. Bartholomew's Hospital, Rochester.
 SHAH, B., M.R.C.S., L.R.C.P., appointed Junior House Surgeon to Miller Hospital, Greenwich.

INDIAN MEDICAL SERVICE.

- Capt. N. M. Wilson is posted as Plague Medical Officer, Gurdaspur.
 Capt. A. T. Pridham, M.B., is posted to the charge of the Mandalay Central Jail.
 Major H. W. Illias, Officiating Civil Surgeon, second class, to be substantive *pro tempore* in that appointment.
 Capt. A. F. Hamilton, M.B., F.R.C.S., proceeds home on leave.
 Capt. R. H. Bott, F.R.C.S., officiates as Professor of Surgery, Medical College, Lahore, from October 9th, 1913.
 Capt. G. Holroyd officiates as Superintendent, Central Prison, Bareilly.
 Lieut.-Col. R. H. Elliot has an extension of furlough up to May 1st, 1914.

BIRTHS.

- ADDISON.—On Easter Sunday, at Prestwood, Great Missenden, the wife of Dr. Christopher Addison, M.P., of a son.
 FOSTER.—On April 21st, at Widey Grange, Crownhill, S. Devon, the wife of Capt. R. L. V. Foster, M.B., Royal Army Medical Corps, of a daughter.
 FRENCH.—On March 30th, at 135, Harley Street, London, W., the wife of J. Gay French, of a son.
 KELLOND-KNIGHT.—On April 3rd, at 36, Ritherdon Road, Balham, S.W., the wife of Staff-Surgeon H. A. Kellond-Knight, Royal Navy, of a son.
 STOTT.—On March 25th, at 24, Addison Road, North Kensington, W., the wife of Dr. Arnold W. Stott, of a daughter.

MARRIAGES.

Golden Wedding.

BRADSHAW—EWART.—On March 9th, 1864, at St. Paul's Church, Umballa, India, by the Rev. FitzHenry W. Ellis, Chaplain, Alexander Frederick Bradshaw, Assistant-Surgeon, 2nd Battalion, The Rifle Brigade (the Prince Consort's Own), to Ellen Charlotte, only daughter of Colonel Richard Sheridan Ewart, Retired List, Bengal Army. Present address, 111, Banbury Road, Oxford.

- COOK—KEED.—On April 4th, at Emmanuel Church, West Hampstead, Joseph Basil Cook, M.D., D.P.H., son of Dr. and Mrs. Cook, of Great Missenden, to Evelyn Russell, eldest daughter of the late Charles Keed, and Mrs. Keed, of Crowhurst, Sussex.
 FOWLER—STONE.—On April 18th, at All Saints, Isleworth, Middlesex, by the Vicar, the Rev. J. H. C. McGill, Oliver H. Fowler, M.R.C.S.(Eng.), of Cirencester, to Helen Grace Stone, daughter of C. Stone, Lancing, Worthy Road, Winchester.
 PRINGLE—COOPER.—On April 23rd, at Lacca Church, Queen's County, by the Rev. A. H. S. Anderson, Vicar, Kenneth Douglas Pringle, M.B.(Cantab.), son of H. T. Pringle, M.D., J.P., of Hawtree Ferndown, Dorset, to Dorothy Despard Cooper, daughter of the late L. S. Cooper and of Mrs. Cooper, of Lacca Manor, Mount-rath, Queen's County, and granddaughter of the late Lieut.-Colonel Despard, also of Lacca Manor.
 REICHWALD—ROUQUETTE.—On April 16th, at the Parish Church, Ashtead, Surrey, by the Rev. A. J. Hooper, assisted by the Rev. R. A. Waddilove, Rector of the Parish, Max Balzar Reichwald, M.B., B.S., fourth son of August Reichwald, of Burnbrae, Beckenham, to Katharine Civil, elder daughter of Henry Seymour Rouquette, of Highfields House, Ashtead.
 SLADDEN—WILLIAMS.—On April 15th, at Dowlais, Arthur F. S. Sladden, M.D., son of Julius Sladden, of Badsey, Worcestershire, to Mary Christabel Williams, daughter of the Rev. Ll. M. Williams, Rector of Dowlais and Rural Dean.
 SMITH—JOHNSTON.—On April 11th, at the Cathedral, Newcastle-on-Tyne, by the Rev. Canon Gough, Vicar, Henry Gordon Smith, M.B., B.S.(Lond.), D.P.H., son of Henry Williams Smith, of 127, Upper Richmond Road, Putney, to Alice Grace, daughter of James Harvey Johnston, of 16, Kingsland, Newcastle-on-Tyne.

ACKNOWLEDGMENTS.

Upsala Läkareförenings Förhandlingar, Nursing Times, British Journal of Nursing, The Hospital, Giornale della Reale Società Italiana d'Igiene, South African Nursing Record.

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: 1436, Holborn.
A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

St. Bartholomew's Hospital



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

JOURNAL.

VOL. XXI.—No. 9.]

JUNE 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

- Tues., June 2.—Dr. Morley Fletcher and Mr. Bailey on duty.
 Wed., „ 3.—Clinical Lecture (Surgery), Mr. Waring.
 Fri., „ 5.—Dr. Herringham and Sir Anthony Bowlby on duty.
 Clinical Lecture (Medicine), Dr. Herringham.
 Sat., „ 6.—Applications for the Lawrence Scholarship to be
 sent in.
 Mon., „ 8.—Examination for Matriculation (London) begins.
 Tues., „ 9.—Dr. Tooth and Mr. D'Arcy Power on duty.
 Wed., „ 10.—Clinical Lecture (Surgery), Mr. Waring.
 Fri., „ 12.—Dr. Garrod and Mr. Waring on duty.
 Clinical Lecture (Medicine), Dr. Garrod.
 Mon., „ 15.—First and Second Examinations for M.B.(Camb.)
 begins.
 Tues., „ 16.—Examination for Third M.B.(Camb.) begins.
 Dr. Calvert and Mr. McAdam Eccles on duty.
 Wed., „ 17.—First and Second Examinations for M.B.(Oxford)
 begin.
 Clinical Lecture (Surgery), Mr. Bailey.
 Fri., „ 19.—Dr. Morley Fletcher and Mr. Bailey on duty.
 Clinical Lecture (Medicine), Dr. Tooth.
 Tues., „ 23.—Dr. Herringham and Sir Anthony Bowlby on duty.
 Wed., „ 24.—**Midsummer Day.**
 Clinical Lecture (Surgery), Mr. McAdam Eccles.
 Cambridge Easter Term ends.
 Fri., „ 26.—Dr. Tooth and Mr. D'Arcy Power on duty.
 Clinical Lecture (Medicine), Dr. Calvert.
 Mon., „ 29.—D.P.H. Conjoint Examination begins.
 Tues., „ 30.—Dr. Garrod and Mr. Waring on duty.
 Examination for Shuter Scholarship begins.
 Wed., July 1.—Clinical Lecture (Surgery), Mr. McAdam Eccles.
 Thurs., „ 2.—Second Examination Conjoint Board begins.
 Fri., „ 3.—Dr. Calvert and Mr. McAdam Eccles on duty.
 Clinical Lecture (Medicine), Dr. Fletcher.
 Mon., „ 6.—Second Examination for Med. Degrees (London),
 Part II, begins.
 M.D. and M.S. Examinations (London), begin.
 Second Examination of Society of Apothecaries
 begins.
 Tues., „ 7.—Dr. Morley Fletcher and Mr. Bailey on duty.

EDITORIAL NOTES.

THE thirteenth day of May witnessed the annual celebration which we call View-day. As on previous occasions clouds threatened us in the early hours, but owing to an anti-cyclone in the south-west and a high-pressure area over the coast of Norfolk, the hydroscopic state of the atmosphere was such as to enable the visitors to attend in large numbers. The day was eminently successful, and we believe that the attendance was a record one.

* * *

From time to time we receive letters from far-away Bart.'s men complaining of the paucity of news concerning the clubs, and we publish one such letter in another place. We know that on previous occasions it has been said "If the secretaries don't send in their reports, let 'em go without!" That attitude, while dealing explicitly with the situation so far as the secretaries are concerned, altogether overlooks the fact that club news is not published for the sole edification of the secretaries. We therefore suggest, in no apologetic manner, that the said secretaries should attempt to let us have full and up-to-date accounts of the various happenings of the clubs, and that they should remember that in days to come they will themselves be in a position where they are dependent upon their successors for the news which links them with the past.

* * *

The Annual Athletic Sports will take place at Winchmore Hill on June 13th. It is hoped that all Bart.'s men will be present, and that most of them will take an active part.

* * *

The Past *v.* Present Cricket and Tennis Matches and Garden Party will take place at Winchmore Hill on June 17th. Old Bart.'s men who wish to play should send their names to Mr. N. F. Norman, at the Hospital.

A band will play in the grounds and refreshments will, as usual, be provided. We hope that there will be a large

attendance of Bart.'s men, past and present, together with their friends.

* * *

In our last issue we published a supplement containing the names of Bart.'s men who are on the staffs of the different hospitals in the United Kingdom. Of necessity the work had to be commenced some six months ago, and the medical directory was that of last year. Under the circumstances it was impossible for us to avoid errors both of omission and commission. We beg to thank those who have called attention to such errors, and to ask that all readers would be good enough to send us notices of errors or alterations, which we shall publish from time to time as they arrive. In this way we shall hope to keep the list up to date, and to publish it as a special supplement with every May issue of the JOURNAL.

* * *

An editorial note in the May issue which introduced an allusion to the National Health Insurance Acts, has called forth some friendly criticism.

It would perhaps be interesting to many old Bart.'s men who read the JOURNAL if some now on the panel would send in short accounts of how the work has impressed them, and if others who are not on the panel would indicate how the working of the Acts had affected them also. No names would be mentioned, but a selection of the brief articles received would be published.

* * *

We desire to call attention to the special post-graduate vacation courses held at this hospital. These will begin on Tuesday, September 8th, and end on Tuesday, September 22nd. Practitioners entering for this course are entitled to attend not only the special classes for clinical and laboratory instruction, but also any part of the practice of the hospital. Full particulars may be obtained by writing to the Dean of the Medical School.

* * *

We extend our heartiest congratulations to Dr. C. Hubert Roberts, formerly Resident Medical Assistant and Demonstrator of Practical Midwifery and Obstetrics at St. Bartholomew's Hospital, who has been awarded a prize of £250 by the Local Government Board for his success as Public Vaccinator to Queen Charlotte's Hospital.

* * *

We have to extend our heartiest congratulations to the following: Dr. J. F. Gaskell, who has been elected F.R.C.P., Messrs. R. R. Armstrong and T. H. G. Shore, who have obtained the M.R.C.P., and Mr. A. L. Weakley, who has been admitted F.R.C.S. (Edinburgh).

* * *

For the benefit of those Bart.'s men who may not have received notices of the Decennial Club dinners we have been asked to announce that the Club will meet as follows:

The Seventh Decennial on Wednesday, July 1st; the Eighth Decennial on Wednesday, June 24th; the Ninth Decennial on Wednesday, July 1st.

ERRATUM.

An unfortunate mistake found its way into Mr. Brockman's article in the May number of the *Journal*. Page 131, line 6, for "had not healed" read "had not leaked."

A BART.'S MAN IN THE BUSH.

By ARTHUR ANDREWS, M.R.C.S., L.S.A.



HAVING to leave the Old Country for health's sake in 1873 I reached Melbourne early in the following year. Having heard much about the "Bush" as the back country of Australia is still called, I took advantage of some of my shipmates taking a trip into the interior, and came to the portion of New South Wales known as "Riverina." Though only a few miles from the head of the railway, in the middle of the hot Australian summer I found the accommodation at the so-called hotel decidedly rough. Water supply and sanitary matters were primitive, no luxuries, and a limited variety of food, but plenty of strong drinks, which almost every one seemed to take every opportunity of "shouting" for friend or stranger. However there was a silver lining to the cloud in the shape of a brother medico, overworked and anxious for assistance. This induced me to settle, and with the constant exercise in the open air health was soon regained. The township was small, with ill-formed streets, mostly unlighted at night, while the only comfortable, and often safe, mode of travelling on the country roads, was in the saddle. I often now look back on that time, and wonder how the young doctor of the present day, who must have his car and other nice things, would have succeeded. My journeys on horse-back, frequently of fifty or sixty miles in the day, have extended to eighty, ninety, and nearly one hundred without rest, and on one horse. I have had to start at night seventy miles out on horse-back to a midwifery case. How fit I should have been to use forceps, etc., if the case had not been fortunately over before my arrival! Another time I had to travel all night ninety miles through mountainous country to an accident, and at the end of the trip found a case of ruptured kidney. As an adjunct the patient's wife and brother were both suffering from acute attacks of delirium tremens, and the only help was a tutor, who had been keeping the two latter quiet by giving them frequent nips of whisky. No medicine to be had nearer than home, so that Nature had a good chance to show her powers.

At another time, when I was extremely busy, I received a call one evening to a sheep station forty-five miles away to see a teething child said to be dying. I had an important engagement for nine next morning, so that my feelings may be imagined when, after a hasty journey, I found that all that had happened was that the infant had "gone to sleep," which alarmed the mother. I kept my appointment next morning.

Again, once when riding home very tired after two nights spent in the saddle I was overtaken by a half-intoxicated undertaker, who forced his company on me, and only left after I had given his horse a sharp cut with my hunting crop, he having offered me 10 per cent. on all funerals I should send to him.

Another experience was a drive of eighty-six miles in pouring rain, in the depth of winter, finding no less than four times that the road was washed away (necessitating considerable deviations), to make a post-mortem. When I arrived at the house where the death had taken place I found that the body had been taken to a small township some miles away, and had to follow. On reaching the place I was obliged to take the body into the local church for examination, there being no other public building available.

Bushranging had hardly died out, and many were the yarns duly instilled into the "new chum," so that when riding in a lonely part, quite five miles from the nearest house at 3 a.m., I heard shouting, followed by a gunshot, which startled my horse, I did not interfere with his gallop till in sight of the next residence. At that time the population was scattered, fences few, scarcely a formed road, no bridges except over the main river, mostly narrow tracks, which one followed merely because they appeared to lead in the desired direction, and one always knew that following the freshest would be most likely to be right. The settlers, as a rule poor, but most hospitable and ready to share whatever they had, and quite injured if you did not stop for a "bite" and a "yarn." In a bad season I have had to take a horse seventy miles before being able to get him a drink, and then could not venture to have one with him on account of decaying matter in the water-hole.

It is marvellous that bad cases did so well. There was none of the present antiseptic dressing and treatment except carbolic acid, no trained nurses as now, none but the bush "Gamp," goodhearted, untiring, but without the faintest idea of cleanliness. Midwifery was an awful ordeal. One would be called to a case far from home to find that labour had been in progress perhaps two, three or even four days. I have seen the bladder so over-distended that it was constantly dribbling, and had not been emptied for as much as four days when the use of the catheter was all that was required to allow the case to terminate. One was not allowed to use chloroform, from prejudice against relieving the normal pain which woman was heir to, making the use of instruments a real torture to both patient and attendant.

Still, though hæmorrhage was frequent from exhaustion of the uterine muscle, sepsis was rare. When it did set in the course was rapid, and treatment of little use. It was quite a common thing to be detained for twenty-four or more hours with a case, where the friends had been a little more anxious than usual.

My first operation for ectopic pregnancy was in a small cottage. The only assistance, a rough neighbour of about 16 st. weight, who quietly settled down against the door as soon as I made the first incision and remained there helpless and probably harmless throughout. I am glad to say that the patient is still alive.

Another time a call at 10 p.m. to a rough mountainous mining camp where four men had been injured by an explosion of dynamite. One was quite blind, another had a large wound just below the umbilicus with protrusion of bowel. After dressing them rough stretchers had to be made and parties arranged to carry them five miles to the nearest road that a vehicle could travel, to take them to the hospital twenty-four miles away.

Again, a call at 11 a.m. on a Sunday to proceed forty-four miles and make a post-mortem on a man that had died suddenly. It was in the mountains, and I arrived in time to meet the funeral just outside the cemetery close to the little township. Much persuasion was required before the bearers were persuaded to return to the "pub." with the body. Reaching that place admission was refused and I was told that "the diggers had held an inquiry and were satisfied that the deceased had died from natural causes and that they would not allow him to be touched." The solitary constable that should have been there had not turned up, darkness was coming on and I had a pressing engagement at home the next morning. Obtaining the help of the only two responsible persons I could find, the body was placed in a strong stable where we could shut ourselves from interference. My examination was finished by the light of a candle and the problem was then to get away safely. The delay had enabled the miners to get a little more drink and taking the opportunity when a fresh "shout" was called, I slipped away by the back of the premises and hid in a friendly cottage down the street. A return journey starting before daylight, and at another township, calling up the J.P. who was to hold the inquiry to take my evidence, I succeeded in getting home to breakfast.

Many and great the changes since. Good roads, trained nurses, private hospitals (four in this little town), skilled assistance, railways, and cars make life in the "Bush" quite a different matter. Possibly there is more comfort, but one misses the old spirit of good fellowship and hearty welcome, given in the early days to all travellers whatever their circumstances.

A CASE OF GANGRENE OF THE RIGHT FOOT, FOLLOWING INJURY TO THE POPLITEAL ARTERY BY A BULLET.

By J. C. JOHN, M.B.Cantab., Lt. I.M.S.

THE patient, a Mussulman syce, æt. 41, was standing by watching a quarrel between two Pathan sowars when the accident occurred.

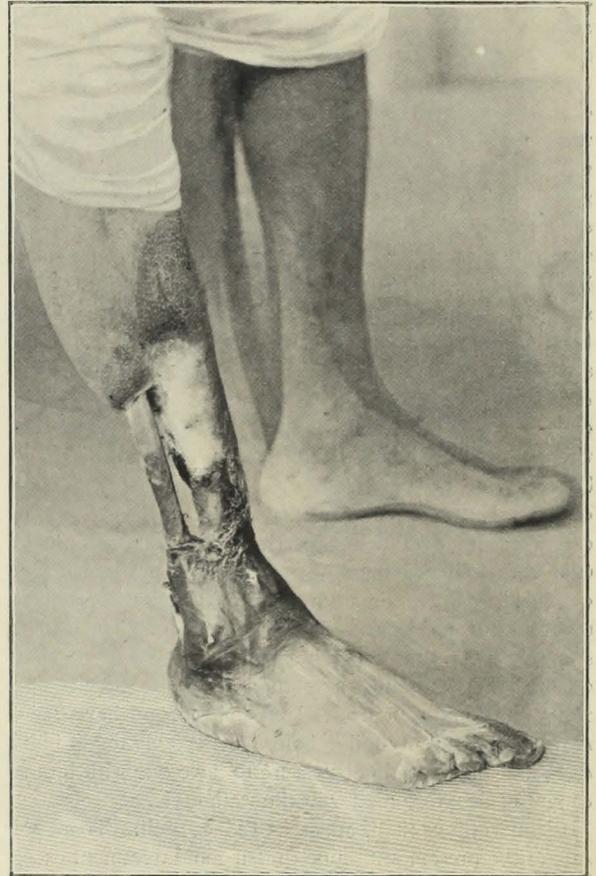


LIEUT. J. C. JOHN'S CASE.

On admission to hospital he was found to have a fracture of the lower end of the femur and a lacerated wound of the popliteal space. The bullet had entered 2 in. above the inner condyle of the femur and the exit wound was in the popliteal space.

There was no profuse bleeding, but on examining the wound under an anæsthetic the popliteal artery was found to be divided, but the vein had escaped injury—the severed ends of the artery were ligatured and antiseptic dressings

applied, also a long Liston splint—the wound healed easily and the bone had united in six weeks. No pulsation was present in the dorsalis pedis artery. Three months later the patient came to hospital complaining of coldness in his right foot; the foot presented the appearance of commencing dry gangrene, the toes and foot as far as the bases of the metatarsal bones being involved. The patient refused to stay in hospital and went home to return four months later with the leg and foot in the condition seen in the photograph. The line of demarcation seems to be fixed, the



LIEUT. J. C. JOHN'S CASE.

tibia and fibula are exposed and dry and the foot quite mummified. He refused operation and now parades the station platform where he shows his limb to the passengers and makes quite a decent living. He is in the best of health and has every intention of living to a ripe old age.

A CASE OF ICTERUS GRAVIS FROM THE SURGICAL WARDS.

By G. L. KEYNES, M.R.C.S.

THE following is an account of a rare condition which is seldom diagnosed during life, and, in this case, presented a characteristically puzzling clinical picture.

The patient, a young woman, æt. 24, was admitted to Mr. Waring's wards on March 22nd, 1914, complaining of jaundice. She stated that she had given birth to a healthy child on June 13th, 1913, which was weaned in the following September. Shortly after her confinement she noticed that she was becoming jaundiced, and she suffered from loss of appetite and vomiting, but she does not appear to have been very ill until, in September, 1913, she had a sudden attack of acute pain, starting in the right hypochondrium and travelling upwards in the mid-axillary line and downwards into the right iliac fossa. The pain was accompanied by rigors, sweating, and vomiting. In December, 1913, she had another less severe attack of pain, but noticed that after the attack she became more deeply jaundiced. She had a third attack in January, 1914; the jaundice again became darker, but after this varied in intensity.

On admission in March, 1914, the patient was obviously jaundiced, but did not appear to be very ill. There was some tenderness in the region of the gall-bladder, and on percussion the liver dulness, which started above at the fourth intercostal space, did not quite reach the right costal margin; otherwise nothing abnormal was discovered. The case was felt not to be a clear one, but in view of the history a provisional diagnosis of cholelithiasis was made. Dr. Garrod was asked to see the patient before any operation was done; he agreed with the provisional diagnosis, but also felt that the case was not a straightforward one.

On March 30th, 1914, the gall-bladder was exposed, but no stones could be found in the gall-bladder or ducts. The surface of the liver was seen to be irregular, and a swelling seen in the right lobe of the liver near the neck of the gall-bladder was explored with an aspirating syringe, but nothing except blood could be drawn off. The walls of the gall-bladder were thought to be somewhat thickened, and it was therefore removed; a section subsequently showed it to be the seat of acute catarrhal inflammation. Nothing further was done, and the patient made an uninterrupted recovery from the operation. The stitches were removed on the eighth day, and the wound was then found to have healed by first intention. The patient did not appear to be more ill than she had been before the operation, and she was definitely less jaundiced. On the following day, however, March 8th, she was evidently worse, and had a hæmatemesis of about an ounce of dark blood; occult blood was

also found in her stools. She had no further hæmatemesis, though hæmorrhage appeared to continue in spite of treatment, and she died early the following morning with all the signs of acute anæmia.

A *post-mortem* examination of the abdomen was allowed and the following condition was found: The stomach, small intestines, and peritoneal cavity were full of blood, which had not come from any bleeding point, but had occurred as a general oozing from the omentum and from the mucous membrane of the stomach and intestines. The liver was somewhat small and contracted and the surface was rough; the stump of the cystic duct was firmly tied off and a probe could be passed down without obstruction into the duodenum. On section, the liver, especially the right lobe, was studded with enormous numbers of small, brilliantly yellow areas, which had somewhat the appearance of new growth. A microscopical section showed degenerating liver-cells and strands of fibrous tissue enclosing numerous so-called "regenerating bile-ducts." The pancreas appeared normal.

This was therefore a case of icterus gravis simulating cholelithiasis and is of some interest, both medically and surgically. Death did not take place until nine months after the patient was confined, and it may be doubted whether there was any connection between the two events. Since the diagnosis of icterus gravis had not been considered during life, the urine was not examined for leucin and tyrosin, which are said to be present in this condition.

The liver from this case has been added to the specimens in the museum.

I am indebted to Mr. Waring for permission to publish these notes.

THE PROFESSOR'S EXPERIMENTS.

By PAUL BOUSFIELD.

[From the memoirs of his assistant and secretary, Gertrude Delaney, D.Sc.]

No. IV.—MATTERS OF MUCH GRAVITY.

MOST people view life through the wrong end of the telescope; they judge by the results instead of by the aims and efforts. Judged by the results, some of the Professor's hitherto unpublished work is deplorable, yet I cannot but think that there may be unseen benefits accruing in the future, and there certainly are excellent morals to be derived in the present. The discovery of the green paste is an illustration; however, I will not labour the point.

As a whole the Professor's experiments were expensive, and he could never have attempted most of them had not ate lined his pockets with gold. High fees are always pay-

able in the school of experience; there are no deductions, and all extras must be paid for whether taken or not.

I fear that hypercritical scientists may cavil at the paucity of accurately detailed information which I am able to give in this memoir. The meagre nature of this is, however, unavoidable for two reasons. In the first place, Professor Mudgewood was even more secretive than usual about this matter, and the knowledge I gleaned was sketchy and disconnected; while in the second place, I was myself so much part of the phenomena during one stage of the proceedings, that I was quite unable to make observations with any degree of accuracy.

The Professor had been away for a week. He had given no explanation when he departed, but on his return he was quite voluble for a few minutes.

"I have rented a house, Delaney," he exclaimed as soon as he entered his laboratory.

"Rented a house!" I repeated in amazement.

"Tut, tut, my good woman—don't echo my words in that silly way," he said, frowning irritably, at which I felt very wroth indeed. Echo his words! He echoed his own words every few minutes, and to speak to me, a Doctor of Science of London University, in this manner—well—I had to keep my temper, but it was difficult.

"I have rented a house," he said again; then repeated very thoughtfully, "a house."

"What for?" I asked, in even tones.

"For experimental purposes, Delaney. I rather think it will be safer than carrying them on in the laboratory. A set of experiments which I am about to undertake is rather problematical. I cannot foresee the results as clearly as usual, and having in my mind one or two previous incidents, I have determined that the work shall be done in the country, so that there shall be no danger to my valuable apparatus and to neighbouring property. I don't anticipate danger, but one can never tell—one can never tell."

"May I ask," I said, "what the nature of the experiment is?"

"It is a question of the force of attraction. You yourself suggested it to me when I discovered Magnetos."

"What force of attraction do you mean?" I asked.

"There is only one—I feel sure there is only one," he replied slowly, nodding his head as if to convince himself. "That one consists of the circular currents in the ultimate element—the 'Ether,' as men call it."

I shrugged my shoulders—he had not enlightened me much. He saw the movement, and seemed rather pained.

"Dear me," he exclaimed, "you should not do that—you should not do that. The matter is very simple—I refer to gravity and cohesion."

"But they are quite different forces," I replied, puzzled.

"Why, it has been *proved* that——"

He interrupted me impatiently. "They are the *same*—

absolutely the same. *All* forces are the same, but they may be expressed in different terms. If you wait a few months you will see—you will see."

I had to rest content with this, for no more would the Professor say. A week afterwards, however, he abruptly informed me during breakfast that he wished me to accompany him to Waltham Downs, where his new house was situated, to go into the question of ways and means with him.

I sat in the corner of the first-class compartment opposite to the Professor. We were the sole occupants of the carriage, and to my delight he suddenly referred once again to the subject, beginning exactly where he left off a week previously. This was very characteristic of the Professor.

"I said there was one force in nature. I made a mistake—there are two."

"They are?" I queried.

"The etheric force—gravity, cohesion, and the rest, *and* life. Life is distinctly a separate force."

"Why do you call life a separate force?" I asked.

He looked up at me as though much surprised.

"Dear me," he remarked, placing his glasses on the end of his nose and tilting his chin up that he might survey me better. "Dear me—really—I should have thought——" He paused, then went on, "I say life is a different force, because it is totally unconnected, so far as I can see, with any other force. Thus, a man lives: he can, by *will power*, ordain that a certain force shall move his arm; by *will power* he changes a physical force from one term into another. The man dies. The chemical and physical properties of his body are for a few moments the same as before. No loss of heat, or electricity, or weight, or any other measurable property has taken place, but something has gone—the something which enabled him to control his forces—the force of life."

But is that a force?" I questioned; "or is it a property quite distinct from a force?"

For answer the Professor asked another question.

"The locomotive with steam up does not start itself. What starts it? What enables the great force of steam pressure to be changed into motion?"

"A man," I replied, "who moves a lever."

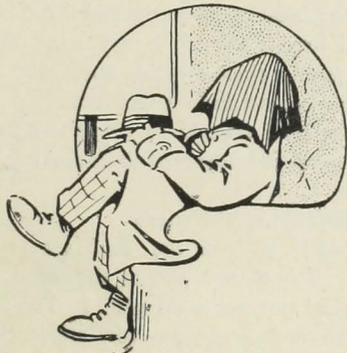
"Quite so—quite so. An external force, small indeed, is needed. Nevertheless, a force sufficient to move the lever. Without it the engine would be a dead body. So it is with us. Will power, life—*that* is needed before the forces of the body can be put in motion, before organisms can grow. Will power may be merely an expression of the force of life, as heat is an expression of the force of gravity. Is the matter clear?"

It was *not* quite clear, but the Professor did not wait for me to reply. He went straight on with his theme.

"Apart from life there is only one force, a force which I firmly believe will be found to consist in circular currents

in the etheric atoms, which may indeed be nothing more than circular currents themselves. Where do all our forces come from? Electricity, for instance. We trace it to the dynamo; thence back to the pressure of steam in a boiler; thence to inert lumps of coal; thence to primeval forests; thence to growth generated by the sun's rays; thence to the sun; thence to a nebulous body of gas, or to the concurrence of several cold bodies and their consequent fusing; thence to motion, thence to—what? Gravity causing the motion, or, further still, to the forces in the ether which form atoms, which bind molecules, which coalesce, which are cohesive, and which gravitate to one another. One force! Only one!"

He had said these things almost in one breath; but, nevertheless, his line of triumphant argument was quite clear, albeit it reminded me rather of a fact which I learned in my early days, that Nun begat Joshua, *und so weiter*.



IN THIS CONDITION HE REMAINED TILL WE REACHED WALTHAM DOWNS.

He ceased as abruptly as he had commenced, settled himself comfortably in his corner, spread his large red handkerchief over his chubby little face, and went to sleep. In this condition he remained till we reached Waltham Downs.

The village is a small one, and we walked through the main street to reach the Professor's house, which lay about half a mile beyond the village. The house stood back from the road about a hundred yards, and was approached by a fine avenue of elms. A large shed of corrugated iron was erected some thirty yards from the road, just off the avenue. This, the Professor explained, was his store-room for gravity!

It was a large shed, perhaps thirty-five feet long by twenty feet broad, and it was well lighted by means of half a dozen windows.

As we walked up the avenue, I stepped on to the turf at the side, and up to the shed to take a cursory glance through one of the windows.

"Some of your apparatus has already arrived, then," I exclaimed. "There is a large machine in the corner, which looks as if it were intended for the liquefaction of gases."

"Quite right—quite right," replied the Professor, as he stepped to my side and looked in also.

"What are those large tanks?" I asked.

The Professor smiled.

"Can you not recognise a Dewar's vessel when you see one?" he cried. "Surely you can see that the glass is double?"

"Yes," I replied; "but they are so large. I did not know that a vacuum vessel of such size could be made."

"It can, if one pays for it," was the grim rejoinder.

We turned away and passed up towards the house. The Professor let himself in with the key, and I found that he had already furnished two bedrooms and a sitting-room, and had had gas and water laid on in what had evidently been the billiard-room once, but which was now to become the laboratory. We went through the house, from the upper windows of which a magnificent view was obtained. Behind lay the rolling downs with their gorse and heather. In front, at the end of the avenue, came the road, which wound its way to London, twenty miles distant. Across the road were four semi-detached villas, only one of which was yet occupied, and beyond these again lay well-wooded fields and pasture lands. No other houses were in sight.

I did not take much notice of this at the time, for I was wondering what the liquid air apparatus was for—and those Dewar vessels—what part did these things play in matters of gravity? For a long time I forebore from asking questions, lest the Professor should turn on me with the remark that the whole matter "was so simple." At last I ventured to ask, and my surmise was justified. He sighed wearily, and responded:

"It is very simple, Delaney—quite simple. However, since the pin-point which you term a brain is not sufficiently educated to deductive reasoning, I will try and elucidate the matter for you."

The patronising way in which he spoke was almost more than I could stand. But I knew that allowance must be made for a great man; therefore, though I muttered something more expressive beneath my breath, I merely replied "Thank you" in somewhat chilly tones.

The Professor did not seem disturbed. He scratched his head, wiped his face with his red handkerchief; then, stroking his chin thoughtfully, turned and gazed through the window, and addressed the scenery outside.

"As we take heat from any substance, the molecular vibrations become less, and if we could reach the absolute temperature of minus two hundred and seventy-three degrees Centigrade, these vibrations would cease altogether."

"What would happen then?" I interjected, interested.

"What happens if you put a weight on to a glass marble, and gradually increase the weight?" he asked by way of reply.

I considered a moment. It was always well to consider carefully before answering the Professor.

"First of all, the glass would be compressed and become more solid in its character. Finally, it would be smashed into a thousand fragments.

"Exactly, *exactly*," was the response. "Only at the absolute zero, I believe, matter would disintegrate altogether. The disturbance in the forces of the ether, which constitute what we call matter, would be remedied, and what we call matter would be disseminated into its primordial particles. Indeed, I regard heat as being a symptom rather than a disease. When we say that heat is passing through a hot body to a cold, it would be more correct, I believe, to say that force—cohesive force—is flowing from the cold body to the hot, and that the apparent equalisation of temperature is merely a symptom of equalisation of cohesive force. It will be quite clear to you that cold bodies possess more of this force than hot ones; that is why they are more solid, and occupy less space. If we then place a body under such conditions that we notice heat loss in it, we have placed it under such conditions that it is drawing this force from surrounding bodies until it reaches a point at which it is fully charged. At this point we notice no further possibility of lowering the temperature, and I believe that the state of unstable equilibrium would cause the disintegration of the body. We can never reach the absolute zero; but I have devised a storage battery, which, kept as near that temperature as possible, is capable of storing a vast quantity of gravity or cohesive force at a high potential."

Now I come to the first matter which will disappoint some scientists. In view of subsequent events, the Professor bound me with an oath of permanent secrecy; therefore I am not going to tell you how the Professor produced or, rather, collected his force. Suffice to say that it was accomplished by a process of induction, and that he used a "Gravity Induction Machine." The chief constituents of his storage batteries were glass plates and sheets of bitumen, and, instead of wires, he used "conductors" of glass surrounded by bitumen. The storage batteries in the shed were connected by means of such conductors with the laboratory, and here his first real tests were carried out.

We had cooled down our batteries, which were made up in the large Dewar's vessels, or, rather, according to the Professor's view, we had charged them to a high degree with cohesive force. We were about to store a very small quantity of "induced" gravity in our cells, taken by means of a conductor from some object in the laboratory, and now we were to find out what, if anything, there was in the Professor's mathematics, for the whole matter had been arrived at through abstruse calculations of the Professor in the first instance.

We stood before the bench in the improvised laboratory. Upon it rested a glass slab embedded in pitch. Above there was suspended a movable glass rod coated with the same material. Through the open window came the scent

of the gorse and heather, and the droning of bees—no, it was the hum of the induction machine in the shed!

The Professor removed his glasses, wiped them, and replaced them. Then he rubbed his hands together in schoolboy glee.

"Now, Delaney!" he cried.

He picked up a cube of wood, some five inches square, and placed it on the glass slab. Then he drew down the glass rod until it touched the top of the wooden block.

There was no visible change at first; but the Professor poked the wood with his finger. It was soft—like putty!

The Professor quivered with excitement.

"We're drawing it out—drawing it out!" he cried.

"What?" I asked.

"The cohesive force. The wood has less cohesion now—look."

Again he poked it. This time his finger went right into it. The curious part was that the wood seemed quite *dry*, and in that sense unlike putty, and it did not adhere to the finger. I tried it myself: it was more like poking a block of soft powder than anything else—only there was no powder. It was a most curious sensation.

Suddenly the wood seemed to be getting flatter, *yet not broader nor longer*. It appeared to be sinking through the plate!

"What is happening?" I cried.

"Look—look!" shouted the Professor in a frenzy of excitement. "The bottom part of the wood has lost *all* cohesion—where it touches the plate! The particles have separated; the molecules—the very atoms have disintegrated!"

Slowly, before our eyes, the piece of wood settled down and disappeared—just as a pat of butter settles down on a hot frying-pan! But there was no melting, and no remains; only the bare glass!

"It is astounding," I said, scarcely able to believe my eyes. "Think what this means, applied to surgery, for instance! The removal of malignant tumours; the cure of—"

"Tut, tut!" the little man interrupted, frowning. "The *chief* thing is that it proves my mathematical calculations to have been strictly logical. The whole syllogism is correct. As for surgery—we shall see. Perhaps—perhaps not—perhaps *not*." He removed his glasses, and with some irritability tapped the top of his head with them. He never seemed to appreciate my suggestions. I feel sure that I could have earned a fortune for him with this discovery, like I did with one or two of his others, only he seemed to value that at—well, to tell the truth, at its proper value, I suppose—nil! To him the *truth* was everything, the personal *result* nothing.

"There is another matter I wish to test," the Professor said, after pausing a moment. "I feel sure my idea—the two forces, you know—hum—well—" He rubbed his

nose thoughtfully, "I suppose you haven't a mouse?" he added, half hopefully, half apologetically.

I could not subdue a laugh. "Really, Professor, you should have discovered by now that I am not perfect. I do *not* happen to possess a mouse; but if you could wait till tomorrow I might set a trap—two traps—and possibly—"

"Yes, yes, by all means. Of course—very silly of me. What is the price of a trap? Will you go and buy one or two now? Not expensive ones, you know—not expensive ones. Don't spend more than, say, ten shillings."

The Professor had no more idea of the price of household commodities than a child of two. However, I got the traps, and in the morning was favoured with a fine specimen of the rodentia, which I handed to the Professor.

He placed it, in the trap, on the glass slab, and poked the little animal from time to time. It was unchanged, quite unchanged. After a time the trap got "soft," and the little animal, none the worse for its experience, jumped through the bars and sped lightly away. The trap disappeared.

Again the Professor rubbed his hands. "Life *is* a force: a living organism is so controlled that it cannot part with its cohesion. It is bound by strong fetters, a force which outmarshals gravity. Now, if the mouse were *dead*, Delaney!"

"Professor?"

"Dear me, I am absorbed in my other thoughts." He apologised.

"Catch another mouse, and wring

its neck, or do whatever is usual in such cases."

"A little chloroform!" I suggested.

"Yes, yes—certainly, chloroform."

The next day we experimented on the dead mouse. It "melted" down and disappeared in the same way as the block of wood had done.

"This is very good—very good," said the Professor. "But I am anxious to try things on a larger scale. I hardly think we ought to do this work in the house. We will transfer our bench to the shed, I think—yes, that will be best—be best."

So two or three days later we were to be found at work in the shed.

The Professor's idea was to store a considerable quantity of gravity in his cells, and then to charge various bodies with it, and experiment in a variety of ways. Unfortunately, he never completed his experiments—they were altogether too expensive.

We laid three conductors from the shed to points about forty yards distant from it; two of them extended towards the road on either side of the avenue, and one lay in the direction of the house. The object of this distribution was to take gravity from widely separated sources, so as

not to disturb any fixed thing in the shed, lest it should be unpleasantly affected.

It was about nine o'clock in the morning when we set the apparatus to work, and at twelve o'clock we "knocked off" to take a little lunch, which we enjoyed beneath a large elm tree in the grounds.

A confused murmur of voices attracted my attention.

"There seem to be a good many people in the road over there," I remarked, pointing to a spot some thirty yards to the right of our entrance gates.

The Professor looked up. "I dare say—I dare say," he replied, without much interest; "villagers going home to dinner."

But the villagers did not appear to be going home. The shouting continued, and I heard one man cry out, "I tell 'ee it's acid in the road. The soles iv my boots 'ave gone, too!"

This sounded interesting, and I jumped up and, running down to the gate, looked along the road.

A dozen men were stamping about, perplexed and angry. *They were ankle deep in the road, and at each step they seemed to break through a hard layer or crust into some soft substance underneath.* I wondered!

With a cry of "Professor," I ran along just inside the hedge, but ere I reached the point opposite to where the men were "wading," my own feet began to sink in. It

was like walking on butter, only it was dry and did not stick. The earth and turf *looked* solid enough, but my feet sank through, until at last I was walking with the earth up to my knees. Curiously enough, it did not impede my progress; it was much easier to walk through the earth than to wade through water of equal depth. I guessed at once what had happened. The end of the gravity conductor was buried close to this spot.

In two minutes the Professor joined me, hopping on tip-toe, as though his subconscious mind feared lest he should get wet.

"Dear me—most gratifying—*most* gratifying!" he exclaimed, with a beaming countenance.

"The poor men outside hardly find it so," I remarked dryly. "Apparently they stood too long, and the soles of their boots became soft, and disappeared. Cohesion seems to be at a discount here!"

The Professor chuckled, and looked at me. "Lift up your own feet," he cried. "One at a time, of course—one at a time!"



A LITTLE CHLOROFORM.



"I TELL 'EE THE SOLES IV ME BOOTS 'AVE GONE."

I did so: the soles were bare.

I whistled. "By jove, Professor, you'll kill those men," I cried, and prepared myself to beat a hasty retreat.

But he held up his hand warningly. "You forget—it has no effect on living organisms. It will be all right when we reverse the current. The road will become hard again, unless—unless——"

The throbbing of a motor-car interrupted him. The owner of the car, seeing the men "wading" in the road, dismounted in order to prospect.

"I think we can get through," he cried to the chauffeur. "But go slow. It's queer—devilish queer!" he added.

The car went forward at the rate of about a mile an hour; but a cry from the owner brought it to a standstill in the midst of the watching group.

"I've lost my boots," he said. "What devil's game is

He resolved to ride out of the "mire" without tyres, and went to search for the jack. But it was no longer there.

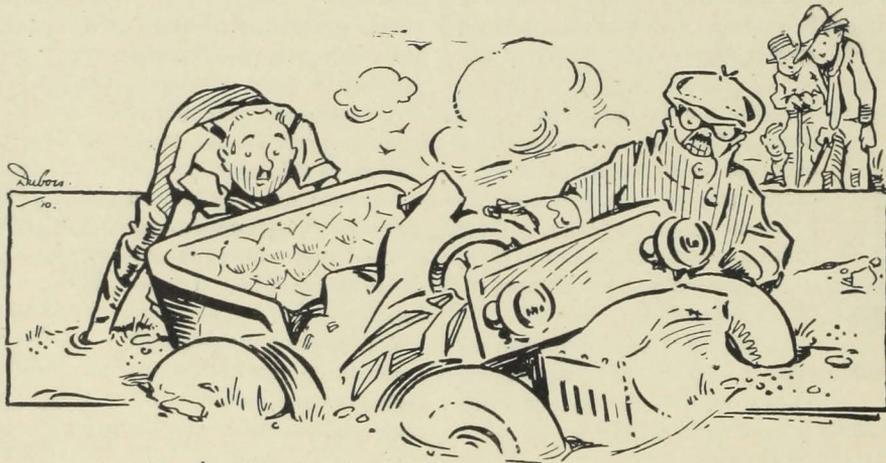
"It's a blessed quicksand!" he exclaimed, and mounted the car. It refused to budge, and was obviously settling down into the earth before our eyes. The axles of the wheels were just disappearing.

"Is it really sinking into the ground?" I asked.

"No, no," the Professor replied, shaking his head. "The bottoms of the wheels have gone—the whole of it will go. It's too late to stop it."

So it proved. Like the flat piece of wood in the laboratory, it settled down and disappeared, while the owner, thinking that it was merely sinking, set off at full speed for the village to obtain assistance for the recovery of a car which was ceasing to exist.

We walked back to the shed.



Of all the ! ! ! !

this? Look at the bally road—it's a bed of salt with the crust knocked off! Here—I'll get in and be off. This stuff will probably burn my feet. Lord knows what's happened, or what these beggars are up to," he added, pointing to the staring yokels. "Probably the County Council has some new road-perfecting scheme on—usual expensive experiments."

He reached the car, and was just lifting a bare foot towards the step.

Bang!

"There's a bally tyre burst—and in the middle of this mud, too! Here, quick—get out the jack and put the spare rim on!"

Alas for the jack! Ere it was under the rear of the car another tyre went off with a loud explosion, and in quick succession the remaining two followed suit.

"Of all the . . . ! . . . ! . . . ! . . . !" I leave the adjectives the owner of the car used to be filled in by the imagination.

"Shan't you turn that force off now?" I asked. "Surely this sort of thing will bring trouble undeservedly on many people?"

"Not yet. The car would have been all right if the fool had driven straight on. No—I will have a *little* more—just a *little* more. It would be a pity to stop now we have got so far. We will let it run all through the night, and turn it off at eight in the morning. No, no—I *must* have a little more." He shrugged his shoulders impatiently and entered the shed.

That night we retired to rest in the house with the distant hum of the machine droning in our ears. I had my misgivings, for during the morning it had only been working at low pressure. To-night it was set at "full speed ahead!"

I awoke about seven o'clock in the morning with an unpleasant conviction that something was the matter. I could still hear the merry humming from the shed, and I sprang from my bed in some trepidation.

The floor seemed to slope queerly. I ran to the window—my room was in the front of the house—and looked out. Between myself and the houses on the opposite side of the road was a great circular pit with sloping sides. On an island mountain in the centre stood the shed. The avenue was gone—the grass—the shrubs! Part of the road had disappeared. Nothing but yellow clay remained in these parts. Evidently, after becoming soft, the matter had disintegrated entirely!

I did not stop to see more. Hastily I ran to the Professor's room and informed him what had occurred. Besides, the sloping floor made me surmise that the pit was extending to the house. I rushed back, and hurriedly threw on my clothes, the Professor meanwhile doing the same. Then together we descended the stairs. They seemed shorter than before—and the hall!

"The foundations of the house have gone—and three feet of the walls!" exclaimed the Professor. "Look there!" He pointed to the hall door. Only about four feet of it remained; we should have to stoop to get through.



HE RAN—RAN AS HE HAD NEVER RUN BEFORE.

The handle was just above the floor! The floor—it was clay! The rest had gone, and the ceiling was close to our heads.

Somehow we got the door open, and we began to run down the sides of the pit, towards the shed.

"I have forgotten the shed key!" exclaimed the Professor, and turned back again.

"Don't go back!" I shouted. "Come here—quick—run!"

He ran—ran as he had never run before, with his little legs twinkling and flickering down the pit side and up the hill upon which stood the shed. The house was falling. Slowly it heaved over; then, with a crash, rolled pell-mell into the pit.

"A close shave!" exclaimed the Professor; "a close shave! That reminds me—I have not shaved this morning. Dear me—dear me!"

Was ever a man so callous of external happenings?

He was panting with the exertion, but mechanically he took his glasses from his pocket, polished them carefully on his red handkerchief, and, placing them upon his nose, calmly surveyed the scene of devastation.

Then he went up to one of the windows of the shed and looked through.

"Tut, tut!" he exclaimed in tones of annoyance. "One of the cells has cracked, and the conductor is broken. We must break in and stop that oil engine at once; we shall have that cell short-circuiting and discharging concentrated gravity. It will break the others up. Dear me, how very annoying—how *very* annoying! There may be polarisation, too!"

He continued his inspection through the window, but I dashed to the door, and, the lock being flimsy, soon found myself inside the shed.

I had not moved three steps inside, however, before I was dashed to the ground, and as I fell I heard a crash of splitting glass. An enormous weight seemed to press me down, to stifle me and hold me. Gravity was being discharged!

In five seconds this passed away—the circuit was broken again, or polarisation had ceased. I know not which. Anyway, the current was reversed.

I sat up and looked around me in a dazed way. Outside lay the Professor, gasping.

"Come outside. If that happens again the shed will fall in!"

I was about to do as he told me when it *did* happen again. Down to the ground I went with a thud, and the clay became solid round my hand, so that I could not move it! I gave myself up for lost, when to my relief the pressure was once more relaxed, and the clay grew soft. I withdrew my hand, and scrambled out of the hut. The Professor, too, was rising to his feet.

"How very unpleasant!" he gasped. There was a crash of glass. "Another cell gone!" he groaned. "How very unpleasant—*most* unpleas—!"

"Ugh!" I grunted as I fell again with crushing weight upon the ground. One of the Professor's arms was across my leg. It might have weighed a couple of hundredweight, and it caused an enormous bruise.

This time we did not get up, and for fully ten minutes we were alternately drawn ruthlessly to earth by an overwhelming gravity, and then mercifully released and allowed to breathe.

Meanwhile we caught glimpses of what was happening where the four houses had stood. I say *had* stood.

Only the upper storey existed now. They had not fallen over, but had sunk to earth evenly, and the terrified inhabitants of the one occupied house were running hither in all states of semi-attire. The terminals of one unbroken conductor were near this spot, and consequently they were suffering from the fact that *gravity was still being drawn from the ground where they were*. The effect of this was that as ever and anon they were pulled to earth obediently, and lay there for a moment after the pull had ceased, they were lying in the exact spot where their clothes would begin to disintegrate.

The consequence may be imagined.

These happenings came to an abrupt close. There was another violent earth-pull. The shed crashed to the ground. A momentary shock as though a thousand tons were upon us. Then all was over.

We rose to our feet. Several people were lying on the ground by the roofs of the houses—all that was left!

"It's a good thing that the sub-soil is clay about here," remarked the Professor.

"Why?" I queried, rather astounded at the remark.

"Because the normal cohesion is restored, and those people with hands and feet and knees and other portions of their anatomy in the earth, would have to be freed with hammer and chisel if it were stone! As it is, they will be alright, and I shall send them full compensation—anonymously, of course."

His nose was bleeding; so was mine. His glasses were gone—broken. He was black and blue upon face and hands—and no doubt elsewhere as well.

"What are you going to tell people—what is the explanation to be?" I queried as we scrambled towards the road.

"Nothing. We are victims of an earthquake—like the rest." He smiled grimly. "Now for a hat, a bath, a meal, and—a shave." He paused and sighed: "A shave."

We walked towards the village.

"It might have been really serious," he said thoughtfully.

"As it is, it is merely expensive—very expensive."

"Serious?" I echoed. "I call it serious."

"No, no, Delaney. Hardly serious—only expensive."

"Well," I answered, falling in with his manner, and trying to forget my swollen features and aching limbs, "at any rate, you will agree that it is a matter of much gravity."

He stopped abruptly on the dusty road, and looked at me severely.

"As a rule, I deplore puns—I deplore them." Then he chuckled. "But this one really has a point—er—to be paradoxical—a broad point."

We resumed our weary way to the nearest inn.



WE RESUMED OUR WEARY WAY TO THE NEAREST INN.

THE ORTHOPÆDIC DEPARTMENT.

By R. C. ELMSLIE, M.S., F.R.C.S.

THE surgery of deformities is as old as surgery itself, but the name orthopædics is of comparatively recent date. In 1741, M. Andry, Professor of Medicine in the Royal College, and Senior Dean of the Faculty of Physick at Paris, published a work, the English translation of which, published two years later, was entitled: *Orthopædia; or, the Art of Correcting and Preventing Deformities in Children*. In the preface to this work, Andry says: "As to the title, I have formed it of two Greek words, viz. ὀρθός, which signifies straight, free from deformity, and παιδίον, a child. This derivation of the name of this special branch of surgery needs emphasising, inasmuch as many, even in the medical profession itself, seem to associate the name with the Latin *pes*, a foot, and to consider that the prime function of Orthopædics is the treatment of affections of the feet. Andry further likens his title to those of two previous works, one published in 1584 by Scévole de Sainte-Marthe, entitled *Pædotrophia*, and dealing with the manner of suckling infants, and the second published in 1656 by Claude Quiller, entitled *Gallipædia*, and consisting of a poem dealing with the method of getting beautiful children, a subject which has lately again come into prominence under the name of "Eugenics."

Andry's book is of interest at the present day for several reasons. Its author was a physician and no surgeon. The work itself was intended to be a popular one; it dealt chiefly with the prevention of deformity and with the more trivial defects, and paid very little attention even to such surgical methods as were in vogue in the eighteenth century. Consequently, although it gives little or no clue to the developments of orthopædic surgery which took place in the following century, it is an excellent introduction to the preventive methods which are now becoming important as the result of systematic examination of children in schools and consequent endeavours to prevent the development of certain deformities whose origin is largely due to mechanical factors.

Much of Andry's advice will bear repetition at the present day. In speaking of the care of the clavicles, of the shape of the chest and of stooping, he calls attention to the necessity for securing that "When Children are in Gowns, they should be so made that the Openings of the Sleeves may allow them sufficient Liberty to turn the Arms outwards," and again that "Parents ought above all Things to give their Children new Stays frequently, and not grumble at the expense. A pair of too tight Stays in eight Days' time are capable of spoiling the body entirely, especially if they press upon the forepart of the Chest." There are also

directions as to proper chairs and as to posture in sitting, still matters of discussion at the present time. In speaking of the "Method of preventing Children to carry their Head wrong." Andry mentions two very important principles of orthopædics, which are of such interest as to make it worth while to quote the paragraphs. The first is upon the principle of over-correcting deformity :

"As those Workmen, who make streight Wood that is crooked, are not content to bring it to that point of Streightness where they would have it remain, but bend it farther to the other side, lest the natural effort of the Wood to recover its first Set, make it return to its former Crookedness ; so one that would subdue any strong Passion, ought to incline to the other Extreme, that he may be able to keep within those Bounds, in which he designs to confine himself." And in the same way, says Andry, if the neck is inclined to stoop forward it ought to be bent the contrary way.

The second principle may be expressed by saying that in the correction of a postural deformity an ounce of active movement is better than a pound of passive. In the description of a particular method of rectifying the neck which is crooked or stiff, Andry thus expresses his opinions :

"When the Hand is employed to turn the Head of the Child to one side, it is only the Effort of the Hand that does the Affair. But this Force is foreign, and consequently not so effectual, because it is not seconded by any Effort of the Child. It is the Effort of Nature that ought to do all this. It is this internal and secret energy that gives the course to the animal Spirits. While, on the contrary, when the hand performs the Motion, the animal Spirits of the Child do not act, neither do the Muscles contract themselves, but the Motion which you give them is quite passive on their part, and consequently must be of very little service ; for in this Case all ought to come from within." Consequently Andry's particular method consists in using every endeavour to make the child turn his head of his own accord in the direction which will correct his deformity. His food and drink are to be placed upon one side of him ; he is to be taken to the Fire-works or to a show and so placed that he must turn his head in order to see what is going on ; he must sit in the coach so that he must turn his head to look from the window ; in these ways active efforts at self-correction may be brought about.

Many other sound mechanical principles may be found in this work, chiefly, however, with respect to postural deformities. When fixed deformities are concerned the description of the supposed cause is often merely humorous, and the treatment evidently very inadequate. Perhaps the best instance of this is in Andry's description of Bolt Feet.

"Bolt Feet are such as resemble those of a Horse, and thence are called in Latin *Pedes Equine*. They say that in the Black Sea there are Isles, the Inhabitants of which have

their Feet thus made, and are called *Hippopodes*, which is a Greek Term signifying Horse's Feet.

"I was very intimately acquainted with a Physician who had Feet of this sort ; but he was a Man whose Head very well compensated the Imperfection of his feet. He died very suddenly."

Andry says that those who have this deformity hide it by wearing ordinary shoes, having that part in which the foot leaves a void filled up with a piece of cork. But he also says that the deformity is not incurable, but is capable of alleviation by pulling the toes frequently but gently, and by bandaging the feet. This may lead us on to the first great development of operative orthopædics, the discovery of the possibility and safety of subcutaneous tenotomy by Stromeier in 1831. Delpech had previously performed open tenotomy of the Tendo-Achillis in 1828, but suppuration ensued. Stromeier's discovery that subcutaneous operation could be carried out without the risk of this complication, at once placed orthopædics in the forefront of surgery, as a branch in which operations were safer than in any other. After this orthopædics developed rapidly. In England the two London Orthopædic Hospitals—The Royal and The National—were founded before 1840, and their surgeons soon attained a reputation. Osteotomy had been first performed in 1828 by Barton in America, and although not so safe as tenotomy, yet this operation also, when performed subcutaneously, proved a reasonably safe procedure in the pre-antiseptic days. It thus came about that just before the Listerian era operative orthopædics had developed to an extent which was, perhaps, in advance of that of other branches of surgery. It was about this time that our own Orthopædic Department was established, Mr. Willett being appointed in charge in 1867.

Following upon the introduction of antiseptic methods, a rapid advance in general surgery was accompanied at first by an advance in orthopædics, which, however, was later brought somewhat to a standstill, in this country at least, by the interest and glamour attached to abdominal operations. Orthopædists quite properly kept largely to their mechanical methods, and the surgeon who was engaged in larger operations had no time to give to the learning of these. It thus came about that in England those surgeons who specialised in this branch were either good operators or else good mechanics, and seldom both. In other countries this tendency was soon overcome by the greater tendency in them towards specialisation, so that in Germany, in the hands of Julius Wolf and Hoffa, in Italy, through Panzeri and Codivilla, in America, through Sayer and many others, orthopædics made many advances. At our own Hospital, thanks to the early development of the special department, officered by a surgeon who had to be both a surgeon and a mechanic, we did not suffer from stagnation. Mr. Willett, who had charge of the department from 1867 to 1879, was a pioneer in this country in operative ortho-

pædics. Mr. Marsh, who followed him, has justly attained a world-wide reputation for his work upon the mechanical treatment of tuberculous joints, and Mr. Walsham, who had charge of the department from 1882 until 1897, was, in his time, one of the best known orthopædic surgeons in the world. Mr. Bruce Clarke, who followed Mr. Walsham, had charge of the department until 1903, the writer's first introduction to the subject took place during this period, and the combination in Mr. Bruce Clarke of a knowledge of surgery with really great mechanical skill, rendered him an invaluable master. From 1903 on the department was in the hands of Mr. McAdam Eccles. From the time of the opening of the new out-patient premises it soon became evident that the work was increasing so greatly that it would soon be impossible for an assistant-surgeon to the Hospital, with other work to perform, to carry it on and to keep abreast of modern methods. In 1912 this was recognised by the Governors, and the post of Orthopædic Surgeon made a specialist's appointment.

Parallel with the development of orthopædics has come the growth of massage and physical exercises as modes of treatment in medicine and surgery. Swedish gymnastics date from the time of Ling in 1813. They differ essentially from the gymnastics of other countries in that they were worked out upon scientific lines, first as means of education of the neuro-muscular system and secondly as methods of medical and surgical treatment. They have been long in finding a proper recognition in this country, but at last their importance is being accepted. At present, so far as the hospitals and medical schools are concerned the use of gymnastic methods in treatment has not been recognised. It may be predicted, however, that before long the medical profession will recognise how important to them is a knowledge of the educational side of gymnastics, dealing as it must with the proper physiological development of the muscles and of their nervous control. We may then expect that medical students and practitioners will study the theory of gymnastics, so as to fit themselves to advise as to the training of children in schools and in the home, and so that they may assist in guiding public opinion in the proper choice of methods of gymnastic training.

This brief outline of the history of the origin and development of the speciality of orthopædics and its allied subject remedial gymnastics is intended merely to serve as an introduction to an account of the present work of the department, to which a subsequent article will be devoted.

THE CLUBS.

CRICKET CLUB.

ST. BART'S v. VIRGINIA WATER.

On May 2nd an enjoyable game ended in a good win for the Hospital. Our opponents won the toss, and were eventually disposed of for 244, Blaker and Dyer being the chief contributors with 63 each. Owen took 5 and Brann 4 wickets. The Hospital gave a good all-

round display of batting, and won by 2 wickets, with 10 minutes to spare.

SCORES.

VIRGINIA WATER.		ST. BART'S.	
D. Mustar, c Stathers, b Owen	24	S. R. Prall, b Pond	12
Stinton, c Blair, b Brann	0	H. J. Moser, c Smith, b Blaker	39
Roles, b Brann	8	T. Owen, b Blaker	33
Pond, c Baker, b Owen	3	W. F. Eberli, st Stinton, b Roles	2
Dr. Rutherford, c Blair, b Parkes	27	G. F. Jukes, c Cook, b Rutherford	33
Dyer, b Brann	63	J. F. Haynes, b Blaker	54
Blaker, c Baker, b Owen	63	L. Brann, b Mustar	33
Dr. Smith, b Owen	3	H. E. Parkes, not out	11
, not out	5	C. J. C. Blair, b Blaker	8
Joslin, c Jukes, b Owen	16	G. S. Stathers, not out	2
Cook, b Brann	15	H. S. Baker did not bat.	
Extras	17	Extras	21
Total	244	Total (8 wks)	266

SWIMMING CLUB.

The Swimming Club has been rejuvenated this year and shows promise of a good season. Several water polo fixtures have been arranged and swimming races are proving a popular feature. At the General Meeting Messrs. R. Foster Moore and D. M. Stone were elected vice-presidents, and have kindly consented to act in that capacity.

POLO.

ST. BART'S v. THE WATER RATS.

This match took place at the Marylebone Baths on Friday, May 18th, and resulted in a draw 2-2; C. F. Beyers and D. M. Stone scoring for us. Team—Goal: J. Pearce. Backs: T. W. David, A. Upton. Half-back: C. F. Beyers (capt.). Forwards: G. Parry, D. M. Stone, G. A. Beyers.

ST. BART'S v. DULWICH COLLEGE.

On Monday, May 25th, at Dulwich. The fixture opened with a team race in which the College were easily victorious, winning by half a length.

The polo started evenly, C. F. Beyers scoring in the first minute, the equaliser following quickly; the game continued to be fast, half-time arriving with the score 3-2 in our favour, Parry and Upton scoring our other goals. On resumption our combination markedly improved and further goals were scored by C. F. and G. A. Beyers and Upton (2) to our opponents 1. Result: 7-3. The team was the same as v. The Water Rats, except that J. B. Mudge replaced D. M. Stone.

CORRESPONDENCE.

REPORTS OF THE CLUBS.

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

"WHAREAMA,"
STOKE, NELSON, N.Z.,
March 14th, 1914.

DEAR SIR,—One of the pleasures I eagerly await is the day of arrival of the old HOSPITAL JOURNAL: in it one finds news of old friends. One fondly imagines that we exiles are still in touch with the old place, but lately, month after month, I have sought in vain for football news. True, there have been a few words occasionally, but it is evident that the "clubs" do not send in their reports regularly. Now the time will come when the secretaries of these clubs will rely on the JOURNAL for their own news.

To one who fought for the "Rugger" Cup (and very nearly got it, too! Can any of you recollect how we downed Guy's by 18 to 3? How Sammy Mason tried to punt into touch and dropped a goal by mistake? How we fought Thomas's again and again, and Harry Bond away?) the news of the "Rugger" doings is of the greatest interest.

Let me, as an old "Rugger" captain, ask the secretaries of the clubs to send in their reports, and let me ask you, Mr. Editor, to

have space set aside for them, and so do your best for those of us who, tho' far away, love old Bart.'s as you do.

Yours truly,
P. O. ANDREW.

THE HONORARY MEDICAL STAFF OF ST. ANDREW'S HOSPITAL, NEASDEN.

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

SIR,—The St. Andrew's Hospital is open for patients at two and a half guineas a week, which includes all medical and surgical attendance and operations by the hon. staff and the salaried resident medical officer. I wonder if the staff realise that they are being exploited in the name of charity and at the expense of the local practitioner who is debarred from attending his patients at the hospital.

I fully realise that there exists a class of patient to whom such an opportunity is a godsend and who might legitimately take advantage of the opportunity provided, but there is a very fine line between this and hospital abuse, as it is impossible for "public" reasons for a general practitioner to refuse to give a recommendation when asked to do so.

Further, there are private rooms at six or eight guineas a week where patients may be attended or operated upon by members of the staff of this and recognised London hospitals, and the staff make their own arrangements with the patient as regards fees and again the general practitioner is debarred from attending. Surely a patient who is in a position to pay six or eight guineas a week should not be taken away from the local man by the specialist or consultant.

The matter has been before the local division of the British Medical Association and although they did not take any action, it was felt that the regulations of the hospital and the position taken by the hon. staff were not fair to the local general practitioner who could support neither of them.

As all but one of the hon. staff are Bart.'s men and many of them are on the staff at Bart.'s I thought it better to write to the Bart.'s JOURNAL rather than to a general medical journal.

After the lead given by the staff of Bart.'s a year ago in support of the stand made by general practitioner's against some of the objectionable conditions of the National Insurance Act, it is disappointing to see them supporting here a system which is detrimental to the interests of the general practitioner in that here again they are taking away patients who are able to pay fees and who are of a class quite distinct from the necessitous poor.

I am, Sir, yours, etc.,
WILFRED N. SODEN.

35, MAPESBURY ROAD,
BRONDESBUURY, N.W.

"DISEASES OF CHILDREN."

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

8, HENRIETTA STREET,
COVENT GARDEN, LONDON,
April 24th, 1914.

DEAR SIR,—We are pleased to notice the review in your JOURNAL of Dr. John McCaw's *Diseases of Children*. Will you allow us, however, to point out that the author's name is incorrectly spelt? As this makes "all the difference" in the value of the review, would you be so good as to correct it in a future issue?

We are, yours faithfully,
BAILLIÈRE, TINDALL & COX.

'ANÆSTHETICS.'

(FIFTH EDITION: DR. DUDLEY BUXTON.)

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

DEAR SIR,—In your courteous review of my book you say: "as, except that the rectal administration of ether with oil is not mentioned, it is quite up to date." On page 203 of my book, under the caption of "Colomic Etherisation," I describe both the ether-saline and the ether-oil systems of etherisation by the rectal route. Dr. Gwathmey's work was in the experimental stage when the book was written, but subsequent communications upon the subject have not altered materially the statements contained in the paragraph in my book to which I have referred you. Possible you can correct what I am sure was an unintentional slip on the part of the reviewer.

I am,
Yours very truly,
DUDLEY W. BUXTON.

STOP PRESS NEWS.

GRATE FIRE AT ST. BARTHOLOMEW'S.

On Thursday, May 28th, our Special Correspondent in Little Britain was attracted by a volume of smoke issuing from one of the basement windows of the Hospital. Simultaneously, a fireman in resplendent uniform ran across the road, hatchet in hand.

A crowd collected.

Our correspondent, having some idea of the direction to be taken, at once conducted the fireman to a flight of steps inside the enclosure marked, "Nurses only—Private." Together these two intrepid men plunged down the staircase, undaunted by the reek of smoke.

As they burst open the door, they perceived three damsels in distress—distress, because the smoke from the large kitchen range was entering their respective respiratory systems and causing them to cough. Someone had mismanipulated the dampers.

On ascending to the outer air once more, they found four fire engines and four escapes had already arrived, although not more than about four minutes had elapsed.

It was—as we notify on our scare-heading—merely a grate fire. But it might have been a great fire, and such promptitude is reassuring.

THE BOOKSHELF.

REVIEWS.

SANATORIA FOR THE TUBERCULOUS. By F. R. WALTERS. Pp. 432. (George Allen & Co.) 12s. 6d. net.

An exhaustive work dealing with the effects of nearly every climate in the world upon tuberculous patients in their various stages, and setting forth the various sanatoria both in England and abroad. It is intended in this respect as a guide to the general practitioner who can very often have but a vague idea where he can send his patients. The scope of sanatoria treatment is discussed at some length.

MENTAL DISEASES. By R. H. COLE. (Hodder & Stoughton.) Pp. 321. Price 10s. 6d. net.

It is not often that one finds a book which one does not think could be improved. But we almost think that in this instance such a book lies before us. Dr. Cole has treated his subject very fully, and has evidently read profoundly. Apart from the mere classification of insanity, its diagnosis, prognosis, and treatment, he gives us some interesting information concerning sanity, consciousness, sleep, memory, and so forth, which cannot fail to be of value to the reader. The statistics are also very interesting and pathological illustrations are extremely good. We can cordially recommend this little book.

CHRONIC COLITIS. By G. HERSHELL and ADOLPHE ABRAHAMS. (Longmans, Green & Co.) Pp. 270. Price 6s. net.

A well-written little book which gathers together in a useful and not too lengthy manner the various types of this troublesome complaint. The authors have made a very careful classification of these types, and have indicated the causes and treatment to be followed in the various cases. If we have one fault to find it is that they are rather too dogmatic upon a subject which at present has so many obscure points. There is no doubt, however, that this book should be of considerable value to the general practitioner and to the student as well.

EXAMINATIONS.

UNIVERSITY OF CAMBRIDGE.

Second M.B. Examination.

Part II: *Pharmacology and General Pathology*.—S. L. Bhatia, E. Donaldson, F. G. Lescher, H. W. Scott, E. P. W. Wedd.

D.P.H. Examination.

Parts I and II.—J. H. Baldwin, H. W. Barnes.

The degrees of M.B., B.C., have been conferred on R. Sherman and C. R. Taylor.

The degree of M.B. has been conferred on R. S. Morshead and J. P. H. Davies.

CONJOINT BOARD.

Final Examination.

The following have completed the examinations for the diplomas of M.R.C.S. and L.R.C.P.—C. J. Scholtz, V. M. Metivier, R. A. R. Wallace, R. Ellis, B. Z. Shah, D. C. G. Ballingall, H. A. Bell, G. M. Cowper, G. P. Selby, E. C. Bradford, G. B. Richardson, J. B. Randall, E. Donaldson, G. C. Fairchild, A. N. Rushworth, F. H. Cleveland.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

J. F. Gaskell elected as a Fellow.

R. R. Armstrong and T. H. G. Shore admitted as Members.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Primary F.R.C.S. Examination.

L. M. Banerji, D. Green, R. H. Maingot, V. R. Mirajkar, C. Noon, H. B. G. Russell, W. E. Wilson.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

A. L. Weakley admitted to Fellowship.

NEW ADDRESSES.

CHAMPNEYS, SIR FRANCIS, Bt., 49, Cambridge Terrace, Hyde Park, W. Tel. Padd. 2590. (Until July 31st.) Littlemead, Nutley, Uckfield, Sussex. Tel. 3 Nutley. (After July 31st.)

COUCHMAN, H. J., 4, Downing Street, Farnham, Surrey.

DRAGE, C., The Rhodd, near Presteigne, Radnorshire.

LANG, P., Bolsover House, Ashington, Northumberland.

RUSHWORTH, A. N., Metropolitan Hospital, Kingsland Road, N.E.

STANGER, G., Queen's Hospital for Children, Hackney Road, Bethnal Green, E.

WALSHAM, H., 127, Harley Street, W.

WOODFORDE, A. W. G., "Allexton," Ripple Road, Barking, Essex.

APPOINTMENTS.

HARTLEY, J. D., F.R.C.S., L.R.C.P., appointed Hon. Surgeon to the Gravesend Hospital.

LAWRENCE, S. M., M.D., B.S.(Lond.), M.R.C.S., L.R.C.P., appointed Hon. Assistant Surgeon to the Gravesend Hospital.

MARSHALL, E. S., M.R.C.S., L.R.C.P., appointed Investigator into Prevalence of Ankylostomiasis in Antigua, W. Indies, under the Rockefeller International Health Commission.

MOORE, R. FOSTER, B.C.(Cantab.), F.R.C.S., appointed Assistant Surgeon to the Royal London Ophthalmic Hospital.

PRENTICE, H. R., M.B., B.S.(Lond.), M.R.C.P., appointed Physician to Outpatients at the West End Hospital for Diseases of the Nervous System.

RUSHWORTH, A. N., M.R.C.S., L.R.C.P., appointed Junior House Surgeon at the Metropolitan Hospital, Kingsland Road, N.E.

STANGER, G., M.B., B.Ch.(Oxford), M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Queen's Hospital for Children, Hackney Road, Bethnal Green, E.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments have been notified since April 20th, 1914:

Staff-Surgeon L. M. Morris to the "Bristol" on relief of the "Her- mione," undated.

Surgeon G. Scott to the "Cumberland," to date May 19th, 1914.

Surgeon G. Wallis to the "Niger," to date May 23rd, 1914.

INDIAN MEDICAL SERVICE.

Major E. A. C. Matthews has been appointed Honorary Surgeon to the Viceroy.

BIRTHS.

BLAKEWAY.—On Monday, May 4th, at 1, Weymouth Street, W., the wife of Harry Blakeway, M.S., F.R.C.S., of a daughter.

CLEMINSON.—On May 3rd, at 1, Albert Road, Gloucester Gate, Regent's Park, the wife of Frederick John Cleminson, M.C., F.R.C.S., of a son.

DUIGAN.—On May 13th, at Beech House, East Dereham, the wife of V. J. Duigan, M.R.C.S., of a son.

HARTILL.—On May 26th, at Abbots Langley, Herts., Muriel, wife of Sydney Hartill, of a son.

LATHBURY.—On May 11th, at Chipperfield, Kings Langley, the wife of Capt. E. B. Lathbury, R.A.M.C., of a daughter.

LEA-WILSON.—On May 2nd, at Willingham, near Gainsborough, the wife of B. Lea-Wilson, M.R.C.S., of a daughter.

MARRIAGES.

ALEXANDER—GRAY.—On May 14th, at the Parish Church, Sundridge, Kent, by the Rev. John Lane Hopkin, and the Rev. E. K. B. Morgan, Vicar of the Parish, James Finlay Alexander, M.A., M.D.(Cantab.), son of John Alexander, of Glendale, South Park, Sevenoaks, to Freda Brenton Gray, daughter of Mrs. Gray of Linwood, Eastbourne.

HANBURY—LYCETT.—On St. George's Day, April 23rd, at the Church of the Redeemer, Bryn Mawr, near Philadelphia, Reginald Janson Hanbury, son of Frederick Janson Hanbury, of Brockhurst, East Grinstead, to Margaret Lycett, daughter of Edward Howes Lycett, of Kirkwood, St. Louis, U.S.A.

WOLFERSTAN—LA TOUCHE.—On May 5th, at Stokesay Parish Church, Shropshire, by the Rev. W. D. La Touche, Rector of Wistanstow, and uncle of the bride, Dr. Kenneth Wolferstan, youngest son of Mr. Thomas Wolferstan, to Ruth Isabel, elder daughter of Mr. James Norman Digges La Touche, M.I.C.E., and of Mrs. La Touche.

WROUGHTON—STUART.—On April 2nd, at Howick, Natal, John Henry Wroughton, M.R.C.S., L.R.C.P., son of the late Lt.-Col. F. J. Wroughton, to Ethel Susan, daughter of G. B. W. Stuart, late D.I., R.I.C., Kingstown, Dublin.

DEATHS.

ABERCROMBIE.—On April 30th, at Augill Castle, Brough, Westmorland, John Abercrombie, M.D.(Cantab. et Dunelm), Cons. Phys. to the Charing Cross Hospital and to the Foundling Hospital, London.

HUGHES.—On April 26th, at Pwllheli, N. Wales J. Evans Hughes, M.R.C.S., L.R.C.P.

LATHBURY.—At Chipperfield, Kings Langley, on May 13th, Dorothy Helen, infant daughter of Capt. and Mrs. E. B. Lathbury.

MACLURE.—On May 19th, at the Grove, Brill, Bucks, Herbert William Maclure, M.B.(Cantab.), aged 50.

ACKNOWLEDGMENTS.

Medical Review, L'Attualita Medica, The Student, British Journal of Nursing, Guy's Hospital Gazette, The Nursing Times, Giornale della Reale Societa Italiana d'Igiene, The Hospital, The Stethoscope, Charing Cross Hospital Gazette, London Hospital Gazette, Union Magazine, Middlesex Hospital Journal, The Eagle, St. Mary's Hospital Gazette, Long Island Medical Journal.

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: 1436, Holborn.

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

St. Bartholomew's Hospital



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

JOURNAL.

VOL. XXI.—No. 10.]

JULY 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

Wed., July	1.—Clinical Lecture (Surgery), Mr. McAdam Eccles.
Thurs., "	2.—Second Examination Conjoint Board begins.
Fri., "	3.—Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine), Dr. Fletcher.
Mon., "	6.—Second Examination for Med. Degrees (London), Part II, begins. M.D. and M.S. Examinations (London), begin. Second Examination of Society of Apothecaries begins.
Tues., "	7.—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., "	8.—Final Examination Conjoint Board (Medicine) begins. First Examination of Society of Apothecaries begins.
Thurs., "	9.—Final Examination Conjoint Board (Midwifery) begins.
Fri., "	10.—Sir Wilmot Herringham and Sir Anthony Bowlby on duty. Junior Scholarship Examination. Final Examination Conjoint Board (Surgery) begins.
Sat., "	11.— Summer Session ends. Oxford Trinity Term ends.
Mon., "	13.—First Examination for Medical degrees (London) begins.
Tues., "	14.—Dr. Tooth and Mr. D'Arcy Power on duty. First Examination Conjoint Board begins.
Thurs., "	16.—Second Examination for Medical degrees (London), Part I begins.
Fri., "	17.—Dr. Garrod and Mr. Waring on duty.
Tues., "	21.—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., "	24.—Dr. Morley Fletcher and Mr. Bailey on duty.
Tues., "	28.—Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
Fri., "	31.—Dr. Tooth and Mr. D'Arcy Power on duty.
Tues., Aug.	4.—Dr. Garrod and Mr. Waring on duty.
Fri., "	7.—Dr. Calvert and Mr. McAdam Eccles on duty.

EDITORIAL NOTES.



We extend our heartiest congratulations to our senior physician, whose name figures in the birthday honours as the recipient of knighthood. Sir Wilmot Herringham is not only a physician of St. Bartholomew's Hospital, but he has just been selected for the third time as Vice-Chancellor of London University. Those who know of his activity not only in medical work, but in the important sphere of academics, are by no means surprised at the honour which has been conferred upon him, and through him upon our hospital. Indeed, many people expected to see this honour conferred upon him at an earlier date as a reward for the magnificent work which he accomplished as General Secretary of the International Medical Congress held in London last year.

* * *

The Clinical Congress of Surgeons of North America is meeting in London from July 27th to August 1st, during which period a large number of their members will be making a visit to this Hospital in order to view the ordinary routine surgical work as carried out in this institution. On Wednesday, July 29th, it is proposed to invite certain of our visitors to tea in the Square at 4 o'clock in the afternoon, after which it is hoped that Dr. Norman Moore will conduct them round the Hospital, pointing out many of the historical features with which he is so well acquainted.

* * *

In our last number we invited correspondence on the subject of the effects of the National Insurance Act. We publish two letters which we have received, and we shall be glad to publish further letters if practitioners will send them to us.

* * *

We extend our hearty congratulations to the following: Dr. C. H. Roberts, M.D. (Lond.), F.R.C.P., F.R.C.S., who has been elected as Examiner in Midwifery and Gynæcology to the Conjoint Examining Board (Final Exam.); Mr. M. W. B. Oliver, M.B. (Cantab.), F.R.C.S. (Eng.), who is appointed

Assistant Surgeon to the Central London Ophthalmic Hospital; Dr. P. Rowland, M.D. (Lond.), who is appointed Assistant Surgeon to Essex County Hospital, Colchester; Dr. B. Myers, M.D. (Edin.), M.R.C.P. (Lond.), who has been appointed Hon. Out-patient Physician to the Royal Waterloo Hospital for Women and Children; and Dr. G. Hodfield, M.D. (Lond.), who has been appointed Assistant Pathologist to the Dreadnought Hospital, Greenwich.

* * *

It was with great regret that we learnt of the death of Mr. Stephen Townsend, F.R.C.S., from pneumonia at the early age of 54. After leaving this hospital, he did not practise for very long, but devoted himself to literature and to the stage. He was the author of *A Thoroughbred Mongrel* and other well-known works, and also of the plays, *Nixie* and *A Lady of Quality*, himself playing the principal parts. He was of a very philanthropic nature, and will not soon be forgotten by his numerous friends, whom he was ever willing to assist with either advice or money.

* * *

The Mid-summer Address was delivered to the Abernethian Society on Thursday, June 18th, by Sir John Bland-Sutton, surgeon to the Middlesex Hospital. The title of his address, "An Apocryphal Miracle," gave but little idea of the strange fare which Sir John had in store for his audience. The miracle was, as a matter of fact, the cure of Tobit's blindness by rubbing fish-gall in his eyes. Sir John retold the story in an inimitable manner, and explained the miracle on the supposition that Tobit was suffering from senile cataract. Sir John has a most individual humour, and delighted his audience with his address, the only fault of which was its brevity. Votes of thanks were proposed and seconded by Mr. D'Arcy Power and Mr. Gordon Watson.

* * *

Some months ago we had a good deal to say on the subject of the Basle terminology. This was because the vast majority of both students and teachers did not find it easy to get books in the authorised terminology owing to the attitude of certain large publishers. The concert of editors of the London hospitals took the matter up, and we are pleased to say that, apparently as the result of our endeavours, a new edition of Buchanan's *Manual of Anatomy* has just been brought out in the old terminology. The Basle terms are given in a glossary at the end, and this is as it should be, until such a time as the various authorities decide upon official alteration.

* * *

St. Bartholomew's men who have been supporting Malcolm Dyson's application for a Foundation Scholarship at Epsom College, will be glad to hear that he headed the poll with 7576 votes. Mrs. Dyson is most grateful for the assistance that has been given her and desires to thank everyone who voted for her boy or in any way helped to secure his election.

THE VALUE OF ATROPINE SULPHATE IN THE TREATMENT OF A CONDITION WHICH FREQUENTLY PRECEDES DEATH.

GEOFFREY EVANS, M.B.(Cantab.).



HERE is a group of signs which commonly makes its appearance shortly before death.

The leading features of this complex are as follows: Unconsciousness, pallor, and cyanosis of varying degree; the cyanosis is rather a duskiness than actual blueness. There is sweating, which may be very marked and which sometimes results in the copious eruption of sudamina. The secretion of other glands is similarly affected; the saliva dribbles from the corner of the mouth, mucus is secreted into the trachea and bronchial tubes, and, collecting at the back of the throat, it rattles with each respiration. Occasionally there is lacrymation. The pulse is regular and comparatively strong. Typically death occurs from respiratory failure, the pulse continuing to beat strongly for a short time after respiration has ceased.

When this group of signs is established, death usually soon follows. Temporary recovery sometimes occurs, and in one case the patient lived for four days. It would seem possible, therefore, that complete recovery might occur. Even were the condition invariably fatal, there would be a definite indication for treatment, for the sound of mucus rattling in the throat is distressing to hear; more especially is this the case in a hospital ward, where the beds are near together.

The condition nearly always responds to atropine.

The subcutaneous injection of $\frac{1}{80}$ gr. atropine sulphate, followed, if necessary, in twenty minutes by $\frac{1}{100}$ gr., stops the secretion of mucus in the throat, the breathing becomes dry and quiet, the colour improves, the saliva lessens and the sweat stops. This effect is not lasting, and it may be necessary to repeat $\frac{1}{100}$ gr. atropine sulphate after an hour's interval. The most I have given is $\frac{1}{25}$ gr. in seventy minutes, followed by $\frac{1}{100}$ gr. four hourly. The tenacious mucus which collects at the back of throat is best cleared away by spraying with a solution of sodium bicarbonate, 2 drachms in 5 oz. water.

The condition is probably central in origin. The strength of the pulse distinguishes it from collapse.

The secretion of sweat is dependent on impulses sent out from the sweat centre—which lies partly in the medulla and partly in the spinal cord—rather than on the supply of blood to the skin; the skin may be dry when it is hot and red in fever, or moist and clammy when it is chilled by fear.

The condition has been most frequently observed in diseases affecting the brain. Thus it is frequently seen in cases of cerebral hæmorrhage. I have also seen it in tuberculous meningitis and in a case of acute poli-

encephalitis. It is interesting that the condition developed in a patient in whom there was an absence of sensible pulsation in both carotid and radial arteries due to obliteration, by sclerosis, of the large trunks arising from the arch of the aorta. In this case the pulse remained full and strong for a full minute after the respirations had ceased, nor was its rate noticeably altered. The condition was also present in a patient who suffered from widespread diphtheritic paralysis involving the diaphragm. During the last twenty-six hours of life the intercostal muscles became paralysed on four occasions. On each occasion artificial respiration was maintained (once for three hours continuously) until the intercostal muscles recovered their power, when consciousness returned and the patient regained the general condition in which he was before the attack of intercostal paralysis set in. On the fifth occasion that intercostal paralysis supervened the sign complex here described made its appearance, and in spite of active treatment no recovery of even temporary character occurred.

The beneficial effect of atropine may be explained by its peripheral action on secretory nerves; in addition it has, perhaps, a central effect in virtue of its activity as a medullary stimulant.

In the present state of our knowledge it is useless to suggest an hypothesis to account for this condition. It is nevertheless tempting to entertain the idea of some such condition as Sir Lauder Brunton has suggested to account for the night sweats of phthisis. An investigation of the hydrogen ion concentration in the blood, in cases where there is reason to suspect depression of activity in the centres of the medulla, might prove interesting in this connection.

THE TOMB OF ABU ALI IBN SINA (AVICENNA).

A PILGRIMAGE TO HAMADAN (ECBATANA).

By A. R. NELIGAN, M.D.(Lond.),
Physician to H.B.M.'s Legation, Tehran.

SOME few summers ago professional work took me to Hamadan, a town in Western Persia, 200 miles away, no distance at all for those who dwell in Harley Street with ever ready motors and the Great Central hard by; but in Persia such a journey is not lightly to be undertaken, nor if possible, with haste! One must foot it or ride or drive. I chose the last-named mode of progression, and so, one hot June morning, we, my servant and I, trundled out of one of Tehran's twelve gates in a lumbering landau, drawn by four horses at four miles an hour, including stoppages. Of driving post in Persia I

have written in a former number of the JOURNAL. This journey was like many others—the stages two to three hours long; the arrival at the post-house; the changing of horses; the broken wheel and the functionless spring; the heat and the dust by day and the cold by night. But, after all, I had plenty of books, cigarettes and a well-filled luncheon basket, a respite from patients for two clear days and the prospect of seeing new faces and old places. Did I say a respite from patients? I had forgotten the post-master at Kiak, who woke me from a troubled sleep at 2 a.m. to crave treatment for insomnia. This, by the way, is the only case of the kind on record. The sleep of postmasters in general would more probably be called coma!

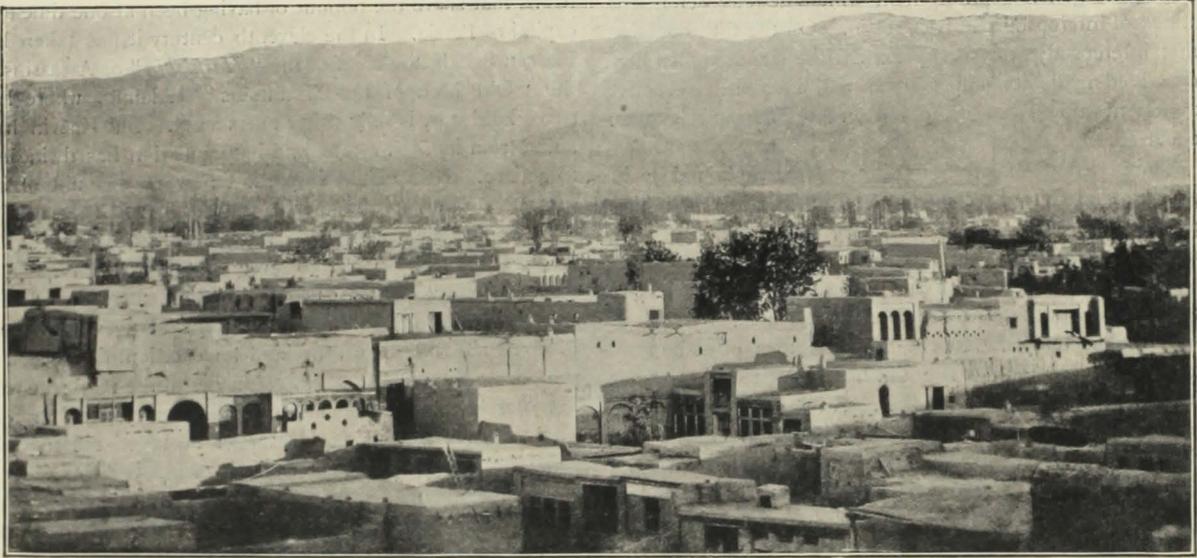
Late that night we arrived at Kazvin, one of the seven towns that share the honour of having been at one time the capital of Persia. In the eleventh century it was taken by Hassan Sabah, the chief of the "*Hashishin*" or Assassins,* the "Old Man of the Mountains." Alamüt, where his stronghold was, is only thirty miles away. But Kazvin has fallen from its high estate, and its population has dwindled to 40,000. It is chiefly important now on account of its position on the main road from the Caspian to Tehran, and by reason of the excellence of its fruit: are not the Kazvin grapes devoid of pips? However, Kazvin was for me the most important town in Persia that night, for I found the "hotel" in the hands of two old acquaintances, and they received me with open arms and an excellent dinner. To the dinner came a Parsee, the manager of the road; he was full of schemes for the future, motor conveyances for the road, a sugar factory, etc. Further he urged me to visit some hot springs by the way and to analyse the water; should it prove medicinally useful he would build a hydro-pathic establishment hard by. I promised to visit them, but had to own that I could do no more than take a specimen, as I had found no place in my obstetric bag for water analysing apparatus.

We started again at midnight, this time due south along the fine road which the Russians have made to Hamadan. On we went faster now than before, for the post-horses were good and well fed, and I had received an urgent telegram at Kazvin. We stopped at the hot springs, but they were full of tribes-women and their babies, so I hastily decamped. The "hydro" has not yet been built. We climbed a ridge of mountains and raced down the other side in a series of wild gallops, which would have been alarming had one not known that even the most opium-sodden of Persian drivers, the most rickety of road carriages, and the weediest of post-horses, have a special Providence which looks after them and their fares. We passed the ever-interesting stock-in-trade of a high road in Persia, punctuated by huge gaps when we saw neither man or beast for mile after mile. First a string of sneering camels,

* "*Hashishin*" means "users of *hash'sh*" (Indian hemp), and the word "assassin" is a corrupted form of it.

tied head to tail, with enormous loads of grain or naphtha and their bells—boom, ting, clang—awkward customers to meet on a mountain road on a dark night. Then squads of pattering donkeys with tremendous ears and slit nostrils; battalions of plodding mules gay with blue beads; an occasional one-horse *gharry*; creaking, groaning *fourgons*, piled sky-high with bales, boxes and men; sturdy pedestrians; barelegged, red-petticoated, staring tribes-women with babies slung on their backs; an occasional fair town-dweller shrouded in black, and white veiled, squatting in a mule pannier; mixed herds of inquisitive goats and silly fat-tailed sheep; horsemen, donkeymen, muleteers; road-guards with rifle and bandolier, and an eye for a tip. So we went on, and on the third day at 3 a.m. I awoke not to

ing townsmen and wild-looking Kurds. I must perforce forbear to speak of consultations with native *hakims*, with those who dealt in the products of Merck and with others who talked of "hot" and "cold." And I will not attempt to estimate my fees in guineas, for they were chiefly paid in chickens and lambs. No! there is at Hamadan something far more interesting to readers of the JOURNAL and to our profession as the whole, namely, the grave of Abu Ali ibn Sina—whom Westerners have called Avicenna—physician, philosopher, poet, and politician. Much has already been written about the "Prince of Physicians," and I can add nothing thereto, but it may be that a description of his last resting place will not prove uninteresting, especially at this time of revived interest in the history of Medicine. At any



HAMADAN.

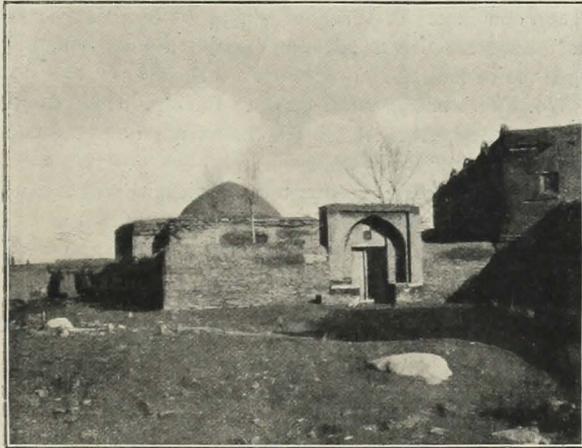
sleep again, for is not Hamadan the tannery of Persia, and were we not but eight short miles away with the wind in our faces! My anxiety to visit the place was suddenly damped; but presently we began to pass through opium poppy fields in full bloom; their pure white expanse looked peculiarly beautiful in the dawn, and then I thought of the son of Sina.

I will not stop to write of the dirty, busy town of Hamadan itself, with its narrow, winding streets and latticed windows; once the capital of the Achæmenian Kings, now a famous mart for Manchester cottons, and celebrated in the East for its leather. Nor of the hearty Scotch welcome which awaited me. Nor of my climb up Mount Alvand, 12,000 ft. high, with the grave (so say the tribes people) of Shem at the summit. Nor indeed of Esther's palace, nor of her and Mordecai's tomb. Nor of the Ganj Nameh, where, on the road to Babylon, is carved in cuneiform characters the story of the deeds of Darius. Nor of lawn tennis on the first court ever made at Hamadan, with an audience of wonder-

rate, as one of Dr. Norman Moore's old residents, I could not but feel a thrill at the thought of what I was to see.

Before, however, we visit the place where he was buried we might consider shortly what is known of the life and work of Abu Ali al Hussein ibn Abdullah ibn Sina, as his full name was (ibn=son of). He was born in the year 980 A.D., near Bokhara. His father was a Persian, his mother a native of the place. It is said that by the age of ten he knew the Koran and much Arabic poetry by heart. From these studies he passed to arithmetic, logic, euclid and geometry, the higher philosophy, metaphysics and medicine. At sixteen he was treating the poor gratuitously and laying claim to new methods of treatment. At seventeen he became physician to the Amir of Bokhara. This post was of very great importance to him for it gave him access to the famous library of Bokhara and he was able to push his studies further still. On the death of the Amir, Avicenna travelled into North Eastern Persia and there he

began his great work on Medicine, the *Kanūn*, i. e. "Canon." Later he settled at Rhey, near Tehran, and from there he moved to Hamadan *viâ* Kazvin; one wonders whether he noticed the hot springs on the way. At Hamadan he spent most of the rest of his life. He became physician to the ruling prince, Shams-ed-Dowleh, who had previously befriended him. But, like many a Persian doctor of the present day, Avicenna joined politics to the practice of his profession, and became a vazir or minister. Nowhere had or has the political see-saw such wide excursions as in Persia, and so it is not surprising to hear of his going into hiding for fear of his life, and later of his being imprisoned. But wherever Avicenna happened to be he never ceased to work. Through all his adventures he went on with his *Kanūn* and the *Sanitatio*, a philosophical treatise, and



THE TOMB OF AVICENNA. EXTERIOR.

other lesser works. In time he escaped from Hamadan to Isfahan where he was well received by the Governor, who made him his physician. There he studied literature and philology and also took part in several campaigns. One of these was directed against Hamadan and during it he fell ill with colic (a subject on which he had written a treatise—*Golīng*), and died at that town.

Avicenna with Rhazes and Ali ibn al Abbas formed the famous trio of Perso-Arabian physicians who, with other Arabic physicians and surgeons, did so much for Medicine by handing on the practice of the Greeks, and by adding the results of their own experience thereto. To judge of their influence on the history and progress of Medicine it has to be realised that during the twelfth and thirteenth centuries in particular, and up to the fifteenth, Arabian Medicine was the Medicine of Europe and Arabian treatises the text-books of student and practitioner. Of the three Avicenna is the most famous. His reputation chiefly rests on his *Kanūn*. This work consists of five books. The first two deal with physiology, pathology, and hygiene; the third and fourth with therapeutics; and the fifth with

materia medica and pharmacology. There was an appendix consisting of records of cases and original observations. Most unfortunately it was lost, and as a consequence we are not in such a good position to judge of its author's powers as a clinician, as in the case, say, of Rhazes, who had undoubtedly the *mens medica* developed to a very high degree, and who first described smallpox and measles. Still the *Kanūn* contains excellent descriptions of disease, especially of affections of the skin and nervous system, and of venereal diseases. There is also an account of diabetes with a shrewd guess as to its pathology. But Avicenna collected all that was best in the medical knowledge of the day in his famous work, and his training enabled him to set it down in clear language, and logically arranged. It was



THE TOMB OF AVICENNA. INTERIOR.

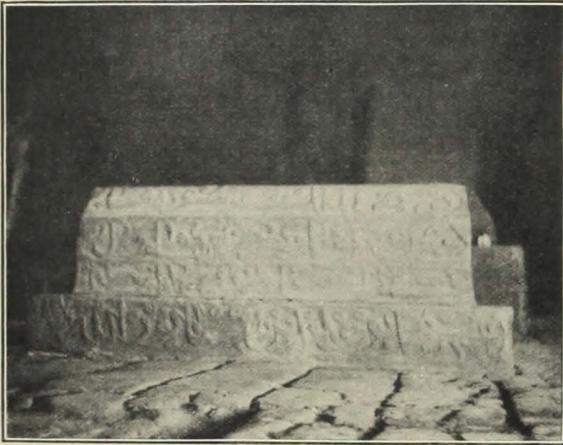
the text-book at the universities of Louvain and Montpelier up to the middle of the seventeenth century. It is read in Persia, Arabia, and India to-day. It was taught in the Royal University at Tehran only twenty years ago. It was translated into Latin and Hebrew. The Latin version passed through thirty editions.

In all Avicenna is said to have written over one hundred works, large or small. Many of these were on medical or cognate subjects, but he treated also of theology, philology, alchemy, logic, metaphysics, philosophy, music, natural history, astronomy, physics. Some of his shorter works were written in verse. An imposing list, but only a recognition of the importance to the would-be physician of a liberal education and wide knowledge. Nowadays it would be altered but not shortened.

In reading the life of Avicenna one is strongly impressed by his love of knowledge and the catholicity of it; by his capacity for mental effort and continuous literary work. Wherever he was, and no matter the conditions, he wrote, compiled, taught. He would have been no Persian, however, had he limited himself strictly to the pleasures of the

mind, and if he warmed both hands at the fire of life it is to be remembered that his career covered service in three Mohammedan courts. All praise to those who protected him, even though they may have done so from personal motives.

The grave of Avicenna is in a simple brick building, near the steep banks of the river which flows through Hamadan. As will be seen from the accompanying photograph, a little mausoleum stands at one end of a small compound, surrounded by a low stone and mud wall. The doorway is arched and built of fire-burnt brick. The courtyard itself is an untidy little place about ten by eighteen yards. There are a few ragged trees, two of them poplars, the rest acacias, and many weeds. I noticed a hollyhock in full bloom—they grow wild at Hamadan. Evidently no irrigation water found its way into the little enclosure. The mausoleum itself is built of fire-burnt brick, with a



THE TOMB-STONE.

mud dome. The walls showed the ravages of the severe Hamadan winter all too plainly. The dome, if ever it was covered with tiles, is now innocent of them. On entering we found a couple of half-clothed, very dirty, but picturesque dervishes, who gave us as animated a welcome as a recent pipe of opium would allow. They said that they lived most of the year there, and kept the key of the compound. They are seen posing at the door of the mausoleum in the third photograph, with begging bowls, horns, and sticks complete.

The building is square, but inside there are small arches at each corner which give it the appearance of being eight sided. The internal measurements are: floor 15 ft. × 15 ft. apex of dome from floor 16 ft. In each side there is a recess, that on the west is deeper than the others and has a window. This and the low door are the only sources of light, and, as the window was blocked when I visited the place and the walls, once white, were blackened by the smoke and dirt of years, almost complete darkness reigned. The floor is paved with large square bricks. Immediately

opposite the door is the tomb-stone. Its general shape is well shown in the fourth photograph; this was kindly taken for me by flash light by Mr. Zeckler of the American Mission, and here I am glad to express my thanks to him and to Dr. Funk of the same Mission for help in writing this account. It is 49 in. long, 21 in. wide, and 24 in. high. The inscription is carved in large bold characters, which may be seen and partly read in the photograph. It begins with the usual invocation to the Creator, "To Him who is and does not die," and then follows a verse from the Koran, a recital of the attributes of the Almighty: "Thou possessest the Kingdom . . . Thou givest honour to whom Thou wilt and Thou bringest low whom Thou wilt . . . Out of the living Thou bringest forth the dead, and out of the dead Thou bringest forth the living . . . etc."

Then come lines of verse, which, as well as the verses that follow, my friend Moin-ul-Vazareh has most kindly helped me to translate into appropriate English:

"Worthy testimony upon earth of the omnipotence and wisdom of God, Abu Ali Sina sprang from non-existence into being in the year 373.

"He had mastered the sum total of knowledge in 391; in 427 he bade farewell to this transitory world."

Then the usual conclusion to epitaphs on the graves of Mohammedan sages or celebrated men:

"The death of Sheikh Abu Ali Sina,
May his tomb be surrounded by light!
427."

Immediately behind the grave of Avicenna is that of Sheikh Abu Said, a Persian poet who was a friend of the physician. The tomb-stone is a rectangular slab twelve inches thick. The original inscription has been in part raised and what remains is largely indecipherable. In its place has been carved a modern inscription, to the effect that the tomb had been restored in the year 1294 (1877 A.D.) by Negar Khannum (a Princess of the Kajar family, that is to say, of the present royal tribe). Then come two verses of poetry:

Bring, O Cupbearers the wine, for spring has come, the season for plucking the flower from the cheek of the beloved;
Praise be to God that the meeting place of those intoxicated with the wine of veneration
Should have been restored by Negar's care.

Then:

O Thou who art Master of the Universe,
Adored by devotees who follow the path of thy glory,
In Thine own words will I praise Thee:
"Thou art eternal, all else must pass away."

We parted on the best of terms from the self-constituted guardians of the place, with many salaams and promises on their part to tend the garden more carefully and clean the building. I paid a second visit, but on two subsequent occasions found the gate locked and the place deserted. People who lived near by said the dervishes had gone away

no one knew where, nor could any man say when they would return. "*Ch'arz'koonam?*" "What petition shall I make?"—the answer to so many a question in Persia!

Such then is the tomb of one of the most famous of our colleagues, as, it seems to me, it is profitable and pleasant to regard our predecessors in the practice of medicine. Has not our goal been the same down the centuries, and, though the field has widened, have not our difficulties been similar and our successes as pleasurable?

Since writing the above I have met in consultation an old Persian *hakim* who in giving his opinion quoted freely from Sheikh ul Rais the title by which Avicenna is best known to Persians. My old colleague gave it as his opinion that the case was one of a kind of typhoid fever well-known to the Sheikh and to his disciples, but about which Europeans knew nothing. His reasons for not diagnosing frank typhoid were that the tongue was not typical nor was there gurgling in the right iliac fossa, the two signs on which Persian doctors depend. As the spleen was enlarged and there were bronchitis, headache and a continuously raised temperature (103'5–104'5) I had no hesitation about the diagnosis, though it was tempting to wonder whether the "Sheikh" had described paratyphoid fever, which is common here. The *hakim* recommended laxatives (fetus-cassia fistula) and enemata in accordance with Persian practice and pyramidon.

THE ORTHOPÆDIC DEPARTMENT.*

By R. C. ELMSLIE, M.S., F.R.C.S.

HE increase in specialisation has to some extent tended to make the work of such departments as the Orthopædic Department of less interest to the general student. This ought not to be so, for although the actual treatment is in many cases such as can only be applied by one who is constantly occupied with it, yet there remain to be learnt the methods of examination, diagnosis and prognosis, and many therapeutic methods which are not only possible but most useful in practice. The diseases and deformities met with in the department are very varied, and include much of the surgery of the limbs and spine; they are also in most cases of a chronic nature, so that they form an exceptionally good field for the collection of cases for examination purposes. Perhaps this fact that orthopædic cases are likely to be met with at examinations is a bad reason for urging the practical study of the subject. Yet it should be a comfort to the student to realise that in it he

ERRATA.*

In the last article, page 154, col. 2, line 21, for "*Gallipædia*" read "*Callipædia*." And on page 156, col. 1, lines 30 and 31, for "At present, so far as the hospital medical schools are concerned the use of gymnastic methods in treatment has not been recognised" read "At present, so far as the hospital and medical schools are concerned the use of gymnastic methods in treatment has not long been recognised."

will find not only help for the future when he gets into practice, but also assistance in his more immediate object of grappling with the examiners.

Perhaps one of the greatest uses of the work of the department to the student consists in the revision of his applied anatomy, so far as the muscles, joint movements and nerves are concerned. In the proper examination of the numerous cases of paralysis which attend, a good knowledge of the attachments and action of muscles is essential. Moreover a new view of muscular action is thus attained, for not only is the loss of a particular movement noticed as the result of a localised paralysis, but there are often opportunities for studying the effects of such a loss upon combined movements, and the results of the unopposed action of a muscle group whose opponents have been lost. As a simple example of the first of these we may take the disability of the hand in wrist drop from paralysis of the extensors. It is surprising at first in this condition to find that the grip becomes so feeble as to be useless, but a little reflection will show that for the grip to be firm the wrist-joint must be fixed by the extensors of the carpus, and in the absence of these the flexor muscles can only produce a general flexion of the fingers and wrist in one. A remarkable instance of the ability to do without a muscle which seems to be of first-class importance is to be seen in cases in which the quadriceps extensor cruris is lost. It might be thought that this muscle was essential in walking, yet patients in whom it is paralysed can walk, sometimes as if there were nothing wrong, so long as they are on level ground, only when they have to climb a step does the loss become noticeable. The effect of unopposed muscles is to be seen in numerous fixed paralytic deformities; a remarkable example of the result of an endeavour on the part of certain muscles to carry out the work of one of their group which is paralysed is to be seen in the progress of the deformity of talipes calcaneus. When the gastrocnemius and soleus are paralysed, the ability to dorsiflex the foot at the ankle-joint is lost, so that the patient walks upon the heel. If, however, the long flexor muscles survive, these do their best to carry out this movement, their action, however, is rather to depress the fore part of the foot, leaving the heel as it was, and this action eventually produces a complication of the original deformity in the shape of an extreme over-arching of the foot, talipes calcaneo-cavus. These examples will serve to illustrate that the study of paralysis may be used as an important help in learning practically the action of muscles.

Disabilities of the foot form a group of disorders which are often puzzling to the student or to the practitioner, they are at the same time extremely irksome to the sufferer, and much credit can be obtained by their relief. There is a great tendency to label all feet that ache, flat feet, regardless of the fact that there are many other painful troubles in which the arch is intact. It is safe to say that one half of the

alleged flat feet which attend the orthopædic department are not flat at all, many of them in fact showing the exactly opposite condition of *pes cavus*. Chronic inflammatory lesions of the plantar fascia, of the tarsal joints, etc., resulting from septic absorption, are perhaps the most common of these painful conditions, but corns, deformities or rigidity of the toes and pain resulting simply from bad boots are also frequent. Quite often such a painful foot has followed stiffening of all the tarsal joints from cramping in tight shoes, the stiffness leading to an unnatural mode of walking, which soon leads to an aching foot. Such cases are at once relieved by loosening the foot by movements under an anæsthetic. These various minor disabilities of the foot amply repay study.

The examination of the hip almost invariably presents difficulties to the student, although when carried out by routine methods it is really of extreme simplicity. Practically no week passes without one or more new cases of disease or deformity of the hip joint attending the orthopædic department, and these can be examined clinically, a provisional diagnosis made, and the radiograph seen at the next visit. They include a good variety of cases, tubercle in its active or quiet stages, coxa vara, the numerous class of cases which simulate tubercle, congenital dislocations, and other conditions. Quite recently a child was sent to the department from a country practitioner for an injury to the hip, which proved to be a traumatic dislocation. This occurring in a child, æt. 4 years, must be a very rare incident indeed. Among the various other deformities which are constantly to be seen in the department may be named, tuberculous disease of the spine, and of the various bones and joints, rickets with all sorts of deformities, rare forms of bone disease, genu valgum, and other adolescent deformities talipes and kyphosis, scoliosis, and similar deformities of the spine.

Cases of scoliosis are so numerous in the department as to deserve some further mention. As many as fifty children with scoliosis have been in attendance for treatment upon one afternoon, and among so many there are naturally opportunities for the investigation of all varieties of this deformity. About a dozen cases of congenital defects of the spine, causing scoliosis, have been seen during the last few years; these have presented a great diversity in their anatomical characters; in some, there are additional half vertebræ upon one side; in others, wedge-shaped vertebræ produced by fusion; in others, asymmetry of the ribs or bifid ribs. A few have associated deformities of the scapula (congenital elevation of the scapula). The number of these cases is remarkable in view of the statement of one textbook upon the subject that there are only twelve cases of congenital defects of the spine upon record.

For many years past there has existed a controversy as to the proper method of treating scoliosis; on the one hand are those who use physical exercises only in the treatment

and who say that all other methods are illegitimate; upon the other are those who say that for true scoliosis exercise treatment is worthless, and that the use of supports is the only rational method. As in most controversies, there is truth upon both sides, and the real crux of the question is the definition of scoliosis. Scoliosis should be clearly differentiated into two groups. In the first group come those cases in which the spine is anatomically normal, and in whom the defect is merely one of posture. In the second, come those with an anatomical deformity of the spine, in whom, therefore, the deformity is one which could not be imitated in a normal spine. For the first group, the treatment is in most cases simply by means of exercises. For the second group, exercise treatment has also its uses, but if the best results are to be obtained it requires often to be supplemented by mechanical methods. For many years these mechanical methods consisted simply in the application of a support, which sometimes held the spine in its deformed position, sometimes carried out a little correction. During the last four years there has been a great revival of attempts to correct the deformity in these cases of structural scoliosis by force, using plaster-of-Paris for fixation, and of attempts to use supports which over-correct the deformity. In this work this hospital has been a pioneer as far as this country is concerned, and sufficient has been done to prove that these methods of forcible correction of scoliosis and of the use of over-correcting supports are a very real advance in the treatment of scoliosis.

Among the patients attending for massage are to be found many instructive cases, and it is somewhat distressing to think that at present most of the material in this department is wasted from the teaching point of view. Most important of all these cases are the injuries, recent and old, which include a very representative series of results of fractures. These are most instructive as illustrating the results of various methods of treatment, of splinting, of plaster, of massage and movement.

The number and variety of the smaller injuries of the bones and joints to be seen in the department may be shown by the fact that within the last two months two cases of dislocation of the carpal semilunar, one of fracture of the carpal scaphoid, and one of fracture of the tarsal scaphoid have been seen.

It is sometimes said that treatment cannot be taught in the out-patient department. This is certainly not true of the special departments, and particularly of the orthopædic department. Of the various methods of treatment to be learnt here, perhaps the technique of the use of plaster is the most important. Plaster-of-Paris cannot be used with success simply by the light of nature. There is much to be learnt in its use. In the first place the selection of a proper muslin, and the cutting and rolling of bandages is an art, the laying on of the bandage so as to produce a smooth and evenly applied splint is by no means easy, and the applica-

tion of a fixed plaster cast is only the simplest and by no means the most useful part of plaster work. Special methods can be used to make removable splints, plaster casts, and plaster beds and trays, all of which may be of the greatest use particularly in places where there is no splint maker available. The making of plaster casts upon which splints of celluloid or other material can be subsequently made will in the immediate future be an important part of the work, for it is the intention of the Governors of the Hospital to institute a special department for the making of these splints. For this reason it is proposed to devote a separate article to this subject.

It is unnecessary to name all the other therapeutic methods employed in orthopædics, the ordering and principles of application of walking apparatus, the use of splints for tuberculous disease of the spine, hip, knee, etc., the minor operations of which some hundreds are carried out annually, and which include very many tenotomies and training in the use of the Thomas wrench. The proper uses of massage and of movements form a subject which up to the present has not been taught at all in the Hospital. Yet it forms a section of work which is of the greatest importance. There are times when massage and movements in the treatment of an injured joint or of a fracture will be of the greatest benefit, there are times when they will do an infinity of harm. So far the workers in this section of work have been so pressed to get through the treatments and the student has had so little time to devote to such apparently extraneous methods, that there has been no teaching at all. It is to be hoped that this will be altered in the future, for in practice it will be found that the successful treatment of injuries makes a very great difference to the popularity of the practitioner. A subsequent article will be devoted to the treatment of fractures and other injuries in the massage department.

STUDENTS' UNION.

STAFF-SURGEON LEVICK'S LECTURE.

 ON May 11th, a Special General Meeting of the Students' Union was held in the Medical and Surgical Theatre, at which Staff-Surgeon G. M. Levick, R.N., gave a most vivid and fascinating account of his experiences with Captain Scott's Northern Party in the Antarctic. Mr. Waring was in the chair, and the theatre was well filled by members and their friends, and a considerable proportion of the Nursing Staff. In opening the meeting Mr. Waring welcomed Surgeon Levick as a former student of the Hospital. The lecture was illustrated by about 100 slides and sketches shown on the epidiascope, all of which were of great interest, some, on account of their scientific features, others from the way in which they illustrated the many almost human habits of the penguins,

while many of the slides showed how the lecturer had appreciated the natural beauty of the region, in spite of the appalling discomforts to which he and his comrades had been subjected.

Among the many remarkable features of the expedition was the manner in which the party was kept fit throughout a whole winter on three weeks' rations, in a dwelling cut out of the solid ice, the only light being provided by small blubber lamps. The only way in which this remarkable result was achieved was by every man of the party adhering strictly to an absolutely regular daily programme. Meals were always taken at exactly the same hour, and even the smallest duties were performed with what would appear to us as most monotonous regularity. Swedish drill was emphasised as a most important factor in keeping up the health of the party. A striking phenomenon was observed during the life underground, when one night the ventilating shafts got blocked up. Several of the party awoke to find that the lamps had gone out, and on attempting to re-light them, they found that matches would not burn. They felt very ill, and it was not long before the cause of the trouble was discovered, and the shafts again dug clear. As soon as the ventilation was restored, the men revived, and the lamps would burn as well as ever.

When spring came round at last, the party started on a march of several hundred miles to join the main party. They became extremely fatigued, and every one craved for carbohydrate food, since they had had only the most meagre amount of it in their winter quarters. The joy on finding a store of chocolate, biscuits, and pemmican left by a previous expedition, and the way in which they satisfied their craving for this kind of food was described in most inspiring language. After a short rest the party resumed its march, and were no more troubled with the staleness which had been so overwhelming a feature in the earlier stages.

The description of the life of the penguins was most delightful, especially their method of testing for the presence or absence of the deadly sea leopards in the bathing places, which consisted in pushing several of their friends into the water from the top of a high cliff before venturing to dive in themselves.

In proposing a vote of thanks to Surgeon Levick, Dr. GRIFFETH emphasised the extremely modest way in which the lecturer had omitted to mention his own very large share in keeping up the health and spirits of the party, and in overcoming the vast difficulties which were continually arising.

Mr. C. E. KINDERSLEY, in seconding, voiced the feeling of the whole audience by expressing the hope that Surgeon Levick would again give the Students' Union the pleasure of hearing him lecture at some future time.

The vote of thanks was carried with great enthusiasm, and the meeting was adjourned for refreshments in the Library.

A CASE OF TRAUMATIC RUPTURE OF THE SMALL INTESTINE.

By GORDON E. D. ELLIS,
Surgeon R.N., H.M.S. "Zealandia."

(Published by permission of the Medical Director-General of the Navy.)



HILST weighing the sheet-anchor by hand off Loch Ewe, on the West Coast of Scotland, on the afternoon of April 21st, a blacksmith, æt. 23, was struck in the abdomen and jammed in the capstan bars as a result of knocking off the slip of the slip-stopper, a short piece of chain shackled to a bolt in the deck to take temporarily the weight of the cable and anchor.

Apparently, owing to there being a half turn in the cable around the stopper, the slip, when released, flew up and hit him in the abdomen.

At the same time he somehow became wedged in by the pelvis between two capstan bars close in to the barrel of the capstan, and the latter having moved round to the extent of about a foot, he could not be released until one of the bars had been knocked out.

He was immediately taken below to the sick bay, where, on examination, he was found to have a deep scalp wound over the left eyebrow and severe bruising over the left anterior superior iliac spine and inner side of the left thigh. There was nothing on the surface of the abdomen to indicate that he had been struck anywhere in that region, the skin being entirely free from bruising or any marks of violence. He complained of pain, mostly over Poupart's ligament on the right side, and to a less extent over the abdomen generally, but there were no signs of fracture of the pelvis, and though from the shock the abdominal muscles were held so rigidly as to prevent anything being learned by palpation, he passed urine naturally, entirely free from blood, and no evidence of any internal injury was to be made out.

His pulse was 80, regular, and of full volume, without any indication of hæmorrhage having occurred. The wound over the eye was therefore dressed (a couple of stitches being put in) and the patient made as comfortable in a cot as was possible.

No food of any kind was given, sips of water only being allowed to relieve thirst, nor any attempt made to open the bowels, it being decided to keep him at rest under strict observation.

During the evening he vomited a quantity of undigested food, free from blood, and he had a somewhat restless night on account of there being considerable pain from the bruising he had received.

He passed water again naturally on several occasions, and the following morning he had a slight natural motion of the bowels.

He then stated that the pain over Poupart was less, and during the afternoon slept for a few hours, a cup of tea and a small piece of toast being given to him on awaking, which he retained. His temperature that evening was slightly raised (*i. e.*, 99° F.), and his pulse was 100, but when seen at about 9.0 p.m. he was feeling very much more comfortable than he had been since the accident, and by taking his attention off the examination of his abdomen, the rigidity yielded so much that it was possible to palpate the entire surface without any difficulty, though he complained of a certain amount of tenderness and pain on deep palpation on the left side in the region of the umbilicus.

But nothing abnormal was discovered beyond this, and in the absence of any other signs it was considered that the previous rigidity must have been entirely due to the effect of the general bruising and the pressure of the capstan bar passing across the abdominal wall.

During the night, however, a change in his condition took place. He again began to vomit, and at 2.0, 5.0 and 9.0 a.m. brought up a quantity of sour-smelling fluid, acid in reaction, full of a dark brown sediment. There was no straining or feeling of nausea, the vomit being passed without any effort on the part of the patient, and the abdominal pain was relieved after each attack.

During the forenoon of the 23rd he again vomited a similar sort of fluid, the total quantity brought up being about two pints.

Examination of the abdomen now revealed slight, but definite distension, shifting dullness in both flanks, and a loss of liver dullness, the note over that organ being distinctly resonant.

His pulse remained 100, and without any alteration in its volume or regularity.

H.M.S. "Africa" having in the meantime arrived, both the Medical Officers were asked to come over for a consultation on the case with Fleet-Surgeon R. H. Mornement and myself, with the result that we were all agreed that a laparotomy should be done at once.

The Captain's lobby, an open space nearly the entire width of the ship, lit by a skylight on the quarter-deck, and heated (for the occasion) by means of three yard-arm groups of fifty candle-power electric lamps, was chosen for the operating theatre, and a cabin adjoining it taken for the reception of the patient afterwards.

A few articles of furniture that are kept in the lobby were removed, and the necessary gear brought aft from the sick bay by a working party of marines, and rigged by the Sick Berth Staff, the electric kettle for the supply of hot water being brought aft and temporarily fitted on the after circuit. The deck being laid with corticene, varnished with red shellac, made, if not an ideal, as clean and waterproof a floor as one is likely to have in a ship, and the lighting, both natural and artificial, was excellent.

The captain's spare cabin, also opening into the lobby,

was utilised for washing up preparatory to the operation, and in the absence of proper gowns, sleeping shirts, as worn by patients in the sick bay, were sterilised and used in lieu thereof.

No gloves were worn, none being available.

The operation was performed by Fleet-Surgeon Morne-ment, the Senior Medical Officer of the "Zealandia," and was commenced at 5 p.m., as soon as everything was ready, the patient being brought aft along the main deck in a canvas cot without having to be taken into the open air or up any ladders

An incision was made in the mid-line from a point $1\frac{1}{2}$ in. above the umbilicus to 2 in. above the symphysis pubis, and the peritoneal cavity being opened into it was found to contain a quantity of dark-coloured free fluid, containing faecal material and portions of undigested food.

This being allowed to escape, the gut was brought out of the wound and examined, with the result that a large tear, $1\frac{1}{2}$ in. in length, with irregular everted edges, was found in the upper part of the ileum, and about $2\frac{1}{2}$ ft. of the intestine on either side of this extensively bruised.

The rent was closed by nine Lembert's sutures, the abdominal cavity washed out with normal saline solution, and the wound then closed, a tube of fairly large calibre being left in for drainage. No other organs were found to be damaged.

The patient stood the shock of the operation fairly well at the time, about $1\frac{1}{2}$ pints of saline being infused into the median basilic vein on the right side during its progress, but he came round from the anæsthetic (A.C.E. mixture) rather slowly, and at 7.20 p.m., about half an hour after the termination of the operation, his pulse being very rapid and irregular, and at times imperceptible, he was given a further infusion of $2\frac{1}{2}$ pints of saline intravenously. This, with small quantities of brandy *per os*, improved his condition for a time, and on seeing him at midnight he complained of no pain and was feeling, so he said, perfectly comfortable. He, indeed, stated that his chief desire was for a pint of beer and something to eat.

Unfortunately the shock proved too severe for him to combat, and about half an hour later his breathing became very rapid and shallow, pulse not palpable, and at 1.15 a.m. he suddenly died.

The chief interest in the case lies, I think, in the fact that from beginning to end there were so few physical signs or symptoms of his having anything in the nature of an acute abdomen, and the very vague history of the actual blow which caused the injury. No one saw him struck, though the fo'c's'le was crowded with men at the time, and neither he nor anyone else knew what it was hit him, though it seems certain that it must have been the slip of the stopper which flew up when the strain on it was released. Neither is it known what caused the scalp wound over the eye, though it was a deep one and bled profusely.

The lack of physical signs of abdominal injury for so long after the accident (considering the grave lesion discovered when the abdomen was opened) gave us no indication for operative interference. His pulse never increased beyond 100, his temperature only once rose above normal, and the rigidity of the abdominal muscles decreased rather than increased, the upper part being seen to move on respiration the morning previous to the operation.

Eventually the vomiting, loss of liver dulness, distension, and rigidity, coupled with the knowledge that he had been crushed in the region of the abdomen, decided us to operate. And though one felt that had this been done earlier his life might possibly have been saved thereby, I do not think one would have been justified in exploring his abdomen, especially on board ship, before it actually was done.

GARDEN PARTY AT WINCHMORE HILL.



WINCHMORE HILL was the scene of the Annual

Past v. Present Cricket and Lawn Tennis matches on June 17th, 1914. About 250 people were present, but not so many students attended the function as had been hoped for. This is a pity, as great pains are taken to make this annual event as much of a success as possible.

The ground, bathed in brilliant sunshine, was looking its best, and the presence of a large number of the fairer sex attired in many coloured and charming costumes added to the attractiveness of the proceedings. The London Victoria Military Band was in attendance, and discoursed most delightful music, whilst the tea and refreshments provided in the marquee must have been very welcome to spectators and players alike.

With regard to the matches, the result of the Cricket was a draw in favour of the Present. The scores of this match are appended in the list of cricket matches on the next page

The Tennis resulted in a win for the Present by nine matches to love, but the games were by no means so one-sided as the result would suggest. The results were as follows:

- | | | | | | | | |
|-----|----------------|------|---------------|---|---------------|---|---------------|
| (1) | C. S. Atkin | beat | T. H. Just | — | R. M. Vick | — | H. A. Douglas |
| | J. D. Ralt | | H. Russell | — | R. G. Lyster | — | G. W. Carte |
| | | | 6-2, 6-4 | | 6-3, 6-2 | | 6-1, 6-3 |
| (2) | R. R. Powell | beat | T. H. Just | — | R. M. Vick | — | H. A. Douglas |
| | A. H. Little | | H. Russell | — | R. G. Lyster | — | G. W. Carte |
| | | | 6-0, 6-3 | | 6-2, 6-1 | | 6-3, 6-1 |
| (3) | H. D. McCall | beat | T. H. Just | — | R. M. Vick | — | H. A. Douglas |
| | C. H. D. Banks | | H. Russell | — | R. G. Lyster | — | G. W. Carte |
| | | | 6-1, 4-6, 6-2 | | 1-6, 6-2, 6-1 | | 6-4, 6-2 |

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ATHLETIC SPORTS.



can, to some extent at any rate, sympathise with the lady we overheard at the Sports, sighing: "How nice it would be up here if they wouldn't make us tramp about after the boys throwing the hammer and doing other things." For few places in London are lovelier than Winchmore Hill on a fine day, and nothing was left by the weather to be desired on June 13th. Nevertheless, the attendance was comparatively poor. Can it be that Saturday is, after all, a bad day to choose?

It is probable that the proximity of the Past *v.* Present matches only four days later this year militated against a good attendance; so many feel unable to spare the time to attend both. We have in previous years referred to the disadvantage of these two important summer fixtures competing by being held within a short interval and we have urged the advantages of alteration. But apparently some precedent sanctifies the present arrangement, as the matter never comes up for consideration.

As to the sports themselves, although the entries were below the usual number, the long programme was carried out with commendable promptitude under the presidency of Dr. Morley Fletcher, who was well supported by several members of the staff, and congratulations on the meeting's success must be offered to the captain, Mr. J. B. Mudge, to the secretary, Mr. C. Banks, and to their energetic lieutenants.

Our best thanks are also due to Mrs. Norman Moore, who kindly officiated at the distribution of prizes.

No performances of outstanding merit occurred; the best form being shown by W. R. White-Cooper, whose style gives promise of considerable improvement if he is careful not to sacrifice pace for stride. G. M. Cooper, who won the mile from a long mark, would probably have won from scratch and has all the makings of a longer distance runner.

DETAILED RESULTS.

100 Yards (Scratch).—E. H. Glenny, 1; I. Braun, 2. Time, 11 secs.

A close finish. C. Kearney, whose form in a heat suggested a win in the final, was left at the start and was never in the race.

Throwing the Hammer.—H. C. Joyce (rec. 50 ft.), 115 ft. 3½ in., 1; H. J. Bower (scratch), 113 ft. 10 in., 2.

High Jump (Handicap).—R. Coyte (rec. 5 in.), 5 ft. 1¼ in., 1; R. G. Mack (scratch), 5 ft. 0¾ in., 2.

120 Yards' Handicap (Final).—G. S. Stathers (7 yds.), 1; L. C. Goument (3 yds.), 2. Time, 13½ secs.

The close finishes, both in the heats and the final, were an excellent tribute to the judgment of the handicappers.

One Mile Handicap.—G. M. Cooper (80 yds.), 1; W. D. Longford (80 yds.), 2; C. H. D. Banks (scratch), 3. Time, 4 min. 37 sec. Cooper ran easily throughout, and lost very little, if any, of his long start.

Putting the Weight (Handicap).—J. B. Mudge (scratch), 34 ft. 7½ in., 1; H. J. Bower (scratch), 32 ft. 10¼ in., 2.

440 Yards (Scratch).—W. R. White-Cooper, 1; J. B. Mudge, 2. Time, 53 secs.

Coyte made the running till half way, when he retired. Mudge was in front in the straight, but White-Cooper, who ran with excellent judgment, kept his form till the end, and passed Mudge twelve yards from the tape, to win comfortably.

Long Jump (Handicap).—L. C. Goument (rec. 6 in.), 19 ft. 1¼ in., 1; R. G. Mack (scratch), 18 ft. 10¾ in., 2.

Obstacle Race.—Little, 1; Banks, 2.

This race was exceedingly well contested. The three heat winners displayed considerable gymnastic ability as well as determination.

120 Yards Hurdle Handicap.—G. J. Jukes (owe 3 yards) 1; G. S. Stathers 2; (scratch). Time, 20 secs.

Freshmen's Race (220 yards).—L. C. Goument 1. Time, 29¾ secs.

Half-Mile Handicap.—J. B. Hume (40 yards) 1; W. R. White Cooper (scratch), 2. Time, 2 mins. 5 secs. White Cooper came up rapidly but failed to keep his length of stride and had shot his bolt a hundred yards from home.

Junior Staff Race.—Smythe and Atkin, 1; Bower and Barnsley, 2.

The innovation this year was a three-legged contest.

Firm Relay Race.—Half a mile, four 220's.

A splendid contest. The Green firm (last year's winners), secured a comfortable lead in the first relay, which they were unlucky to lose through the second man falling. The Pink firm won by fully half a dozen yards. Time, 1'42.

RAHERE LODGE.



HE Installation Meeting of the Rahere Lodge, No. 2546, was held in the Great Hall of St. Bartholomew's Hospital on Tuesday, June 16th, 1914.

The W.M., W. Bro. Harold Austen installed Bro. H. Edmund G. Boyle as Worshipful Master for the ensuing year. The following officers were invested: W. Bro. M. J. B. Anderson, S.W.; W. Bro. W. J. Gow, J.W.; Bro. the Rev. H. S. Close, Chaplain; W. Bro. Ernest Clarke, P.M., P.G.D., Treasurer; W. Bro. Laming Evans, P.M., L.R., Secretary; Bro. Lewis Jones, S.D.; Bro. W. H. Attlee, J.D.; W. Bro. W. Gripper, P.M., P.D.G.D.C., D.C.; W. Bro. C. H. Perram, P.A.G.P. Beds, 1st Assist. D.C.; W. Bro. A. Hepburn, 2nd Assist. D.C.; W. Bro. T. G. A. Burns, P.M., P.G.D., Organist; Bro. R. J. Ogle, Assist. Sec.; Bro. A. W. Stott, I.G.; W. Bro. G. W. Gilmour, Sen. Steward; Bros. H. Pritchard, B. T. Lang, Maitland Thompson, A. S. Woodwark, Stewards; Bro. A. H. Coughtrey, Tyler; Bro. E. W. Hallett, Assist. Tyler.

A Past-master's Jewel was presented to W. Bro. Harold Austen at the end of his year of office.

The Banquet was held at the Imperial Restaurant, Regent Street, at which forty-five members and twenty guests were present.

W. Bro. John Ivimey, assisted by the Rev. Dr. Houston Collisson and Bro. Frank Hicks, entertained the brethren after the Banquet.

THE CLUBS.

CRICKET CLUB.

ST. BART'S *v.* WELLINGBOROUGH MASTERS.

Unfortunately the Hospital were only able to send a weak team to Wellingborough, and the Masters proved much too good a side for us. They won the toss, and proceeded to put together a total of 408 for 5 wickets. Fryer and White both batted excellently against weak bowling. Against the bowling of Askham and Denton, the Hospital batting was disappointing, our score only amounting to 161.

SCORES.

WELLINGBOROUGH MASTERS.		ST. BART.'S.	
P. A. Fryer, c Owen, b		E. G. Dingley, c Wright, b	
Parkes	119	Askham	22
A. D. Denton, c Dingley, b		S. L. Green, c Pendered, b	
Owen	59	Askham	17
K. White, not out	164	J. D. Rutherford, c Fryer, b	
C. T. Rudd, b Parkes	13	Askham	20
H. S. Pink, b Braun	9	J. F. Haynes, c Simpson, b	
A. D. W. Fenning, c Wells-		Askham	12
Cole, b Upton	12	A. E. Parkes, c Fryer, b	
R. D. Pendered, not out ...	6	Askham	1
S. T. Askham	} did not bat.	A. R. Upton, c Pendered, b	
H. Wright		Askham	1
H. B. Simpson		T. Owen, c Fryer, b Denton	15
M. Robinson		J. Braun, st Fryer, b Denton	31
		G. F. Jukes, c Wright, b Denton	18
		G. C. Wells-Cole, st Fryer, b Denton	10
Extras	26	A. Grayson-Williams, not out	8
Total (5 wks.)...	408	Extras	6
		Total	161

SECOND ROUND INTER-HOSPITAL CUP.

BART.'S v. GUY'S.

This match, played at Honor Oak Park on Wednesday, June 10th, ended in a narrow win for Guy's. Owing to rain, the match had been left drawn on the preceding Monday.

Bart.'s batted first on a good wicket, and the form shown was again disappointing, only two members of the team reaching double figures. The greatest credit is due to Parkes, who batted with great confidence at a trying period when wickets were falling fast. He made a number of good shots, those on the leg being particularly clean. Against the poor total of 126 Guy's looked like winning easily, but, with 6 of their wickets down for 67 runs, the game assumed an altogether different aspect. Unfortunately a mistake in the field at this stage of the game cost Bart.'s the match, Guy's winning by 2 wickets. Parkes (who took 3 wickets for 23), Braun, and Jukes all bowled well.

SCORES:

BART.'S.		GUY'S.	
E. G. Dingley, b Sampson ...	21	Vincent-Brown, b Owen	19
R. H. Maingot, c Coxon, b		A. C. M. Coxon, b Brown ...	10
Sheldon	9	L. R. Cox, st Williams, b	
J. C. W. MacBryan, lbw, b		Bower	37
Sampson	0	L. H. Dixon, c Jukes, b	
S. R. Prall, b Sheldon	8	Parkes	4
R. H. Williams, b Dixon	1	F. Biddle, c Williams, b	
A. E. Parkes, c Biddle, b		Parkes	8
Dixon	56	D. M. Whitcombe, b Jukes	3
T. Owen, c V.-Brown, b		B. Sampson, run out	0
Sheldon	5	T. W. Sheldon, not out	36
H. J. Bower, not out	8	H. M. Gray, b Parkes	1
J. F. Haynes, b Dixon	7	S. H. Gilbert, not out	0
G. F. Jukes, c Sampson, b		C. G. Gibson did not bat.	
Biddle	5		
L. Braun, b Dixon	0		
Extras	6	Extras	9
Total	126	Total (for 8 wks.)...	127

CRICKET WEEK.

1ST MATCH v. LONDON HOSPITAL.

London Hospital visited us with a somewhat weak team on Monday, June 15th. They won the toss, and elected to bat on a wicket that gave the bowlers little or no help. Owing chiefly to some good slow bowling by Owen, who took 7 wickets for 72 runs, we dismissed them for 187. On going in to bat we lost 3 wickets with only 23 runs on

the board. Owen and Williams, however, then came together and hit freely, both scoring centuries, and, the London total being passed without further loss, we won by 7 wickets.

LONDON HOSPITAL.		ST. BART.'S.	
E. W. Sharp, c Prall, b		E. G. Dingley, c Fletcher, b	
Owen	58	Robbins	6
W. G. Fletcher, b Haynes ...	7	R. H. Maingot, b Robbins ...	8
W. Schloss, c Dingley, b		J. C. W. MacBryan, c and b	
Upton	39	Robbins	6
F. H. Bray, b Baker	20	R. H. Williams, c Sharp, b	
H. S. Bryan, b Owen	4	Bryan	126
S. G. T. Mosse, b Owen	12	T. Owen, not out	135
F. H. Robbins, b Owen	7	S. R. Prall	
B. W. Phillips, c Maingot, b		J. B. Macfarland	} did not bat.
Owen	0	J. F. Haynes	
S. G. Hill, not out	2	A. R. Dingley	
B. F. Peverell, c Upton, b		A. R. Upton	
Owen	14	H. S. Baker	
A. N. Other, c Upton, b Owen	2	Extras	
Extras	16	Total (4 wks) ...	292
Total	187		

2ND MATCH v. DR. CALVERT'S XI.

On Tuesday, June 16th, Dr. Calvert got together a scratch side to oppose the Hospital. This is always an enjoyable fixture, and this year was no exception to the rule. We won the toss, and the wicket again favoured the batsmen. Although our opponents' bowling was at times difficult, we put together the useful score of 347 for four wickets, and declared at four o'clock. Williams, Parkes, and MacBryan all batted well. The only batsman on Dr. Calvert's side to offer much resistance to our bowling was Nunn. Williams kept wicket in fine style, disposing of four batsmen.

SCORES.

ST. BART.'S.		DR. CALVERT'S XI.	
J. C. W. MacBryan, b Cox ...	91	D. L. H. Mercer, c Maingot, b	
J. B. MacFarland, c Mercer,		Parkes	10
b Cox	37	L. Wagstaffe, b Owen	10
S. R. Prall, b Cox	41	C. L. Curle, c Williams, b	
R. H. Williams, lbw, b Barber	76	MacBryan	14
A. E. Parkes, not out	72	R. F. Bryant, b Owen	5
J. F. Haynes, not out	8	D. L. Cox, c Williams, b	
E. G. Dingley	} did not bat.	MacBryan	9
R. H. Maingot		C. Barfield, c Williams, b	
T. Owen		Owen	0
J. D. Rutherford		J. W. Nunn, c Williams, b	
A. R. Dingley		Parkes	45
Extras	22	G. Tooth, b Owen	4
Total (4 wks) 347		G. Cork, b MacBryan	22
		H. Bentley, b Owen	9
		J. Barber, not out	6
		Extras	9
		Total	143

PAST v. PRESENT.

3rd Match, Wednesday, June 17th.

We could not have wished for a better day than Wednesday was for the Past and Present match.

The Present batted first, and chiefly owing to MacBryan and Parkes knocked out 299 for 4, before declaring. MacBryan scored 136, and hit freely all round the wicket, especially towards the end of his innings. Parkes again showed himself a thoroughly sound batsman. On the Past going in to bat, Robins and Pocock scored freely, and gave their side a good start. When Upton was out, however, and 5 wickets were down for 113 runs, the Present looked like winning easily. Gaskell and Joyce then defied the bowling until stumps were drawn at 6.30, leaving the game drawn with the Past's score standing at 205 for 6 wickets. Especial credit is due to Gaskell, who batted as if he played cricket every day of his life!

PRESENT.		SCORE.		PAST.		
J. C. W. MacBryan, c "sub.,"		F. H. Robbins, c Dingley, b		Jukes	32	
b Bower	136	W. A. Pocock, c Wells-Cole,		b MacBryan	31	
J. B. MacFarland, b Joyce	18	A. J. Waugh, c Owen, b		Braun	9	
R. H. Williams, c Rutherford,		H. J. Bower, c Owen, b Mac-		Bryan	4	
b Bower	18	A. R. Upton, b Jukes		J. E. Gaskell, not out	43	
A. E. Parkes, not out	65	R. H. Wells, b Jukes		H. C. C. Joyce, not out	48	
T. Owen, c Gaskell, b Upton	18	G. Sparrow		J. D. Rutherford	did not bat.	
E. G. Dingley, not out	13	A. R. Dingley		Extras	2	
S. R. Prall						
G. C. Wells-Cole	} did not bat.					
R. H. Maingot						
G. F. Jukes						
L. Braun						
Extras		31				
Total (3 wks.)	299	Total (6 wks.)	205			

4TH MATCH v. R.A.M.C.

On Saturday, June 20th, the R.A.M.C. visited us at Winchmore Hill. Both sides were weak. The wicket had suffered somewhat on account of rain over night, and low scoring was the result. We batted first, but no one made much of a show against Fawcus' bowling, and we were all out for 113. The R.A.M.C. had 3 wickets down for 6 runs, but Major Fawcus and Sergt. Fish then batted well and took the score to 114. After this, Stretton bowled well (taking 6 for 20), and the R.A.M.C. total only reached 137.

ST. BART'S		R.A.M.C. (Aldershot).	
J. C. W. MacBryan, lbw., b		Capt. Nimmo, b Braun	0
Nimmo	29	Capt. Heslop, c Owen, b	
E. G. Dingley, c Newman, b		Braun	2
Nimmo	7	Sergt. Turner, b Owen	0
A. E. Parkes, b Fawcus	4	Major Fawcus, not out	85
H. G. Moser, b Fawcus	8	Sergt. Fish, b Stretton	25
S. R. Prall, c Heslop, b		Lieut. Corp. Quelch, b Stretton	4
Fawcus	0	Bugler Osborne, b Braun	0
T. Owen, c Fish, b Fawcus	16	Pte. Newman, b Stretton	0
J. D. Rutherford, b Nimmo	11	Corp. Smith, b Stretton	0
R. H. Maingot, b Osborne	16	Pte. Blair, b Stretton	0
J. W. Stretton, c Smith, b		Pte. Heasman, b Stretton	5
Fawcus	9		
L. Braun, c Fawcus, b Osborne	2		
J. R. Ross, not out	0		
Extras	11	Extras	16
Total	113	Total	137

ROWING CLUB.

The Annual Inter-Hospitals Race was rowed from Putney to Hammersmith on May 29th. Three coxwainless fours entered for the race, representing the London Hospital, St. Thomas's, and Bart's. Mr. F. E. Hellyer, the old Cambridge Blue, acted as umpire. The launch "Cliveden" followed the race, and carried a considerable number of spectators from all three hospitals. Several Bart's men also encouraged our crew from the towpath.

St. Thomas's drew the Middlesex station, Bart's the middle, and London the Surrey stations.

At the word to go, Littlejohn went off at about thirty-four, and in the first minute the Bart's crew had gained about half a length on St. Thomas's, though they had made no impression on the London. At the end of the second minute, however, Bart's were a length ahead of London, while St. Thomas's were another length behind. The lead was steadily increased, and Hammersmith Bridge was reached in 8 min. 37 sec., with Bart's four lengths ahead of London, and St. Thomas's two and a half lengths behind them.

Littlejohn steered an excellent course, and in this respect we gained a considerable advantage over our opponents.

The Bart's crew was as follows: G. D. East, bow; 2, O. B. Pratt; 3, C. E. Kindersley; C. W. B. Littlejohn, stroke.

The crew was coached by Dr. J. S. Burn, and by Messrs. M. and E. Donaldson and Wedd. To them, and to Mr. Phelps, of Putney, who kindly lent and housed the racing boat, our thanks are due, since they contributed very largely to the success of the crew.

SWIMMING CLUB.

ST. BART'S v. GUY'S (Inter-Hospital Cup-tie).

Played at the Marylebone Baths on Friday, June 12th. The Hospital were unfortunate to be without C. F. Beyers, but a good game took place, Bart's holding their own till half-time, score 1-1, G. Parry scoring for us. In the second half Guy's improved and finally won 3-2, G. A. Beyers scoring our second goal. J. C. Pearce in goal played an excellent game.

ST. BART'S v. WATER RATS.

On Thursday, June 4th. The Hospital were without J. C. Pearce and C. F. Beyers, C. T. Trissiden and P. Bousfield taking their places. A good game ensued, the Hospital being unfortunate not to win—the result being a draw of 3-3. Parry, Beyers, and Upton scored for us.

ST. BART'S v. MIDDLESEX HOSPITAL.

On Monday, June 22nd. We played our full team in this match and won easily, after a very scrappy game, by 5-1, G. A. Beyers (2), G. Parry, C. F. Beyers, and A. Upton scoring for us.

U.L.O.T.C. MEDICAL UNIT.

WHITSUNTIDE CAMP, 1914.

The Medical Unit of the U.L.O.T.C. spent a useful and enjoyable Whitsun Camp at Lane End Farm, Peaslake, Surrey. The following officers were in camp: Major H. H. Tooth, commanding; Capt. A. M. H. Gray, Adjutant; Capt. Rutherford, Quartermaster; Lieut. T. B. Layton, Lieut. H. R. Griffith, Lieut. P. H. Mitchener.

The camp was well attended, especially by recruits, about 120 N.C.O.'s and Cadets being present, attendance being quite voluntary. The weather was delightful, with the sole exception of Whit Sunday evening, when it rained heavily for about an hour. For the purpose of work the Unit was split into two groups, recruits and candidates for certificates A. and B. The former of these groups spent their time in drill—mostly stretcher drill, with squad and company drill in less quantity. They went at the work with a will, and the improvement in smartness and efficiency was marked. The drills were separated from each other by lectures given by various officers on subjects, such as the Medical Establishment of a Battalion of Infantry, an Outline of the Work and Methods of Fighting Troops, Map Reading, etc. These were much appreciated. The Senior Cadets, while putting in a certain number of drills, were largely at work on a Field Ambulance Scheme, scouring the surrounding country in the afternoons to collect information regarding the condition of the roads, the presence or absence of buildings which could be utilised for the temporary reception of wounded in process of evacuation, etc.

The health of the Unit was well maintained, the only cases reporting sick being one or two men with sore feet.

Cadet G. R. Sharp of "A" Section was promoted to Lance-Corporal.

Camp was quickly struck in the early morning of June 2nd, the unit being in town again shortly after mid-day.

CORRESPONDENCE.

NATIONAL HEALTH INSURANCE ACT.

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

DEAR SIR,—It was with a feeling of indignation and disappointment that I read in the May number of the JOURNAL that the benefits of the National Health Insurance Act were held out as an inducement to men to join the medical profession.

No doubt it is true that many "small and insignificant" practices have been improved pecuniarily, but, on the other hand, many practices, especially in country districts, have been degraded. Indeed, the greatest fault of the Act, to my mind, is that it tends to reduce medical work to the dull level of mediocrity, and, as to the man who has to treat panel patients only, it were better for him that a millstone were hanged about his neck, and he cast into the sea.

Panel patients are taught not to expect, and medical men are not required to give, more than ordinary club-practice attention, and most of us know how very inferior that can be. The incentive for a doctor to do his best for his patients is removed, and in difficult cases his responsibility ends with telling the patient that some particular treatment or operation ought to be carried out.

The effect of the Act in my experience has been to increase four-fold the proportion of panel patients who come on the sick list, as compared with members of friendly societies as they existed before the Act, and during the last year no less than fifty per cent. in one county and forty in another, of all the patients on my panel list have been on the sick list at least once, and several of them on more than one occasion.

A panel doctor is no longer a free agent, he has to be in his surgery at stated hours every day, no matter what other engagements he may wish to make, and the records entailed by the Act involve an immense amount of clerical work of a very aggravating nature—for instance, in order to get payment for medicine supplied to "sanatorium patients" it is necessary for the doctor to write out the prescriptions which he himself dispenses, and to price every item of drugs therein, and this he has to repeat in detail for every mixture or pill supplied, although the same prescription may have been dispensed many times before to the same patient.

There certainly ought to be greater uniformity in the matter of certificates, as at present each friendly society has its own rules which are very different and very confusing.

As a whole, I consider those whom the Act is meant to benefit are very dissatisfied. Especially is this the case with the large body of better class domestic servants, who formerly were treated as private patients and now have to conform to irksome regulations laid down for panel patients. The people who really benefit by the Act are the employers of these servants, who formerly paid the doctor's bill, but who now expect to get them treated as assiduously as ever by the panel doctor, and who are relieved of all responsibility by the payment of 3d. per week, of which the doctor gets only a small proportion.

In conclusion, I consider the Act (i) bad for the patient, because he is apt to obtain only superficial treatment; (ii) bad for the doctor, because he is tempted to scamp his work and is harassed by clerical work; and (iii) bad for the profession, because the best men are discouraged from entering it.

G. P.

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

DEAR SIR,—National Insurance work is well paid. There is a large amount of clerical work, very arduous at first, less so when one becomes accustomed to it.

The actual professional work is probably only slightly greater than in the old Club days. My records show that on an average each person is seen three times a year, the ratio of surgery consultations to visits being about five to one, so that with a list of 600 insured persons a doctor may expect to make 300 visits and have 1500 surgery consultations per annum.

(These figures agree closely with several records in the *British Medical Journal*.)

Working in a small town with this number of insured persons I expect to add £100 a year to my income.

Yours very truly,

X

THE HONORARY MEDICAL STAFF OF ST. ANDREW'S HOSPITAL, DOLLIS HILL, N.W.

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

SIR,—May I be allowed to correct an error in the last paragraph of my letter in the June number of the *JOURNAL*.

I apparently and unintentionally blame the staff of Bart.'s as a whole for supporting the system to which I object. I should have referred only to those members of the staff of Bart.'s who are also on the staff of the St. Andrew's Hospital.

I am, Sir,

Yours, etc.,

WILFRED N. SODEN.

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

DEAR SIR,—The strictures of Dr. Wilfred N. Soden under the above heading in your June issue, call for a reply: and this involves, for your readers' information, a brief statement of the nature and purpose of St. Andrew's Hospital. It is a charitable foundation,

and to quote from its Prospectus: "is intended for paying-patients of limited means, who while not suitable subjects for free treatment in charitable institutions are yet unable to meet the charges necessary to secure adequate treatment in Private Nursing Institutions." The Hospital contains two wards of eighteen beds each, and the inclusive charge for treatment in these wards is two and a half guineas a week. These charges are often remitted in deserving cases.

There is a salaried Resident Medical Officer, and an honorary Visiting Staff, and the nursing is carried out by the certificated members of a Sisterhood.

It being fully recognised that a Hospital of this sort is easily abused, the following precautions have been observed.

To each applicant for admission, is sent a printed form for signature. The form contains *inter alia*:

(1) A declaration that the applicant is unable to afford adequate treatment in the ordinary way.

(2) A form of Medical Certificate to be filled in by the applicant's usual medical attendant.

This certificate concludes with the question: "Do you consider the case a suitable one for treatment and free medical attendance in this Hospital?"

We think it will be admitted that, given faithful dealing on the part of the Medical Attendant, those provisions should suffice to prevent abuse.

But Dr. Soden states that it is impossible, for "public" reasons, for a general practitioner to refuse to give a recommendation when asked to do so. If this be indeed the case, no hospital can be safeguarded from abuse. But we are loth to believe that practitioners hold their patients upon so insecure a tenure that they dare not point out to an unsuitable applicant that his application is an abuse of charity; and certainly for a practitioner to sign an undeserved recommendation, seems very unfair, not only to himself, but to the honorary Staff of the Hospital, and cannot lightly be justified since it cuts the ground from under the feet of those who are trying to act in the right spirit.

So much for the Hospital proper. . . . There are also in the Hospital, some private rooms, but these are only geographically in the Hospital and are no concern of the staff, as such. For the present, they are open (as in the case with St. Thomas' Home), for the treatment of private patients by any member of the staff of a recognised London hospital. The matter of fees for medical or surgical treatment is entirely a question for private arrangement between the doctor and his patient.

When the Hospital is self-supporting, these private rooms will be used exclusively for patients who cannot conveniently be treated in the wards, and the charge will be the same as in the wards.

We regret to learn through Dr. Soden that the Local Division of the British Medical Association is unfavourably disposed towards the Hospital and its Staff. The need of some such provision as that offered by the Hospital is generally admitted—even by Dr. Soden—and this being the case we venture to appeal to the local profession, not to wash their hands of us, but to help us to secure the benefits of the charity for such of their patients as really deserve them. We believe that, by giving us this co-operation, they would not only not suffer any harm themselves, but confer a signal service upon a class which, because it is not "necessitous" in the ordinary sense, is often deprived of benefits which the necessitous-poor can always secure in Hospital.

Yours obediently,

(Signed) W. P. S. BRANSON, Senior Physician,
C. GORDON-WATSON, Senior Surgeon,
on behalf of the Honorary Medical Staff.

"ANÆSTHETICS."

(FIFTH EDITION: DR. DUDLEY BUXTON.)

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

ST. BARTHOLOMEW'S HOSPITAL,
LONDON, E.C.

June 24th, 1914.

DEAR SIR,—I find on page 203 of Dr. Buxton's book on "Anæsthetics," six lines referring to the administration of ether and oil by the rectum.

I therefore wish to offer my apologies to the author and to your readers for overlooking this when I reviewed the book.

Yours faithfully,

THE REVIEWER.

[Owing to lack of space, a number of reviews are held over.—ED.]

EXAMINATIONS AND DEGREES.

UNIVERSITY OF LONDON.

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

May, 1914.

Honours.—J. B. Randall (Distinguished in Medicine).*Pass.*—R. Ellis, W. Simpson, V. D. C. Wakeford.*Supplementary Pass List.*—Group I: *Medicine, Pathology, Hygiene and Forensic Medicine.*—T. B. Welch.

UNIVERSITY OF CAMBRIDGE.

The following Degrees have been conferred:

May 30th.—M.D.: F. C. Trapnell. Sc.D.: W. Morley Fletcher.*June 5th.*—M.B., B.C.: G. Sparrow. M.B.: C. W. Archer.*June 12th.*—M.B., B.C.: J. M. Postlethwaite.*June 24th.*—M.B., B.C.: A. G. Evans.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

May, 1914.

The following members have been admitted Fellows: F. Cook, W. A. Curry, M. Donaldson, H. K. Griffith, W. H. Leonard, M. W. B. Oliver, R. F. O. Sullivan, R. A. R. Wallace.

The following candidates, not being members of the College, have been also admitted Fellows: A. R. Bearn, J. F. Fairley, J. A. C. Forsyth, R. W. Knox, W. A. Lincoln, E. W. Smerdon, G. H. Wickens.

NEW ADDRESSES.

BREWITT, B. J., St. Mary's Hospital for Women and Children, Manchester.

CLARK, A. E. D., Warrender, Mosman, Sydney, New South Wales.

CRESSEY, G. H., 1, Nevill Park, Tunbridge Wells.

DALLY, J. F. HALLS, 19, Upper Wimpole Street. Tel. Mayfair 2697.

PEARSE, R., 58, Avenue Road, Toronto, Canada.

RICHARDSON, C. B., Great Northern Central Hospital, Holloway Road, N.

ROBERTS, Surgeon, W. E., R.A.N., H.M.S. "Encounter," c/o G. P. O., Sydney, New South Wales.

SIMPSON, G. C. E., 15, Rodney Street, Liverpool.

STEAD, G., Wellfield, Llandrindod Wells. Tel. Llandrindod Wells 137.

TURTON, J. R. H., 21, Brunswick Place, Hove.

APPOINTMENTS.

BREWITT, B. J., M.R.C.S., L.R.C.P., appointed House Surgeon to St. Mary's Hospital for Women and Children, Manchester.

DUNN, T. W. N., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P., appointed Hon. Medical Officer to the Eastern Dispensary, Bath.

FOULERTON, A. G. R., F.R.C.S., appointed to a Lectureship in the Public Health Department of University College.

HADFIELD, G., M.D., B.S.(Lond.), appointed Assistant Pathologist to the Dreadnought Hospital, Greenwich.

MYERS, B., M.D.(Edin.), M.R.C.P.(Lond.), appointed Hon. Out-patient Physician to the Royal Waterloo Hospital for Children and Women.

OLIVER, M. W. B., M.B.(Cantab.), F.R.C.S., appointed Assistant Surgeon to the Central London Ophthalmic Hospital.

RANKEN, D., M.S.(Lond.), F.R.C.S., appointed Assistant Surgeon to the Hospital for Sick Children, Newcastle-on-Tyne.

RICHARDSON, G. B., M.R.C.S., L.R.C.P., appointed House Physician to the Great Northern Central Hospital.

RICHMOND, A., M.B., Ch.B.(Vict.), appointed Tuberculosis Officer for Berkshire.

ROWLAND, P., M.D.(Lond.), M.R.C.S., L.R.C.P., appointed Assistant Surgeon to the Essex County Hospital, Colchester.

SYRETT, E. F., M.D., B.S.(Durh.), appointed Medical Officer of Health for Harwich.

WALKER, N., H. M.D., B.S.(Lond.), D.P.H.R.C.P.S., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer of Health to the Durban Corporation, Durban, Natal.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, etc., have been notified since May 20th, 1914:

Fleet-Surgeon H. Clift to the "Hercules," to date June 4th, 1914.

Staff-Surgeon E. Wilkinson to the "Marlborough," to date June 23rd, 1914.

Surgeon G. M. Levick to the "Victory," additional for disposal, to date July 14th, 1914.

Staff-Surgeon H. W. Shewell promoted to Fleet-Surgeon with seniority of May 23rd, 1914.

INDIAN MEDICAL SERVICE.

The following receive six months' accelerated promotion and become Majors from March 1st, 1914:

Capt. F. P. Connor, F.R.C.S.(Eng.), Capt. F. P. Mackie, F.R.C.S.(Eng.), Capt. W. W. Jeurwine, M.D.(Cantab.), Capt. H. M. H. Melhuish, D.P.H., etc.

BIRTHS.

CATES.—On June 22nd, at Laurel Mount, St. Helens, the wife of Joseph Cates, M.D., D.P.H., of a son.

DRIUIT.—On June 21st, at "Nigeria," Westhill-road, Torquay, the wife of Arthur E. Druitt, F.R.C.S., of a son.

FOX.—On June 18th, at Coplehayes, Yealmpton, the wife of E. H. B. Fox, M.R.C.S., L.R.C.P., of a daughter.

GORDON.—On May 30th, at Westholme, Horncastle, Lincs., the wife of Dr. Jervis Gordon, of a son.

ONSLow-FORD.—On June 2nd, at Wendover, Bucks., the wife of Max Onslow-Ford, M.R.C.S., L.R.C.P., of a daughter.

ROWLAND.—On May 21st, the wife of Penry Rowland, of a daughter.

TRAPNELL.—On March 10th, the wife of F. C. Trapnell, M.D. (Cantab.), of a daughter.

WALLIS.—On June 23rd, at 3, Gray's Inn-place, Gray's Inn, W.C. the wife of R. L. Mackenzie Wallis, of a son.

MARRIAGES.

GRIFFITH—FLETCHER.—On June 6th, at Holy Trinity Church, Marylebone, by the Very Rev. Dean of St. Albans, assisted by Canon Johns, Master of St. Catharine's College, Cambridge, and the Rev. E. N. Sharpe, Rector of Holy Trinity, Harold Kinder, elder son of Dr. W. S. A. Griffith, of 96, Harley Street, W., to Helena Winefrid, eldest daughter of Dr. Morley Fletcher, of 98, Harley Street, W.

TURTON—BROMLEY.—On June 10th, at St. Peters, Preston, Brighton, by the Rev. Gerald Moor, M.A., James Richard Henry Turton, M.B., B.S., F.R.C.S., elder son of James Turton, F.R.C.S., of Brighton, to Ethel, third daughter of Howard Bromley, of Birmingham.

WROUGHTON—STUART.—On April 2nd, at Howick, Natal, John Henry Wroughton, M.R.C.S., L.R.C.P., to Ethel Susan, daughter of G. B. N. Stuart, late D.I., R.I.C., Kingstown, Dublin.

DEATHS.

ALLEN.—On June 24th, suddenly at North Parramatta, N.S.W., Lancelot Lloyd Allen, M.R.C.S., L.R.C.P.(Lond.), youngest son of the late Charles John Allen.

JESSOP.—On June 2nd, at 81, Fitzjohn's Avenue, Hampstead, of phthisis, Edward Jessop, M.R.C.S., L.R.C.P.

TOWNSEND.—On May 23rd, Stephen Townsend, F.R.C.S., of Colney Heath, St. Albans, from pneumonia, aged 54.

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: 1436, Holborn.**A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.*

St. Bartholomew's Hospital



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

JOURNAL.

VOL. XXI.—No. II.]

AUGUST 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

Tues., Aug.	4.	—Dr. Garrod and Mr. Waring on duty.
Fri., "	7.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Tues., "	11.	—Dr. Morley Fletcher and Mr. Bailey on duty.
Fri., "	14.	—Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
Tues., "	18.	—Dr. Tooth and Mr. D'Arcy Power on duty.
Fri., "	21.	— St. Bartholomew. Dr. Garrod and Mr. Waring on duty.
Tues., "	25.	—Dr. Calvert and Mr. McAdam Eccles on duty.
Fri., "	28.	—Dr. Morley Fletcher and Mr. Bailey on duty.
Tues., Sept.	1.	—Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
Fri., "	4.	—Dr. Tooth and Mr. D'Arcy Power on duty.

EDITORIAL NOTES.

IT is our pleasant duty to congratulate Mr. McAdam Eccles on his election to the Council of the Royal College of Surgeons. On this occasion there were five vacancies and fourteen candidates. Of these Mr. Eccles was elected in the third place.

* * *

We have also to congratulate Sir Anthony Bowlby on his election as one of the Vice-Presidents of the Royal College of Surgeons, and Messrs. Rupert Farrant, Frederick C. Pybus, and Harry Blakeway, who have been elected Hunterian Professors for the ensuing year.

* * *

Our heartiest congratulations are extended to Dr. Langdon Brown, who was appointed Examiner in Medicine at the recent examination at Cambridge, and to Dr. G. Graham, who has been appointed Casualty Physician to the Hospital.

* * *

We also warmly congratulate Mr. A. G. Evans, who has been awarded the Lawrence Research Scholarship.

We mentioned in a previous number the Post-Graduate course which takes place here during the Summer vacation. We desire once more to draw attention to the dates at which it begins and ends, viz. Tuesday, September 8th, to Tuesday, September 22nd. Full particulars may be obtained from the Dean of the Medical School.

* * *

We are asked to state that the rules of the Students' Union are about to be issued in pamphlet form, and that in future a copy will be given to every new student as he arrives at the Hospital. This is an excellent institution inasmuch as the last publication of these rules was in the Year Book of 1908.

We would respectfully suggest that with these rules should be inserted some revised rules dealing with the subject of sports-blazers and so forth, indeed, we think that a sub-committee might well be appointed to settle what is exactly the position with reference to "colours." We have received various inquiries from people who are doubtful as to the position, and we have endeavoured to elucidate the matter, but we must confess without great success. The position seems to us somewhat as follows :

(1) Previous to 1904 there was no Students' Union, and we gather that the committees of various clubs settled their own colours, and gave them as they chose. The clubs had been amalgamated in 1892, but this was chiefly for dealing with the financial side of the matter.

(2) In 1904 a sub-committee was appointed to go into the question of "colours." Among other things, this committee decided that there should be two blazers: one for all members of the Students' Union, in plain black with a crest, and one an Honours blazer, for the cricket, football, athletic, tennis, and hockey clubs, in striped flannel, with crest and appropriate lettering. The other clubs, such as swimming, shooting and boxing, were to be allowed hatbands and ties, but no blazer. A further rule passed at this time was, that with the institution of the new blazer, all *old* colours should be recalled, and that students having obtained the old colours should not be allowed the new ones.

(3) In 1908 another committee decided to return to the old colours and to rescind the above rule referring to the colours of old students.

(4) There appear to have been further meetings on the subject, but since no minutes of the Students' Union were kept at that time whatever rules were laid down have been forgotten, and in fact the whole matter is in a somewhat uncertain state.

Previous to 1904 we believe that all the clubs could give colours. At any rate the rifle club used to do so, and we believe also that the swimming club did. We remember a discussion which took place in the old smoking-room, where the physics department is now situated, as to the lettering which ought really to be used on the shooting blazer. The difficulty of the disputants was that "R.C." might stand for rowing club or rifle club, and that "S.C." might mean swimming club or shooting club according to taste. We forget the final decision arrived at on this matter, but have an idea that it was finally decided that it really did not matter, but that "R.C." was best, because very few men rowed, and of those most of them already possessed other blazers.

We certainly think that the matter should be unravelled and some definite rules made, and we also think that should this be done it would be a pity to select some clubs for "honours blazers" and to leave out others, for every means should be taken to get students interested in the various hospital sports, and that without favouring either one sport or another.

TREATMENT OF TABES DORSALIS BY INTRATHECAL INJECTIONS OF SALVARSANISED SERUM.

By H. Y. MANSFIELD, M.B., B.C.

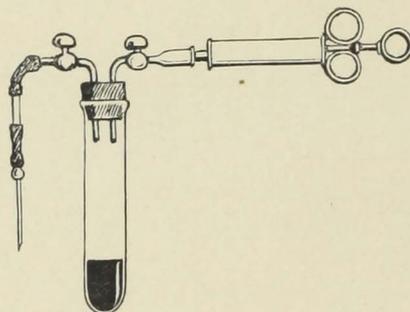
THE intractability of tabes dorsalis to antisyphilitic treatment has been explained in many ways, but an explanation as simple as any is the conception of the spirochæte embedded in the nerve-cell and so comparatively shut off from any antisyphilitic measures employed.

It has been suggested that the actions of arsenic and mercury depend upon the production of antibodies, and that these antibodies never reach the perineuronic lymph spaces, being unable to permeate the walls of the capillaries of the central nervous system. Swift, of the Rockefeller Institute, introduced a method of overcoming this difficulty by the injection of serum containing the necessary antibody as directly into the perineuronic lymph-sac as possible, by means of lumbar puncture.

The method about to be described has the advantage that the whole proceeding may be carried out in the ward,

and so avoids several journeys to the pathological laboratory and the consequent risk of the serum becoming contaminated.

The patient is given '9 grm. neo-salvarsan intravenously by any of the usual methods. One hour later about 60 c.c. of blood are drawn off; this is allowed to stand in a cool place for twenty-four hours; the serum now separated from the clot is used for the intrathecal injection. The chief difficulty of the procedure is the removal, in an aseptic manner, of sufficient blood and the separation of serum from it. For this purpose the following apparatus has been devised: An intravenous needle, such as that used for injection of salvarsan, is connected by a short length of tubing to a large boiling-tube previously exhausted of air by the pump of an ordinary aspiration apparatus. It is useful to insert a short glass tube in the rubber connection to serve as a window, to show when the needle is in the vein by blood flowing up it. When required this apparatus can readily be sterilised entire and then exhausted. The taps are turned "off" to preserve the vacuum. The needle



is introduced into the vein, the tap nearest to it is turned "on" and blood is removed by suction into the boiling-tube. When sufficient (about 60 c.c.) has been collected this tap is turned off.

The apparatus and its contained blood is allowed to stand for twenty-four hours, so that the serum may separate. Twenty-four hours after the removal of the blood lumbar puncture is performed, and the cerebro-spinal fluid is removed into a graduated measure. Whatever this quantity may be (50 c.c.-70 c.c.), the serum is made up to the same volume with normal saline solution. The foot of the bed is then raised, and, without removing the lumbar puncture needle, the mixture of serum and saline is injected into the spinal theca.

The serum is often tinged with hæmoglobin, and contains a few red blood-cells, but this does not appear to produce any harmful effects. The principal advantage claimed for this apparatus is that the blood does not come into contact with the outside air until the serum is ready for use, and then only for the short time required for mixing with saline.

The injections are repeated at intervals of a week.

So far, three cases of tabes have been treated with these injections; two of these still remain under treatment, and it is early yet to say what permanent benefit they have derived.

CASE 1.—C. B—, farm labourer, æt. 32 years, no history of syphilis. One year ago he had difficulty in walking; six months ago lightning pains in the legs started; for the last four months he has had incontinence of urine.

Argyll-Robertson pupils present, knee-jerks absent, perforating ulcers in both great toes, and right hip is a Charcot's joint. Wassermann reaction was positive after a provocative dose of salvarsan.

Within a few days of the first injection the lightning pains disappeared and he was less incontinent. After the second injection the incontinence entirely disappeared and the perforating ulcers healed, although he was not kept in bed. After the fourth injection the right eye began to react to light and now reacts quite briskly. He still has difficulty in walking, but this is largely due to the diseased hip.

CASE 2.—F. C—, male æt. 28. Primary chancre eight years ago. Difficulty in walking and lightning pains for last eighteen months. Right eye reacts sluggishly to light, the left does not react. Knee-jerks absent and Rombergism marked.

After the first injection patient lost the lightning pains. Unfortunately the injections could not be continued as the patient discharged himself "for family reasons."

CASE 3.—G. G—, male, æt. 32. Primary chancre eight years ago. Lightning pains started eighteen months ago and have been the chief symptoms complained of; lately they have been very severe. Difficulty in walking for the last month.

Pupils react sluggishly to light. Knee-jerks absent; Rombergism present. Patient is quite unable to "toe and heel." Wassermann positive on blood and cerebro-spinal fluid.

The lightning pains disappeared after the first injection. After the second injection the pupils reacted briskly to light and his walking improved. By the time patient had had his fourth injection there was no Rombergism and he was able to "toe and heel" the length of the ward. After the fifth injection the quadriceps extensor muscles were noticed to contract when trying the knee-jerk, but up to the present time no definite jerk has been obtained. Patient has put on weight and says he feels quite well.

In all three cases the lightning pains were worse for some hours after the first injection, but no pain was experienced after subsequent ones.

Campbell* found that in all his cases the lightning pains disappeared soon after the first injection and only reappeared in one case, when they disappeared again after the second. The urinary symptoms were much improved in all his cases in which they were present. In some of the cases the knee-jerks returned later, and the improvement in the general

* *Brit. Med. Journ.*, March 14th, 1914.

health of all the patients was one of the most striking results.

If it can be shown that the intrathecal injections cure permanently such distressing symptoms as lightning pains and urinary incontinence, apart from any other beneficial effects they may have, I think the treatment of tabes by this method is justified.

I am indebted to Sir Wilmot Herringham for permission to mention these cases.

REMARKS ON A CASE OF ARTIFICIAL PNEUMOTHORAX.

By BERNARD HUDSON, M.D. Cantab., M.R.C.P.,
Physician to Queen Alexandra Sanatorium, Davos.



HISTORY.—Male, æt. 27, admitted to the Queen Alexandra Sanatorium, Davos, on October 17th, 1913.

Condition on admission.—Looked ill and toxic. Temperature range 99°–102° F.; pulse rate, 100–120; had been losing weight and going downhill rapidly during the past two or three months. There was a good deal of cough and sputum, *i.e.* 30 c.c. in the twenty-four hours, containing numbers of tubercle bacilli. Gaffky vii on the scale, *i.e.* an average of 12–50 bacilli to each field of the microscope. Elastic fibres were also present in the sputum. Physical signs: left side, infiltration of practically the whole lung; air entry extremely bad, and over the whole lung moist râles were heard; most of the lung was involved and apparently breaking down rapidly. The right side was practically free from disease. An X-ray photograph confirmed these observations.

As the patient was obviously going downhill rapidly, and could not have recovered if left alone, it was decided to try to do an artificial pneumothorax, *i.e.* to compress and solidify the diseased lung if possible, and put it at rest, on the same principle as one would treat any other inflamed part. A Kornmann's apparatus was used, and the procedure adopted was that of puncture.

The pneumothorax was done on November 4th, 1913. The needle was entered in the lower axillary region, and after a little manœuvring the pleural space was found, and the manometer attached to the apparatus showed regular oscillations, negative pressure being eight to nine. About 800 c.c. of oxygen were then gradually run in, 100 c.c. at a time, the manometer reading being taken after each 100 c.c. until the negative pressure had disappeared and the manometer showed a very slight positive pressure of + ½.

Two days afterwards 1000 c.c. of nitrogen were run in, the pressure at the end of the procedure being + 1 to + 2.

For three days after this operation the patient was somewhat embarrassed in the breathing and the temperature

rose to 102.5° F; he then gradually became quite comfortable, the right lung taking on the functions of both, and accommodating itself. The temperature fell to normal, the sputum practically disappeared, and in thirty days the patient was up and about, to all intents and purposes in good health.

At the present date, five months after the pneumothorax was done, his physical condition is excellent, he has gained 17 lb. in weight, and feels quite fit. Temperature, normal; pulse, 70-80; sputum, 5 c.c. only.

As is usual in these cases, a small effusion has developed in the pleural cavity, but this causes no embarrassment and has been left alone. The patient is re-filled with nitrogen about every three or four weeks, a pressure of + 8 + 10 being kept up.

This patient was particularly lucky, with so much disease, in having but a few adhesions, and thus rendering it possible to do a pneumothorax.

This case I quote as a typical example of a successful pneumothorax. I might mention several more, but this one will be sufficient to point out the advantage of this procedure in a suitable case. Before and while doing a pneumothorax, the following precautions should be observed:

(1) An X-ray photograph must be taken in all cases in order to make quite certain of the condition of the other lung, and also in order to get an idea of the best place to enter the needle with a fair prospect of success.

(2) The skin over the proposed site of puncture, and also the track of the needle and the parietal pleura should be anaesthetised in order to minimise the risk of shock, which otherwise may occur when the needle punctures the parietal pleura. Before the puncture is made some oxygen should be blown through the needle to clear it, and get rid of any water there may be in it.

(3) No gas should be allowed to flow until the manometer shows regular oscillations, thereby demonstrating that the needle is really in the pleural cavity, otherwise there may be a risk of embolism from gas entering the lung or a vessel.

(4) As soon as regular oscillations of the manometer have been obtained, the gas may be allowed to flow in, but not more than 100 c.c. at a time, the manometer being read between each 100 c.c.

(5) The first filling should be terminated when the manometer shows an even pressure.

(6) The gas used for the initial induction of a pneumothorax should be oxygen, say, 200-300 c.c., followed by 200 or 300 c.c. of nitrogen. For the first sitting 500-700 c.c. of gas will usually be found to suffice.

(7) Subsequent fillings, which are quite simple to do once the condition of pneumothorax has been obtained, may be done at intervals of two or three days, until a positive pressure of + 8 or + 10 has been attained. This

should be sufficient pressure, and if another X-ray picture be now taken, it will show a complete pneumothorax. After this, refillings will probably be necessary every five or six weeks to keep up the pressure. Some fluid generally accumulates in the pleural cavity after a little time, but this does not really matter, and may be left, unless it becomes purulent.

The object which the production of pneumothorax has in view is the immobilisation of the diseased lung, in other words, the inflamed part is given a rest. The operation is not necessarily a permanent one, and after an interval of say eighteen months to two years, the lung may be allowed to expand once more. If then signs of activity reassert themselves, the lung must again be compressed for a further period. The operation may be advantageously performed in the following types of cases.

(1) Early active disease, which is not quieting down under climatic and routine treatment. These are perhaps the cases in which the best results are obtained. It is no advantage to wait until the patient is enfeebled and his resistance lowered by disease.

(2) Advanced cases in one lung, where the patient is rapidly going downhill. The operation, if it is then possible to do it, may save, or at any rate prolong, life.

Conditions which lead to failure are:

(1) The presence of extensive adhesions, rendering the separation of the pleural layers impossible.

(2) Cases in which there are cavities at or near the surface of the lung. In these cases, of which I have now seen several, the gas is very likely to enter the cavities probably by diffusion, and thence escapes by the mouth. This is shown on the manometer by the pressure rising as the gas is allowed to flow in, and then gradually falling again as the gas escapes. If a little ether be then placed in the apparatus the patient immediately perceives the smell and taste of it as the gas is allowed to flow. It is of course useless to persevere under these circumstances.

(3) In cases of recurring and obstinate hæmorrhage from a cavity.

In advanced cases of severe unilateral disease, where the patient is going downhill, and in which it is found to be impossible to do a pneumothorax, there is still left the operation of thoraco-plasty, whereby, if successful, considerable collapse of the affected side and subsequent compression of the affected lung may be obtained.

A slight amount of disease in the opposite lung is no real contra-indication to the operation, as it often improves rapidly after the more extensive focus of disease is put at rest. In a successful case the temperature comes down, the sputum diminishes, and the general condition of the patient begins to improve. The results are often most gratifying, and no one who has seen and followed a few examples of artificial pneumothorax will deny the great value of the procedure in suitably selected cases.

ANÆSTHETIC.*

A DRAMATIC EPISODE (After R.B.).

To Dr. G. S. HAYNES.

Well, what's your choice? Here's Euthanasia's spread—
 Gas, ethyl chloride, ether, A.C.E. :
 The first and second mere *apéritifs*
 Or appetisers for the sterner stuff ;
 They bring you to the borderland of dreams,
 Where you shall laugh as loudly as you will,
 Be on the best terms with yourself and sing,
 Shout choruses, with tongue unfettered, free
 (Tinging the atmosphere, as like as not,
 With phrase of startlingly cerulean hue)—
 The elemental man unmasked : a mild
 And brief intoxication, nothing more.
 If you'd be well advised, leave these alone.
 . . . What's wrong with open ether, right away?
 Not in a Clover: no—but given thus,
 On this light mask, well mixed with Cambridge air.
 The smell, you say, unpleasant?—so you've heard.
 Not much in that, I fancy. So much talk.
 Objection? Well, it takes a little long,
 Eight minutes—two, perhaps, before you lose
 Full consciousness. That's all the same to you?
 Good. Nurse, just edge the metal of this mask with wool—
 We're going in for luxuries this morning.
 That's better. Now, how's that? Quite easy? Right.
 Just breathe away—so ; gently, not too deep.
 . . . Feeling a little muzzy now : no? Not
 As if you'd had a glass too much—light-headed?
 And while you breathe—if I may so suggest—
 Compose a sonnet of the things you see,
 And dedicate it thus—'To Dr. Haynes.'
 . . . "To Dr. Haynes . . . I hear . . . a
 sonnet . . . yes,
 That's it. Right—o! To Dr. — G. — S. — Haynes—
 I must remember that—from one, from one—
 Oh damn, how this stuff chokes and blinds—from one—
 What shall we say?—who enters—in a wood—
 A sunlit wood—where loud—loud the birds sing,
 And huge, dark—drowsy—drowsy blossoms break,
 Distilling dreams. . . . I heard you laugh. That's Joe.
 I know it is damned funny . . . All the same,
 It's not so—damn : I think this must be where . . .
 Now . . . where . . . I'm . . . really off."
 D. J. F.

ADDENBROOKE'S HOSPITAL,
 January 6th, 1914.

* Dr. G. S. Haynes sends us this poem from a patient whom he anæsthetised. The patient is a poet (at Cambridge), and Dr. Haynes suggested that he should immortalize his sensations in verse. Hence this dramatic episode.

THE X-RAYS.

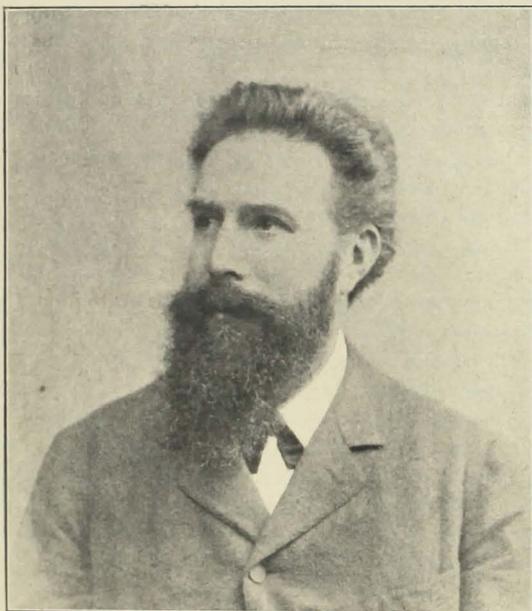


SCARCELY nineteen years have elapsed since Röntgen made his discovery, yet this comparatively brief period has seen the installation of X-ray appliances in the hospitals of nearly all civilised countries, the continual widening of the sphere of their application—for treatment as well as diagnosis, and the improvement and elaboration of instruments for their production to a much higher degree of efficiency. At the present day no hospital is complete without the equipment which furnishes an additional "eye" for diagnosis.

At St. Bartholomew's the first skiagram was made in 1896. Since then, year by year, the amount of X-ray work has rapidly increased. In 1913, 6673 skiagrams were made. In the present year, the number made up to the present month already exceeds by 2000 the number for the corresponding period of last year. On June 16th of this year the record number of 84 for one day was made. In 1896 an exposure of half an hour was necessary. To-day a skiagram can be made with an exposure of $\frac{1}{200}$ sec. The first made skiagrams showed only gross lesions such as fractures and metallic foreign bodies. Skiagrams will now show many of the pathological conditions of the lungs and mediastinum. The outline, position and movements of the stomach can be readily seen when filled by a meal rendered X-ray-opaque by the addition of bismuth oxy-chloride, and as the meal passes along the intestine similar information is furnished concerning the rest of the alimentary canal. Cinematograph pictures can be made showing the peristaltic waves of the stomach. The course of the ureter, injected with collargol, can be followed. Stereoscopic pictures can be made, showing parts of the body in relief, and the position and outlines of opaque objects in the now transparent interior. Skiagrams giving information on the condition of the base of the skull, the mastoid processes, the sinuses leading from the upper air-passage and the position of foreign bodies within the eye are frequently made. Structures that are very slightly opaque to the rays, such as muscles, tendons, fibrous septa, and calcified arteries, can now be shown on skiagrams.

The discovery of the X-rays was the outcome of the study of electrical discharges through glass tubes partially exhausted of air. These tubes have been named after Geissler, Hittorf, and Crookes, according to the country and period in which they were used, but they are all glass vessels of varying shape from which the air has been partially pumped out, and with platinum wires (electrodes) sealed into opposite ends to conduct the discharge to and from the interior. If the air in the tube is at atmospheric pressure, and the electrodes are connected to a large induction coil, the discharge takes the form of noisy sparks through the tube. As exhaustion of the tube begins, the sparks become less

audible and as it proceeds scarcely any sound is heard. Meanwhile, the sparks widen out and occupy the whole tube. The appearance of the discharge alters as exhaustion continues. When the pressure has fallen to about $\frac{1}{400000}$ of an atmosphere, the greater part of the tube glows with a grass-green fluorescence. It is now giving out X-rays. If the exhaustion is carried further, the fluorescence becomes less bright and when the vacuum is complete nothing is seen because no discharge can take place, a perfect vacuum being a perfect insulator. The green fluorescence is caused by something that is coming from the kathode and known as the "kathode rays." They leave the kathode at right angles to its surface, proceed onwards with a velocity one-



PROFESSOR WILHELM KONRAD RÖNTGEN.

thirtieth to one-third that of light, strike, but do not pass through the glass, and cause it to fluoresce with a bright grass-green colour. Soda-glass gives this colour, lead-glass gives a blue colour. Kathode rays can pass through exceedingly thin sheets of metal, such as aluminium, without puncturing it. They cannot pass through glass. They produce heat in objects upon which they impinge.

For many years there was much uncertainty regarding the nature of the kathode rays. They are not ethereal vibrations like light rays. They have been shown by the researches of Sir J. J. Thomson to be particles, sub-atomic in size ($\frac{1}{1800}$ th of the size of the hydrogen atom), and to bear an invariable electric charge. These particles are, in fact, atoms of negative electricity, and they are known as "corpuscles" or "electrons." Their course can be deflected by a magnet or an electric field. The picture of these

particles travelling at great velocity recalls Newton's corpuscular theory of light. The most important property of kathode rays is their power to produce X-rays when they come into contact with matter. This was Röntgen's discovery.

Wilhelm Konrad Röntgen was born in Lennep, Province of the Rhine, on March 27th, 1845. He received his early education in Holland, and graduated as Doctor of Philosophy, at the University of Zürich, in 1870. He became assistant to Professor Kundt, at Würzburg, in 1873. In 1874 Professor Kundt removed to the University of Strasburg, with Röntgen as *privat-docent*. In 1875 Röntgen was appointed professor of mathematics and physics at the Agricultural Academy of Hohenheim, and in the following year he returned to Strasburg as extraordinary professor.



STATUE OF PROFESSOR RÖNTGEN ON THE POTSDAM BRIDGE, BERLIN.

In 1879 he was chosen professor of physics and director of the Physical Institute at Giessen. In 1885 he was elected to a similar post at Würzburg. It was at Würzburg that he discovered the rays which now bear his name. In 1895 he was making experiments on electrical discharges through a Hittorf tube, searching for "invisible rays." The tube was completely covered with black paper to exclude ordinary light, and electrical discharges were sent through it. The black paper had screened off all visible light coming from the tube, but a piece of cardboard, coated with barium platino-cyanide, which was placed three or four metres away, glowed brightly. The tube was emitting unknown rays, and Röntgen traced them back to that part of the wall of the tube which was receiving the impact of the kathode rays. He investigated their properties, and by reason of their peculiarities, particularly in regard to reflection and refraction, and the uncertainty regarding their nature, he called

them the "X" rays. He communicated his discovery to the Physico-Medical Society of Würzburg in November, 1895. He was requested to demonstrate his discovery at the Palace at Potsdam by the German Emperor, who decorated him with a Crown Order. The University of Munich presented him with a professorship in recognition of his discovery. He received the Nobel prize in 1901.

Fig. 1 shows in outline a Hittorf tube like that used by Röntgen when he made his discovery. When the electrodes are connected to an induction coil, the broad end of the tube glows with a bright green fluorescence. Kathode rays proceed from the surface of the kathode, strike the glass

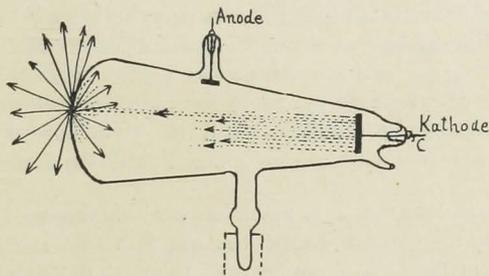


FIG. 1.—OUTLINE OF A HITTORF TUBE. THE DOTTED LINES REPRESENT THE KATHODE RAYS. A PENCIL OF THESE RAYS IS SHOWN IMPINGING ON THE GLASS WHERE THEY ARE SCATTERED. AT THE POINT OF IMPACT, X-RAYS (SHOWN BY CONTINUOUS STRAIGHT LINES) ARE GENERATED.

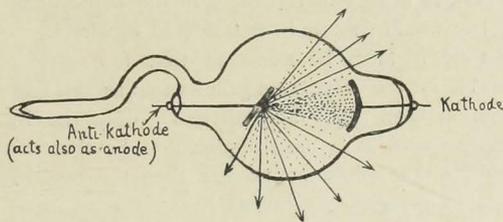


FIG. 2.—PROF. JACKSON'S FIRST X-RAY "TUBE." THE KATHODE RAYS (DOTTED LINES) THAT LEAVE THE CONCAVE KATHODE ARE FOCUSED ON THE PLATINUM TARGET OF THE ANTI-KATHODE FROM WHICH THEY ARE SCATTERED TO THE WALL OF THE "TUBE." X-RAYS (CONTINUOUS STRAIGHT LINES) ARE FORMED AT THE POINT WHERE THE FOCUSED KATHODE RAYS STRIKE THE ANTI-KATHODE.

of the tube, and are then scattered. At the points of impact the X-rays are generated.

If a screen, coated with barium platinocyanide, be placed opposite the broad end of the tube it will glow with a bright green colour when seen in the dark. This is due to the X-rays. The latter are formed at the parts where the cathode rays strike the glass, and those that fall on the screen cause it to fluoresce. They do not produce any impression of light when they fall on the retina.

If an object be placed between tube and screen, its shadow will be cast upon the screen, the darkness of the shadow depending on the degree of opacity of the object to the X-rays and its thickness. If the hand be placed between

the screen and the tube, the soft tissues will cast a very light shadow; the bones will cast a dark shadow, less dark at the cancellous ends, more dark in the region of the compact shaft, while a needle in the hand will cast a very dark shadow, and a bullet the darkest shadow of all.

Such tubes were extensively used after the X-rays were discovered. They did not produce sharply-defined pictures, because the X-rays emerged from a large surface, not from a small point. Exposures as long as half an hour were necessary, and the tubes did not last long. In 1896 Prof. Jackson, of King's College, London, designed a new form of tube, and the tubes made at the present day (with the exception of the Coolidge and the Lilienfeld tubes, quite recently introduced) show but little difference from it in general plan and design. Fig. 2 shows the outline of Jackson's tube. It is less like a "tube" than the Hittorf tube, but long usage has sanctioned the application of this

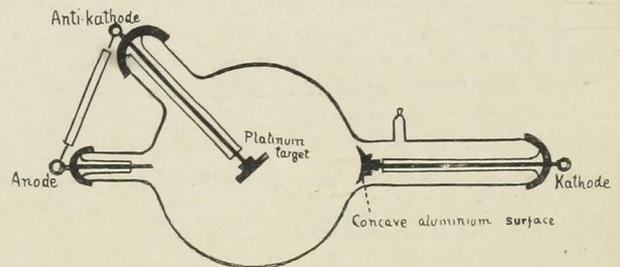


FIG. 3.—SIMPLE FORM OF X-RAY "TUBE" OR LAMP.

term to the Röntgen lamp. The kathode has a concave surface so as to focus the kathode rays, as far as possible, to a point.

A concentrated bombardment of these rays is received, not on the glass wall, but on a special platinum target. There they are scattered and pass to those parts of the wall of the tube which the target faces. X-rays are generated in abundance at the focus of the kathode rays on the target, and they also pass to and through that part of the wall of the tube faced by the target. The target with the wire supporting it is known as the "anti-kathode." It acts also as the anode, to conduct the current into the tube.

A simple form of tube of the type made at the present day is shown in outline in Fig. 3. The kathode is enclosed in a side prolongation of the tube, and a separate anode made of aluminium, also similarly enclosed, is fitted. The anti-kathode target becomes very hot if the tube is worked for a long time or with a heavy discharge, and various devices are used for preventing overheating. The target may be supported on a larger mass of metal of good conductivity, or it may be cooled by a current of water or blast of air. The spot at which the kathode rays are focussed may quickly reach the temperature of 3000° C. when a strong current is passed through the tube. Platinum,

which is most generally employed for making the target, would be melted without hesitation with a strong current lasting for more than a short time (the melting-point of platinum is 1750° C.). Tungsten, which has a melting-point of 3200° C., is sometimes used.

All but the simplest forms of tube are provided with some device for letting a minute amount of air into the tube when desired, because the small quantity that is there before the tube is used may become absorbed after use and make the exhaustion so complete that no current can pass through it. A tube that has the highest, or nearly the highest vacuum that the current can pass through is called a "hard" tube, and it produces more penetrating (or "hard") X-rays; a tube that has a lower vacuum will produce rays of medium penetrating power; a tube that has the lowest vacuum permissible for the production of X-rays is said to be a "soft" tube, and it produces X-rays that have a low penetrating power ("soft" rays). The range of pressure in the tube between the hard and the soft limits is very slight and is easily overstepped, and the maintenance of a constant vacuum, even for a short time, is the chief difficulty encountered in the management of X-ray tubes.

A LARYNGEAL OPERATION IN THE SUSPENSION POSITION.

By HAROLD L. WHALE, M.D., F.R.C.S.



WOMAN, *æt.* 40, complained of increasing dysphagia of six months' duration: for one week she had been unable to swallow anything but fluids.

On examination, the laryngoscopic image showed a transverse web in the form of a shelf across the hypopharynx, completely obscuring the post-cricoid region, and obviously blocking the œsophageal orifice. Antero-posteriorly the web extended from the posterior pharyngeal wall to a smooth sickle-shaped anterior margin, which abutted on the cartilages of Wrisberg, so that the laryngeal opening was not affected.

The patient gave a frank history of syphilis, and a positive Wassermann; and after two doses of neo-salvarsan with mercury between injections she was admitted. Morph. hydroc. gr. $\frac{1}{6}$ and scopolamine hydrobrom. gr. $\frac{1}{150}$ were injected twice at an interval of half an hour, and the web and neighbouring structures prepared with cocaine and adrenalin; after which a good view was obtained on the suspension-gallows, seemingly with no inconvenience to the patient. The web was now cut away piecemeal with a pair of Paterson's forceps with Grünwald's end-pieces. The fibrous tissue stroma was so tough as to feel like cartilage in the forceps-grip; the toughest part was the sickle-shaped

anterior edge. Repeatedly the forceps failed to cut this, but instead button-holed the web just behind it; to cut the edge itself both hands were required. Finally an especially tough piece absolutely resisted the forceps, and the instrument, although new that morning, broke. By now, however, the web was reduced to fragments, which were easily removed by long straight forceps.

The largest sized œsophageal bougie could now be passed easily with one hand, that is to say with no guiding finger in the mouth. The whole procedure occupied ten minutes, and, throughout, the field was not obscured by bleeding.

But there had been a constant trickle of blood backwards into the post-nasal space; and before releasing the patient from the spatulæ, I warned her that she must cough up the blood which would fill her mouth when she sat up. On lifting her head she spat out about three ounces.

Two days later she was eating fish; after a week she was discharged on an ordinary meat diet. Four months later, when last seen, there was no contraction of the scar-tissue.

I think that this little operation would have been impossible by the indirect method, because with angular forceps sufficient force could not be used to punch out this tough web without risk of injury to adjacent structures. And again, by Bruning's direct method, it would have been impossible to obtain a view of so large an area at one time as was necessary in order to make a clean sweep of the web. Moreover, in using either of these methods the amount of blood lost would entirely have obscured the field. At the same time it must be admitted that few cases are so favourable for the suspension-gallows as was this; had the obstruction been any lower, obviously only the Bruning apparatus would have been applicable. So that this case exemplifies the limitations, no less than the usefulness, of suspension laryngoscopy, in that it exposes the parts only to a slight depth, that is to about the level of the sixth cervical vertebra. But for manœuvres no lower down than this, requiring a bloodless field, freedom of both hands, and a simultaneous exposure of a large area, it is excellent.

A TRIP TO ROME WITH A SMALL CAR.

By R. INGLIS DOUGLAS.



AT Strathpeffer Spa, in the Highlands of Scotland, I made ready my small 11'2 H.P. two-seater car, for the annual run down to London, this time, with a friend "up" as passenger. Favoured by the best of weather, the run was so entirely successful that we thereupon decided to continue the trip to Rome by road, instead of by the more ordinary method of rail and steamer, a distance of some 1400 miles further. We accordingly betook ourselves to the offices of the "A.A. & M.U.," which

excellent association at once undertook all the formidable preliminaries pertaining to International passes, tryptiques, driver's licence, number plates, lamp-bracket alterations, and photographs, and within the space of five days presented us with a handsome quasi-morocco portfolio, bulging with documents, together with the car ready for any road in Europe. Meanwhile we had mugged up the various guide-books (which formed quite a nucleus library) as to our route and the distances that we hoped to accomplish each day.

As the time drew near for our departure, and we gradually got ourselves surrounded with a motley array of wraps, rugs, and accessories, we felt rather as if we were in for a Polar Expedition on a small scale than a peaceful pleasure trip to the Mediterranean Littoral, and I must confess that we left London feeling anxious and had serious doubts of ever negotiating anything like the stiff climbs that the guide-book talked so much of. I had visions of officious local officers demanding our passports and fining us heavily for some breach of the rules, and probably discovering the neat packet of tobacco and smokes hidden behind the petrol tank. However, we began to feel easier as we settled down into the trip, the car did not seem to notice the extra load, and, if anything, held the road better, whilst the "formalities" bogy faded, as we saw the alert manner in which we got through the Customs at the landing stage at Boulogne Harbour.

Armed with the "A.A." documents we felt safe anywhere, so in case of accident I carried them about me always, and, as they made a bulky packet, it was at no small personal discomfort to myself.

Soon we were breasting the long flat slopes of Northern France. Undaunted by a drizzling rain and somewhat uninteresting scenery, we felt more comfortable about everything and looked forward to a good time in the sunny southern provinces. We touched the Seine approaching Versailles, and were able to verify the facts about the barges, bridges and floods that we used to read of in our school books. Just as we were turning into Versailles we met with our one and only mechanical failure, breaking a spring shackle bolt bumping over an atrocious bit of road; the wonder was that nothing else broke at the same time.

We found our hotel given over to a marriage feast for a couple in from the country; at least the guests were in, but the happy pair did not arrive until 9 p.m., two and a half hours late, owing to a carriage accident on the way. With very little encouragement the guests would, I am sure, have tackled the magnificent spread they saw laid out in the next room, but, as it was, they just managed to hold out, sitting in a hungry circle until the principals arrived.

The next day took us through the forest of Fontainebleau along a magnificent undulating road and past the Palace of Versailles, where, of course, we stopped a short while. We pushed on next day over undulating open country down

towards the valley of the Loire, and soon found ourselves on a broad and smooth road flanked by the usual poplars and the broad river winding past us on our right hand. No wonder we made some good running, with such favourable conditions to help us, and here it was that doing a rather fast stretch we heard a bump behind us and found the camera and two bags and the tea-basket lying on the road behind us! I fully expected to find the camera in pieces, but on investigation found that only a glass in the tea-basket had been smashed, so we were lucky. Stopping at a small country inn not far from Nevers, we paid a visit to a travelling fair, much like those one sees in England. At a sort of coconut shy at one of the booths they kept a live baboon chained up behind the target. When the bull's-eye was struck the door opened and the baboon trundled down a sloping board, seated on his trolley. It was a sensational performance, but looked a cruel one to us. However, the villagers did not seem to think so, and pelted the baboon with nuts and missiles whenever he made his appearance. Proceeding on our way we found the weather growing distinctly warmer, so that we began to shed some of our heavier wraps. Coming to mountainous country soon after we experienced our first taste of real hill climbing, and I was proud to be able to reach the snow line with only very occasional changes to first gear. The country had now become bleak and rugged, and we had to have a good supply of petrol on board to ensure our getting through to the next garage. However, no accidents happened, and we descended into St. Etienne well satisfied with the performance of the little car. More flat but interesting country brought us to the town of Orange, where the Roman Arch and Amphitheatre are the chief attractions. We were attracted, indeed, rather too much by the Arch, and nearly got ourselves smashed up. Approaching it in the dark after a long day's run we took the wrong turning and plunged down four steps into the arena wherein the Arch stands. The only way out was to plunge up again, which we did without hurt, and these acrobatic performances causing a crowd to collect, and making us feel rather foolish, we thought we would sheer off and have a look at the hotels instead. We noticed that night that the guide-book cautions careless drivers (sic) against this very occurrence. What a mind the "A.A." must have to anticipate one's troubles like this.

After Orange more hills and the Chateaux country—perhaps the most interesting piece of the whole trip: we stopped at Brignolles at the Hotel Gonnnet, which I particularly mention, since not expecting much accommodation at this small and rather dirty little place we found ourselves provided with every attention at a most reasonable charge. Hotel charges, by the way, were always reasonable, so we found throughout France and Italy, excepting where the Anglo-Saxon has left his mark, and such places we preferred to pass by in favour of more secluded and less popular resorts. Next stop Avignon, the

walled city where the exiled Popes dwelt for some time. One could have spent a week here with much satisfaction. We had to move on next day, however, and a big day's run through Aix en Provence brought us to Frejus and so to Cannes, where we found the Mediterranean looking its best. The last part of this run is preferable by the high road, which gives a magnificent series of mountain scenes throughout its winding course.

We were now arrived at the much vaunted Riviera. Space prevents me dilating on the many beautiful scenes along this coast which are well worth going so far to see; but for motoring, pure and simple, it is indeed to be avoided. Tram-lines run nearly all the way; bad, dusty, sinuous roads, choked with traffic of all kinds, make driving a constant source of anxiety; the road winds in-and-out along the cliffs, sometimes 500 feet above the sea, sometimes along the water's edge through tunnels in the rock, or again through narrow picturesque villages situated at the head of miniature bays where the water reflects the deepest blues of the sky. So much alike are these places that one is apt to forget their names, and remain content just to admire the effect and to pass through.

We stopped, of course, at Nice and Monte Carlo, and tested our luck at the tables. The 14 to 1 chance, or whatever it is, did not come off, and we did not stop to prolong the test but made for the frontier at Ventimiglia. Here the rival outposts gaze at each other over a bridge across a deep chasm in the rock. The "A.A." documents were produced at the first little cabin, and shaking the dust of France off our tyres we crossed the bridge and interviewed the occupants of the other little cabin with equal success. Here I attempted to reward a polite "soldato" for services rendered and nearly got run in for my pains: I did not discover the same antipathy to pecuniary assistance from others of his countrymen whom we met, and whom he so nobly represented on the frontier. To the motor enthusiast Italy is better avoided: they do not cater for anything above primitive ox-wagons outside the big cities, and the roads are, therefore, about suited to that class of vehicle.

As soon as we got into Italy a change came over the scene: "Benzina" as it now had to be called, became an expensive item and one had to be careful about laying in sufficient supplies. Once we were caught with a dry tank and learned that the nearest petrol was a matter of 10 kilometres away; moreover, our inquiries as to chances of another motorist passing, met with the reply that occasionally someone passed about six o'clock, but often he did not turn up; this day being apparently his day off, after waiting several hours, we had to put the car up in a shed and send a cart for the petrol, which, of course, did not arrive until next morning; however, we managed to find quite good accommodation amongst the hospitable country folk. All the way along this country road one

seems inextricably mixed up with the railway: we counted fourteen level-crossings in two hours running, which effectually prevented anything like good running that day. The naturally bad roads were made worse by road-mending, which was just then in full swing. Road-mending in Italy is the term applied to the process of strewing the road with sharp flints and splinters of marble, and allowing the mixture to become slowly absorbed into the mud by the process of time and weathering; for some 250 miles we were seldom free from such patches, and, indeed, relays of ruffians strewed stones before us until we reached the Roman Campagna, where road-mending is a thing unknown in a lifetime. As a result of these conditions all four tyres were soon in a tattered and torn condition, and all our relief inner tubes were soon wanted.

From a spectacular point of view, however, we were more than rewarded for all our troubles—the magnificence and variety of the scenery, the quaint villages and ancient walled-in towns through which we passed, and the particular characteristics that are such a distinguishing feature of Italy were always a delight and made us wish we could enlarge our tour and make a better acquaintance with this Doré-esque country.

At Genoa, after nearly getting run over by a full-sized goods train that came round the street corner at us—quite a common incident in Genoa—we were just about to leave the town when two cyclist police and a gorgeous sergeant stopped us and led us like first-class criminals to the Bureau. Here we learned that we had run over an old lady in one of the main streets. Of course it was the old confidence trick about which our "A.A." Guide Book had a small warning paragraph. The ancient dame was in hospital, whither, after much arguing, we repaired and discovered our victim in bed with a large cradle over her feet. A short, practical demonstration in best bedside manner convinced all present that the whole thing was a sham, and leaving five francs with the officials we were allowed at once to proceed on our way very ruffled in temper, but glad to be clear of such a place at any price. Next day we met an American motorist, who told me that he had to pay fifty francs to proceed and was glad to do so and get clear. We now began the ascent of the Bracco pass: unfortunately some mist prevented us enjoying the full scenic effects. We made the ascent without a hitch and arrived at the inn at the top in good condition, but cold and numb, and began the descent, about which the guide-book had a good many remarks to make of a cautionary nature.

Exercising a little ordinary care we reached Sestri Levante in safety and after a terrible two hours' run in a pouring rain, with the car slipping all over the place, we drew up at the Hotel Croce di Malta, at Spezia, wet through and covered with mud. It cleared next day, however, and shortly after starting we took the wrong turning and going down a steep place to the seashore discovered the bright

gem of the tour, a fishing village set in a snug little bay. The place is called Lerici, and I understand is a favourite rendezvous of the artist fraternity, many of whom have villas in the surrounding neighbourhood. We lingered a whole half-day here, and reluctantly set off for Pisa next morning in glorious weather, and making good running through level country we soon reached that city and halted to see the Leaning Tower and Baptistery. Shaking off the numerous touts and guides which infest this popular tourist resort we pushed on to a place called Cecina, near which a river had to be crossed by ferry-boat at two places: so the guide-book informed us. Arrived at the said river through a quagmire, we found a battered barge end-on to the shore, the bow riding some twelve inches above the land-level. Rough planks were laid down, and we managed to scramble on board without falling into the river. We were thankful when the last landing had been safely negotiated, and had got ourselves hoisted out of the mud with the help of some local farmhands. By this time we presented a somewhat battered and weather-beaten appearance, and as we drew near Civita Vecchia the tyres, which had lately been showing signs of giving trouble, gave out, one after the other, and we eventually entered that ancient, walled city riding on three flat tyres and a groggy Stepney. The next day was spent in repairing and cleaning up. The best of the tyres were patched up and fitted on: one, with fourteen punctures and a flint inside it, being left behind as a memento. With all once more ship-shape we made good running for the remaining seventy miles, and soon finding ourselves under the huge walls of the Vatican, entered Rome by the Porta Æmilia, and crossed the Tiber by the Ponte Sant' Angelo, where we stopped a moment to admire the fine view. Here the passenger inadvertently kicked the switch off in climbing out, and so keen were we on covering the remaining few hundred yards to home, that we never thought of the switch until nearly exhausted with turning the starting handle. Once discovered, of course, one turn and we were on the move again, and ten minutes more saw us safely at our destination. Thus ended a very memorable run, within nineteen days from London—two days outside schedule time.

At no time on the trip did we experience any ill-effects, in spite of the exposure to all kinds of weather, instead, an unalterable cheerfulness possessed us. We ate and slept heartily, and arrived many ounces heavier than when we started. Doubtless excellent as a cure for neurasthenic conditions and such-like complaints as a trip like this must be, it certainly is not the best thing for those inclined to put on weight; and to guard against such an occurrence, and as a measure towards our greater comfort, we always made a point of rising betimes in the morning, and after seeing to the needs of the car, went out for an hour's good walk; thus enabling us at the same time to see something more of the place we were in than we

otherwise should have done. If spared and well I hope some day to make the tour again, and then it shall be *via* the Alps, for I am sure the little car would put up just as reliable a performance by that route as the one I have attempted to describe in these pages.

THE CLUBS.

CRICKET CLUB.

ST. BART.'S *v.* M.C.C.

The Hospital batted first against the M.C.C. on Saturday, June 27th, and collapsed before the bowling of Mead and Williams. The batting of the M.C.C. was not marked by any particularly good display. Deane, though he scored 52, was somewhat lucky. Williams was in good form behind the wicket. On going in a second time the Hospital batting improved, and when stumps were drawn our score stood at 108 for 2 wickets. Unfortunately the Hospital were unable to turn out anything like a representative side for this match.

SCORES:

ST. BART.'S		M.C.C.	
E. G. Dingley, b Mead	4	E. G. Raphael, c MacFarland,	
R. H. Maingot, b Williams	0	b McCall	29
R. H. Williams, st. Smith, b Williams	12	R. B. Cochran, c Joyce, b Braun	8
J. B. MacFarland, lbw., b Mead	10	S. C. Probyn, b Braun	1
T. Owen, b Mead	11	A. S. Matthews, c MacFarland, b McCall	27
S. R. Prall, c Mead, b Williams	18	D. W. Corrie, b Braun	1
L. Braun, b Williams	0	R. E. Hodgson, c Juckes, b Owen	20
H. C. C. Joyce, c and b Williams	0	W. W. A. Deane, st Williams, b Owen	52
G. F. Juckes, b Mead	0	— Smith, c Williams, b Joyce	16
G. C. Wells-Cole, st Smith, b Williams	2	— Williams, not out	4
H. D. McCall, not out	0	— Mead, not out	12
Extras	0	C. G. Hulton did not bat.	
		Extras	14
Total	57	Total (for 8 wkts.)	184

St. BART.'S (2nd innings).—R. H. Williams, 37; J. B. MacFarland, 25; H. D. McCall, not out, 24; extras, 22. Total for 2 wickets, 108.

ST. BART.'S *v.* CLAYBURY.

This match, played at Claybury on Saturday, July 4th, ended in a win for Claybury on the 1st innings by 7 runs. Dr. Paine won the toss, and put the Hospital in on a rather difficult wicket. Runs were hard to get, and our total only reached 86. Claybury lost 8 wickets for 53. Unfortunately, a catch was dropped at this juncture, and this mistake cost the Hospital the game. On going in a second time we scored 101 without loss, and dismissed six of our opponents for 31 before stumps were drawn.

SCORES:

ST. BART.'S.		CLAYBURY.	
E. G. Dingley, b Price	16	Dr. Paine, c Owen, b Braun	2
J. B. MacFarland, c Smith, b Arnold	2	C. Skipwith, c Eberti, b Braun	11
R. H. Williams, b Price	0	F. E. King, c Eberti, b Juckes	18
A. E. Parkes, st Smith, b Price	6	Dr. Vivian, b Juckes	10
S. R. Prall, c Smith, b Price	9	W. Price, st Williams, b Braun	0
H. J. Bower, st Smith, b Price	20	J. Arnold, c Evans, b Juckes	0
T. Owen, b King	12	W. Chappell, b Braun	4
W. E. Eberti, not out	14	B. Edlin, c Bower, b Juckes	5
D. D. G. Evans, b Price	1	Dr. Guppy, b Owen	12
G. F. Juckes, c and b Price	0	A. Smith, b Juckes	21
L. Braun, c Chappell, b Arnold	4	Dr. Moody, not out	3
Extras	2	Extras	7
Total	86	Total	93

ST. BART.'s (2nd innings).—E. G. Dingley, not out, 55; J. B. MacFarland, not out, 36; Extras, 10; Total, 101 for o. Claybury: 31 for 6 wickets.

ST. BART.'s v. HAMPSTEAD NOMADS.

On Saturday, July 18th, the Hospital won the match by 3 wickets. Hampstead won the toss and elected to bat on a plumb wicket. Apparently they found runs hard to get, for they occupied three and a quarter hours in getting 166. Owen took 5 wickets for 61. The Hospital batsmen showed much more enterprise than their opponents, Williams batting particularly well for 69. Kirkpatrick appeared to be far and away Hampstead's best bowler, but for some reason he was not put on until the match was practically over.

SCORES:

HAMPSTEAD NOMADS.		St. BART.'s.	
L. G. Kirkpatrick, b Owen ...	3	E. G. Dingley, c and b Haywood ...	22
C. Browning, c Jukes, b Evans	32	J. B. MacFarland, b Boulby	7
R. A. Neame, b Braun	12	R. H. Williams, lbw., b Boulby	69
H. Browning, b Owen	5	W. F. Eberti, b Boulby	8
L. D. Matthews, c Braun, b Owen	6	J. F. Haynes, c Boulby, b Haywood	0
H. E. Crawford, b Jukes	23	P. Owen, b Crawford	12
F. C. Boulby, c Eberti, b Braun	33	S. R. Prall, not out	24
A. G. Williams, not out	14	G. F. Jukes, b Boulby	16
E. Bloodworth, b Owen	4	D. W. G. Evans, not out	19
W. A. Hurst, c MacFarland, b Owen	3	L. Braun } did not bat.	
C. Haywood, b Braun	3	H. C. C. Joyce } bat.	
Extras	28	Extras	21
Total	166	Total (7 wkts.)	198

CORRESPONDENCE.

TRAINING OF MEDICAL STUDENTS.

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

SIR,—I write this in the hope that you will allow me to point out what I consider to be serious deficiencies in the training of medical students at most hospitals, including our own.

I am led to make this complaint because I fully realise that I myself am seriously handicapped as the result of these deficiencies. My chief "grouse" is that our training is not practical enough.

A large proportion of those who qualify are at the time of the final examination quite sound (on paper at least) on the differential diagnosis and classification of various obscure diseases of the central nervous system and other subjects of little practical importance.

What percentage, I wonder, could with confidence give an anæsthetic or tackle a common emergency operation such as a strangulated hernia?

I claim that every dresser should be allowed to do several operations for radical cure of hernia with the help of his surgeon. He would then feel more comfortable when called on to do his first operation in private practice for strangulated hernia.

A house-surgeon should, in my opinion, be allowed to do "on his own" at least one of all the common emergency operations, e.g. for strangulated hernia, appendicectomy, general peritonitis, amputation, acute mastoiditis, tracheotomy, and cystotomy.

Again, how many men on qualification are capable of doing such things as sharpening a knife, making and padding a splint, preparing a room for operation, sterilising ligatures, doing a lumbar puncture, and giving an anæsthetic?

I believe many could not with confidence stain and recognise the tubercle or diphtheria bacillus, differentiate the *B. typhosus* from the *B. coli*, or do an ordinary Gram's stain.

The ignorance of most men (including myself) of the rudiments of public health is appalling. I think many have very hazy ideas about the details of the treatment of venereal disease.

Every student should be taught some nursing, e.g. to make the bed of a patient unable to get up, to administer nasal feeds and enemata, and to prepare simple invalid dishes and foods. He should have more than a hazy idea of the diets suitable in various diseases and be taught little details of nursing, which make all the difference to the comfort of a patient.

The great majority of students are driven into general practice,

and many will find themselves without the help of a consultant or a convenient hospital.

I ask that their training should be practical and directed to turning them out not theorists with a smattering of every-day knowledge but capable tradesmen.

I am, sir, yours truly,
"IGNORAMUS."

HEALTH OFFICE,
MOMBASA, EAST AFRICA.
May 12th, 1914.

[The remarks of "Ignoramus" are with few exceptions not justified. If students do not learn many of the things mentioned it is their own fault; they are certainly taught to stain and recognise bacteria and to do most of the other things which "Ignoramus" says they do not do. In past years matters may have been different, but at the present time every opportunity is given to the student, though of course he can avoid a great deal of the work if he be so inclined.—EDITOR.]

NATIONAL HEALTH INSURANCE ACT.

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

DEAR SIR,—The *Western Daily Mercury*, (a Plymouth paper which has always taken an attitude hostile to doctors claims in the Insurance Act struggle) quoted your correspondent X's letter to show how grateful we should all be for the benefits showered on us by the Act.

Like "X" I live in a small town, with a wide-spread county practice round about. My figures for the first year of the working of the Act may be of interest when compared with his.

I took the trouble to go through my books for the year before the Act came into force, and found that all those persons who would eventually become insured were worth in that year £220, excluding bad debts, which did not amount to much. It is a common fallacy to suppose that insured persons are those who run up bad debts.

The fees to these people were from 2s. (ready money) and 2s. 6d. at the surgery, and visiting fees of 2s. 6d. to 7s. 6d. including medicine. The average fee would probably be about 3s. 6d., for about 1400 to 1500 attendances.

I only had about 100 contract patients at that time. The number of insured persons for whom I was paid on the first year was 669, of whom about three-sevenths got their medicine from the chemist and four-sevenths from me. A considerable number of the latter live up to six miles away from me.

For the first years' work I received about £260, and £13 for extra mileage. I entered 3260 attendances, and without doubt omitted to enter a good many besides.

Dividing £275 by 3260 gives a rate per attendance of 1s. 8d. to cover visits up to six miles away, and medicine to more than half the patients.

This 1s. 8d. covers clerical work, and signing of innumerable certificates.

The 669 patients had 666 separate illnesses between them, and averaged 4.8 attendances each.

But from my point of view, the greatest grievance is being tied down to definite surgery hours by contract. Formerly if I wished to take an afternoon or evening off when work was slack, for tennis or fishing, or what not, I could do so. Now I have to be in four nights a week from 6.30 to 7.30 and so lose most of the relaxation which made life tolerable.

To sum up: for an extra £50 a year, I put in nearly 2000 extra attendances, have signed innumerable certificates, kept cards and records posted up, have had much correspondence with Insurance Committees, etc., and have lost most of my spare time.

"X" is a lucky man.

I remain, yours truly,
M. R. T.

THE BOOKSHELF.

REVIEWS.

MANUAL OF ANATOMY. By A. M. BUCHANAN. 2nd edition. Baillière, Tindall and Cox, pp. 1559. Price 21s. net.

In this edition the author and publishers have retained the old nomenclature, and following so soon upon the adoption by many other publishers of the Basle terminology it is sufficient evidence of the demand which exists for books in the official nomenclature. The

publishers are in this respect to be congratulated upon holding out against the power of the American dollar, and in giving to English students what English students ask for. Not very many alterations have been made in this edition. But the subject of ossification of bones, which has been much modified lately, has been brought thoroughly up-to-date.

There are 629 illustrations (mostly coloured) and these are very clear and concise, since the author has not committed the frequent mistake of trying to depict too many details in one block. As most people are aware this anatomy deals with complete parts of the body in separate sections on the lines of Cunningham's practical anatomy. It is therefore an excellent book for reading in connection with practical work. The embryology of each organ is dealt with immediately after the anatomy of each organ has been set forth. This also is a convenient arrangement. The book is easy to read and we recommend it as one of the best text-books of anatomy which has been produced.

HINTS FOR RESIDENTS AND TRAVELLERS IN PERSIA. By A. R. NELIGAN. (John Bale, Sons & Danielsson.) Pp. 195. Price 5s. net.

It is somewhat difficult for one who has never resided in Persia to adequately review such a book as this. One cannot speak with any knowledge as to the accuracy or otherwise of the statements. From perusal, however, we judge that the author has accomplished well the

task he has set himself and we found the contents of this little volume very interesting. The author has gone into every variety of detail as to food, residence, clothing, sport, transport, money, and medicine chest. He also describes at some length various localities, their climatic advantages and disadvantages, together with the routes to be taken to reach such places and the expenses to be incurred in so doing. There seems to be only one railway in Persia and this but six miles long, from Tehran to the shrine of Shah Abdul Azim, so that the descriptions of roads and methods of travel are of great value to the intending traveller, as indeed we should judge the whole of this very complete little guide. Moreover, it may be read with much interest and enjoyment even by those who do not intend to travel in Persia.

X RAYS. By G. W. C. KAYE. Pp. 235. (Longmans Green & Co.) 5s. net.

The reader looking for a series of excellent X-ray photographs will be disappointed, for the book is not a "picture" book in that sense. He, however, who is looking for a text-book to study the subject generally, cannot do better than read this one. Illustrations, indeed, there are in plenty, but they are of apparatus, of optical figures, and of graphic curves. The book deals exhaustively with the theory of X rays from every point of view; though, perhaps, more attention might have been paid to methods of localising foreign bodies and fractures.

TIMES OF ATTENDANCE OF THE STAFF IN THE WARDS AND OUT-PATIENT DEPARTMENTS.

This Time-table will be Published Quarterly and also whenever there are any Important Alterations.

		Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Medical Wards	Sir WILMOT HERRINGHAM	—	1.30	—	1.30	1.30	—
	Dr. TOOTH	1.30	1.30	—	1.30	—	—
	Dr. GARROD	1.30	1.30	—	1.50	1.30	—
	Dr. CALVERT	1.30	1.30	—	1.30	1.30	—
	Dr. MORLEY FLETCHER	1.30	1.30	—	1.30	—	—
Medical Out-patients	Dr. H. S. HARTLEY	10	—	—	—	—	—
	Dr. LANGDON BROWN	—	10	—	—	10	—
	Dr. DRYSDALE	—	—	10	—	—	—
	Dr. HORDER	—	—	—	10	—	—
	Dr. THURSFIELD	—	—	—	—	—	10
Surgical Wards (<i>operating days in heavy type</i>)	Sir A. BOWLBY	1.30	—	1.30	—	1.30	—
	Mr. D'ARCY POWER	1.30	1.30	—	1.30	1.30	—
	Mr. WARING	1.30	1.30	1.30	1.30	—	—
	Mr. ECCLES	1.30	1.30	—	1.30	1.30	—
	Mr. BAILEY	1.30	1.30	1.30	1.30	—	—
Surgical Out-patients	Mr. RAWLING	10	—	—	—	—	—
	Mr. GASK	—	10	—	—	—	—
	Mr. BALL	—	—	10	—	—	10
	Mr. WILSON	—	—	—	10	—	—
	Mr. WATSON	—	—	—	—	10	—
Gynæcological Wards	Dr. GRIFFITH	2	—	2	—	2	—
Diseases of Children	Dr. THURSFIELD	1.30	—	—	—	—	—
	Dr. FLETCHER	—	—	1.30	—	—	—
Diseases of Women	Dr. BARRIS	9	—	—	1.30	—	—
	Dr. WILLIAMSON	—	1.30	—	—	—	9
Orthopædic Department	Mr. ELMSLIE	1.30	—	—	1.30	—	—
Diseases of the Throat and Nose	Mr. HARMER	1.30	—	—	1.30	—	—
	Mr. ROSE	—	9.30	—	—	9.30	—
Ophthalmic Department	Mr. SPICER	1.30	—	—	1.30	—	—
	Mr. JESSOP	—	1.30	—	—	1.30	—
Aural Department	Mr. WEST	1.30	—	—	1.30	—	—
	Mr. SCOTT	—	9	—	—	9	—
Diseases of the Skin	Dr. ADAMSON	—	9	9	—	9	—
	Mr. FAIRBANK	9	9	—	9	—	—
Dental Department	Mr. COLEMAN	—	—	9	—	9	9
	Mr. ACKLAND	—	10	—	—	—	—
	Dr. AUSTEN	—	—	—	—	10	—
Electrical Department	Dr. CUMBERBATCH	1.30	1.30	—	1.30	1.30	—
		(males)	(females and children)	—	(males)	(females and children)	—
Electrical Department Skiagrams	Dr. WALSHAM	9.30 and 1.30	9.30 and 1.30	—	9.30 and 1.30	9.30 and 1.30	—
	—	(females)	(males)	9.30	(males)	(females)	9.30
Exercises and Massage Department	—	1.30	1.30	1.30	2	1.30	—
	—	3 (males)	(females)	(females)	(males)	(females)	2.30 (males)

NOTICE.

THE WELLCOME HISTORICAL MEDICAL MUSEUM.

The Historical Medical Museum, which was founded by Mr. Henry S. Wellcome in connection with the Seventeenth International Congress of Medicine, was re-opened on May 28th as a permanent institution in London. It is now known as the "Wellcome Historical Medical Museum" and is open daily from 10 a.m. to 6 p.m., closing at 1 p.m. on Saturday; entrance 54A, Wigmore Street, Cavendish Square, W. Since closing last October the collections in the Museum have been considerably augmented and entirely rearranged. Many objects of importance and interest have been added, which it is hoped will increase the usefulness of the Museum to those interested in the history of medicine. Members of the medical and kindred professions are admitted on presenting their visiting cards. Tickets of admission may be obtained by others interested in the history of medicine on application to the curator, accompanied by an introduction from a registered medical practitioner. Ladies will be admitted *only* if accompanied by a qualified medical man.

EXAMINATIONS AND DEGREES.

UNIVERSITY OF CAMBRIDGE.

Second Examination, June, 1914.

Part I.—Human Anatomy and Physiology.—J. H. Le Brasseur.
Part II.—Pharmacology and General Pathology.—E. Donaldson,
F. G. Lescher, H. W. Scott, E. P. W. Wedd.

Third Examination.

Part I.—Surgery and Midwifery.—G. M. Cowper, F. G. Lescher,
R. W. Meller, A. B. Pavey-Smith, *J. W. Pigeon, *R. Stansfield,
C. R. A. Thacker.

* In Surgery only, having previously been approved in Midwifery and Diseases of Women.

Part II.—Medicine.—D. C. G. Ballingall, H. A. Bell, E. C. Bradford, E. L. Dobson, F. G. Lescher, R. W. Meller, A. B. Pavey-Smith, C. R. A. Thacker.

The following Degrees have been conferred :

July 15th, B.C.—J. W. Pigeon, C. R. A. Thacker.

UNIVERSITY OF OXFORD.

The following Degrees have been conferred :

July 11th, M.B.—E. E. Mather, C. W. B. Littlejohn, G. P. Selby.

NEW ADDRESSES.

ABRAHAMS, A., 36, Harley Street, W. Tel. 2150 Paddington, and 294, Fulham Palace Road, S.W. Tel. 1565 Hammersmith.

CLARKE, A. J. FAIRLIE, 11, Waterloo Crescent, Dover.

FAWKES, M., The White House, Midhurst, Sussex.

GIBSON, S. H., The Cottage, Kingsway, Gerrard's Cross.

HANBURY, R. J., Foxbury, Woldingham, Surrey.

JONES, E. R., B.M.S., Wathen, Thysville, Bas Congo.

MORETON, A. L., 39, Regents Park Road, N.W. Tel. 3451 Hampstead.

PALMER, C. SPENCER, Royal Torbay Yacht Club, Torquay, South Devon.

PRESTON, F. H., The Grove, Brill, Bucks.

PRINGLE, K. D., Chandkhira P.O., Sylhet District, Assam.

QUICK, H. E., 137, Walter Road, Swansea. Tel. 130 Docks (Swansea).

WILLIS-BUND, H., 461, Green Lanes, Harringay, N.

WILSON, C., Free Dispensary, Cape Town.

APPOINTMENTS.

BOSTOCK, A. H., M.R.C.S., L.R.C.P., appointed Surgeon to Royal West Sussex Hospital, Chichester.

OLIVER, M. W. B., M.B., B.C.(Cantab.), F.R.C.S., appointed Assistant Ophthalmic Surgeon to the Miller General Hospital.

WISE, K. S., M.B., B.S.(London), D.P.H., appointed Surgeon-General, British Guiana.

WILSON, A. C., M.R.C.S., L.R.C.P., appointed Medical Officer to the Free Dispensary, Cape Town.

ROYAL NAVAL MEDICAL SERVICE.

The following promotion has been notified since June 20th, 1914 : Surgeon G. M. Levick to be Staff-Surgeon, with seniority of November 21st, 1910.

INDIAN MEDICAL SERVICE.

Major J. M. Woolley's services are placed at the disposal of the Government of Bengal from November 26th, 1913.

Lieut.-Col. E. A. R. Newman has been granted six months' leave on medical certificate.

Capt. L. B. Scott proceeds to Shillong as civil surgeon.

Major R. F. Baird, civil surgeon, Gonda, has been granted leave for a total period of twelve months from April 1st, 1914.

Brevet-Col. B. G. Seton, V.H.S., is granted combined leave for nine months from March 1st, 1914.

BIRTHS.

ADAMS.—On June 28th, at Labuan, Straits Settlements, the wife of Dr. Wilmot Adams, of a daughter.

BAYNES.—On July 18th, at 27, Old Market, Wisbech, to Rosalind and Godwin Baynes, a daughter.

FINN.—On June 29th, at 137, Ebury Street, Eaton Square, S.W., the wife of Allen Finn, M.D., F.R.C.S., of a son.

LOCKWOOD.—On July 12th, at 19, Upper Berkeley Street, Portman Square, W., to Charles Barrett and Edie Lockwood, of a daughter ("Joy.")

MARSHALL.—On July 4th, At Old Court, Ealing, the wife of C. F. Marshall, M.D., F.R.C.S., of a son.

WILLIAMS.—On July 7th, at 102, Lansdowne Road, Clapham, the wife of Cyril Williams, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

PEARSON—STANLEY.—On July 1st, at the Parish Church, Edgbaston, by the Ven. the Archdeacon of Birmingham, Dudley Garcieres Pearson, M.B., M.R.C.S., L.R.C.P., of Leicester, the eldest son of Henry Garcieres Pearson, of "Spennithorne," Barrow-in-Furness, to Annie Gordon, eldest daughter of William Stamer Stanley, and granddaughter of the late Dr. William Stamer Stanley, of Orchard-stown House, Dublin.

WALKER—CHARDE.—On July 24th, 1914, at Christ Church, Woburn Square, London, W.C., by the Rev. C. C. Davis, M.A., Norman Hamilton Walker, M.D.(Lond.), D.P.H., fourth son of the late Walter Crellin Walker and Mrs. Walker, of Percy Lodge, Winchmore Hill, N., to Bessie (Bee), youngest daughter of the late Cornelius Charde and Mrs. Charde, of Cardiff.

ACKNOWLEDGMENTS.

Guy's Hospital Gazette, The Student, St. Mary's Hospital Gazette, British Journal of Nursing, New York State Journal of Medicine, The Eagle, L'Attualità Medica, Nursing Times, Annales de la Polyclinique Centrale, L'Echo Médical du Nord, Middlesex Hospital Journal, Magazine of the London (Royal Free Hospital) School of Medicine for Women, London Hospital Gazette, Clinical Excerpts, St. Thomas's Hospital Gazette, The Medical Review, The Hospital, The Shield.

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: 1436, Holborn.

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

St. Bartholomew's Hospital



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

JOURNAL.

VOL. XXI.—No. 12.]

SEPTEMBER 1ST, 1914.

[PRICE SIXPENCE.]

CALENDAR.

- Tues., Sept. 1.—Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
- Fri., „ 4.—Dr. Tooth and Mr. D'Arcy Power on duty.
- Tues., „ 8.—Dr. Garrod and Mr. Waring on duty.
- Fri., „ 11.—Dr. Calvert and Mr. McAdam Eccles on duty.
- Tues., „ 15.—Examination for Matriculation (London) begins.
Dr. Morley Fletcher and Mr. Bailey on duty.
- Fri., „ 18.—Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
- Tues., „ 22.—Dr. Tooth and Mr. D'Arcy Power on duty.
- Fri., „ 25.—Dr. Garrod and Mr. Waring on duty.
- Tues., „ 29.—Michaelmas Day.
First Examination Conjoint Board begins.
Dr. Calvert and Mr. McAdam Eccles on duty.
- Thurs., Oct. 1.—**Winter Session begins.**
Annual Dinner of Old Students.
Cambridge Michaelmas Term begins.
Examination for Part II of Second M.D. (Camb.), begins.
- Fri., „ 2.—Second Examination of the Conjoint Board begins.
Dr. Morley Fletcher and Mr. Bailey on duty.
- Mon., „ 5.—Examination for D.P.H. (Camb.), begins.
Second Examination of Society of Apothecaries begins.
- Tues., „ 6.—Final Examination Conjoint Board (Medicine) begins.
Sir Wilmot Herringham and Sir Anthony Bowlby on duty.
- Wed., „ 7.—First Examination of Society of Apothecaries begins.

EDITORIAL NOTES.

PARTY politics and civil strife, the failure of the conference at Buckingham Palace, a riot in Dublin—these were the dark clouds upon our horizon when last we went to press. Field hospitals were being equipped, men were volunteering—for service in Ulster.

Now all these things have merged, dissolved, and changed as the colours of a child's kaleidoscope, and the Great War

is upon us. Many of us have expected it for years, but, even so, it has come at a time and with a suddenness that we had never dreamed.

It behoves us now to *realise*.

With martial ardour we are offering our lives and services; every one is anxious to be at the front in this great crisis of the world. Even now we do not realise what all this means. It is necessary for us to remember that this is not a dream; that the world rolls on; that men and women are dying of vulgar diseases; that babies are entering upon their maelström careers in the East End and in Mayfair. If we all spring to attention and march to the rolling drums, who will be left to do the daily round, the necessary common task?

Let all be prepared; let all learn those things that may be necessary should they be called upon; but let a few remember that a man may do his duty by resisting the natural desire to enter the limelight with as much certainty as others may do it beneath the glare.

This is no time for heroics, but for commonsense. The noblest motto we can take as ours is that which the Black Prince assumed nearly six hundred years ago—*Ich dien*.

Service is required of us all, but the manner and place should be most carefully considered.

* * *

St. Bartholomew's Hospital has been mobilised; we are all attached to a Territorial base hospital, known as the First London (City of London) General Hospital. This has been evolved from St. Gabriel's Training College and from an adjoining County Council School opposite Myatt's Park, near the Camberwell New Road. Here it has been arranged to fit up 520 beds for the reception of the wounded and sick both from the standing army on foreign service and the territorials in this country. The hospital is to be worked by the staff of St. Bartholomew's Hospital and old Bart.'s men with Col. W. A. Atkinson, of the R.A.M.C., T.F., in command. All the members of the staff have officers' rank, with orderlies obtained from among the students and other sources. Some ninety nurses obtained from the past and

present Bart.'s staff under Miss Cox-Davis, Matron of the Royal Free Hospital, as the principal matron, are also attached to the institution.

* * *

The hospital is already equipped with the necessities, but there are still a large number of creature comforts needed which the Government do not supply. It is felt that many would willingly help by giving articles or by sending contributions for their purchase. The Women's Guild of St. Bartholomew's Hospital have very kindly undertaken the onus of obtaining these, and we call our readers' earnest attention to a special notice concerning this which follows immediately after the Editorial.

* * *

With regard to St. Bartholomew's Hospital, the Visiting Staff are still carrying on their duties as usual, with the exception that the Out-patient Special Departments have mostly cut down their days of attendance from four to two days a week. These are as follows, and will remain as such during the war :

- Diseases of the Eye, Monday and Friday.
- Diseases of the Ear, Monday and Friday.
- Diseases of the Throat and Nose, Tuesday and Thursday.
- Diseases of the Skin, Wednesday and Friday.
- Diseases of the Teeth, all weekdays.
- Diseases of Women, Monday and Thursday.
- Diseases of Children, Monday and Wednesday.
- Deformity Cases, Monday and Thursday.
- Electrical Department, Monday (males), Thursday (females and children).
- X-ray Department, Monday and Thursday.

* * *

The Governors have placed the East Wing of the Hospital (198 beds), staffed and maintained by the Hospital, at the service of the War Office. This offer has been gratefully accepted, and we expect the wing to be in use early in September. All the visiting medical and surgical staff belong to the Territorial Forces, and No. 1 General Hospital R.A.M.C. (T.F.) (520 beds) is staffed entirely by St. Bartholomew's men. Fifteen of the resident staff and 30 students, dressers, etc., have gone on active service, and a certain number of students have gone to No. 1 Base Hospital. The Hospital has undertaken to provide 28 sisters or nurses for the Admiralty and 30 for the War Office; 35 have already been drafted to various naval or military hospitals. Also some 30 members of the nursing staff belonging to the Territorials have been mobilised.

* * *

The Junior Staff has been greatly depleted owing to the fact that a large number of the men have gone on active service, either with the Navy or the Army. This has necessitated the rearrangement of the posts. There are still five Senior House Physicians and House Surgeons who carry on the work of the In-patient Department, but a new

post of receiving-room officers has been created for the treatment of the out-patients. Of these there are four in number, who are resident, instead of the usual ten non-resident men. Each of the Special Departments has a resident officer. Some difficulty has been met with in filling the posts, it having been necessary to obtain recruits from past residents and members of the Pathological, Physiological, and Anatomical Departments; they have been given special privileges.

Many old Bart.'s men have offered us their services, and we are extremely grateful to them. At the present time we are sufficiently equipped, but in case of necessity we shall avail ourselves of their offers, and should be glad to receive the names of others who are not helping the Services and who may wish to be of use. Especially may this be the case if the members of the Base Hospital have to go on foreign service, which they have been asked to volunteer for.

* * *

THE NEXT SESSION OF THE MEDICAL SCHOOL WILL COMMENCE, AS ALREADY STATED, ON OCTOBER 1ST.

THE SCHOOL WORK IS TO BE CARRIED ON AS USUAL WITH A FULL COMPLEMENT OF TEACHERS. AT THE PRESENT TIME SPECIAL CLASSES ARE BEING HELD IN ORDER TO ENABLE MEN TO GO UP FOR THEIR FINAL EXAMINATIONS IN SEPTEMBER AND OCTOBER, THE FORMER BEING A SPECIAL EXAMINATION ARRANGED BY THE ROYAL COLLEGES. THESE ARE VERY LARGELY ATTENDED, AND IT IS POSSIBLE THAT WE MAY HAVE FROM TWENTY TO THIRTY NEWLY QUALIFIED MEN TO HELP US. THE SPECIAL CLASSES IN CONNECTION WITH THE PRIMARY AND FINAL FELLOWSHIP WILL BE HELD AS ARRANGED, COMMENCING ON SEPTEMBER 8TH. NECESSITY HAS COMPELLED THE ABANDONMENT OF THE POST-GRADUATE COURSE FOR THIS YEAR.

* * *

With regard to the Students and qualified men about the Hospital, many of them have gone into the Navy as surgeons or dressers, and others into the Army in like positions.

Amongst the names that have come to us are the following.—*Into the Navy*: Messrs. G. W. Carte, R. St. L. Brockman, A. C. Roxburgh, W. A. Pocock, R. G. Lister, C. H. Savory, A. Gregson Williams, H. E. Griffiths, E. P. Hicks, W. H. Butcher, C. H. Gow, W. F. Eberli, N. A. Scott, T. C. Masson, O. B. Pratt, A. W. C. Lindsay, W. P. Yetts.

Into the Army, R.A.M.C., Regular Territorial Force, O.T.C., and Red Cross Society: Dr. A. E. Gow (Medical Registrar), Mr. J. E. H. Roberts (Surgical Registrar), Messrs. M. N. Perrin, T. H. Just, G. L. Keynes, H. Y. Mansfield, R. E. Barnsley, R. M. Vick, G. A. Smythe, R. Stansfeld, L. R. Shore, E. A. Brock, R. O. Ward (*H.A.C.*), L. Handy, J. Haynes, D. R. Reynolds, S. C. W. Iredale, W. L. Berry, H. Yorke, A. Pavey Smith, F. Crossman, R. R. Powell, E. S. Mawe, P. S. Clarke, F. D. Marsh, C. E. Kindersley, H. J. McCurrich, J. C. MacBryan, M. C.

Robertson, C. M. Billington, D. H. Derry, C. W. Bower, D. R. Thomas, G. Kinneir, B. Whitehead, A. Cloudesley Smith, E. A. Fiddian, S. G. Prall, C. S. Atkin, R. Ellis, L. F. Strugnell, E. S. Cuthbert, M. W. K. Bird, C. E. E. Herington, F. G. Chandler, G. D. Jameson, H. B. G. Russell, B. T. Lang, R. G. MacGregor, M. Donaldson, A. J. Waugh, A. Bell, C. W. B. Littlejohn, R. S. Scott, J. Dotto, R. Hodson, F. E. S. Willis, G. T. Loughborough, E. M. Woodman, F. T. Hill, A. F. S. Sladden, A. K. Armstrong, R. Brewitt-Taylor, R. M. Miller, P. W. James, W. S. Danks, F. H. Cleveland, F. H. Guppy, D'Arcy Power, jun., F. G. A. Smyth, K. L. Soltau, L. C. E. Murphy, E. C. Cunningham, G. Morgan, E. A. Heath, R. H. Clarke, L. W. Evans, H. M. Wharry, W. R. Wilson, S. R. Prall, P. E. Adams.

* * *

It cannot be often that the first places in the R.A.M.C. and I.M.S. examinations fall simultaneously to members of the same medical school, and we do not think that it has ever before been the lot of our own school to secure this double honour. It is, therefore, with the greatest felicity that we congratulate Mr. D. C. G. Ballingall on having obtained the first place in the R.A.M.C. Examination, and Mr. J. W. Pigeon on a similar success in the I.M.S. Examination.

* * *

Our heartiest congratulations are extended to Dr. Langdon Brown, who was appointed Examiner in Medicine at the recent examination at Cambridge.

* * *

We also warmly congratulate Dr. G. Graham, who has been appointed Casualty Physician to the Hospital.

* * *

Our heartiest congratulations are accorded to Dr. A. Abrahams and Dr. A. G. Evans, both of whom have been admitted Members of the Royal College of Physicians of London.

* * *

A considerable number of the nurses have also entered the Army Service, some of them having already gone abroad; others are at the Base Hospital. Here at our own Hospital some of the members of the Red Cross Society have been working in the wards in order to pick up information which may be useful to them. Many old Bart.'s nurses have come back to help carry on the ordinary work of the institution.

* * *

The Clinical Congress of Surgeons of North America was held in London during the week commencing July 27th, 1914.

During the week excursions were made by the members of the Congress to all the London hospitals. By means of an elaborate organisation it was arranged that a certain number of them should visit each hospital at one time, in this way avoiding overcrowding. Their chief object was to witness the operative technique of their English *confrères*. At this Hospital between sixty and seventy operations were

carried out by the surgeons and assistant surgeons, no selection of the cases being made, in order that our visitors might see how the ordinary work was carried out. About three hundred surgeons visited the Hospital. Evening sessions were held at the Hotel Cecil, papers being read by English, American and Continental surgeons. Many present and past Bart.'s men joined in the discussions.

The Congress appears to have been a great success, the efforts on the part of our surgeons to make it so being greatly appreciated.

* * *

Recently the editor has been on several occasions the recipient of postal orders and stamps in payment of subscriptions. Now the editor of the JOURNAL differs from the editor of a daily paper, in that he has many other duties to attend to beside those of an editorial nature. Much of his work is done in his own house, and oftentimes as he leaves the Hospital in the evening he hurriedly fetches the afternoon post, and, pushing the letters into his breast-pocket, makes a rapid bee-line for home, where these letters are then dealt with. It may be that this occurs on some occasion when he will not be attending at the Hospital on the following day. In this case it will be observed that a postal order runs some slight risk of being mislaid. Up to the present no loss has resulted, but we should like to call attention to the fact that there is a notice at the end of the JOURNAL giving full directions as to the sending of money. We should not have thought it worth while to mention this, were it not that recently this habit has been growing upon subscribers, and we cannot be responsible for any loss which might occur in the post or otherwise.

SPECIAL WAR NOTICE.

THE ST. BARTHOLOMEW'S HOSPITAL WOMEN'S GUILD.

The Guild has undertaken the work of supplying the necessary bedjackets, nightshirts, and other things for use in the Territorial Base Hospital, known as the First London (City of London) General Hospital, which is being administered by the Staff of St. Bartholomew's Hospital.

All who are willing to work are asked to communicate with Miss Gask at the Hospital.

The Guild also requires every sort of comfort for the wounded and sick, among which the following articles are specially required:

Bath-towels, bed-socks, ordinary socks, pocket handkerchiefs, down or soft cushions (with washing covers if possible), air-cushions and air-rings (size 22 ins. red rubber), rubber hot-water bottles, water-beds, felt slippers, scarlet blankets or Guard's rugs, folding deck or cane chairs, writing paper, envelopes, pens, pencils, ink, blotting paper, magazines and books, wall clocks, games (draughts, dominoes, patience cards, etc.), tins of meat extract (Bovril, Virol, etc.), cocoa, eating chocolate, toilet soap, small mirrors, brushes and combs, clothes brushes.

STAR

And for sick officers' quarters: Small trays and tray-cloths, soup bowls, small cruets, serviette rings, bedside carpets, bedside tables, bedrests, small clocks for separate rooms (the "Bee" Clock does excellently), hand-bells, ash-trays, flower-pots and plants, inkstands and blotters, linen pillow cases, beds, mattresses, bed-clothes.

Pillows are also wanted for 109 orderlies.

Clothing should be sent direct to Miss Gask at the Hospital.

All things other than clothes should be sent to Mrs. George Gask, at 41, Devonshire Place, W., who has kindly undertaken to receive them and send them on to the Base Hospital.

MONEY IS ALSO VERY MUCH NEEDED, AND IT IS HOPED THAT THOSE WHO CANNOT CONTRIBUTE IN KIND WILL FORWARD POSTAL ORDERS OR CHEQUES. These should be sent to Mrs. Jessop, 73, Harley Street, W.

With reference to clothing, there are two things which are specially required, viz., day-shirts and socks. In connection with the latter we may say that socks WITH HEELS are required. Many people seem to think that straight socks without heels are excellent, but experience shows that these are not so comfortable as, neither do they wear as well as, socks of an ordinary shape.

REMARKS ARISING OUT OF THE PRESENT CRISIS.

By SIR WILMOT HERRINGHAM, M.D., F.R.C.P., Lt.-Col.
R.A.M.C., T.F.

THE British Army is reckoned by Divisions. An Infantry Division consists of three brigades, each of four battalions, making roughly 12,000 men and certain additional units such as field artillery, howitzers, heavy artillery, engineers and mounted infantry, which enable it to be, so to speak, self-supporting. In addition it has its ammunition columns, its supply columns, and three Field Ambulances. If it marches along a single road it is fourteen miles long.

A Cavalry Division also consists of twelve cavalry regiments, but they are grouped three together, and therefore form four brigades. A cavalry regiment contains less than 600 men, and the four brigades together therefore number about 7,000 men. They too have artillery, horse artillery this time, engineers, transport and supply columns, and four cavalry field ambulances.

The provision for the sick and wounded is as follows: Each battalion of infantry, and each regiment of cavalry, has with it a regimental medical officer, who has under him a few R.A.M.C. orderlies for water duties and to look after his own medical stores, and a sanitary squad out of the ranks who dig latrines and do all the sanitary duties necessary in a camp. He sees his sick daily, and, if necessary, transfers them to the Field Ambulance.

When there is a fight he has regimental stretcher squads, which are usually formed out of the band. They collect

the wounded from the firing line as soon as they can reach them, apply the first field dressings that every soldier carries sewn in his tunic, and bring them to sheltered spots called regimental aid-posts. From that point the R.A.M.C. work begins.

It is the business of the bearer sub-divisions of the Field Ambulance to find the wounded at the aid-posts and in the field, and to bring them to the ambulance waggons. The waggons take them back to a place where they can be dressed more carefully, and can, if necessary, be operated upon. This, when improvised by a small detachment thrown forward, is called a dressing station, and, when the whole, or a large part, of the Field Ambulance moves up, a tent division camp. This latter is really a field hospital. It has a few tents for the worst cases, but most of its wounded are in bivouacs and shelters made with all sorts of rough materials. Under Col. James' direction we made this year in camp some first-rate shelters with straw, with hurdles, and with waterproof sheets.

From this hospital the sick and wounded are taken to the clearing hospital, which is either at or near the rail-head, and from the clearing hospital they are sent down in hospital trains to base hospitals on the coast, whence they are carried by hospital ships back to England.

What we have been doing in the O.T.C. has been the usual work of a Field Ambulance. Besides ordinary squad and company drill it is very important to learn how to carry wounded men properly, how to load the ambulance waggons with stretchers, how to improvise comfortable transport out of rough country waggons, and how to fit up cattle trucks for the same purpose. Besides that we learn how to dig latrines, refuse pits, urinals, and slop-sinks, all of them of the first importance for the health of a camp. We learn how to make a capital camp kitchen, and we cook quite well enough to please ourselves. Besides these practical matters we learn a good deal about army organisation, map reading, field sketching, and the reconnoitring of a piece of country for medical purposes.

People who have never seen it do not realise either how heavy a wounded man is to carry on a stretcher or how much room a stretcher takes up. It takes nearly an hour to carry a wounded man a mile. In a large ambulance waggon which has two tiers you can only put four stretchers. You must drive your waggons slowly because of the risk of injury to the patients.

If anyone will try and estimate the time mathematically he will be surprised to find how long it takes to carry, say, 300 wounded men back to the dressing station or tent division camp, which are most likely at least two miles from the field of action, and maybe a good deal more.

It is the object of the Field Ambulance to get its wounded back to the clearing hospital, and of the clearing hospital to get its wounded as fast as possible to the base hospital. This latter is the only large stationary establishment.

But in the war which is now breaking out I think the base hospitals on the French coast will themselves discharge as fast as they can to the base hospitals in England. Sea transport in decent weather does not injure wounded or give them as much pain as even railway transport, and I shall not be much surprised if, supposing we retain command of the sea, the real medical base is England, and especially London.

The weak point in the line from the front to the base is the clearing hospital. The Field Ambulance cannot send its waggons back. It must keep them up with the troops. Therefore the wounded must be fetched back by the clearing hospital. But this unit has no waggons of its own. It has either to use supply transport returning empty to refill, which will be both insufficient and exceedingly rough, or it has, through the Q.M.G., to obtain the carts and waggons of the country-side. I doubt if there will be sufficient of them, either.

At the present minute I am attached, as we all are at St. Bartholomew's, to a territorial base hospital, and I have been doing what little I could to help my C.O., Lieut.-Col. W. A. Atkinson, to organise it. It is in two buildings off the Camberwell New Road—a Training College (St. Gabriel's) and a County Council school.

A base hospital as organised for the Territorial Forces has three officers on the permanent staff—the C.O., the Registrar, and the Quartermaster—and thirty-two officers *à la suite*, who do the whole of the treatment. It has forty-three of other ranks on the permanent establishment, and enlists specially sixty-six privates when mobilised. It also has a nursing staff of ninety-one sisters and nurses. It holds 520 patients.

Of course a training college is not well adapted and a board school still less for such a purpose. We have had to make considerable structural changes, principally in the way of clearing away partitions so as to make large wards and of adding lavatories and washing-places. We have also had to put up wooden buildings in the school playground for the men's quarters and for a cookhouse. Lifts capable of taking a stretcher are to be made for each building. The authority to do these things is given us by the City Association, which is responsible for the 1st London Division, as County Associations are responsible for other parts of the Territorial Forces. The City Association and their Surveyor have acted with a promptitude which could not have been surpassed. The same should be said of the Education Committee of the L.C.C., which owns the schools, and of their Surveyor. It has been most interesting to see how the mass of regulations and red tape, which hampers the action of every corporate body (even of the University of London) in ordinary times, can be set aside in an emergency and the whole complicated machinery made to work as fast and as efficiently as a private business. It has been a revelation to me, for I have always thought representative institutions to be very inefficient. We opened our first ward on Monday, August 17th.

Our Hospital is the First London General Hospital, and is the Hospital for the First London Division. This, like other Divisions, has three Field Ambulances. Our first patients will be the sick of this division, and such injuries as are sure to occur in moving heavy waggons and stores. The number is expected to be about 3 per cent. of the troops. Probably as the military hospitals fill up we shall receive sick and wounded regulars sent back from the base hospitals over the Channel.

I suppose that none of us on the Hospital staff, when we volunteered in 1908, ever thought to see the First London (City of London) General Hospital a mobilised unit. And here we actually are.

Personally, I am most thankful that by holding a commission in the O.T.C. I have learned something of military organisation. Several of us, Lt.-Col. Bowlby, Major Tooth, Captain Williamson and Captain Langdon Brown, have already seen service. But I never have, and without the knowledge of the organisation which the O.T.C. gives, I should have felt very much at sea. As it is, I feel that I know at least some of the ropes, and I am sure that those who wish to be of use in this way cannot do better than pick up as much as they can of the subject. Major Tooth is arranging classes for that purpose.

But I should be doing very wrong if I left the impression that the only way to be of use is to volunteer for military service. The ordinary medical work of the country has to be carried on. We ourselves, the staff of the Hospital, shall be attending the wards at St. Bartholomew's as well as those of the First London. Most men cannot leave their regular practice, and are doing far the best for the country by sticking to it. Students who are near their qualification had much better get qualified as quick as they can, and volunteer afterwards. Those who have advanced less far in their studies should, in my opinion, go on with them unless some clear opportunity comes in their way. The needs of the country are what we are all thinking of, and I am sure that it is of the greatest importance first, that the civil hospital should not be hampered by lack of clerks and dressers, and, second, that the usual supply of medical men should not be diminished by students hastily rushing off, though with the best of motives, to other work.

OUR RETROSPECT.

EMPORA labuntur, et fugiunt fræno non remorante dies. It seems but a few weeks since we last published "Our Retrospect," yet were the months counted by the changes wrought how long would be the year now passed away.

Success has rewarded the efforts of many, death has cast her laurel guerdon upon the lives of not a few, yet amidst these changes how little change do we as individuals feel.

On the whole the work and progress of the Medical School must be regarded as satisfactory. True, the entry of full students last October fell to the lowest in recent years; two decades ago we could count upon double our present entries. But this same dearth of students is felt at all the medical schools and is not peculiar to St. Bartholomew's, and against the lack of numbers we must certainly place an increase in keenness and efficiency; from the standpoint of both appointments and examinations the past year has been crowned with successful achievement. Moreover, the dearth of entries into the medical profession during the past few years has so affected the position of doctors, that those now entering upon the career could scarcely do so under more auspicious conditions and with brighter prospects, in spite of the past and present, many and ominous, clouds upon the horizon.

We have sustained a very severe loss by the death of Mr. Bruce Clarke, whose brilliant career was drawn to its close on March 28th. He entered our Medical School in 1873 and witnessed all those surgical revolutions which have taken place during the last forty years. From 1889 to 1903 he held the Lectureship of Anatomy and then became Lecturer on Surgery. He was a past President of the West London Medico-Chirurgical Society, and had been an examiner both at Oxford and at the College of Surgeons, and in 1905 he was elected to the Council of the latter body. In 1902 he became Senior Surgeon at the Hospital, which position he resigned in 1912 owing to ill-health. Above all he was a thorough English gentleman of simple tastes and direct manner. As a surgeon he was bold and cool, as a friend he was beloved by all and will ever have a place of honour and affection in the memories of more than one generation of Bart.'s men.

We have also to record the death, on December 22nd, of Sir John James Trevor Lawrence, Bart., K.C.V.O., who had been one of our most active Treasurers. He was the son of Sir W. Lawrence, and after a career as a student at the Hospital some sixty years ago he passed into the medical service of the Indian Army, with which he served during the Mutiny. In 1863 he retired, and in 1876 succeeded his father as second baronet. He became a member of Parliament in 1875. He succeeded Sir Sidney Waterlow as Treasurer and through his twelve years of office accomplished much. In 1895 he was gazetted a Knight of Grace of the Order of the Hospital of St. John of Jerusalem, and in 1902 he was appointed a Knight Commander of the Victorian Order. Sir Trevor Lawrence was a generous broad-minded man, whose eighty-two years were filled to overflowing with arduous work, and his name will not be forgotten in the Hospital for which he did so much.

Another tender link with the past has been snapped by the death of the Rev. William Ostle, so long Vicar of St. Bartholomew-the-Less and Hospitalier. No man was more loyal to his Hospital and to the Medical School than was

he. Possessing the power of making and keeping friends, he took infinite pains to keep in touch not only with present, but past parishioners, and he will be missed by many who found comfort in his unobtrusive but genuine kindness.

Several changes have taken place in the departmental work of the Hospital. The Medical Out-patient Department has been completely rearranged. The Physicians in charge now attend at 10 a.m. daily instead of in the afternoons, and times of attendance in some of the special departments have been altered so that they may fit in with the new scheme. Dr. Hamill and Dr. Graham have been appointed Casualty Physicians to the Hospital.

In the Pathological Department (Surgical) Mr. R. M. Vick has been appointed Demonstrator, and Mr. K. J. A. Davis has been appointed Junior Demonstrator.

In the Throat Department Mr. H. D. Gillies has been appointed Chief Assistant.

Messrs. Boyle and Trewby having served for some years as Assistant Anæsthetists have become full Anæsthetists to the Hospital.

Many appointments which reflect credit upon our School have been made in other hospitals and schools. Mr. M. L. Hepburn has been appointed Ophthalmic Surgeon to the Royal Free Hospital; Mr. R. M. Vick to be Assistant Surgeon to the Metropolitan Hospital; Mr. H. D. Gillies to be Aural Surgeon to the Alexandra Hospital for Children; Mr. M. W. B. Oliver to be Assistant Surgeon at the Central London Ophthalmic Hospital; Mr. H. P. Gibb to be Assistant Ophthalmic Surgeon to the West London Hospital; and Mr. Foster Moore to be Assistant Surgeon at the Royal London Ophthalmic Hospital.

Dr. F. G. Chandler has been appointed Medical Registrar at the London Hospital. Dr. A. Feiling and Dr. Hamill have been appointed Assistant Physicians at the Metropolitan Hospital. Dr. G. Graham has been appointed Assistant Physician to the East London Hospital; Mr. H. L. Whale to be Surgeon for Diseases of the Throat and Nose at the Hampstead General Hospital, and Dr. B. Myers to be Honorary Out-patient Physician to the Royal Waterloo Hospital.

Other appointments include those of Mr. C. R. A. Thacker as Director of Medical and Biological Studies at Sidney Sussex College, Cambridge; Mr. A. G. R. Foulerton as a Lecturer in the Public Health Department of University College, London; and Dr. G. Hadfield as Assistant Pathologist to the Dreadnought Hospital, Greenwich.

Among the distinctions gained by past students we must mention the prize of £250 presented by the Local Government Board to Dr. C. H. Roberts for his success as Public Vaccinator to Queen Charlotte's Hospital. Mr. Roberts has also been elected an Examiner in Midwifery and Gynæcology to the Conjoint Examining Board. Acting-Surgeon T. E. Wright, R.N., has been awarded one of the prizes at Haslar and has received special commendation.

SUPPLEMENT TO

St. Bartholomew's Hospital Journal,

SEPTEMBER, 1914.

HOSPITAL AND TEACHING APPOINTMENTS HELD BY PAST STUDENTS OF THE HOSPITAL.

ERRORS AND OMISSIONS FROM LIST ISSUED IN MAY, 1914.

ERRORS.

<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
LONDON GENERAL HOSPITALS.		West London Post-Graduate College (West Lond. Hospital).	P. Dunn is Consulting Surgeon for Diseases of the eye.	PROVINCIAL HOSPITALS.	
Middlesex Hospital.	{ H. Martin Gray is no longer Assistant in the Electro-therapeutic Department.	Hampstead General and N.W. London Hospital.	{ M. L. Hepburn is no longer Ophthalmic Surgeon to Out-Patients.	Whitehaven and West Cumberland Infirmary, Cumberland.	{ W. l'Anson is no longer Visiting Surgeon.
London School of Med. for Women (Royal Free Hospital).	{ T. P. Legg has resigned the post of Surgeon. H. Work Dodd is Consulting Ophthalmic Surgeon.	Metropolitan Hosp.	{ C. Gordon Watson is Consulting Surgeon. H. Thursfield is no longer Physician.	Paignton Cottage Hospital and Provident Dispensary.	{ B. J. Collyer is deceased. G. C. E. Simpson is no longer Surgeon and Registrar.
North-East London Post-Grad. College (Prince of Wales General Hospital), Tottenham.	{ H. W. Carson is Surgeon, not Consulting Surgeon.	LONDON SPECIAL HOSPITALS.		Liverpool Royal Southern Hosp.	{ T. C. Litler Jones is Surgeon, not Assistant Surgeon.
		Queen's Hospital for Children, Hackney Road.	{ A. W. G. Woodforde is no longer Pathologist.	Liverpool Royal Infirmary.	{ G. C. E. Simpson is no longer Asst. Surg. for children.
				Liverpool Infirmary for children.	{ J. S. Chater is no longer Med. Off.
				Lincoln General Dispensary.	{ C. Christopherson is Surgeon, not Assistant Physician.
				East Sussex Hosp., Hastings.	{ A. S. Wilson is no longer Physician.

OMISSIONS.

<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>	<i>Hospital.</i>	<i>Name and Post.</i>
LONDON GENERAL HOSPITALS.				PROVINCIAL HOSPITALS.	
West London Post-Graduate College (West Lond. Hospital).	{ H. P. Gibb, Assistant Ophthalmic Surgeon.	St. Andrew's Hospital, Dollis Hill (continued).	{ R. M. Vick, Assistant Surgeon. J. A. Willett, Gynaecologist. E. W. Brewerton, Ophthalmic Surg. Sydney Scott, Surg. for Diseases of Throat and Ear. H. E. G. Boyle, Anæsthetist. J. F. Trewby, Assistant Anæsthetist. R. C. Ackland, Dental Surgeon. D. D. Pinnock, Resident Med. Officer.	Whitehaven and West Cumberland Infirmary, Cumberland.	{ Eldon Pratt, Hon. Surgeon.
Metropolitan Hosp.	{ P. Hamill, Assistant Physician.			Torquay : Western Hospital for Incipient Consumption.	{ F. G. Fenton, Hon. Laryngologist.
Miller General Hospital.	{ M. W. B. Oliver, Assistant Ophthalmic Surgeon.			Torquay : Torbay Hosp. Prov. Disp. and Eye Infirmary.	{ J. E. Payne, Surgeon. F. G. Fenton, Surgeon to Throat and Ear Department. J. F. Nall, Anæsthetist.
Norwood Cottage Hospital.	{ P. W. Leathart, Hon. Anæsthetist. H. A. Eccles, Hon. Medical Officer in Charge of X-ray Department.	LONDON SPECIAL HOSPITALS.		Beckenham Cottage Hospital.	{ F. C. Trapnell, Hon. Medical Officer.
St. Andrew's Hospital, Dollis Hill.	{ W. P. S. Branson, Physician. A. E. Gow, } Asst. P. Hamill, } Phys. C. Gordon } Watson, } Surgs. J. Cunning, }	Hospital for Diseases of the Throat, Golden Square.	{ C. A. Parker, Surgeon.	Liverpool : The Children's Rest.	{ G. C. E. Simpson, Hon. Cons. Surg.
		Margaret Street Hospital for Consumption and Diseases of the Chest.	{ W. W. Wells, Assistant Physician.	Lincoln County Hospital.	{ E. M. Symptom, Surgeon.
				Bath : Eastern Dispensary.	{ T. W. N. Dunn, Med. Officer.
				Longton Cottage Hospital.	{ A. H. John, Radiog.

Among the New Year Honours appear the names of Sir W. J. Collins, who was created a Knight Commander of the Victorian Order, and of Surgeon-General H. G. Hathaway, who was made a Commander of the Bath.

In the Birthday Honours the name of Dr. Herringham appeared as one of the new Knights. Sir Wilmot Herringham also has been re-elected Vice-Chancellor at the University of London for a third year of office, and he has been elected a Censor of the Royal College of Physicians.

At the election to the Council of the Royal College of Surgeons of England, Mr. McAdam Eccles was a successful candidate.

Among other distinctions awarded to St. Bartholomew's men is the appointment of Major E. A. Matthews, I.M.S., as Honorary Surgeon to the Viceroy of India; the election of Dr. Garrod to be Examiner in Medicine to the Conjoint Board; of Dr. Williamson to be Examiner in Midwifery and Gynæcology; and of Mr. Womack to be Examiner in Chemistry and Physics.

Another well-merited honour has fallen to the lot of Sir Anthony Bowlby, who has been elected as one of the Vice-Presidents of the Royal College of Surgeons. The latter have also conferred Hunterian Professorships upon Messrs. Rupert Farrant, Frederick Pybus, and Harry Blakeway.

During the year we have maintained a high reputation at the various examinations. In both the Royal Army Medical Corps and the Indian Medical Service July examinations we have obtained the first place. We do not remember before ever having secured the two first places. Mr. D. C. G. Ballingall was first in the R.A.M.C., and Mr. J. W. Pigeon secured a similar position in the I.M.S. Messrs. L. R. Shore, G. P. Selby, E. A. Brock, and S. M. Hattersley all secured honourable positions in the R.A.M.C., while Messrs. A. C. L. O'S. Bilderbeck and B. C. Roy were successful in the I.M.S. examination.

At the University of Oxford two have taken the degree of M.D. and five the degrees of M.B., Ch.B. At the University of Cambridge six have taken the M.D., two (Mr. K. J. A. Davis and Mr. R. M. Vick) have taken the M.C., five have taken the D.P.H., and one the Sc.D., while twenty have passed their examination for the M.B., B.C. At the University of London Mr. C. Hadfield took the M.D., obtaining the University medal; ten have passed the examination for M.B., B.S. and one the examination for B.Sc.; ten have passed the first examination for medical degrees; while eight have passed the second examination Part I and ten the second examination Part II.

At the Royal College of Surgeons of England eleven students have passed the Primary examination for the Fellowship in the past year, and twenty-six who have received their education wholly or in part at St. Bartholomew's have passed the Final examination for the Fellowship. At the Royal College of Physicians of London six have obtained the M.R.C.P., one has obtained the F.R.C.P., and

two have obtained the D.P.H. Fifty-eight students have obtained the diplomas of M.R.C.S., L.R.C.P.

Of other examinations the following have been passed by students of the Hospital; L.S.A., six; D.T.M., Liverpool, two; D.T.M., London, three; M.R.C.P., Edinburgh, one; F.R.C.P., Edinburgh, one; M.D., Durham, one; M.B., B.S., Durham, two.

The Scholarships and Prizes of the Medical School have been well contested as usual and the following is a list of winners of these during the year 1913-1914:

Lawrence Scholarship.—A. G. Evans.

Luther Holden Scholarship.—F. H. Robbins.

Brackenbury Medical Scholarship.—C. R. A. Thacker.

Brackenbury Surgical Scholarship.—F. W. Watkyn-Thomas.

Prox. acc.—C. W. B. Littlejohn.

Matthews Duncan Prize.—G. F. P. Gibbons, C. R. A. Thacker (æq.).

Senior Scholarship in Anatomy, Physiology, and Chemistry.—H. M. C. Macaulay.

Senior Entrance Scholarships in Science.—G. K. Bowes, R. A. Mansell.

Junior Entrance Scholarship in Science.—J. P. Ross.

Entrance Scholarships in Arts.—L. D. Porteous, J. Dick (æq.).

Jeaffreson Exhibition.—R. J. Perkins.

Shuter Scholarship.—F. H. Young.

Kirkes Scholarship and Gold Medal.—C. R. A. Thacker.

Willett Medal.—C. W. B. Littlejohn.

Walsham Prize.—F. W. Watkyn-Thomas.

Bentley Prize.—R. G. Morgan.

Hickens Prize.—C. C. Okell.

Wix Prize.—C. C. Okell.

Harvey Prize.—A. Morford.

Sir George Burrows Prize.—D. W. D. Wooderson.

Skynter Prize.—C. R. A. Thacker.

Practical Anatomy, Junior—Treasurer's Prize.—(1) J. P. Ross; (2) E. M. Atkinson; (3) J. E. A. Boucaud; (4) I. Braun, F. E. G. Watson (æq.).

Practical Anatomy, Senior—Foster Prize.—(1) J. B. Hume; (2) R. C. Davenport; (3) A. Morford; (4) D. S. Pracy; (5) R. Fortier.

Junior Scholarships in Anatomy and Physiology.—(1) J. P. Ross; (2) E. M. Atkinson, E. H. Glenny (æq.).

Junior Scholarships in Biology, Chemistry and Physics (1913).—Not awarded.

THE WORK OF THE UNIVERSITY OF LONDON OFFICERS' TRAINING CORPS (MEDICAL UNIT).

"A" SECTION.



HE Officers' Training Corps is purely educational. It has for its object the supply of officers to all branches of military service. There exists no other institution for the preliminary military training of medical officers.

The "Medical Unit" of the Corps is organised on the basis of Field Ambulance, which is the most suitable tactical unit for the purposes of instruction, both at Headquarters of Sections, and in the field, at Whitsuntide and Summer

Camps. In such a unit a cadet learns discipline, drill, field exercises, etc., and in fact the handling of bodies of men which every officer in the army must know.

It is the want of this knowledge which sharply distinguishes a civilian surgeon from a military medical officer, and it cannot be attained without time and trouble.

So at this present great emergency we find numbers of young men just qualified volunteering for foreign service whose value to their country would be doubled if they had joined the Corps even one year ago. Moreover, I am authorised to say, so much is the value of the training

will yet be raised, and for this the Medical Unit may hope to train medical officers.

At the present time students may be divided into two categories from the point of view of Service.

(1) Those who are not sufficiently advanced in their medical studies to be eligible as medical officers for one or more years.

Some of these are in the Corps now; those not in the Corps are urged to enrol.

Some have entered as privates R.A.M.C.—this course is not advised.



BIRD'S-EYE VIEW OF ENTRANCE IN WEST SMITHFIELD (SEE p. 198).

appreciated at the War Office, that precedence is given to any man applying for a commission who can give evidence that he has trained in the Medical Unit of the Corps, and further, it is not too much to say that this precedence will be to his advantage all through the period of his service.

The Medical Unit, from the formation of the contingent in 1909 to December, 1913, has supplied 14 officers R.A.M.C. regular army, 24 to the special reserve of officers, 9 to the Territorial R.A.M.C., a total of 47. But to these must be added those who have joined these branches during the present year, and a large number of cadets who possess Certificates A and B, all of whom, if qualified, will reap the advantages of the training. It is certain that large forces

(2) Those who are about to pass their final qualifying examination. For these classes, lectures, drills, and probably week-end field work in camp, are being organised to begin immediately after the examination.

"A" Section of the Medical Unit has its head-quarters at St. Bartholomew's Hospital. Its cadets are recruited from St. Bartholomew's, the London, King's College and Charing Cross Hospitals.

The officers are, Major H. H. Tooth, in command, Capt. Rutherford, London Hospital, Capt. H. K. Griffith, St. Bartholomew's Hospital.

Recruits are enrolled for two years by any of the above officers. Attendance at camp is compulsory for efficiency. No pecuniary liability is incurred unless cadets fail to

become efficient. All cadets must take Certificate A before the end of the second year, after which they can re-engage year by year with the object of taking Certificate B.

HOWARD H. TOOTH, Major U. of L.O.T.C.,
O.C. "A" Section.

COMMISSIONS IN THE R.A.M.C.

It is intended to hold a special course of military instruction, of about a month's duration, immediately after the September final examination, for men newly qualified or about to qualify, if a sufficient number wish to avail themselves of it.

Regular attendance is necessary, and a certificate of efficiency from the officer commanding, which will be accepted by the War Office *in lieu* of Certificates A and B during the present crisis, and carry with it the advantage of a regular O.T.C. training.

Details will be posted on the Screens in due course.

O.C. "A" Section U. of L.O.T.C.

REMINISCENCES OF A HOUSE-SURGEON IN AN INDIAN HOSPITAL.

DURING the period I was house-surgeon in Calcutta I came across some curious cases which might be of interest not on account of their clinical features but because of the surprises they gave us when we found out their nature.

In the land of stones and cataracts, a case of vesical calculus excites very little interest among the students and the medical staff. But the two cases I am describing below formed the topic of conversation for several days after they were operated on. It is also curious that the two cases were admitted into hospital within a fortnight of each other.

A young Indian woman was admitted into hospital with symptoms pointing to a stone in the bladder. She was kept in bed in the wards for about a week, during which time the bladder was attended to in the usual way prior to an operation. Under an anæsthetic, the urethra was dilated and the stone was explored with the finger. It was found to be elongated and soft, and was too large to be extracted as a whole through the dilated urethra. It was then crushed with a lithotrite and the fragments washed out, or brought out, with the finger. Among the *débris* collected was found a thin stick $1\frac{3}{4}$ in. long, wrapped round with linen and a piece of cotton thread, the whole about as thick as a couple of match-sticks put together side by side. Her history did not give us any hint of a foreign body having been introduced into the bladder. Subsequent inquiries made the patient reluctantly admit that she had used an "abortion stick" to procure abortion and that it had gone the "wrong way." It is not an

uncommon practice among a certain class of quacks to use an "abortion stick," which is simply a small, thin stick with linen wrapped round it and steeped with some indigenous abortifacients. In this case the stick had been introduced seven months before. The *débris* of the stone together with the curious nucleus around which the stone had formed weighed 1 oz. and 2 dr.

Another young Indian woman was admitted into hospital with similar symptoms, and after similar treatment she was found to have an elongated soft stone much larger than the first one, and we were all expecting another abortion stick forming the nucleus, but to our surprise it turned out to be a bone pen-holder.

I am now going to relate a case of a totally different nature. An old man, aged about 72 years, was admitted into hospital with symptoms of acute peritonitis. The history was that he was in the habit of frequently taking an enema with a syringe he had constructed himself. From his description we gathered that it was made of hollow bamboo about 12 inches long, tapered at the nozzle end and having a wooden piston. He had used this curious instrument for several years. About thirty-six hours previous to his admission into hospital he was using it when he fell, and on striking the ground the syringe was pushed up completely into the rectum, the piston handle only remaining outside. On pulling at the piston it came away, leaving the rest of the syringe inside. He tried to get at it with his fingers, but could not reach it.

On opening the abdomen the peritoneal cavity was found full of blood-stained semi-solid *feces*. On moving the small intestines to the right the bamboo syringe was found lying free in the peritoneal cavity between the spinal column and the descending colon. There was a large tear at the junction of the rectum and the pelvic colon. The case ended fatally a few hours after the operation.

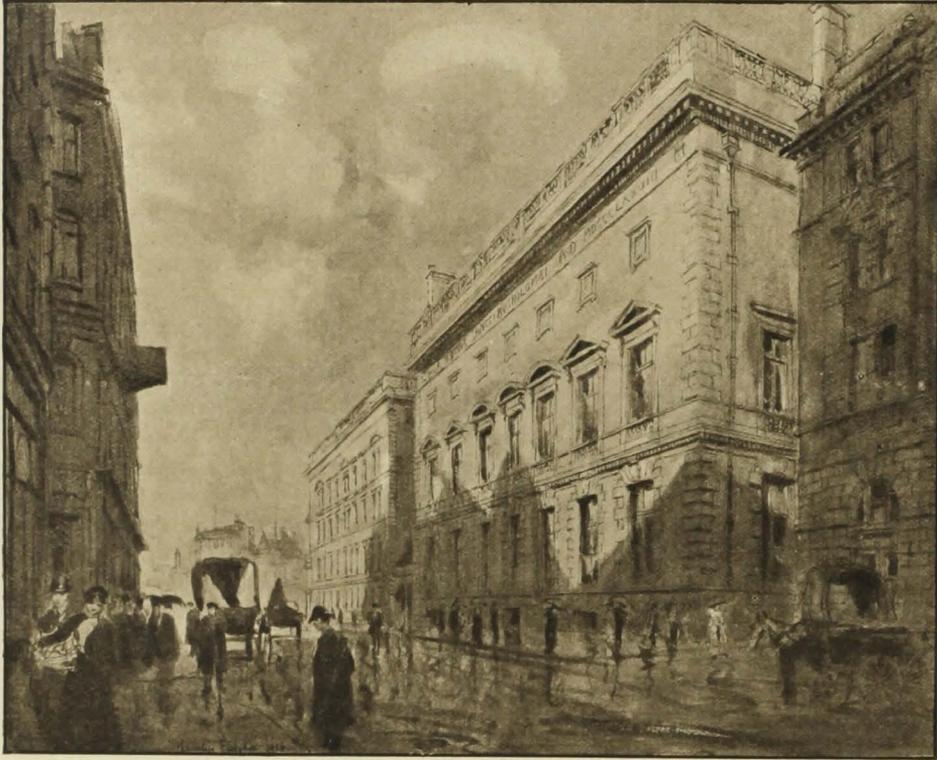
One of the most perfect results in eye surgery happened while I was attached to a mofussil (country) hospital. My chief had newly arrived at the station and was very keen on getting some eye surgery. Accordingly I informed him one morning that I had a case of cataract of the left eye for him. He was very pleased, and told me that he would try Smith's intra-capsular extraction on that case. After the usual preparation he made a fairly large incision into the cornea, but on withdrawing the knife he hurt the patient by grazing it on the eyelid, and from that moment the patient became restless. He could not keep his eye still. My chief lost his temper and slapped him gently on the temple, asking him to keep his eye still. The patient had the speculum *in situ*, and he winked when he was slapped. To my great horror I saw the lens being squeezed out by his winking efforts, and I was fully expecting the vitreous to follow it in its wake when the speculum slipped out and the patient closed his eye. Both of us were very silent, and after a few minutes, when the eyelids were separated, our horror

changed into astonishment when we found that there was a perfect result staring at us. Needless to say that we maintained perfect silence over that operation.

I will end by relating my experience on two occasions during my house-surgeonship which I should not care to be repeated. One fine morning we were operating on a case of inguinal hernia when a great shock of earthquake passed over the city. There was an ominous crack heard somewhere about the theatre followed by a rattling of window-panes. There was a general stampede from the room, and the next thing I found was my chief looking

struggle outside. After the operation we heard the story of the struggle. It appeared that the father had returned and tried to force his way into the theatre. The sergeant of the hospital was informed and he tried to quiet the man, and then noticed that the man carried something heavy in his breast-pocket which looked suspiciously like a revolver. The man was overpowered and the revolver was taken from him. He was under the influence of alcohol, and repeatedly declared that he would shoot the surgeon if the boy did not come out alive from the operation theatre.

L. M. B.



MEDICAL SCHOOL BUILDINGS.

white but perfectly calm opposite me with the unconscious patient between us while the anæsthetist was trying to tell us that it was an earthquake. It was all over in a few seconds, but those seconds appeared very long.

On another occasion a Eurasian boy of 12 was brought in by his mother with symptoms pointing to acute obstruction of bowels. She was told about the gravity of the case and that an operation was urgently needed. She said she would consult with the father of the boy who was at his office. He arrived in a short time, and for some time would not agree to an operation. Eventually he gave in, and, saying he would return in a short time, left the hospital. We got the boy into the theatre and proceeded with the operation, and while nearing the end we heard a

A NEW SERIES OF DRAWINGS OF THE HOSPITAL.

A very fine series of drawings of the hospital—eight in all—has been produced by Mr. Hanslip Fletcher, who makes a speciality of this kind of work. Not only are these drawings most artistic in their conception and execution, but some of them are taken from points of view which though familiar in fact are novel in that they are unrealised by most of us. Three of these drawings we publish by permission of the publishers, and we have chosen these, not because they are the most beautiful, but because they are views less familiar to most of our readers than many which have from

time to time been reproduced in these columns. All the views possess considerable merit and the light and shade treatment is in some of them of exquisite delicacy. The following is the list of subjects: "King Henry VIII Gateway," "Quadrangle," "Staircase," "Fountain in Quadrangle," "Tomb of Rahere," "Church of St. Bartholomew the Less," "Medical School Buildings," "Bird's-eye View of Entrance in West Smithfield."

Reproductions of these in sepia, size 9" x 7", mounted on a white background, size 17" x 13", may be obtained from W. H. Benyon & Co., Cheltenham. Price: Signed Artist's proofs (limited to 300) 42s. the set.

X-RAYS.

By E. P. CUMBERBATCH, M.B., M.R.C.P.

(Continued from page 179).

T was mentioned in last month's Hospital Journal how Röntgen, studying the effect of electric discharges through partially exhausted glass vessels, on the search for "invisible rays" actually discovered rays which had the power to penetrate substances that were opaque to ordinary light. It was mentioned that when the air-pressure in such a tube fell to about $\frac{1}{40000}$ of an atmosphere streams of electrons (atoms of electricity separated from matter) left the cathode at right angles to its surface travelling with a velocity one-thirtieth to one-third that of light till they came in contact with the wall of the tube. They were then scattered in different directions without passing through the glass. The glass fluoresced with a light-green colour, and at the points of impact X-rays were generated and passed in all directions. A brief description was given of X-ray tubes, and the way in which the rays were generated when an electric current was passed through them.

The resistance of X-ray tubes is very high and the current that passes through them must be supplied at a very high voltage, e.g. 10,000 to 100,000 volts. Such a current may be taken from an influence machine, from an induction coil, or from a step-up transformer.

Influence machines (which are generally of the Wimshurst type) are seldom used in this country for generating X-rays.

Induction coils are very largely used. The modern coil has been greatly improved during recent years. Coils are now designed to give, not great length of spark, but the strongest possible current in the secondary winding so that a strong current can be sent through the X-ray tube. To make and break the primary current the vibrating hammer is little used and only on the smallest coils. In the form of current interrupter most generally used (the so-called

mercury break) a jet of mercury is pumped against metal vanes that revolve and come into momentary contact with the jet. As each vane makes contact with the jet the current passes through the primary circuit (the make-current), and when the jet passes between two successive vanes without making contact with either, the current through the primary circuit is interrupted (the break-current). Make and break-currents are induced in the secondary circuit. These flow in opposite directions. The make-current in the secondary is smaller than the break-current, and it is the object of the coil-designer to suppress it as much as possible. X-ray tubes are designed for the passage of the current in one direction only, and if any current passes in the reverse direction the tube is spoiled sooner or later. Some reverse current is always present and there are various devices for stopping its passage through the tube. The current that passes through the tube when an induction coil is used is intermittent, not continuous, and it should be made unidirectional.

In the step-up transformer, first introduced for X-ray work by Snook, of Philadelphia, an alternating current from the mains induces another alternating current at a suitably high voltage to overcome the resistance of the tube. This induced current, like the inducing current, alternates its direction, but the current that would pass through the tube in the wrong direction is suppressed completely. Transformers can send a very large current through the tube and there is no inverse current passes through it and no interrupter is required for the primary current. They are, however, more costly than induction coils, and are very noisy when working and take up much room.

The nature of X-rays.—It is now generally agreed that X-rays are ethereal vibrations like light rays. They travel with a velocity equal to that of light. They differ, however, from light-rays in that the waves are irregularly intermittent and their wave-length is shorter. The shortest waves that are capable of affecting the retina so as to produce an impression of light have a length of 3.6×10^{-5} cm. These waves produce the visual impression of violet. Waves shorter than this do not stimulate the retina and produce no impression of light or colour. The ultra-violet rays have a wave-length of 10^{-5} cm. The wave-length of X-rays is still shorter, about 10^{-8} cm. Some X-rays, however, have a wave-length that is longer than 10^{-8} cm., in fact, slightly shorter than the ultra-violet rays. Others have a wave-length shorter than 10^{-8} cm. The gamma rays of radium, which are X-rays of a considerable higher penetrating power than those produced by the ordinary X-ray tube, have a wave-length that is still shorter, but it has not yet been determined (? 10^{-9} cm.).

It is interesting to note that the different ethereal (electromagnetic) waves have widely different wave-lengths. Those discovered by Hertz and used in wireless telegraphy have an immensely longer wave, some being more than 9 miles long.

The shortest Hertzian waves are 0.4 cm. long. The infra-red or heat-rays have a wave-length of $\frac{1}{10}$ mm. Next come the light-rays of the visible spectrum, and these have a very much shorter wave-length. Next come the ultra-violet rays, then the X-rays, and finally the gamma-rays of radium which have the shortest wave-length of all. These rays have a wave-length that is a thousand million million times shorter than the longest Hertzian waves.

The properties of X-rays.—X-rays possess physical and chemical properties, and can bring about physiological and pathological changes in the living tissues.

have a very feeble penetrating power, and if the hand is placed in the path of such rays a shadow almost equally dark all over would be cast. Such rays would be useless for diagnostic purposes. At the other end of the scale the X-rays have a great penetrating power, and the hand would cast a very light shadow, both of bones and soft tissues, and many details of the shadow would be lost. The shorter the wave-lengths of the rays the greater their penetrating power.

The penetrability of a substance to the X-rays is determined by its atomic weight. Carbon and aluminium with



THE CHURCH OF ST. BARTHOLOMEW THE LESS (SEE p. 198).

The most important physical property is the power to penetrate and pass through substances that are opaque to light. In order that this property may be rendered visible to the eye (the X-rays themselves produce no impression of light on the retina) it is necessary to receive the rays on a screen coated with barium platino-cyanide. This substance fluoresces with a bright green colour when the rays fall upon it. If, now, an object be interposed between the X-ray tube and the screen it will cast its shadow on the latter. The darkness or lightness of the shadow depends upon (1) the penetrating powers of the X-rays; (2) the penetrability of the object; (3) the thickness and density of the object.

X-rays vary greatly in their penetrating power. Some

atomic weights of 12 and 27 respectively are transparent and would cast scarcely visible shadows on the screen except with rays of very low penetrating power. On the other hand, lead, with an atomic weight of 207, would be impenetrable to all but the most penetrating rays and would cast a very dark or quite black shadow. If the substance is a compound and not an element its penetrability is determined by the penetrability of the component elements. Thus, lead nitrate is much less penetrable than aluminium nitrate. Bismuth oxychloride is impenetrable to all rays which have not a high penetrating power but would be more penetrable than the same weight of pure bismuth. Liquor bismuth and lead silicate (lead glass) are transparent to light but opaque to X-rays.

The thickness of the substance also influences the depth of the shadow which it casts on the screen ; thus a plate of aluminium one millimetre thick would cause a scarcely visible shadow ; if it were one centimetre thick, a distinct shadow would be cast. A strongly compressed powder would cause a more perceptible shadow than an equal thickness of the same substance not compressed.

Of the *chemical* properties of X-rays two are of importance for medical purposes. One of these is the power to change silver chloride or bromide like light rays so that it can be converted into silver by suitable reducing agents or "developers." The X-rays, however, produce the change much more slowly than light rays. By reason of their action on photographic plates it is possible to obtain pictures of the shadows cast by an object when placed in the path of the X-rays. These shadow pictures are known as "skiagrams." A second chemical property of importance is the power to change the colour of barium platino-cyanide (light green) to yellow and then to deep orange. This change is believed to be due to dehydration. The colour is restored, nearly, but not completely, by exposure to daylight. X-rays can liberate iodine from iodoform dissolved in chloroform, and can precipitate mercurous chloride from a solution of mercuric chloride containing ammonium oxalate in solution.

The physiological and pathological properties of X-rays will be considered when reference is made to their therapeutic uses.

The measurement of X-rays.—It is possible to measure the penetrating power and the intensity of X-rays. Such measurements are comparative and in relation to different standards. For medical purposes the penetrating power is measured by the thickness of aluminium which they can penetrate to the same degree as a thin disc or plate of silver. The shadows cast on a fluorescent screen by different thicknesses of aluminium are compared with that cast by the silver. Silver is equally permeable to all X-rays produced by the ordinary tube, and the penetrating power of the X-rays is measured by the thickness of the aluminium that casts a shadow of equal intensity to that cast by the silver. The *intensity* of any beam of X-rays is measured usually by chemical methods. The time taken to change the colour of a barium platino-cyanide pastille to a fixed tint gives a comparative measure of the intensity. This method is the one most commonly used but it gives only an approximate measure.

Secondary rays.—When X-rays come in contact with a substance they are not simply absorbed or transmitted according to its penetrability but, in addition, *secondary rays* are given off. Of these, some are scattered incident rays. Others are new X-rays and their character is determined by chemical nature of the atoms of which the substance is composed, and is invariable for the same atoms. The third variety of secondary rays are not X-rays

but electrons. The proportion of these three varieties depends upon the substance exposed to the incident rays and the quality of the latter. Most of the secondary rays are simply scattered if the substance is composed of elements of low atomic weight. Elements of the zinc-chromium group give rise to a secondary radiation of which the larger proportion is characteristic of these elements. Elements of high atomic weight give off both scattered and characteristic secondary rays. Secondary rays have to be considered when making skiagrams, and they probably play an important part in X-ray therapy.

(To be continued.)

NATIONAL RELIEF FUND.



Call attention to this Fund in the hopes that someone who has not already contributed may be induced to do so. It is officially stated that the wives and families of Territorials as well as those of soldiers and sailors will be assisted on the scales authorised by the Soldiers' and Sailors' Families Association :



I enclose £ : s. d. toward the Prince of Wales'

NATIONAL RELIEF FUND.

Name.....

Address.....

.....

This coupon should be filled in, and the envelope, which need not be stamped, addressed to H.R.H. The Prince of Wales, Buckingham Palace, London.

NOTICE.

UNIVERSITY OF LONDON.



THE Vice-Chancellor of the University wishes to ascertain which of our students who are not members of the O.T.C. (the services of cadets being required elsewhere), would be willing to act as Special Constables in the event of a force being formed to insure the quiet and safety of London. Those enrolled would be asked to serve in plain clothes for four hours a day and to give their services without pay.

If you are willing to assist in the way mentioned, kindly give your name to the Warden of the Hospital.

CORRESPONDENCE.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.
To the Editor of 'St. Bartholomew's Hospital Journal.'

Sir,—An erroneous report being current in some quarters, I, as representing St. Bartholomew's Hospital Medical School, should be very much obliged to you if you would give me an opportunity of stating in your columns that the Medical School will re-open on October 1st, as already announced.

The fact that the Staff of St. Bartholomew's forms the 1st London (City of London) Base Hospital, will in no way curtail their duties at St. Bartholomew's, nor the educational work of the School, and the new Medical Session will be carried on as usual with a full complement of teachers. All students in the School who have already volunteered for service or military training will have their interests safe-guarded.

I am, yours faithfully,
T. W. SHORE,
Dean of the Medical School.

August 26th, 1914.

MEDICAL PRACTICE IN EDMONTON (ALBERTA).

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

DEAR SIR,—The impression has been conveyed to the medical practitioners of Edmonton by my letter, "Notes on Medical Practice in Edmonton," in the May issue of your JOURNAL, that I regard the medical men here, as a body, commercially-minded and as stooping to practices contrary to the generally accepted understanding of medical ethics.

Such was not my intention and I regret sincerely having given that impression to anybody. My ideas, at the time of writing the letter, were to some extent immature and perhaps the busy atmosphere of the north-west, strange to me then, influenced my opinion of medical practice here and this was apparent in my letter.

Since writing that letter I have come into contact with the bulk of the medical practitioners and have found them strictly observant of medical ethics in the conduct of their practice.

I have many good friends amongst them and, as I said before, I do not regret having come to Edmonton to practice.

Yours truly,
A. M. BARROW.

July 13th, 1914.

THE HONORARY MEDICAL STAFF OF ST. ANDREW'S HOSPITAL, DOLLIS HILL, N.W.

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

SIR,—The word "public" in my first letter is a misprint for "politic," but I am glad to see that it has not been misunderstood.

Those of your readers who have had experience of private practice among the class of people to which the offer of the hospital would appeal, will be able to appreciate the difficulty (I trust I may be allowed to use that expression instead of "impossibility") of refusing to sign a certificate that the case is a suitable one for free medical attendance, the patient being asked and presumably able to pay two and a half guineas a week.

One is sometimes put in the position of having to choose between winking at hospital abuse and offending a patient, connected by relationship or friendship with many members of one's clientele, and although one cannot justify conniving at imposing upon the honorary staff of a hospital and its charitable supporters, it is not fair that the onus of ascertaining the financial suitability of the case should be thrown upon the general practitioner who has been in attendance. That should be decided either by the staff who are giving their services, and therefore in a position to take objection to the case, or by an almoner or official attached to the hospital which is receiving their money, or else, or as well as, by an inquiry of the general practitioner which should be confidential and private.

As for the "geographically" situated private rooms at six or eight guineas a week, it is interesting to find that there is no attempt made to defend the system. The comparison with St. Thomas's Home is not a correct one as the fees charged there are not such as to appeal to the same class of patient.

The special rooms at St. Andrew's are in fact a "close" nursing home for members of the staff of a recognised London hospital, and are debarred to the general practitioner, thereby raising a distinction between the general practitioner and the specialist, which is apt to

be construed by the public to the disadvantage of the former. This is but a part of the relation of the specialist to the general practitioner, in which direction I do not wish further to turn the discussion.

I believe I am expressing the opinion of the local profession when I say that we feel that the St. Andrew's Hospital and its honorary staff are in unfair competition with us and that our legitimate sphere of work is being encroached upon.

I am, Sir, Yours, etc.,
WILFRED N. SODEN.

NATIONAL RELIEF FUND.

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

DEAR SIR,—We regret to say that the Subscription Sub-Committee of the National Relief Fund has heard of a good many cases in which use has been made of its name, or of the names of those connected with it, with the object of securing support for appeals which are quite unauthorised.

We hope you will be so good as to permit the appearance of this letter, the object of which is to inform your readers that they may be assured that any extravagant or grotesque appeals emanate from persons who have neither the authorisation nor the support of this Committee.

Yours faithfully,
C. ARTHUR PEARSON,
HEDLEY F. LE BAS,
FREDERICK PONSONBY,
Joint Secretaries,
Subscription Sub-Committee,
National Relief Fund.

August 24th, 1914.

NEW APPLIANCES AND MEDICAL SUPPLIES.

"Business as usual" is a motto which we have noticed much of late. It may be difficult in many cases to act up to this maxim, but it will be of benefit to all to attempt to do so. In the medical world, no doubt, this difficulty will not be experienced, for, alas! war must give enormously increased work to both the medical man and the maker of medical supplies.

We think we shall be serving the interests of both readers and advertisers during the war, by calling attention from time to time to various classes of medical supplies of any striking note.

A PORTABLE OXYGEN GENERATOR has been invented by Messrs. Arnold and Sons, of Giltspur Street, London, E.C., which should make the use of oxygen easily available in many cases where otherwise the delay and difficulties of obtaining a supply has rendered its adoption impossible. The apparatus is small, being only 10 in. by 4½ in., and weighing 2½ lb. The oxygen is generated from material packed in cartridge form and compressed, and no chemicals or bottles of acid are needed. In these cartridges a hundred litres of oxygen may be carried in the pocket with no more trouble than an ordinary cigar case. The invention, which has been patented, strikes us as of great utility. Messrs. Arnold are also manufacturers of the new PHONOPHORE STETHOSCOPE, which is provided with two conducting tubes from the bell instead of one, as in the old form of that instrument. Its construction secures a considerably increased volume of sound, and the appliance has gained favour among those dissatisfied on general grounds with ordinary stethoscopes, or whose needs, owing to some lack of aural acuity, were not adequately met thereby.

Messrs. Leslie Miller, of 66, Hatton Garden, are specially to be commended for their X-RAY COILS. They have recently installed a new and powerful equipment in our X-ray department. It will take a radiograph in less than half the time hitherto necessary with any coil employed at the Hospital. In order to be able to vary the current sent through the X-ray tube between the wide limits found useful in general hospital practice, a mercury break has been employed, and the two appliances are believed to be the most powerful combination of coil and mercury break in the country.

The new upright screening appliance, for screening a patient when standing, for bismuth meals, etc., is of the very latest and most perfect design.

The Holborn Surgical Instrument Co., Ltd., of 26, Thavies Inn, Holborn Circus, E.C., claim our attention especially on account of their UNIVERSAL SALINE INFUSION APPARATUS, which is fitted in a vacuum flask. It is of simple construction, easily put together, and inexpensive. The solution remains hot in the vacuum flask for at least six hours. The amount infused is clearly shown by the water gauge and graduations at the side of the container. A uniform temperature can be maintained and the rate of flow controlled by means of the regulating taps.

In connection with this Company we may also mention GAUVAIN'S SYRINGE for emptying and injecting tubercular abscesses, and the HOLBORN SPUTUM BOTTLES, which are supplied in the regulation postal tins, and are very neatly made and compact.

Messrs. S. Maw, Son and Son, 7-12, Aldersgate Street, E.C., are official contractors to the Admiralty, War Office, and British Red Cross Society, and are naturally in a position to provide the most up to date appliances such as may be required in the present crisis. Medical men who are going to the front will find many things to interest them in their show-rooms. Their IMPROVED SALINE INFUSERS are also of the vacuum type, and therefore very suitable for use where the temperature requires to remain constant for a considerable period.

Messrs. Allen & Hanbury, Ltd., need but little testimony as to the purity and excellence of most of their products. There are, however, two substances to which they call our special attention—"BYNO CHRISMOL" and "BYNO LECITHIN." "Chrismol" itself is a mixture of some of the higher members of the paraffin series which have been highly purified, it acts simply as a lubricant of the intestinal mucosa, to this malt extract has been added to form the "BYNO CHRISMOL." The number of cases in which this combination is useful, is, of course, obvious to the medical man. It has been used with advantage in many cases in the place of malt extract and cod-liver oil, and it is extremely useful in cases of constipation, mucous colitis, etc., especially where such cases are attended with mal-

assimilation and dyspepsia. In convalescence from typhoid it should prove very useful we think. "BYNO LECITHIN" is similarly a mixture of lecithin with extract of malt, it also contains a standardised amount of cinchona and to each ounce nux vomica equal to one-fortieth of a grain of strychnine. It is recommended for use in patients suffering from malaria, and in those cases vaguely described as nervous exhaustion where phosphates and glycerophosphates have hitherto been used.

Messrs. Morison, of 47, South Molton Street, W., may be specially mentioned in connection with their ABDOMINAL BELTS. These belts are fitted with a metal rubber-lined pad, which holds the abdomen upwards and backwards. This pad fits between the iliac crests from side to side and between the umbilicus and pubic arch in depth. This is an excellent belt in that it adjusts itself regularly to the movements of the body, and does not ride up but maintains the position in which it was put on.

"RONUK" (manufactured by *Messrs. Ronuk, Ltd., of Portslade, Brighton, Sussex*) is a well-known floor polish, which will probably be in considerable demand during the present crisis, especially in extemporised base hospitals where wooden flooring may exist throughout. It is essentially a "Sanitary" polish composed largely of germicidal materials, without, however, the disagreeable smell which is often associated with disinfectants. It preserves the sanitary conditions of the floor and seals up "germ harbours," a most important factor in buildings whose floors have not been laid with a view to hospital use.

ADDRESSES FOR REFERENCE.

The following list of addresses will be useful to our readers. No attempt has been made to classify them, and only such institutions as have a defined and important purpose have been included:

Army Medical Service, Director-General, The War Office, London, S.W. (Surgeon-General A. T. Sloggett, Kt., C.B., C.M.G., K.H.S.).

Automobile Association, Farnham House, Whitcomb Street, London, W.

Belgian Relief Fund (cheques to the Belgian Minister), 15, West Halkin Street, Belgrave Square, London, S.W. (Clothing, etc., to Mr. Navaux, 8 Chiswell Street, Finsbury Pavement, London, E.C.)

British Fire Prevention Committee, 8, Waterloo Place, London, S.W.

British Red Cross Society, Devonshire House, Piccadilly, London, W.

Central Advisory Committee for the Prevention and Relief of Distress, Local Government Board Offices, London, S.W.

Corps of Veterans: Ex-service men are asked to send in their names to Major Arthur Haggard, 47, Bedford Row, London, W.

County of London Territorial Force Association, Duke of York's Headquarters, King's Road, Chelsea, London, S.W.

General Medical Council, 299, Oxford Street, London, W.

League of the Empire, 28, Buckingham Gate, London, S.W.

London Volunteer Defence Force, proposed.—Honorary Secretary, Percy A. Harris, Exhibition Buildings, Aldwych Site, Strand, London, W.C.

National Patriotic Association (Personal Service): Honorary Secretary, A. Lindsay Bell, 32, St. Paul's Churchyard, London, E.C.

National Relief Fund, Treasurer, H.R.H. The Prince of Wales, Buckingham Palace, London, S.W. (money only).

National Relief Fund, 3, Queen Anne's Gate, Westminster, S.W. (offers of help other than money).

Navy, Medical Department of the Director-General, Admiralty, London, S.W. (Surgeon-General Sir Arthur W. May, K.C.B.).

Ottoman Red Crescent Society, 35, Mildmay Chambers, Bishops-gate, London, E.C.

Queen Alexandra's Appeal for the Wives and Families of Soldiers and Sailors (Colonel Sir James Gildea), 23, Queen Anne's Gate, Westminster, S.W.

Queen Alexandra's Imperial Military Nursing Service. Address: The Secretary, The War Office, London, S.W.

Queen Alexandra's Military Hospital, Grosvenor Road, London, S.W.

Queen Mary's Needlework Guild: London Guilds should send their gifts to the Honorary Secretary, Friar's Court, St. James's Palace, S.W., marked Q.M.N.G. Local guilds should send to their local officers.

Recruiting for the regular army, Central Office, New Scotland Yard and Branch Offices.

Royal Army Medical College, Grosvenor Road, London, S.W.

Royal Patriotic Fund, 17, Waterloo Place, London, S.W.

Soldiers' and Sailors' Families' Association, 23, Queen Anne's Gate, S.W.: Assistance to families of soldiers and sailors.

Special Constables: Head Office, Scotland House, New Scotland Yard. Apply to your local police station.

EXAMINATIONS AND DEGREES.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A. Abrahams and A. Geoffrey Evans have been admitted Members.

CONJOINT BOARD EXAMINATIONS.

First Examination.

Chemistry.—Boucaud, M. V., Evans, T. G., Lopes, A. V.

Physics.—Boucaud, M. V., Evans, T. G., Lopes, A. V.

Elementary Biology.—MacBryan, J. C. W.

Practical Pharmacy.—Arthur, G. K., Amin, H., Boucaud, M. V., Collins, P. C., El Dardiri, M. A., Evans, T. G., Foster, A., Harger, F. E., Jolliffe, W. A., Lopes, A. V., Owen, T., Sandford, J. H. E., Wharry, H. M.

Second Examination.

Anatomy and Physiology.—Cobb, G. F., Cretin, J., Dunn, S. G., Moser, R., Samy, A. H.

Final Examination.

The following have completed the examinations for the Diplomas of M.R.C.S. and L.R.C.P.: Appleton, A. B., Bird, M. W. K., Chillingworth, A. J., Clegg, M. T. G., Dotto, J. B. G., Power, D'A., Rowcroft, G. F., Thomas, C. H., West, J. F., Williams, C. L., Wippell, W. P.

UNIVERSITY OF LONDON.

July, 1914.

First Examination for Medical Degrees.

Bell, H. S., Cowley, A. B., Dreiheller, G. W. R. W., Fairbairn, D. C., Jackson, M., *Perkins, R. J., Porteous, L. F., Sophianopoulos, G. J., Staunton, G. P.

* Awarded a mark of distinction in Inorganic Chemistry.

Second Examination for Medical Degrees.

Part I.—Bolton, A. O., Braun, I., Cameron, D., Churchill, H. J. C., Goument, L. C., Van Heerden, J. A.

Part II.—Banks, C. H. D., Bull, L. J. F., Clarke, P. S., Cook, P. N., Davenport, R. C., Hayson, N. N., *Morford, A., Cooke, G. F., Pidcock, B. H., Pridham, J. A.

* Distinguished in Physiology.

ROYAL ARMY MEDICAL CORPS.

D. C. G. Ballingall, G. P. Selby, E. A. P. Brock.

INDIAN MEDICAL SERVICE.

J. Walter Pigeon.

LONDON SCHOOL OF TROPICAL MEDICINE.

Lt.-Col. R. K. Mitter, I.M.S., has taken the Diploma of D.T.M.

NEW ADDRESSES.

ATAL, M. M. L., Male Lock Hospital, 91, Dean Street, W.

BURKE, G. T., c/o Messrs. Grindlay & Co., Bombay.

DONALDSON, E., West London Hospital, Hammersmith, W.

EDELSTEN, E. A., Dunsford, 79, Leigham Court Road, Streatham, S.W.

KERR, C. D., Wellington Mills, Dardarap, W. Australia.

MOORE, A. H., 2, London Road, Basingstoke, Hants.

SPEECHLY, A. J. L., Hutti Mine, Hutti P.O., Deccan, India, *via*

Raichur.

THOMPSON, J., Paignton.

WALKER, N. H., Town Hall, Durban, Natal.

WORTHINGTON, G. V., Mangalore, Spa Road, Llandrindod Wells (summer).

APPOINTMENTS.

ATAL, M. M. L., M.B., Ch.B. (Edin.), appointed House Surgeon, Male Lock Hospital, Dean Street, W.

DONALDSON, E., M.R.C.S., L.R.C.P., appointed House Physician, West London Hospital, Hammersmith.

KERR, C. D., M.B., B.S. (Lond.), appointed D.M.O., Dardarap, W. Australia.

R.A.M.C.

The following Captains to be Majors, June 1st: Arthur H. Hayes, Reginald Storrs, Raymond L. V. Foster, Frederick A. H. Clarke.

The following Lieutenants to be Captains: B. Biggar, E. G. S. Cane.

BIRTHS.

COLLINGRIDGE.—On July 31st, at "Goldwell," Goudhurst, Kent, the wife of W. R. Collingridge, M.R.C.S., of a son.

KERR.—At Donnybrook, W. Australia, on May 6th, 1914, the wife of (*née* Dearsley) C. Douglas Kerr, M.B., B.S. (Lond.), of a daughter.

LONG.—On July 14th, at Coimbatore, Southern India, the wife of Major W. Christopher Long, I.M.S., of a daughter.

MÁSINÁ.—On July 23rd, at Nepean Sea Road, Malabar Hill, Bombay, India, the wife of H. M. Másiná, F.R.C.S., of a daughter.

STANSFELD.—On Friday, July 24th, at 48, Bryanston Street, Portman Square, W., to Dr. and Mrs. A. E. Stansfeld, a daughter (Elizabeth Ellington).

MARRIAGES.

BOMFORD—GREEN.—On July 30th, at Colney Heath Church, Herts., Trevor Laurence Bomford, Capt. Indian Medical Service, M.B., eldest son of the Rev. Trevor Bomford, M.A., C.M.S. Peshawar, to Winifred Dora, elder daughter of Alfred Pierce Green, M.B., of Johannesburg, Transvaal.

OULTON—FLOWER.—On August 18th, at Holy Trinity Church, Brompton, S.W., Ernest Vivien Oulton, B.A., M.B., B.C. (Cantab.), son of the late William Oulton, Esq., LL.D., and of Mrs. Oulton, of Hillside, Gateacre, Liverpool, to Nellie M., daughter of Alfred and Mrs. Flower, of 41, Queen's Gate Gardens, S.W., and Mena Cottage, Bexhill.

PIRIE—COLLIE.—On August 15th, at Balnagarth, Pifodels, Aberdeen, by the Rev. Martin Lewis, D.D., assisted by the Rev. C. W. Hunter, M.A., and the Rev. James Wishart, D.D., William Rattray Pirie, M.B., C.M., M.A. (Aberdeen), to Ella Gordon, daughter of the late George Collie, Advocate in Aberdeen.

DEATH.

ROMINGTON.—On Wednesday, August 5th, 1914, after a few hours' illness, the result of a motor accident, Hugh Romington, L.M.S.S.A., at York Cottage Hospital, aged 28. Interred at Spilsby Cemetery August 7th.

ACKNOWLEDGMENTS.

New York State Journal of Medicine, St. Thomas's Hospital Gazette, British Journal of Nursing, The Hospital, The Nursing Times, The Medical Review.

NOTICE.

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

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