every action that takes place in the theatre, and this book shows how carefully-thought-out the authors' own aseptic ritual is.

The accounts of gowning and gloving are well done and well illustrated. The care of the patient is everywhere emphasised. The sections on sutures, needles, anaesthetic emergencies, economy and medico-legal aspects are excellent. Some material not strictly relevant, such as post-operative nursing, has been included, but may help to indicate to the theatre nurse her responsibilities to the patient. One principle for procuring economy must cause envy in theatre superintendents here; it is 'elimination of accident-prone personnel from this area'.

W. E. HECTOR.

THE POCKET PRESCRIBER & GUIDE TO PRESCRIPTION WRITING *by* Alistair G Cruikshank. Livingtone.

Concise, compact, and comprehensive. This book, now in its sixteenth edition, has 291 pages, several hundred prescriptions, and a hack on the shins for Professor Micks (Section 162). The list of synonyms combines entertainment with instruction, and such trusted remedies as 'Chelsea Pensioner" (rhubarb and sulphur), 'Imperial Drink' (lemonade) or 'Lenitive Electuary' (senna) may yet prove a match for the new endocrine Big Talk.

K.S.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LX **MAY 1956** **No. 5**

EDITORIAL

AS FROM the first day of this month, Mr. George Ellis becomes the Warden of the Medical College; he is seventeenth in a line of succession which began in 1843 with James Paget.

It was on June 1, 1842, that the medical officers of the Hospital wrote to the Treasurer and the Almoners urging 'that a collegiate establishment would render St. Bartholomew's Hospital a much more efficient institution for medical education, and would also be productive of great benefit to society at large'. The Treasurer and Almoners, we are told, took the greatest interest in the proposal and after consultation with Mr. Paget, 'a Gentleman whose long connections with the Medical School enabled him to furnish very important information', they recommended to the House Committee, 'that six houses in Duke Street should be appropriated to the purpose; and that they should be very neatly and plainly fitted up at the expense of the Hospital'. Duke Street is now part of Little Britain and these houses were behind the East Wing.

A Collegiate Committee was elected by the House Committee in January, 1843, and at their first meeting they resolved: that the building should be called St. Bartholomew's Hospital Collegiate Chambers; that an officer be appointed to take charge of the chambers and the diet, and that he be called the Manciple; and that a superior officer be appointed to have the general charge of the establishment, and that he be called the Warden.

On August 10, 1843, Mr. James Paget, who was described as 'a gentleman eminently qualified for the appointment', was elected the first Warden.

In some respects, college life in those early days differed from what it is today, for in one of their earliest reports the Collegiate Committee said that 'they have not considered it expedient to make daily attendance at the church imperative on the students, but they are gratified in being able to state that many of the pupils have been constant in their attendance.' But, although the nineteenth century student appears to have been a devout gentleman, there were times when his behaviour was not beyond reproach. In the 1860's, Dr. Andrews, who was then Warden, suggested that 'if the students had a pecuniary interest in the preservation of the furniture, it would strengthen the financial position of the establishment'.

As regards the benefit of living in college there appears to have been little change, for we read that 'at that period, and for about forty years later, most students attended as many operations as they could, and those in college had a special advantage as a box-carrier, or porter, used to shout "operation" up every staircase when such an event took place at night. There is, however, one great change; today, they are summoned by telephone.'

In 1923, the Collegiate Chambers were closed. Although there were no resident students to look after, the office of Warden was retained, the Warden being responsible for the general discipline of the students and the House Appointments.

When the building of College Hall was completed in 1952, the Warden, then Dr.

Scowen, returned to his original and proper function, and today the Warden is responsible for College Hall and the general discipline of the students. There is one other small duty which he performs. The Warden is Censor of the *Journal*, and every month, before it is printed, a copy of the page-proofs is submitted for approval. We feel sure, however, that this is more of a pleasure than an obligation.

View Day Ball

May we remind our readers that the View Day Ball is on Friday, May 18, at the Park Lane Hotel. There will be dancing to Tommy de Rosa's Band from 8.30 p.m. to 3 a.m.; Dinner will be served promptly at 9.15 p.m. and there will be a Cabaret. Double Ticket, including dinner, costs Three Guineas.

Fellow of the Royal Society

At the meeting of the Royal Society on March 15, Professor Arthur Wormall, D.Sc., F.R.I.C., Professor of Chemistry and Biochemistry in the Medical College, was one of the twenty-five new Fellows elected to the Society.

Prof. Wormall was appointed Demonstrator in Biochemistry at the University of Leeds in 1922 and Lecturer in 1926: he has been Professor of Biochemistry and Chemistry at Bart's since 1936. He was a Rockefeller Medical Fellow (U.S.A.) for the years 1921-29, and from 1930 to 1931 did some research work on sleeping sickness in Uganda. He is particularly distinguished for his researches in biochemistry and for his pioneer work in the development of the use of isotopes in immuno-chemistry.

Towards the end of last year Prof. Wormall was seriously ill. We now hear that he is making a good recovery, and we sincerely hope that he will soon be well enough to return to his work at Charterhouse Square.

We would like to congratulate him on his election.

The Inter-Firm Seven-a-sides

It was a cold, blustery day on Saturday, April 7, when the annual inter-firm seven-a-sides were played at Chislehurst. From the first, a certain boisterous unorthodoxy was seen in the play, as figures more familiar in the Abernethian Room than on the rugger field manfully fought the ill-effects of chain-smoking and lax-living.

When the semi-finalists had been decided, entertainment was provided by the staff match. The Registrars and Chief Assistants were a credit to their years playing against the youthful and more ebullient Housemen. The latter arrived by automobile, stylishly bedecked in purple hoods. Befitting the occasion Dr. Oswald, the referee, was sartorially impeccable in dark lounge suit and white handkerchief, easily the best dressed referee we have seen this season. Although unperturbed by unkindly drops of rain, he gracefully accepted an umbrella brought out by a well-wisher on the touch-line.

After this gruelling contest the semi-finals and finals were played. Presenting the Cup to the winners, *Specials 1*, Mr. Tallack, Captain of Rugger, thanked all the hardy and perhaps, in some cases, the foolhardy, contestants, as well as the gallant spectators. He apologized for the weather. Mr. Mac-

Dr. N. C. Oswald keeping an eye on proceedings during the Staff Match.

kenzie, the captain of the winning team, accepting the Cup, also apologized for the weather.

At the dance which followed the awkwardness of stiff limbs could be detected. This debility, however, did not affect the animation of the occasion, and the spirits of some tired, male, beer-drinking wall-flowers was markedly raised by the entrance of a bus-load of charming nurses.

The whole day was characterized by friendliness and 'good clean fun'.

Sailing Club Regatta

The Sailing Club Regatta this year will take place at Burnham-on-Crouch on Wednesday, Thursday and Friday, May 9, 10 and 11. The Club Dinner will be on the Friday.

The Secretary of the Club informs us that all members of the Staff and Student Body who are interested in Sailing will be very welcome, and he assures us that only the infirm will be allowed to stay on shore: it is one of the traditions of the Regatta to get everyone on the water.

We hope that the weather will be fine, that the necessary breeze will be blowing, and that the occasion will be well supported.

Wanted: Social Initiative

Too often, when sitting in the Refectory, one overhears students complaining about the infrequency of social activities at the Hospital, and comparing Bart's unfavourably in this respect with the other London Hospitals. Fellow students, i.e., anyone not sitting at the speaker's table, are condemned as lethargic, and the Committee of the Students' Union is painstakingly dissected and found wanting. These critics, and there are many, are evidently unaware that they are merely drawing attention to the fact that they themselves are incapable of accepting the small amount of responsibility required for the organization of the dance, or whatever it may be.

It is with pleasure, therefore, we record that a small group of Out-patient clerks and dressers, having discussed the state of affairs one afternoon, decided to remedy it themselves. Within a fortnight a dance was held in College Hall which proved so successful that the organizers were able to donate eighteen pounds to the British Student Tuberculosis Foundation.

View Day

It is not surprising that an institution as old as St. Bartholomew's Hospital should have traditions and peculiar customs. Today the Buck Feast and Surgical Consultations no longer take place, but View Day, a custom which has survived from pre-Reformation days, continues to flourish.

Early in its history it was held as nearly as possible to the feast of St. Patrick, March 17, and the day's activities evidently started rather early in the morning, for it is recorded that in 1586 the Governors were summoned for seven o'clock, and that they began with a short religious service in the church. Now, in what Sir D'Arcy Power described in 1923 as 'these more degenerate times', View Day is held on the second Wednesday in May, it begins at 2.30 p.m. and it is not preceded by a church service.

For those newcomers to the Hospital, and others who do not know what happens on View Day, we publish the following extract from *A Short History of St. Bartholomew's Hospital* by Sir D'Arcy Power.

> The treasurer and governors with the clerk, matron, and steward, meet together and form a procession, preceded by the head porter carrying his staff of office which bears a figure of St. Bartholomew modelled in silver. Every part of the Hospital is inspected, the head of each department being present with his assistants. As the door of each ward is thrown open the head porter announces in a loud voice 'The Treasurer and Governors'. The procession advances to the centre of the front ward, where a table and chairs have been placed, the physician or surgeon in charge of the ward with his assistants stand on one side, the sister and nurses on the other. The treasurer and the matron seat themselves and the steward reads from a book the name and age of each patient in the ward. As each name is read out the physician or surgeon states the disease or injury from which the patient is suffering and the probable duration of stay in hospital. When all the names have been read out the treasurer turns to the physician or surgeon and says, 'are you satisfied with the conduct of this ward?' He then turns to the matron and asks, 'Matron, are you satisfied with the nursing of the ward?' Having received their answers the steward says 'does any patient wish to speak to the governors?' The procession is then reformed, and the visitation is continued block by block and ward by ward.

The ceremony used to be followed by a banquet, known as the View Day Dinner, which was held in the Great Hall. It has

SURGICAL PROFESSORIAL UNIT, LENT, 1956

Standing: D. B. MacAdam, Miss N. Davis, J. R. Strong, Mr. R. M. Buckle, Miss E. Kitson, Mr. N. S. Painter, Mr. C. N. Hudson, Miss I. Law, Mr. R. M. Simons.

Sitting: Mr. J. D. Griffiths, Miss N. George-Davis, Professor Sir J. Paterson Ross, Mr. G. W. Taylor, Miss M. Bland, Mr. G. Audrey.

been discontinued since 1900. Today, the occasion ends with magnificent teas being given to the visitors in the wards.

Firm Photographs

In 1902, a letter was published in the *Journal* deploring the decline of the custom of chiefs and their students having their photograph taken on the completion of their firm. Fifty years later (October, 1952) the *Journal* published a letter suggesting that each yearly intake of students should have a group photograph taken when they enter the Medical College, a custom which is proudly practised by the Colleges of both of the older Universities.

We are pleased to see that there are signs of the practice of having firm photographs being revived. The Surgical Unit have set the ball rolling this year and we hear that a number of firms intend to follow their example. Now that the summer weather is coming we hope that the members of the other firms will be persuaded to spare a few minutes and sit and stand together in front of the Fountain.

There is, as yet, no sign of a Freshmen's photograph being organised.

Bumping Races

Last year saw the inauguration of the Hospitals' Bumping Races on the Thames. There is no doubt that they were a great success and we look forward to another three nights of exciting racing on Monday, Tuesday and Wednesday, June 4, 5 and 6.

The course is over that part of the river which flows past Kew Gardens ; the start is opposite Syon House, and the race is rowed downstream. The Secretary of the Boat Club advises spectators to take a Southern Electric train to Kew Bridge from Waterloo, to cross Kew Bridge to the Surrey bank of the river and watch the racing from the tow-path on that side.

Bumping Races elsewhere are regarded as important social events and we hope that the occasion in London will soon be similarly regarded. The Kew Garden setting is delightful and the tow-path on the high river bank gives an excellent view of the racing. This year, when the 1st VIII have every chance of ' going head ', we feel sure that many people connected with the Hospital will find their way down to Kew and support the Bart's crews.

Victoria Cross Centenary

The Victoria Cross was instituted by Queen Victoria on January 29, 1856, as an award for conspicuous bravery. In this, the centenary year, we thought it appropriate to record the names of the two gallant Bart's men who gained the award, together with some brief biographical details.

HARRY FREDERICK WHITCHURCH, V.C., M.R.C.S., L.R.C.P., Major I.M.S., was born in September, 1866, after he had received his medical education at Bart's, he entered the Indian Medical Service in March, 1888. The deed of gallantry, for which he was awarded the Victoria Cross, was performed on March 3, 1895, while defending Chitral Fort. The following is part of an account of the action which appeared in *The Times*.

> Captain Baird was wounded on the heights at a distance of a mile from the fort. Whitchurch went to the rescue, but the enemy in great strength had broken through the fighting line, darkness had set in, and Baird, Whitchurch, and the Gurkhas with him were completely isolated from assistance. The wounded man was at first carried by the Gurkhas on a dhooly, but when three of them had been killed and one wounded, Whitchurch took Baird on his back. The little party kept diminishing in numbers, being fired at the whole way. On one or two occasions Whitchurch was obliged to charge walls, from behind which the enemy kept up an incessant fire. At one place particularly the whole party was in imminent danger of being cut up, having been surrounded by the enemy. Whitchurch gallantly rushed the position and eventually succeeded in getting Baird and the sepoys into the fort. Nearly all the party were wounded, Captain Baird receiving two additional wounds before reaching the fort.

For the same act of gallantry Major Whitchurch was awarded the gold medal for distinguished merit of the British Medical Service.

Major Whitchurch died of enteric fever on August 16, 1907, at Dharmsala, Punjab, where he was serving with his regiment, the 1st Prince of Wales's Own Gurkha Rifles.

JOHN LESLIE GREEN, V.C., R.A.M.C., (T.F.), was killed in France on July 1, 1916, at the age of twenty-seven. He was educated at Felsted, and went up to Downing College, Cambridge. He took honours in Part 1 of the Natural Sciences Tripos, and stroked his college boat for the three years he was up. Afterwards he studied at Bart's and took the diploma of the Conjoint Board in 1913, subsequently serving as resident medical officer of the Huntingdon County Hospital and as a ship's surgeon on the Elder Dempster line of steamers. At the outbreak of war he first had a commission in the 5th South Staffordshire Regiment, was afterwards transferred to a field ambulance, and was eventually medical officer to the 5th Sherwood Foresters. In 1915 he was promoted to Captain.

The following account appeared in the supplement to the *London Gazette* issued on August 5, 1916.

> Although himself wounded he went to the assistance of an officer who had been wounded and was hung up on the enemy's wire entanglements, and succeeded in dragging him to a shell hole, where he dressed his wounds, notwithstanding that bombs and rifle grenades were thrown at him the whole time. Captain Green then endeavoured to bring the wounded officer into safe cover, and had nearly succeeded in doing so when he was himself killed.

Unveiling Ceremony

It was mainly a Scottish crowd that attended the unveiling ceremony of the Sir William Wallace Memorial on Sunday, April 8, but there were many others who good humouredly watched the proceedings.

The occasion will be long remembered because of the two unusual incidents which occurred. The first was when Lady Dundee attempted to unveil the tablet which had been draped with two flags. In spite of the most vigorous tugging at the cords by Lady Dundee and the sympathetic assistance of the Reverend R. F. V. Scott, Minister of St. Columba's Church of Scotland in London, the flags refused to fall, and eventually they were just drawn aside. No doubt the release mechanism had been fitted by a Sassenach.

The other incident occurred after Mr. Walter Elliot, M.P., had given an address, and the crowd had sung 'Scots wha hae'. As everyone began to sing the National Anthem a man clambered on to the platform and urged the crowd not to sing it. Following a short scuffle with Lord Dundee and Mr. Elliot he was led away by the police. The next day, this gentleman, who proved to be the chairman of the London branch of the Scottish National Party, appeared in court at Guildhall. He was fined £10, or a month's imprisonment, for using insulting behaviour with the intent to provoke a breach of the peace.

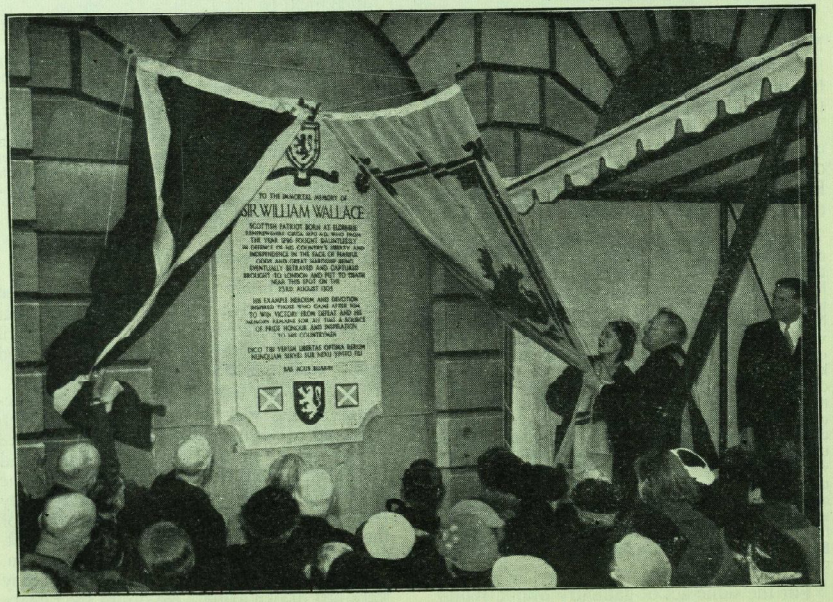
The plaque measures 6ft. 2ins. by 3ft. 9ins. At the top, under an old Crown of Scotland, there is a Lion Rampant crest bearing a scroll inscribed 'Guardian of Scotland', and flanked by two thistles. The wording on the memorial reads:

To the immortal memory of Sir William Wallace, Scottish patriot, born at Elderslie, Renfrewshire, circa 1270 A.D., who from the year 1296 fought dauntlessly in defence of his country's liberty and independence in the face of fearful odds and great hardship, being eventually betrayed and captured, brought to London and put to death near this spot on the 23rd August, 1305.

His example, heroism, and devotion inspired those who came after him to win victory from defeat. His memory remains for all time a source of pride, honour and inspiration to his countrymen. *Dico tibi verum libertas optima rerum nunquam servili sub nexu vivito fili.*

The latin quotation is based on the advice given to Wallace by his grandfather when Wallace was a boy.

At the foot of the tablet is the Gaelic motto, *'Bas agus Buaidh'*, (Death and Victory), and underneath is a representation of Wallace's personal banner, with a white Lion Rampant, flanked by two St. Andrew's crosses.



Lady Dundee, assisted by the Rev. R. F. V. Scott, unveiling the Memorial.

Cambridge Graduates' Club

The 66th Annual Dinner of the Club was held at the Royal College of Surgeons on April 6, 1956, with Mr. Malcolm Donaldson in the chair. In proposing the toast of the Club, Mr. Donaldson referred to the death of Lord Horder who, though not a Cambridge man, had been a firm friend of the Club for many years, presenting it only two years ago with a 17th Century Loving Cup. After expressing his regret that Lord Adrian had found it impossible to be present, he went on to detail the various achievements of members during the year, and also recorded his deep satisfaction at the result of the Boat Race.

Mr. Michael Harmer, called upon to propose the health of the Guests, of whom there were some 27, found it expedient to abandon his original classification of those with merit awards and those without. The Oxford Group, among them Dr. Hinds Howell, Dr. Bodley Scott, Dr. Aldren Turner, and Mr. Stallworthy of the Radcliffe Infirmary, were the subject of some good humoured banter and each guest was deftly pinned down with a well-chosen phrase: Dr. Geoffrey Bourne, *'sans peur, sans raproche'*; Dr. Eric Scowen, 'a portly figure encased in gaiters'; and Mr. Basil Hume, in whose terminology it would seem a spade is never a spade.

Mr. Hume, replying for the guests, said that he looked back with great pleasure on his long association with the Club. Together with Dr. Charles Harris, now deputy Vice-Chancellor of the red-brick university in Bloomsbury, he attended his first Annual Dinner in the early 1920's and he now had memories of some 25. He spoke of the greater number of Cambridge and Oxford men on the Staff at that time and pointed out that it was up to the younger generation to restore the old order. That certain something which Cambridge imparts to her sons he only really appreciated when he went there as an examiner, and he recalled in this connection the method used by Sir Holburt Waring in determining a student's place of origin: The Oxford man examines the patient with both hands in his pockets, the Cambridge man with one hand, while the London man uses both hands.

Mr. Beattie then rose to propose the health of the Chairman, a task for which he was evidently well qualified, for as his junior for many years he had a wealth of anecdotes on which to draw. There was, for example, the time in the follow-up clinic, when a patient refused to be examined by him. After a short conference with the nurse, she readily acquiesed: 'As you are Donaldson's son, I will show you everything.' He went on to praise the Chairman's feats as an oarsman, alleging that he used to row under the influence of champagne laced with strychnine. He had maintained a life-long interest in rowing and boats; one of his latest enterprises being concerned with an attempt to secure a Bank Tub for the Hospital Boat Club, now affectionately known as 'dottie's pottie'.

The Chairman thanked Mr. Beattie for his compliments and also the Secretaries for their untiring work. Mr. Jackson Burrows in a brief acknowledgement on behalf of the Secretaries remarked that 'there may be a dottie pottie, but never a pottie dottie!' (Cheers).

Journal Staff

The Publication Committee of the *Journal* invite applications for the post of Assistant Editor, which becomes vacant at the end of June. Those interested in a journalistic career should write to the Editor as soon as possible. Previous experience is not necessary.

CALENDAR

Sat.	May	5	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. U.C.S. Old Boys. Home.
Sun.	„	6	Cricket: v. Putney Eccentrics. Home.
Wed.	„	9	**View Day.** Sailing Club Regatta.
Thurs.	„	10	Sailing Club Regatta.
Fri.	„	11	Sailing Club Regatta.
Sat.	„	12	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Cricket: 'A' XI v. R.A.M.C. Crookham. Home. Ladies Tennis v. St. Mary's Hospital. Home.
Sun.	„	13	Cricket: v. Hampstead. Away.
Fri.	„	18	**View Day Ball.**
Sat.	„	19	Medical and Surgical Professorial Units on duty. Ladies Tennis v. Bedford Coll. Home.
Sun.	„	20	Cricket: v. Romany. Home.
Sat.	„	26	Dr. G. Bourne and Mr. J. B. Hume on duty.
Sun.	„	27	Cricket: v. Radcliffe Infirmary. Away.
Sat.	June	2	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Tennis: Mixed Doubles Tournament.
Sun.	„	3	Cricket: v. Queen's College, Cambridge. Home.
Mon.	„	4	Bumping Races at Kew.
Tues.	„	5	Bumping Races at Kew.
Wed.	„	6	Bumping Races at Kew.

ANNOUNCEMENTS

Births

HORTON.—On March 24, to Sheila (*née* Smith) and Dr. G. A. Neil Horton, a son (Stephen William Neil).

JORDAN.—On March 20, at Kampala, Uganda, to Jessie (*née* True) and Dr. Peter Jordan, a daughter (Catherine).

VICKERY.—On March 24, at Canterbury, to Betty (*née* Tiffen) and Captain C. M. Vickery, R.A.M.C., a daughter.

Engagements

MARSH - HOLTON. The engagement is announced between Dr. G. Marsh and Dr. B. Holton.

THOMAS-JAMES. The engagement is announced between Dr. J. P. Thomas and Miss J. M. James.

Deaths

BRACEWELL.—On March 7, at Norwich, Dr. C. H. Bracewell of Wrentham, aged 63. Qualified 1921.

CANE.—On January 28, at Ipswich, Dr. L. P. Cane, aged 83. Qualified 1907.

CROWTHER-SMITH.—On March 4, Stanley Francis Crowther-Smith, Stanford House, Borden, Hants., aged 84. Qualified 1896.

JORDAN.—On March 20, at Finchley Memorial Hospital, Alfred Charles Jordan, C.B.E., M.D., aged 83. Qualified 1898.

LOUGHBOROUGH.—On April 4, at Clan Conal, Lee-on-Solent, Hants., Walter Gerald Loughborough, M.R.C.S., L.R.C.P., aged 75. Qualified 1905.

MANSELL.—On March 5, at Cambridge, Col. Reginald Anson Mansell, O.B.E., M.B., (late R.A.M.C.). Qualified 1915.

WEEKS.—At Tolaga Bay, New Zealand, Dr. Harold Weeks. Qualified 1896.

Change of Address

BLACK.—Dr. Kenneth Black *to* 6, Harley House, Harley Street, N.W.1.

OBITUARY

MANY Bart's men must have been shocked to hear of the sudden death on January 22nd, 1956, in Trinidad, of Dr. Irving.

He was born in Canada, but his family soon returned to England, and he was educated at Queen Elizabeth Grammar School, Penrith. From there he graduated as a pharmacist at Edinburgh Dispensary. He obtained the post of dispenser at the London Clinic, and after three years entered the Medical College of Bart's (then evacuated to King's College, Cambridge) qualifying in 1943. Dr. Irving then held the posts successively of house physician, intern mid-wifery assistant, and resident anaesthetist at Bart's, and during this period he acquired the diplomas of D.R.C.O.G. and D.A. In 1945 he joined the Navy and served as Surgeon Lt.-Commander

in various Naval Hospitals and with the Mediterranean Fleet stationed at Malta. He returned to civilian life in 1950, and obtained the post of anaesthetist at the London Clinic which he held until July 1955, when he was appointed anaesthetist to the Colonial Hospital, Port of Spain.

It will be seen that Ken Irving was a remarkable person with a most versatile character. In addition to his pharmaceutical and medical attainments, he was a musician of no mean order. He became a skilled pianist, and then turned his attention to the organ, on which instrument he became extremely proficient under the guidance of Mr. James Pollard, organist of St. Andrew's Church, Penrith. Irving's services in a musical respect were greatly in demand, both in Cambridge and in London. His other main interests were Toc.H and Freemasonry (he was a member of the Rahere Lodge).

He never married, and we extend our sincere sympathy to his family on their irreparable loss at the untimely age of 42.

C.L.H.

LETTERS TO THE EDITOR

THE CHRISTMAS ENTERTAINMENT

Sir,—In identifying the Pot-pourri of today with the Annual Christmas Entertainment of pre-war years your contributor J.G.E.,(*St. B.H.J.*, 1956, *60*, 50) is guilty of some confusion of thought resulting, it would seem, from a failure to appreciate the fundamental difference between these two institutions. For the Annual Christmas Entertainment was not merely an entertainment which happened to take place each year at Christmas; it was essentially the occasion on which, by long tradition, the medical and nursing staffs, the students, and many others connected with the hospital, with their friends, enjoyed the hospitality of the Treasurer and Almoners in the Great Hall, this being their contribution to the Christmas festivities. For the entertainment itself, it was the custom of the hosts to call upon such resources as the hospital itself possessed, and particularly on the Amateur Dramatic Society which, assisted from time to time by other, more ephemeral, organizations, presented over a period of more than 40 years an unbroken series of productions ranging from one-act farces in the 1890s to the works of such playwrights as Priestley and Galsworthy in the 1930s, so that in the course of time the Annual Christmas Entertainment came to be virtually synonymous in many minds with the annual production of the A.D.S. But it was still the Treasurer and Almoners who provided the occasion and the stage, who arranged the seating and the stewarding by the junior staff, who met the entire cost of the production, and at whose invitation the audience on four successive nights mounted the great staircase to the Hall, where an enormous open fire symbolized their hospitality. Under that generous patronage the A.D.S. built up their own tradition and high standards of performance and production. But the tradition of the Annual Christmas Entertainment lay primarily in the setting and the occasion, and without those vital elements neither the A.D.S. nor anyone else can hope to carry it on.

The Pot-pourri on the other hand, which by 1939 had already established for itself a place in the Bart's calendar alongside, but quite distinct from, the Annual Christmas Entertainment, is entirely the product of the ward-shows, the vigour of whose tradition it reflects and is alone sustained by. It was nevertheless indebted to the Annual Christmas Entertainment, in a sense, for its start in life, for the first Pot-pourri was an entirely unofficial and almost impromptu affair organized by the individual efforts of such ward-show veterans as Roger Gilbert and George Ellis, and its production on Saturday, January 18, 1936, was made possible only by the fact that, the A.D.S. show having ended on the Friday, the Great Hall stage was, so to speak, going begging until dismantling operations started on the following Monday. But the association was short-lived. Indeed, had it been foreseen that the show would be the success it was the use of the Hall would never have been permitted at all, for the number of people who crammed into it on that memorable occasion, although probably less than the popular estimate of 1,500 undoubtedly exceeded the figure which, it was considered, the ancient timbers supporting the floor should be called upon to bear, while their enthusiasm was almost enough in itself literally to bring the house down. Clearly such a risk would not be permitted again, and in any case the almost complete absence of space backstage made the Great Hall hardly the most suitable place for such a production. However, it had served its purpose, the experiment had proved successful, and official support was readily available for the move the following year to the Cripplegate Theatre, where Ronald Gibson and I produced the Pot-pourri for the first time in its present home while the Christmas Entertainment was given as usual in the Great Hall.

Thus by 1939 the Pot-pourri had already become a hospital institution in its own right. But there were already signs that the days of the Annual Christmas Entertainment were numbered, and the war, which did no more than interrupt the progress of the Pot-pourri, brought them to their inevitable end. The tradition, too, has died with the era to which it belonged, and can be replaced, but never revived.

I am, Sir,

Yours faithfully,

DONALD CROWTHER.

27, Lansdowne Road,
London, W.11.

OUT-PATIENT TEACHING

Sir,—We would like to offer the suggestion that the book in Surgical Out-Patients, in which the provisional diagnosis of each teaching case is entered, should have another column added to it for the final diagnosis. It is suggested that this should be ascertained and filled in by the dresser who takes the case.

We feel sure that this would secure the following advantages :—

1. It would encourage the dresser to follow the case from presentation to operation, and facilitate his access to the patient. At present, out-patients are seen 'fresh', but tend to disappear with unproved diagnoses to await investigation and treatment. At the other end, the fact that in-patients often arrive 'half-cooked', and always with a senior's diagnosis, inevitably colours the student's attitude, until he is able to acquire an independent approach.

2. It would hasten the acquisition of this independent approach by demonstrating the fallibility of even Olympian experience. For, whilst we admire the courtesy of 'Make up your own mind, boy, you may be right and we may be wrong', few of us have the egocentricity to believe it in our inexperience.

3. It would increase the instructive value of the cases seen in three ways. Firstly, by introduc-

ing a competitive spirit which would encourage the dresser to try to arrive at a correct diagnosis. There is a tendency for him to be pre-occupied with eliciting the uttermost details of the unrelated symptomatology, and with making the most complete examination of the unrelated systems, for fear of not recording some point whose relevance he does not appreciate. This is not to decry complete history-taking and examination, which is the first ability required of the young doctor, but is taught on the in-patient firms; but to say that this training, when it continues to be the point of major emphasis, postpones the student's realization of the fact that 'diagnosis is made by looking for evidence which one suspects may be present, rather than amassing evidence without direction or emphasis'.

Secondly, by encouraging the dresser to think about the case again, after the out-patient session, instead of regarding the issue as closed when judgement has been pronounced.

Thirdly, by giving him a nucleus of cases to which he could refer, not with 'I remember examining a man with such and such, who was diagnosed as so and so', or worse, 'and we were taught about this, that and the other', but with 'I remember examining a man with such and such, and at operation he had so and so'. For this same reason it would increase the value of the cases seen to the peripatetic audience, who would be able to find the final diagnosis subsequently in the book, thus neatly avoiding the Scylla of remaining in ignorance and the less formidable Charybdis of flooding the hospital wards.

Yours faithfully,

P. J. Scott, D. W. Downham,
D. A. Chamberlain, P. J. Bekenn,
D. H. Elliott, P.D. Mulcahy.

Abernethian Room.

GERIATRICS

Sir,—In recent years, Bart's students have been fortunate enough to attend four geriatric teaching sessions at St. John's Hospital, Battersea. I understand that in future this item is to be omitted from the appointment to the Special Departments. With the greatest respect to the Staff of the Medical College, who arrange the medical curriculum, with such care and foresight, I should like to ask that this recent change should be reconsidered.

One reason for this request is that the sessions at St. John's, given by Dr. Trevor Howell, are carefully planned and of excellent teaching value. A reason of more basic importance is the size of the geriatric problem. There are now six million people of pensionable age: by 1977 there will be eight million. Those of us who are destined for general practice will have a direct part to play in their care, and will surely need some basic instruction.

Yours faithfully,

A Medical Student.

Abernethian Room.

AFRICAN TOUR

Sir,—My Bart's colleagues in this part of Central Africa suggested that I should let you know how pleased we were this month when Sir Geoffrey Keynes paid a visit to Salisbury, Southern Rhodesia.

Salisbury is the Capital both of Southern Rhodesia and of the newly formed Federation of Northern and Southern Rhodesia and Nyasaland.

Sir Geoffrey's journey was made as a Sims Commonwealth Travelling Professor for 1956 and he had previously been to South Africa and was on his way northwards when he visited us before going to Bulawayo and the Victoria Falls and then home via Uganda.

On March 13, a Bart's Dinner, in honour of Sir Geoffrey's visit, was held at the New Club, Salisbury, when the following Bart's men were present: Jack Hobday, Tom Wehlburg, Norman Campbell, Pat Taylor, Mike Dickinson, C. G. Martin, J. A. Mitchell and Sims Davies. Also invited were, Dr. R. M. Morris, Secretary for Health for the Federation, Mr. Noel Gane, Senior Surgeon in Salisbury and Mr. Tom Whaley, President of the Mashonaland Branch of the B.M.A.

The food and wine were excellent, in keeping with the conversation which was mostly about Bart's and Bart's men, and a most enjoyable evening was spent.

On March 14, Sir Geoffrey lectured before a crowded audience of doctors from Salisbury and district on the subject of the Thymus Gland, its Surgery and Relation to Myasthenia Gravis. The lecture, lasting three hours, included films and lantern slides whilst two of Sir Geoffrey's former myasthenic patients were demonstrated.

The lecture was one of the best we have heard in this country and those not previously acquainted with Sir Geoffrey were struck by his vast knowledge of the subject and his lucid address, every word of which could be heard without effort all over the hall.

This was the first visit made by a Bart's man as a lecturer to this country and we hope it will be often repeated.

Yours sincerely,

C. Sims Davies.

Mazoe Citrus Estate,
Southern Rhodesia.

Letters received by May 12 will, if accepted for publication, appear in the June issue.

ST. PETER'S FISHES

by A. J. MARSHALL

Last summer I went fishing in Africa, though perhaps it was not the sort of fishing trip that you would imagine. On two afternoons a week we went aboard a launch at the jetty at Jinja, at the northern end of the Victoria Nyanza. Then the African crew pushed off and we chugged rapidly past papyrus choked shores and the lofty nests of fish eagles to a selected netting station miles down the lake. Here we would set our nets and later, early the following morning, we would return and the boat-boys would haul up the catch. My work is largely concerned with the physiology of reproduction and although I have used birds, mammals and reptiles in the study of problems of breeding biology, I had never previously had anything to do with fish—professionally speaking.

Now, I found myself fascinated by them. Up in the nets out of the depths of Lake Victoria came a cat-fish, *Clarias*, which has, in addition to its gills, a supplementary breathing apparatus which is encased in the roofing bones of its skull. The fish is able to protrude its mouth from the water and suck atmospheric oxygen into a curious auxiliary respiratory tree. Also, the elephant-snouted *Mormyrus*. In this fish certain of the muscle blocks have evolved into an electric organ. The electrical discharge of *Mormyrus* is very weak compared with that of the famous South American electric eels. A 40-inch *Mormyrus* has a discharge that you can just feel as a faint tickle, but even the tiniest fish generates a certain amount of electricity which you can detect with your tongue (if you want to !) just as children put their tongues on a low-power drycell battery. By means of its electric organ, *Mormyrus* sends out weak impulses which probably rebound from surrounding objects and are received again by the fish so that in the murky, marginal waters of Victoria Nyanza it is aware of its prey, its predators, and nearby obstacles. It has in fact its own radar system.

Sometimes on the lake we would haul up a big lung-fish . . . that curious relict from Devonian times, about 300 million years ago, which, though it has external gills in the embryo, has functional lungs that enable it to gulp atmospheric oxygen as it comes to the surface from time to time.

My chief interest however, was not with these archaic curiosities, but with an apparently ordinary fish of the genus *Tilapia*. The *Tilapia* belong to the Cichlid family, and there are more than 20 species of them scattered about Africa. Many are important food fishes, in Lake Victoria and elsewhere.

All species of *Tilapia* have, when young, a dark spot on the dorsal fin near its hind end. This is known as 'the *Tilapia*-mark'. It is sometimes also called 'St. Peter's mark', which the fisherman saint allegedly left when he picked the fish up. Incidentally, one species, [*Tilapia gallilea*], is particularly common in the Sea of Gallilee. In some species the St. Peter's mark disappears when the fish gets older.

When the breeding season approaches, the male *Tilapia* becomes aggressive and selects and defends a territory of lake bottom. Next he excavates a small pit with his mouth. There now follows a courtship ceremony after which the eggs are laid in the nest and then fertilized after the extrusion of spermatozoa. Now occurs a most extraordinary thing in some, but not all, species of *Tilapia*. In some species the female gathers up the eggs into her mouth where they are incubated. In these 'mouth-brooding' species the eggs only take a few days to hatch and during this period a captured female often drops the golden eggs from her mouth. If the eggs are removed experimentally (in some species at least) they do not hatch. It is probable that the mouth cavity of the mother secretes some kind of a protective substance which prevents fungi from attacking the eggs. When hatched, the very

This article is part of a broadcast talk given by Dr. Marshall on the Third Programme on January 25.

small young still take refuge in the mother's mouth, venturing out as they grow older, and retreating in times of danger. At length when they are five or six days old and still only a few millimetres long they do not return. Thereafter they fend for themselves.

Now, *Tilapia gallilea*, a fish that is, as I said, exceedingly common in the Sea of Gallilee, is one of the mouth-brooding species of *Tilapia*. If you pick up a brooding female of *Tilapia gallilea* the odds are that tiny spherical brood sacs will fall out of her mouth. Some ichthyologists have wondered whether this fact in any way inspired the command to St. Peter, attributed to Jesus: 'Go thou to the sea, and cast a hook, and take up the fish that first cometh up; and when thou hast opened his mouth, thou shalt find a piece of money: that take and give unto them for me and thee'.

In Hasting's *Dictionary of the Bible*, under 'Miracles' it is suggested that 'the finding of the coin in the fish's mouth may be a figurative saying misunderstood'.

An objection to the conclusion that Christ was referring to valueless fish-eggs as payment is that, whereas most species of *Tilapia* have yellow eggs, *Tilapia gallilea* is reported to be one of the few that lay green eggs.

Now, all this is very interesting perhaps, but why should the Director and Officers of the Fisheries Research Organization Laboratory at Jinja be so interested in the apparently commonplace, mouth-brooding, *Tilapia*, with all the extravaganza of seemingly more remarkable creatures coming up in the nets every day? Well, the fact is, *Tilapia* belies its ordinary appearance. Of recent years it has become known to be one of the most interesting of all fresh-water fishes.

In 1939, in Java, a fisheries overseer caught five strange fishes in a lagoon. Two of these were females carrying tiny golden eggs or young fish in their mouths. Fish is a staple diet in many East Indian countries, and much of the fish eaten is cultured artificially in ponds and rice paddies. The strange new fish was found to reproduce freely and, as it was highly palatable, it was spread widely throughout the country. The further spread of the stranger was helped by the Japanese army of occupation after the fall of Java. The Japanese, extremely fish-conscious, lost no time in introducing it throughout their occupied territories. In some places it became known as the Japanese Fish and by the time of the liberation it was flourishing in Malaya, Sumatra, on both sides of Wallace's Line, in both Bali and Lumbok, and in numerous other islands as well. After the war Formosan soldiers of the Japanese army took the new fish home, so it was cultured in Formosa as well. This remarkable importation is, as you have no doubt guessed, a species of *Tilapia . . . Tilapia mossambica* of East Africa. Curiously enough, nobody seems to know who in the first place introduced it to far-off Java.

After the war, the spread of the alien *Tilapia* was helped by officers of the Food and Agricultural Organization of the United Nations. More than 150,000 pamphlets on how to culture *Tilapia* were distributed. It was now known that *Tilapia mossambica* would eat all kinds of unlikely substances, including waste, such as rice bran, the residue from copra and all sorts of easily gathered vegetation as well. In one year as much as 1,000 lbs. weight of *Tilapia* have been got from a single acre of pond. *Tilapia*, flourishing in almost any sort of pond, ditch or tank, was spread into the Phillipines, Southern Indonesia, India and Ceylon. From Malaya it was taken to St. Lucia in the British West Indies; from St. Lucia it was transported to colonize Trinidad, Jamaica, Martinique, Barbados, and Dominica. In some areas it was found that the introduction of *Tilapia* had the beneficial effect of reducing the amount of green algae in the water; in others, that it ate the larvae of the mosquitoes that carry the blood parasite that causes human malaria. Nowadays, in many parts of their native Africa, too, *Tilapia* of several species have been transplanted (so to speak) from lakes into ponds, dams, and ditches. The only drawback, as far as could be seen at first, was the fact that although the fish would tolerate a wide variation in water salinity some even thrive in brackish streams or even in salt water—they are unable to adapt themselves to low temperatures. So American plans to introduce them to control algae in Oregon, and as a food fish in the Florida everglades, were frustrated. Further, although *Tilapia nigra* is able to live in the dams of the Kenya Highlands, it cannot reproduce freely: so that came to nothing, too.

But all in all, people had the impression that the widespread culture of *Tilapia* would

be a boon of inestimable value in all tropical countries, especially those with heavy populations habitually short of protein.

And that is true, except for one exceedingly important consideration. A very unexpected and peculiar thing happens when you take *Tilapia* from its normal lake, or deep river, habitat and put it in a pond or dam.

It runts (as they say). That is, its growth-rate slows down, and species that reach say fifteen inches in length in their natural waters undergo radical metabolic changes in fish-ponds, where they start reproducing, and almost stop growing, upon reaching a length of four or five inches. The result is that ponds become filled with thousands of comparative tiddlers, so defeating partially at least the object of their cultivation.

In their native waters the various species of *Tilapia* behave as do most vertebrate animals (including ourselves) in regard to growth and reproduction. That is, they have a relatively unvarying period of growth, and then, at a fairly constant age and size, become sexually mature and begin to reproduce. There is much that we still do not understand about the factors influencing these events, even in much-studied vertebrates like birds, rodents, rabbits, and ourselves. It is well known, of course, that growth is primarily under the influence of the growth hormone secreted by the anterior pituitary gland. Hypofunction of this gland is one of the causes of dwarfism. Hyperfuntion sometimes results in gigantism. There comes a time in each individual, at an age and size varying between species, that the anterior pituitary produces gonadotropic hormones. These, liberated into the bloodstream, flow to the gonads or sex organs. These they influence to secrete sex hormones, which in turn play an essential part in the processes of gametogenesis—the ripening of ova and sperm—and reproduction.

In ponds the normal growth and reproduction rhythms are somehow upset. For example, in dams and ponds some species of Tilapia become sexually mature when only a couple of inches long. At the same time they almost, but not quite, stop growing. As some species of *Tilapia* breed all the year round, you can imagine the result—enormous numbers of fecund dwarfs or runts. In very few countries are these considered to be desirable as food fish. So now the pendulum has swung the other way: people are not so keen to introduce *Tilapia* and to disrupt, as importations usually do, the native fauna.

In several countries experiments are being carried out to try to discover what it is that causes the growth/reproduction rates to change so drastically upon transference to the artificial environment. If we could discover why, perhaps—only perhaps—it might be possible to produce in ponds the prolonged growth period and delayed reproduction that is normal in their native waters.

About thirty years ago the Canadian zoologist, Rowan, proved in a brilliantly simple series of experiments that if you photostimulate birds—with added periods of ordinary electric light—they become sexually precocious[1]. Later it was discovered that for a couple of centuries Spanish farmers had been doing the same thing to hens to get increased egg production. After Rowan's work, Japanese recalled that for centuries something called *Yogai* had been practised[2] . . . Silvereyes had been artificially stimulated by candlelight so that they would sing in winter-time. And Dutchmen, too, remembered that the same thing had happened in Holland where common cagebirds had been put into *Muit*, as it was called[3]. Today, broadly the same process is used in poultry farms all over the world, including this country, to get increased egg production. Immediately after Rowan's work, people started to photostimulate mammals, reptiles—and fishes—as well. Many, but not all, species were found to respond by unseasonal sexual development, and it very soon became obvious that if you exposed a given species to additional ordinary white light, *somehow* (nobody is as yet sure exactly how it happens)[4] there is transmitted by way of the central nervous system a stimulus to the anterior pituitary gland, causing it to secrete its hormones: and, in turn, of course, the liberated gonadotrophic hormones cause sexual precocity in the young—and out-of-season breeding in adults—in all sorts of diverse animals, including some kinds of fish[5].

R. S. L. Beauchamp, the Director, and the staff of the Fisheries Research Laboratory at Jinja, have for some time been concerned with the problem of *Tilapia* runting[6]. Beauchamp has made the very plausible suggestion that when *Tilapia* is taken from deep,

relatively dim lake water and put into shallow ponds, the added illumination—very bright in a tropical fish-pond—causes the liberation of gonadotrophins and so leads to premature breeding, and at the same time to retarded growth, and runting.

There was only one serious objection to this working hypothesis. It was this: There was some (but not much) evidence that at least one tropical animal cannot be photostimulated, and little evidence that any truly equatorial one *can* be. And what *use* would a capacity to be photostimulated be to an equatorial animal?

There is plenty of advantage, of course, for such a capacity in a temperate zone creature. An ability to respond to seasonal alterations in daylength, absolutely unvarying in their regularity year after year, means that the animal could regulate its breeding season by such variations and thus be able to 'time' its reproduction and to bring out its young at the period most propitious for their survival. In short, a British rook, if it is stimulated by the increasing daylengths of spring, will bring out its young at a time when the weather is warm, and worms (the staple diet of young rooks) are exteremely plentiful near the surface, where they can be easily collected by the parents.

But on the equator light fluctuation is negligible—there is only a difference of about two minutes throughout the whole of the year. It is hard to believe that any animal is able to detect a photo-fluctuation as unsubstantial as this. Only one person, so far as I am aware, has suggested that this is possible and he has given nothing but a mass of figures to support his belief.

On the other hand, Disney and I have now shown experimentally that at least one equatorial vertebrate[7], the weaver-finch *Quelea*, can be influenced by photostimulation of an order far outside the range of that it would normally experience in natural conditions. We do not believe that such a capacity is of any use to the species. We have probably merely (and quite unnaturally) jolted its neuro-humoral machinery forward towards unseasonal breeding. The same may be happening with *Tilapia*, as Beauchamp suggested.

And so the matter rests. Or rather, so the matter does not rest. The staff at Jinja (which is almost precisely on the equator) are collecting *Tilapia* from lake and ponds, and endocrine glands are being sent by air to Bart's, where we are trying to make some sense out of the problem.

I am not sure which job I like best, looking down my microscope in foggy Charterhouse Square or helping to catch the material on the sunlit Victoria Nyanza in Uganda. Actually, of course, both parts of the job are the greatest of good fun, and I am soon going to Africa again to do some more fishing.

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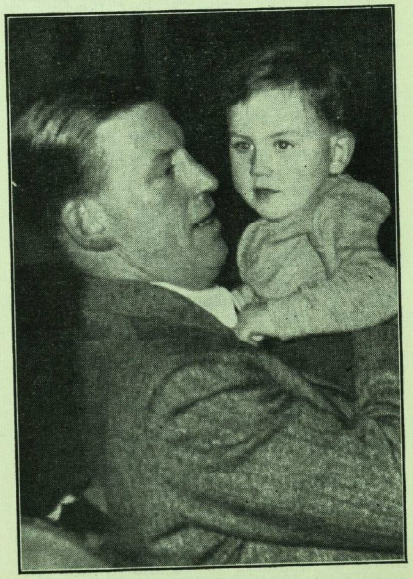
CANDID CAMERA



A Heart to Heart Talk?

THE TREATMENT OF DIABETES MELLITUS

by R. C. KING

Introduction

Fifty years ago 63.8% of diabetics died in coma. To-day the mortality from this cause is 1.9% (Joslin 1949). At first sight this would appear to be a very satisfactory state of affairs, but there remains a grim challenge for all concerned with the management of diabetics in the form of the high incidence of chronic and mainly degenerative changes which have replaced acute complications as the most frequent causes of death. Any consideration of treatment must hinge on the question as to whether these complications are preventable. That they are to some extent has been emphasized by Dunlop (1954), who, in a detailed analysis of 167 diabetics, found that the proportion of patients without complications of any sort after periods of time ranging from 15 to 31 years was 33% in the well controlled group, but only 7% of those poorly controlled. He states that 'whatever specific aetiological factors may be causing diabetic degenerative lesions, the careful control and aggressive treatment of the disorder over the years is a most important factor in their prevention or postponement.' Treatment must, therefore, be concerned not only with the relief of symptoms, the maintenance of a high standard of nutrition and the promotion of normal mental and physical development, but also with the prevention of these degenerative complications. A normal physiological state must be *persistently* maintained with freedom from hyperglycaemia, glycosuria, hyperlipaemia and hypercholesterolaemia. In the achievement of these aims the fullest understanding of his condition on the part of the patient, coupled with close co-operation with his medical adviser, are of the greatest importance.

Prevention

Diabetes is a condition with a multiple aetiology. Although the exact nature of many of the causative factors is, as yet, unknown, it is established that heredity and the presence of obesity may both play a part in its production. Attention to both these factors may enable some attempt at prophylaxis to be made. The importance of heredity is illustrated by the fact that 50% of diabetic children have a family history of diabetes, and it seems likely that the disease is transmitted as a Mendelian recessive character. The 'breeding out' of diabetes is a definite possibility, but to achieve this, not only should diabetics not intermarry, but also the consistent union of the descendants of diabetic patients with those of non diabetic families for several generations would be essential. In this respect the development of diabetic clubs is undesirable, as young diabetics of opposite sexes must inevitably be brought together. Obesity is pathological at any age and may lead to exhaustion of the islet cells resulting in the appearance of diabetes. This is more likely to happen after middle age, particularly in the relatives of diabetics, and the aetiological importance of obesity is suggested by the fact that approximately 75% of adult patients are overweight when they first seek medical attention. It is interesting to note the striking reduction in the mortality from diabetes which occurred during the late war both in this and other European countries. (Himsworth 1949.) This was thought to reflect a true decrease in the incidence of diabetes which probably occurred as a result of strict rationing. The correction and prevention of obesity are the greatest practical means available for the prevention of diabetes, and every member of every diabetic family should be made aware of this.

The Initial Explanation

Treatment commences as soon as the diagnosis has been established with a carefully worded explanation to the patient of the nature of diabetes, the known causes and the different methods of treatment. In obese patients the fact that a virtual cure may be obtained by a reduction of the weight to normal should be stressed. The possibility

of complications should be mentioned, but emphasis should be laid on the fact that the risk of such complications will be reduced to a minimum if good control is constantly maintained. The patient must be made to realise that the achievement of good control is *his* responsibility on which his future health depends. Most patients will gain some benefit from reading a simple diabetic manual and mention should be made of the facilities offered to members of the British Diabetic Association. As suggested earlier, the tendency for diabetics to carry out their social activities in the segregation of diabetic clubs should, I think, be discouraged.

Diet

A normal physiological state may be attained by means of diet alone. Such is usually the case in the mild middle-aged and elderly obese diabetics who make up the majority of the new patients. The principles of dietary treatment are described on pages 168-172 of this issue. Suffice it to say here that thin patients are fattened, obese patients are reduced, while patients of standard weight are subjected to minor reductions. All authorities agree that the obese diabetic patient should be reduced, yet the neglect of this important method of controlling the disease and avoiding the use of insulin is widespread. So often the patient protests that she 'doesn't eat a thing' but still she fails to lose weight. The fact remains that even if the patient does eat little, but still fails to lose, she should eat less. Many of these diabetics are elderly women living alone, often on meagre incomes, and for years indulgence in starchy foods has been their only source of solace. In such patients the cautious use of amphetamine or one of its derivatives may be very helpful.

Indications for Insulin

It should be possible to control the majority of obese diabetics on diet alone, but insulin may be necessary in some of these, either because a reduction in weight fails to control the condition, or more commonly because the patient fails to lose weight. Insulin therapy is needed at once in diabetic children and underweight adults, in pregnant women, in the majority of patients having acute medical or surgical complications, and in patients with a short history of a sudden onset of diabetic symptoms. With the commencement of insulin the carbohydrate content of the diet should be at least 150 Grammes per day, and it is gradually increased until the patient's weight remains steady at its ideal level. Attention is paid not only to the amount of carbohydrate and protein in the diet but also to the total calorie intake. Because of the lipaemia and tendency to hypercholesterolaemia, the fat content is kept as low as is practicable.

The Insulins

At the present time there are seven different preparations of insulin available in this country. They are the short acting soluble insulin, the longer acting protein bound insulins globin, protamine zinc and N.P.H. and the new insulin zinc suspensions semi-lente, lente and ultra-lente. The properties and relative merits of these insulins have been discussed earlier (King 1955). Soluble insulin remains one of the most effective preparations for the control of any type of diabetes, but as multiple injections are usually required it will largely be replaced by the insulin zinc suspensions. It is, however, invaluable for the control of difficult diabetics ; it is always needed in the treatment of diabetic ketosis or coma and for the management of diabetes complicated by acute infection, surgical operations or pregnancy. Protamine zinc and globin insulin have no advantages and several disadvantages when compared with the insulin zinc suspensions, and it seems likely that they will be superseded by these newer preparations. Such is not the case with N.P.H. insulin as combined with soluble in two daily injections, it gives a greater degree of 12-hour flexibility than any other combination and provides one of the most effective means of controlling difficult diabetics. Undoubtedly the most useful preparations for the day to day management of diabetes are the insulin zinc suspensions in various combinations, by the use of which the large majority of patients can be controlled with one daily injection.

Initial Stabilization

This should preferably be carried out in hospital and if the diabetes is severe the patient should be admitted as an emergency. While in hospital certain routine investigations can be performed, including X-Rays of teeth, chest and sinuses and examination of a clean specimen of urine, together with any other investigations which physical examination may indicate to be necessary. The time spent in the ward serves as an invaluable training period, as well as enabling the hyperglycaemia to be brought more rapidly under control. The patient is trained in a diabetic discipline which includes a knowledge of dietetics, regular urine testing, self-injection and the ability to recognize hypoglycaemic attacks, which will stand him in good stead for the rest of his life. With regard to urine testing, which should, if possible, be done by the patients themselves, a much clearer picture of the diabetic state is obtained if the traditional 3-hourly specimens are abandoned in favour of urine passed at 6 a.m., 8 a.m., 11 a.m., 12 m.d., 3 p.m., 6 p.m., 9 p.m., and 12 m.n. Under the old *regime* the 3 a.m. specimen gave very little useful information, while the 9 a.m. urine was equally un-informative, being passed about an hour after breakfast. An 8 a.m. specimen consists of urine which has collected during the first two waking hours, and is a reliable index of the state of the blood sugar at that time of day. Similarly the 12 m.d. specimen consists of urine which has been excreted over the previous hour and reflects more accurately than a 3 hour collection the blood sugar level at that time. In the event of a bed not being immediately available in hospital, insulin therapy can be commenced in a patient with mild diabetes as an outpatient. Arrangements can be made for the insulin to be injected by the district nurse who can at the same time instruct the patient. Care should be taken to avoid hypoglycaemia as this can be a very distressing event if it occurs for the first time without medical supervision.

Control in the first instance is effected with greatest advantage by the use of soluble insulin in divided doses 12- or 6-hourly. A reasonable starting dose for a diabetic of moderate severity would be 10 units *mane*, 6 units *nocte*. Both doses are increased by 2 or 4 units on successive days until either adequate control is achieved (as judged by urine analysis and blood sugar estimations) or hypoglycaemic attacks occur. In the latter event dietary adjustment may be

successful in allowing a further increase in insulin dose sufficient to achieve satisfactory control. To give an example, a patient may be normoglycaemic during the day on a morning dose of 30 units, but with an evening dose of 14 units may be hypoglycaemic at midnight and hyperglycaemic at 8 a.m. on the following day. Increasing the bed time allowance of carbohydrate may enable the evening dose to be increased sufficiently to prevent early morning hyperglycaemia without hypoglycaemia at midnight, satisfactory control thus being achieved. If, despite the dietary adjustment and increase in insulin, the patient still has an elevated 8 a.m. blood sugar but midnight hypoglycaemia, it will be necessary to substitute a longer acting insulin for some of the soluble in the evening and the total dose may then be again increased. If as a result of the dietary adjustment, it had been possible to increase the evening dose to 20 units but despite this control was still inadequate, 10 units of soluble and 10 units of N.P.H. could be given as a combination in one injection at night. This might be successful in preventing mid-night hypoglycaemia and also early morning hyperglycaemia, but if the latter still persisted, the N.P.H. fraction could be gradually increased until such was the case. It should be pointed out, however, that the majority of patients can be controlled on two injections of soluble insulin ; it is only in the more difficult diabetics that combinations of soluble insulin and N.P.H. are required—a combination which can of course be also given in the morning if necessary.

Once satisfactory control has been achieved a decision has to be reached as to whether the patient will continue with two daily injections, or whether an attempt will be made to use a longer acting insulin or insulin combination given as one morning injection. Before the advent of the insulin zinc suspensions this would have been done by giving, in the first instance, $\frac{2}{3}$ of the total daily dose as soluble and $\frac{1}{3}$ as protamine zinc in one injection With the insulin zinc suspensions it has been found possible to control 90 - 96% of all diabetics with one morning injection, the majority of these being given lente alone (30% semi-lente, 70% ultra-lente) while the remainder receive different combinations of semi- and ultra-lente. Some increase in total dose is usually required when the change is made and some adjustment in the distribution of the 24-hour carbohydrate allowance

is always necessary. There remain, however, some patients, who either prefer to continue on two daily injections, because the time of the evening meal need not then be fixed, or whose diabetes is of such a nature that control with one daily injection is not possible.

Initial stabilization can, of course, be attempted with lente insulin given as one daily injection and this is probably the method of choice for the mild diabetics who are stabilized outside hospital. It is more difficult to control severe diabetics from the start with lente as opposed to soluble insulin and if ketosis is present it may be impossible.

The daily insulin requirements usually fall once the diabetes is controlled and a further fall occurs when the patient leaves hospital and undertakes more physical exercise. Before the patient leaves he should be given a deliberate hypoglycaemic attack in order that he may recognise the early symptoms and know what measures to adopt. He should also be competent in testing his own urine and injecting his own insulin. 'Clinitest' tablets provide a very simple but reliable method for estimating the degree of glycosuria, which is much less time consuming than the use of Benedict's solution. The optimum time of day for testing the urine varies from patient to patient and also with the type of insulin in use, but in general the second morning specimen and a specimen passed before the evening meal give the most useful information. Some diabetics find that their insulin requirements remain steady for years at a time ; others are less fortunate and fluctuations occur. The patient, as controller of his own diabetes, must know when to vary his insulin dose. Unsatisfactory urine tests for three successive days should lead to an increase in the appropriate injection by two units, while the occurrence of hypoglycaemia for no apparent cause should be followed by a reduction in the appropriate dose by four units. For patients who have wide variations in their requirements and in whom a tendency to ketosis is present it is wise to issue a set of 'Acetest' tablets with instructions in their use, the patient being told to report to hospital if more than a trace of ketones appears in the urine. The use of 'Acetest' tablets is also invaluable for patients who have either a high or a low renal threshold, and in whom the degree of glycosuria gives no reliable indication of the state of the blood sugar. Apart from intrinsic variations in the severity of the diabetes, insulin requirements may fluctuate with the occurrence of intercurrent infection or the performance of extra physical exertion. The patient must be prepared to increase his insulin during the former and either reduce his insulin or take extra carbohydrate with the latter. The use of a single dose of a long acting preparation gives much less flexibility in patients with varying requirements, and their management is much more satisfactory with two or more injections of a shorter acting insulin.

Long Term Management

In the majority of patients the initial control of the diabetes is not a difficult undertaking. Satisfactory long term management is a much more arduous task as it involves time and intelligence on the part of the patient and much patience on the part of the doctor. And yet it is vital if the tendency to degenerative complications is to be reduced to a minimum. The diabetic who adheres strictly to his diet, who keeps his urine sugar free, and who has normal monthly blood sugars is the patient who remains free of complications. Not infrequently one meets patients who mistakenly believe that they cannot afford the time to attend a regular clinic. Soon they cannot afford time to regularly test their urine and so they continue on their way, as they think, fit, but often, unbeknown to themselves, hyperglycaemic. But they return. It may be five, ten or fifteen years, but sooner or later they are back with a vitreous haemorrhage, a gangrenous extremity or a coronary occlusion—complications which are, to a large extent, irreversible. Regular attendance at a clinic is vital and will be encouraged if arrangements can be made for patients to attend outside working hours. Those who fail to attend regularly should be contacted and interviewed and a further attempt made to impress on them the importance of careful control over the years. The frequency with which a patient should attend the clinic varies with his intelligence and the stability of his diabetes from 1-2 weeks to 2-3 months. Not only should the diabetic state be supervised, but a full physical examination should be performed at least once a year with regular chest X-Rays, urine analysis and estimation of the serum cholesterol level. Close attention should be paid to personal hygiene. The care of the feet with particular reference to fungal infections, corns and badly cut toe nails, together with the care of the teeth and personal cleanliness following defaecation (especially in women) are of paramount importance.

Diabetes in Childhood

Diabetes may occur at any age and its management in childhood does not differ fundamentally from its management in adult life. The daily calorie allowance is 1,000 plus 100 for every year of age, 40% of this being given as carbohydrate, 20% as protein and 40% as fat. Insulin in some form is always required and its administration should be commenced as soon as possible after the diagnosis has been made. Its early use will prevent complete exhaustion atrophy of the β-cells of the pancreas and may well modify the ultimate severity of the condition. The majority of children can be controlled satisfactorily on one daily injection of a long acting preparation and they should, like adults, be competent to give their own injections and test their own urine. Hypoglycaemic attacks are more likely to occur in children as a result of wider fluctuation in physical exercise and the presence of limited glycogen stores, and every effort should be made to avoid their development. If control is adequate, less than 5% of the daily carbohydrate intake should be excreted as glucose in the urine, acetonuria should not occur and pre-prandial blood sugar and serum cholesterol levels should be normal. In addition, the rate of growth should also be normal, and the child should be able to carry out the customary activities for the age.

Complications of Insulin Therapy

Too much insulin or too little food result in hypoglycaemic attacks. Unusual exercise without additional carbohydrate or reduction in insulin, failure or delay in eating the full carbohydrate allowance, or an overdose of insulin because of an error in measuring, are the most frequent causes of this complication. Erroneous distribution of carbohydrate, occurrence of vomiting or diarrhoea or a change in the site of insulin injection may less frequently be responsible. An episode of hypoglycaemia is an embarrassment whenever it occurs and diabetics must be familiar with the early symptoms and the appropriate treatment. To facilitate diagnosis every diabetic on insulin should carry a card to this effect, giving details of his name, address and insulin dose together with the suggestion that some form of easily assimilable carbohydrate should be given if he is found behaving in a peculiar manner. Needless to say, a supply of such carbohydrate—barley sugar, cane sugar or glucose—should be carried on the patient's person. If this fails to correct the hypoglycaemia subcutaneous adrenalin or intravenous glucose will rapidly do so. If no cause for the reaction is apparent the appropriate dose of insulin should be reduced by 4 units. Diabetics must be careful not to place themselves in situations where the occurrence of a reaction might constitute a hazard to life. Such situations include working at heights or in the neighbourhood of machinery or live electric cables. Anyone prone to sudden reactions with little warning would be well advised not to drive a car, and no diabetic on insulin should have charge of a wheeled vehicle without having had some form of carbohydrate within the previous two hours. Hypoglycaemic attacks may in themselves be harmful to the patient. Their very occurrence tends to lower morale, if prolonged, permanent neurological damage may ensue and if occurring in the arteriosclerotic they may be a contributory cause of myocardial infarction.

Other complications of insulin treatment include presbyopia and insulin oedema, both of which pass off with the persistence of treatment, and insulin allergy, fat atrophy and the development of insulin tumefactions. Insulin allergy may subside spontaneously but it may be necessary to change either the brand or preparation in use. As a further measure, antihistamines can be incorporated in the insulin injection or many times recrystallized insulin may be used. In a small number of patients active insulin desensitization may be necessary. Fat atrophy is a troublesome complication about which little can be done although the addition of hyalase to the injection has on occasions been helpful, while insulin tumefactions can be avoided if the site of injection is frequently varied.

Complications of Diabetes

Space does not permit me to consider the treatment of all the complications of diabetes

but mention must be made of the principles of treatment of diabetic coma and the management of diabetes complicated by surgical operation.

Diabetic Coma

This remains one of the greatest of medical emergencies. It is preventable; it does not develop while diabetes is under good control and it is recognisable and may be corrected in the early stages. The diagnosis should be suspected in any drowsy or comatose diabetic, and the history will often give a clue to the cause. Physical examination will allow its differentiation from hypoglycaemic coma and confirmation of the diagnosis will be obtained by finding 2% glycosuria together with a 4+ acetonuria and a 3 or 4+ reaction for acetone in the plasma. These tests for acetone can be performed at the bedside by the use of 'Acetest' tablets, urine being obtained by catheterisation if necessary and a drop of plasma from a specimen of oxalated blood being used for the estimation of the level of acetone in the plasma. The diagnosis can therefore be made in the home and treatment commenced at this stage may be life saving.

If the patient is first seen in the stage of pre-coma with only a 1 or 2+ reaction for acetone in the plasma the development of full blown coma may be prevented. Salty broth should be given by mouth. This will often alleviate the anorexia and nausea which are usually present, and allow carbohydrate feeds, together with soluble insulin, to be given at four or six hourly intervals. At the same time any precipitating cause, such as an acute infection, should be dealt with. If coma has developed when the patient is first seen, treatment is aimed at giving sufficient insulin to restore the blood sugar to normal together with sufficient intravenous fluids and electrolytes to correct the dehydration, salt depletion and resultant hypotension. Subsequently carbohydrate in some form must be given to allow a reduction in fat metabolism and a replenishment of glycogen stores, and also to guard against the occurrence of hypoglycaemia. It is rarely necessary to administer alkalis to counteract acidosis but potassium chloride may have to be given in the later recovery stages when a dangerous hypokalaemia is likely to occur. Any intercurrent infection should be dealt with and the usual measures for the treatment of shock instituted. Immediate investigations include estimation of the blood sugar, plasma acetone, blood urea, alkali reserve, haematocrit and an electrocardiogram.

Every case of diabetic coma must be considered on its merits and it is difficult to be dogmatic about dosage of insulin and quantities of intravenous fluids, electrolytes and glucose which may be required. As a general rule 100 units of soluble insulin should be given at once, 40 units intravenously, the remainder subcutaneously. If, however, the plasma acetone concentration is still 4+ after a 1 : 1 dilution the initial dose can safely be 200 units, and, if a second dilution still gives a 4+ reaction, 300 units should be given. Two litres of normal saline should be administered intravenously as quickly as possible, and the infusion continued so long as clinical or laboratory evidence of dehydration remains and the patient is unable to take fluids by mouth. Subsequent insulin dosage will depend on the results of blood sugar and plasma acetone estimations, but it may be necessary to continue with soluble insulin 50 units half hourly starting an hour after the initial dose. If no improvement has occurred after six hours the dose should be increased to 75 units and if no improvement occurs after a further two hours this dose may have to be further increased. The more insulin that is given during the first few hours, the quicker will the patient respond and the better is the prognosis. A diminution in the plasma acetone content increases the sensitivity to insulin and this is usually associated with a falling blood sugar level. At this stage it is wise to add 5% glucose to the intravenous infusion if the patient cannot take carbohydrate by mouth by this time. The administration of alkalis is not usually necessary, but if the initial alkali reserve is below 15 vols CO_2 per 100 ml., sufficient $^1/_6$ molar lactate solution can be added to the intravenous infusion to raise the level by 30 vols CO_2 per 100 ml. In the early dehydrated stage the serum potassium level is usually high as shown by high T waves on the E.C.G. With the lowering of the blood sugar which follows treatment and the passage of potassium into the cells the serum potassium may fall to dangerously low levels. Again the E.C.G. will reflect this change with a prolongation of the Q.R.S. complexes and a lowering or inversion of the T waves and at this stage potassium chloride or citrate may be given by mouth if renal function is normal. 1 Gramme of either salt should be given four hourly starting 4 to 6 hours after the commencement of insulin. Although treatment may be commenced in the home with salty broth by mouth if the patient is still conscious and the initial insulin dose if the diagnosis is in no doubt, all cases of diabetic coma or pre-coma should be admitted to hospital. Their management demands the closest co-operation between the medical, nursing and laboratory staff.

Diabetes and Surgery

In the management of diabetes during the course of surgical operation it is important not only to guard against the occurrence of hypoglycaemia and ketosis but also to prevent regurgitation or vomiting during the period of operation. To achieve these aims a constant source of both carbohydrate and insulin must be available and care must be taken to ensure that the stomach is empty prior to the induction of anaesthesia.

With the continued rise in the average age of the population the problem of the surgical diabetic will become increasingly common. The presence of a condition necessitating surgical treatment is not automatically an indication for stabilisation with insulin, and some diabetics not on insulin may undergo operation without special treatment for the diabetes. Careful post-operative observation is necessary in case the need for insulin should arise. Local anaesthesia, if practicable, is to be preferred. In some mild diabetics on insulin it is possible to carry out minor surgical procedures either early in the day and defer administration of carbohydrate and insulin until after recovery from the anaesthetic, or by giving a sufficient amount of glucose to cover pre-operative insulin by a single intravenous injection. It is essential that patients so treated should be able to take carbohydrate by mouth soon after operation, and in order to minimise the risk of post-operative vomiting, the administration of morphia as a pre-operative sedative is better avoided. The safest and most reliable method, however, of ensuring adequate carbohydrate and insulin intake is to give glucose by the continuous intravenous route with Soluble Insulin in divided doses. An amount of glucose equal to the patient's normal carbohydrate intake should be infused over each 24-hour period, with the total daily dose of insulin given in divided doses four or six hourly. The dose of insulin should be adjusted, depending on the degree of glycosuria or the results of blood sugar estimations. This *régime* is indicated for emergency or major surgery on diabetics of any severity and is to be preferred for minor operations on severe or difficult diabetics.

Glucose administered by the rectal route is not always completely absorbed, and absorption of carbohydrate given as food or glucose by mouth pre-operatively is also unreliable. Regurgitation or vomiting of glucose solution remaining in the stomach is likely to occur, thereby causing considerable anaesthetic difficulties and, on occasions, constituting a very definite hazard to life.

The control of diabetic patients undergoing surgery is not a subject on which it is possible to be dogmatic and each case must be considered individually.

New Methods of Treatment

Hypophysectomy has been employed in an attempt to reduce the severity of diabetes and to arrest the progression of complications. (Luft *et al.* 1954). In the small number of patients on whom this operation has been performed some success in these limited aims has been achieved. In a different approach to the problem, sulphonamide derivatives have been administered by mouth in an attempt to inhibit the hyperglycaemic factor produced by the α-cells of the pancreas. (Franke and Fuchs 1955, Bertram *et al.* 1955). Although ineffective in the treatment of young diabetics, successful results have been claimed for the use of these compounds in elderly or obese patients. In some it has been possible to discontinue the use of insulin altogether and in others insulin requirements have fallen. Neither of these methods of treatment is, however, sufficiently established to allow general application to the management of diabetes, but further results will be awaited with interest.

Conclusion

Further studies in both the experimental and clinical fields of diabetes will provide

new light on the aetiology of this condition and result in fresh approaches to the problem of treatment. It is not too much to hope that one day a cure will be found, although it must be remembered that a virtual cure of obese diabetes is a practical possibility even now by the simple means of weight reduction. In the meantime, much can be done to reduce the incidence of diabetes by paying closer attention to the problems of obesity and heredity, while greater efforts should be made to reduce the distressingly high incidence of degenerative complications by stricter attention to careful long term control.

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BALLAD OF THE GERIATRIC STUDENTS

Now some found other jobs too dull
And some fought in the war
And some still gaze across the street
And wish they'd studied law.
But by degrees Hippocrates
Designed the path to choose—
We're the Geriatric Students
Of St. Bartholomews.

To Brackenburys we don't aspire
Our memories aren't that bright
In fact, to scrape a Conjoint pass
We have to work all night.
But when the gynae. sessions start
Our patter is so smooth
And the Geriatric Students
Are really in the groove.

We'll never make the First Fifteen
We're past all that we fear
A friendly game of bridge or chess
Produces much dyspnoea.
But he who hopes to hold his own
At drinking would be rash
When the Geriatric Students
Go on their nightly thrash.

Our ward rounds may be sluggish
But our social round is free:
We use consultants' Christian names
And ask them out to tea.
And junior nurses have been known
To visit Dr. Strauss
When the Geriatric Students
Move in to Charterhouse.

Our numbers seem to dwindle fast—
The competition's keen,
The grants go to the younger men
And soon we won't be seen.
Perhaps one day in blooming May
A tearful eye they'll dab
When the Geriatric Students
Are on the marble slab.

J. D. PARKER.

THE DIETETIC TREATMENT OF DIABETES MELLITUS

by MISS M. E. FURNIVALL *(Chief Dietitian)*

THE DIETETIC TREATMENT of diabetes mellitus was revolutionised by the momentous discovery of insulin. Prior to 1922 the diabetic faced the alternative of either dying relatively rapidly in hypoglycaemic coma, or of prolonging his life for a few months, or perhaps a year or so, depending on the severity of his condition, by adhering consistently to a dietary *régime* of literal starvation. This had been introduced by Allen in 1912 (Allen 1913). The patient was first starved until he was sugar free. The limits of his carbohydrate tolerance were then established. The maintenance diet allowed only this amount of carbohydrate, even where it was as little as 10-20 gm., and a calorie intake from protein and fat considerably below the patient's normal requirement. Raising this calorie intake even to the nomal requirement had been found to diminish the patient's carbohydrate tolerance, which remained lowered even when the previous rigid *régime* was re-instituted.

With the dramatic introduction of insulin by Banting and Best in 1922, it became possible for the diabetic patient to have at least sufficient to eat, although his intake of protein, fat and carbohydrate was controlled within carefully calculated limits. Joslin, the great American physician, has continued to advocate the use of diabetic diets in which these contents are all calculated. The Lawrence 'Line-Ration' diet (Lawrence 1955), introduced in this country in 1925, provided a method whereby such calculations could be carried out easily and quickly. The so-called 'Line-Ration' is divided into two parts a black 'line' representing a quantity of food containing 10 gm. carbohydrate, and a red 'line' representing a food or foods supplying altogether 7½ gm. protein and 9 gm. fat; both parts of the line together providing 150 calories. The use of such a 10 gm. unit makes for easy calculation of the diet, but has also the disadvantage that for certain foods the measures involved are outside the normal household range, i.e. the bread measure is two-thirds of an ounce.

The fact that diabetic patients had an increased need for protein and fat was recognised by the extra meat, cheese and fat rations allocated to them in World War II. The difficulties of maintaining a rigid diet *régime* under wartime conditions, together with the existence of the limited special protein and fat rations, led in many instances to a loosening of the previous absolute standards. Through practical experience it was found that, provided a reasonable degree of control was maintained on the carbohydrate intake, protein and fat could be taken freely as long as the patient's weight remained within, or preferably a little below, its normal limits. Here then was Allen's original premise restated. The patient's carbohydrate tolerance had been increased by the use of insulin, but it was still necessary not to limit this tolerance by allowing him to become or remain overweight.

The vital importance to the diabetic of maintaining an adequate degree of weight control cannot be overstressed. In the mild type of diabetes frequently found in the obese older patient the use of a 1,000 calorie diet containing some 100 gm. carbohydrate is often the only treatment needed. In the more severe diabetic requiring insulin, who is allowed to take protein and fat freely, it may be necessary to check the intake of concentrated calorie foods if there is a continued increase in weight. Foods which frequently give rise to such an increase are butter, margarine and cheese. In this connection it should also be remembered that some diabetics increase in weight due to taking insulin. Recent work by Le Breton and Tremolière (1955) has emphasised the importance of calories supplied by alcohol. It is now considered that up to 50 per cent of the basal metabolic requirement can be met from calories derived from alcohol. The

question of what alcoholic beverages the diabetic may take should then be considered in relation to his weight. Only beers, stouts, sweet red wines and some liqueurs supply any appreciable amount of carbohydrate. The calories supplied by any specific drink may be calculated from the degree of proof or the alcohol content and the fact that 1 gm. of alcohol provides 7 calories.

So-called 'free diets', in which the patient is allowed to eat what he likes and receives insulin, have been used for some time. Dunlop (1954), formerly himself an advocate of this method of treatment, has published a review of his cases over an extended period in which he stated his conviction that the results have shown him to be wrong in his advocacy. Of fifty diabetics whom he treated on 'free diets' and insulin, only nine were 'in good shape' at the end of nine years. Thirty of the other patients either developed complications; obesity and pruritis, tuberculosis, retinopathy and neuropathy, or died of cardiovascular disease, during the last four years of the period. Dunlop also examined 167 cases on controlled diets, who had been treated for periods ranging from 15-31 years, and who were all at that time receiving at least 20 units of insulin. The patients were grouped as showing a good, fair or poor degree of dietary control. The incidence of diabetic complications was found to increase with a decrease in the degree of dietary control. Only 27 patients (16 per cent) were free from complications, but such patients were 4 to 5 times more common in the group rated as showing good dietary control.

The principles upon which the dietetic treatment of diabetes mellitus are based are:—

1. The establishment of a reasonable degree of control of the carbohydrate intake.
2. The adjustment of the individual's calorie intake to maintain his weight at or a little below the normal for his height and age.
3. The provision of some simple means whereby the patient may vary the form in which he takes his carbohydrate allowance.

The diabetic patient has to face the prospect that it will be necessary for him to maintain some degree of dietary control for the rest of his life. There are some patients whose reaction to the disease is expressed by their making a fetish of weighing every item of food. For the majority, however, the 'reasonable degree of control' can be established by early instruction in the weighing and/or measuring of the necessary foods. When the patients have learnt in this way to judge the size of the portions required it is only necessary for them to check-weigh or measure occasionally to ensure that they still visualise the portion sizes correctly. The carbohydrate units most commonly used in this country to simplify dietary calculations are 5 gm., 7.5 gm. and 10 gm. carbohydrate. Whatever unit is chosen the patient must receive a list of the quantity of each specific foodstuff he is likely to use which will contain this amount of carbohydrate. The presentation of such a list in terms of 5 gm. 'portions' or 10 gm. 'lines' is more easily understood by the patient than where these are shown as exchanges for ½ oz. of bread, the 7.5 gm. unit.

Practical Measures

The daily allowance of carbohydrate prescribed for a diabetic patient will vary with his activity. From 120-150 gm. is frequently used for an initial stabilisation, while a manual labourer may need from 200-250 gm. or more. The distribution of the carbohydrate throughout the day will depend on the type of insulin being used. Figure I outlines the distributions most usually successful, but the needs of individual patients may vary to some extent. It is important to ensure that buffer meals containing 10-20 gm. carbohydrate are given where necessary at mid-morning and bedtime. The distributions suggested are dependent on the length of action of the various insulins.

The individual food habits of each patient must be considered when the diet is constructed. Only the most basic explanations should be given at the first visit. The newly diagnosed diabetic is usually very anxious to undergo the necessary treatment, but nevertheless must have time to accustom himself to the new *régime*. The patient should be encouraged to ask questions about his diet, particularly those which he may consider 'too silly to ask the doctor about', but which constitute a very real stumbling block to him. A frequent example of this type is as to whether the milk allowance should be taken hot or cold. This query may appear futile

MEAL	No Insulin	Soluble Insulin *b.d.*	P.-Z. and Soluble Insulin *m.*	P.-Z. Insulin only *m.*	Globin Insulin only *m.*	Lente Insulin only *m.*
Breakfast and Mid-Morning	¼	⅛	⅛	¼ — 10g. c.	⅕	20%
Lunch	¼	¼	⅛	¼ — 5g. c.	⅖	30%
Tea	¼	1/12		¼ + 5g. c.	15g. c.	20%
Supper and Bedtime	¼	⅛ Optional Bedtime Snack	⅛ Compulsory Bedtime Snack	¼ + 10g. c. Compulsory Bedtime Snack	⅖ — 15g. c. No Bedtime Snack	25% 5%

Figure 1.

Carbohydrate arrangements: the fraction of the total daily carbohydrate to be taken at each meal is shown.

in the extreme, but such a patient may well resolve his difficulty by failing entirely to take his bedtime buffer meal of a cup of milk and a biscuit, with a resultant hypoglycaemia in the small hours of the morning and perhaps a night call for the doctor from a frightened wife.

All diabetics taking insulin should carry glucose, sugar or sweets as an emergency source of carbohydrate in case of hypoglycaemia. Where, however, an increase in exercise, such as playing tennis, is to be undertaken, then additional carbohydrate as bread or biscuits should be taken before commencing play. Carbohydrate in this form is utilised more slowly and so avoids the blood sugar peak occasioned by taking a concentrated carbohydrate, but will meet the increase in endogenous insulin production brought about as a result of the additional exertion.

Diabetic diets for children must provide adequate protein to ensure optimal growth. Since there is a greater likelihood of ketosis in children the fat intake should be carefully watched. The diet prescribed must be adjusted frequently to keep pace with growth and development.

In constructing a diet for a diabetic, who suffers concurrently from dyspepsia or a peptic ulcer, sufficient extra carbohydrate should be allocated to allow for the necessary between-meal milk feeds. The carbohydrate alternatives list should be checked to ensure that only foods suitably modified for a 'gastric' *régime* are included.

The restricted *régimes* originally prescribed for diabetics resulted in the introduction of a number of commercial preparations designated loosely as 'suitable for diabetics'. These range from the 'starch-reduced' products, consisting at best mainly of wheat gluten, to preserves sweetened largely with saccharine, which mould after a short exposure to air. All reputable products marketed today will carry a full analysis on the label or packet. A recent major advance in proprietary foods for diabetics has been the introduction of products sweetened with sorbitol. Sorbitol has approximately the same calorie value as glucose. It is thought to be metabolised through the same pathway,

but probably without involving thiamine. Nevertheless the rate of metabolism is sufficiently slow for sorbitol not to occasion a rise in the blood sugar level when taken in small quantities at a time. More than 2 oz. of sorbitol a day may give rise to diarrhœa. Preserves made with sorbitol keep indefinitely.

Many patients benefit considerably from becoming members of the British Diabetic Association. The realization that there are many other people who have come to terms with their disability and live normal and useful lives can be a very present help to the 'new diabetic'. The Association publishes a quarterly journal, which always includes seasonable recipes and dietary information.

Summary

The dietetic treatment of diabetes mellitus is based on the establishment of a reasonable degree of control of the patient's carbohydrate intake. The calorie intake should be regulated so as to maintain the patient at or a little below the normal weight for his height and age. The distribution throughout the day of the carbohydrate allowed will depend on the type of insulin used.

The diabetic can best be helped to achieve successful dietary control through patient individual early teaching. Only in this way can the diabetic learn to appreciate the limits within which he must learn to live for the rest of his life.

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Example

150 gm. carbohydrate arranged for lente insulin

		gm. CHO
Breakfast:	Tea, milk to colour ...	—
	1 oz. bread	15
	Egg, bacon or fish, etc. ...	—
	Butter or margarine ...	—
		15
Mid-morning:	3½ oz. milk for coffee ...	5
	½ oz. plain biscuits	10
		15
Mid-day:	Meat, etc.	—
	Vegetables from List I ...	—
	3 oz. potato	15
	Fruit	10
	7 oz. milk) ...	10
	½ oz. cereal) as pudding...	10
		45
Tea:	Tea, milk to colour ...	—
	2 oz. bread	30
	Butter or margarine ...	—
	Salad, if desired	—
		30
Evening Meal:	3½ oz. milk for coffee ...	5
	1 oz. bread	15
	Egg, etc.	—
	Vegetables from List I ...	—
	Fruit	10
		30
Bedtime:	7 oz. milk	10
	¼ oz. Ovaltine, etc. ...	5
		15

List I. Foods which may be taken freely

Vegetables	Beverages
Artichokes, green	Tea
Asparagus	Coffee (ground or instant)
Beans (french)	Water
Beans (runner)	Soda water
Broccoli	Clear broth
Brussels sprouts	Marmite
Cabbage	Oxo, Bovril
Cauliflower	Fruit drinks (for diabetics)
Celery	
Marrow	Fruits
Mushrooms	Gooseberries, stewing
Scarlet runners	Rhubarb
Seakale	
Spinach	Condiments
	Salt
Salads	Pepper
Cucumber	Mustard
Lettuce	Vinegar
Mustard and Cress	Saccharine
Radishes	Vanilla
Watercress	Lemon juice
Tomato (in salad)	Gelatine
	Salad Oil

List II. Foods from which one average helping a day may be chosen if desired

Vegetables	Fruits
Artichokes, Jerusalem	Blackberries, stewed
Carrots, raw or cooked	Granberries, as purchased
Leeks, boiled	Grapefruit, half in skin
Onions, boiled	Loganberries, raw
Swedes, boiled	Redcurrants, stewed
Tomatoes, raw or cooked	
Turnips, boiled	

List III. Carbohydrate foods

Each PORTION contains 5 gm. carbohydrate

Vegetables	oz.
Beans, baked, tinned	1
Beans, broad, boiled	2½
Beans, butter, boiled	1
Beans, haricot, boiled	1
Beetroot, boiled	1¾
Horseradish, raw	1½
Lentils, boiled	1
Onions, fried	1¾
Onions, spring, raw	2
Parsnips, boiled	1½
Peas, boiled	1½
Peas, dried, boiled	1
Peas, tinned	1
Potatoes, boiled	1
Potatoes, chips	½
Cereal Foods	
Allbran	¼
Biscuits, plain	¼
Bread, white or brown	¼
Bread, Hovis	¼
Cream crackers	¼
Cornflour, dry	¼
Flour, raw	¼
Breakfast cereals	¼
Macaroni, raw	¼
Macaroni, etc., cooked	1½
Oatmeal, raw	⅓
Oatmeal, boiled (2½ oz. to 1 pint water)	1⅓
Rice, sago, tapioca, semolina, raw	¼
Ryvita, etc.	¼
Toast	¼
Beverages	
Bournvita, etc., powder	½
Cocoa powder	½
Milk	
Fresh, whole or skimmed	3½
Unsweetened, condensed	1½
Miscellaneous Foods	
Blackcurrant purée	½
Blackcurrant, syrup	½
Rosehip syrup	½
Concentrated orange juice	½
Jam, marmalade, honey	½
Syrup and treacle	½
Jelly in packet (as purchased)	½
Icecream	1

Fruits	oz.
Apples, raw	2
Apples, raw, no skin, etc.	1½
Apples, stewed	4
Apples, baked with skin	2
Apricots, fresh	3
Apricots, dried, raw	½
Apricots, dried, stewed	1
Bananas, peeled	1
Blackberries, raw	2½
Blackcurrants, raw	2½
Blackcurrants, stewed	4½
Cherries, raw	1¾
Cherries, stewed	4
Currants, white, raw	3
Currants, dry	¼
Damsons, raw	2
Damsons, stewed	2½
Dates	⅓
Dates, no stones	¼
Figs, green, raw	2
Figs, dried, raw	½
Figs, dried, stewed	¾
Gooseberries, dessert	2
Grapes, black	1⅓
Grapes, white	1
Greengages, raw	1½
Greengages, stewed	2½
Loganberries, stewed	2½
Melon, edible part	3½
Melon, cantaloup (with skin)	5½
Melon, yellow (with skin)	5½
Nectarines	1½
Oranges, edible part	2
Oranges, juice	2
Peaches, fresh	2½
Peaches, dried, raw	½
Peaches, dried, stewed	1
Pears, raw	2½
Pears, stewed	2½
Pineapple, fresh (edible part)	1½
Pineapple, juice	1½
Plums, dessert, raw	2
Plums, stewed	4½
Prunes, dry, raw	½
Prunes, stewed	1
Raisins, dried	¼
Raspberries, raw	3
Raspberries, stewed	4½
Redcurrants, raw	4
Strawberries, fresh, ripe	3
Sultanas, dried	¼
Tangerines	3

EXAMINATION RESULTS AND AWARDS

CONJOINT BOARD

Final Examination, March, 1956

Physiology
Collier, B. R.

Pharmacology
Alade, R. B. — Graham-Evans, J. N.
Jewell, W. H. M. — Laurent, J. M.
Roberts, I.

UNIVERSITY OF OXFORD

Second B.M. Examination, March, 1956

Pharmacology and Principles of Therapeutics
Burfoot, M. F.

Forensic Medicine and Public Health
Bradbury, M. W. B. — Poyntz-Wright, R. C.
Dawson, J. B. — Buchanan, R. L.
Troughton, R. E. — Whitehouse, M. S.

Special and Clinical Pathology
Bradbury, M. W. B. — Buchanan, R. L.
Dawson, J. B. — Griffith, R. W.
Poyntz-Wright, R. C. — Troughton, R. E.
Whitehouse, M. S.

* * *

Brackenbury Scholarship in Surgery
Awarded to : D. H. Elliott
Prox. Access : N. S. C. Rice

RAIN SONG

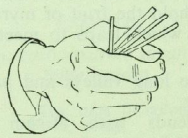
Rivulets of water, spewn from a sombre sky,
Run down the mountain coursing and checking.
Dancing an elfin prank with bubbling delight,
Headlong they tumble over the stony flank.
Joining in unison, each with his fellow,
Their chorus grows in sound and drift.
And as they force a merry onward path.
The wild enthralling chant gives tongue to joy.
Faster now the ripples run in gleaming throng.
Carving a deeper fretwork in the giant's side.
And so behold the fruit of myriad unions,
A stream, which leaps to meet the restful plain.
Nearing the long valleys and pausing from the race,
Stream blends with stream in richer harmony.
The carefree tilt is slowed, the voices soften,
A young river stretches forth, murmuring content.

K. S.

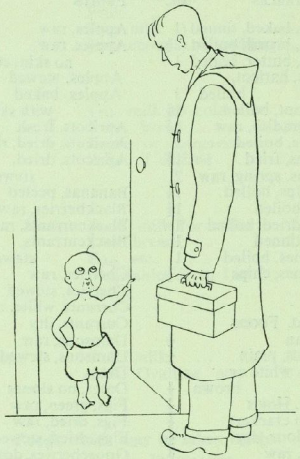
B. B. A.

by E. A. J. ALMENT

BORN BEFORE ARRIVAL is the customary reproach to incontinent motherhood. Perhaps babies have their own conventional A. B. C. —arrived before clerk. But this is simply conjecture because the only writing on the subject is confined to the Register of District deliveries, where some two decades of District Clerks have recorded their experiences in the column headed (unfortunately): 'Remarks'. Here the sterling qualities of Bart's men pitted against hopeless odds are modestly displayed—their fortitude, 'B.B.A. Car out and had to revert to bike. Pouring with rain', their sense of fair play, 'Clerk selected too late', their spirit of adventure, 'N.B. Canonbury 1. Road 2. Lane 3. Square 4. Avenue ALL EXIST'. 'Do as I did—scour the district and investigate every lighted window. Found this one third time round at 4th attempt', their strong religious ties, 'B.B.A. Waste of a perfectly good Sunday afternoon', and their addiction to their own therapeutic measures, 'B.B.A. owing to confusion over gas and air'. Some of the delays are disastrous, and into the entry: 'B.B.A. Stopped by police who apologetically misdirected me—P.P.H. 4 pints', one can read the stiff upper lip holding back the unspoken comment 'bless the constabulary, but if only I'd been there'.



'Clerk selected too late'.



B. B. A.

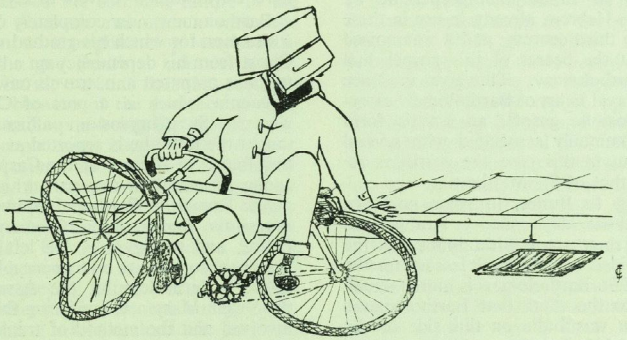
It would be wrong to imagine, however, that such timeless epigrams spring only from adversity. There are rewards too in District work—'Interesting case; husband a chef—yum yum!' 'Father dazed with wonder—asked what he owed', and here loyalty to the Department asserts itself: 'Tipped 10s. for my services—H.S. called'.

Let's consider, then, a typical foray out into darkest London described in the colourful language of students savouring the first fruits of independence. Our enthusiast has his first setback in the surgery, which incites him to homicidal thoughts: 'Porter got the address wrong—cord twice round neck'. He sets off therefore in tremendous haste and 'fell off bike in Farringdon Street in my hurry and arrived ¾ hr. too early'. Presumably it is a typical bicycle injury that results, 'held up by tight perineum and traffic lights at the Angel', but at last he arrives at the tenement to be greeted by: 'leave your coat outside in the hall—it'll give us more room in here'.

Squeezing in amongst the bowls and kettles, our eager hero finds a riotous scene. 'First catch your patient', he properly exclaims, and follows with a brisk shot of pethedine. This has an unexpected result: 'Husband switched off lights at mains as a protest against use of pain relief agents'. Or perhaps candles are needed because there is 'no electric light, no baby clothes, no nightie, no husband—"just one of those things", said patient'. Under cover of darkness a swift stroke of malpractice: 'Illegal episiotomy and repair', precedes a display of butter-fingers—'born into fireplace but bounced'. But all are now happy except mother, who 'wanted a boy'. Or a girl, of course. The inevitable concomitant to an English celebration arrives: 'tea from L.N.E.R., L.M.S. and B.R. cups', and, of course, 'husband was an efficient porter for the Minnitt's'.

So our adventurer, now a doctor by reputation if not by degree, emerges with poetry in his heart 'beyond the confines of the District map, but rewarded by seeing the dawn over Islington'. And returns to add his quota to the substance of this article.

P.S.—This is not to be read as encouragement to misuse the term 'Remarks'. The motto of the District is still Business Before Amusement.



'Fell off bike in Farringdon Street in my hurry'.

OBITER DICTA

Mr. F——r (on a ward round):

'I won't go into trial labour just now'.

Mr. B——e:

'Women are always saying, "Good morning" to me, and I don't know who they are. They do it in the Hospital, in Piccadilly, and all over the place.'

THE LIFE OF SAINT BARTHOLOMEW

PART II: HIS MISSION

by J. B. DAWSON

THE ACTUAL section of the world, as then known, which had been apportioned to Bartholomew was, according to Eusebius, 'the remoter Indies.' This was upheld by Eusebius because he states that when St. Pantaenus, the master of Origen and St. Clement of Alexandria, was sent by Demetrius, the patriarch of Alexandria, to evangelize the peoples of India from the Brachman, he found the gospel of St. Matthew, in Hebrew, already in use in these parts in the third century, and it was noised abroad that the bearer of this gospel had been St. Bartholomew. This gives credence to the portrayal in art of Bartholomew carrying his apostolic gospel, an artistic form which is commonly associated with several apostles, but in this case the gospel is restricted to that of St. Matthew.

According to Butler, in some contexts, India in those days meant Arabia and Persia, but there seems little doubt that the report provided in the church lessons for the feast day of St. Bartholomew is more factual. This was to the effect that Bartholomew's *département* was India on this side of the Ganges, which included forty kingdoms, and stretched from the empire of the Grand Mogul in the North to the Indian Ocean in the South. This definition of India cannot, of course, possibly mean anything else, because it is restricted by massive natural barriers in the forms of mountain ranges, oceans and major rivers.

Bartholomew begins his travels abroad, we are told in the Acts of Philip, in the company of Philip, John and Mariamne and their disciples. Their travels lead them to Hierapolis in North West Asia, where they lodge at the house of Stachys. In this city one of their acts was to heal the diseased eyes of Nicanora, the proconsul's wife. This results in her conversion, much to the fury of her husband who seizes Philip, Bartholomew and Mariamne and condemns them to torture. Philip is hung head down, pierced in the ankles and thighs, while Bartholomew is hung naked by his hair. Philip cannot restrain himself and uses his powers to revenge himself upon his captors by sending the 7,000 inhabitants and their city into the abyss. At this juncture Christ appears, rebukes Philip and restores the inhabitants to their daily round. Philip, in his remorse for his loss of control, demands to stay on his cross and to die, while Bartholomew is released. From here Bartholomew travels to Lycaonia.

Bartholomew, now completely on his own, a situation for which his gradual weaning by Christ from his dependency on a life of comfort has prepared him, travels onward. From Lycaonia, which is a port of Cappedocia, wherein St. Chrysostom affirms that he taught the faith, he is reported as proceeding to Albania in Asia, near the Caspian sea, to India, at least into any part which was not of the Roman or Parthian empires, and into Abyssinia, Persia, Aden, Carmania, Arabia Felice, and to Egypt. He left Thebes in Egypt, according to an apocryphal act, to travel to Jerusalem for the Assumption of the Virgin Mary. Considering the distances involved and the method of transport available at this period, this was no mean achievement for one man, and emphasizes his zeal and the extent of his work.

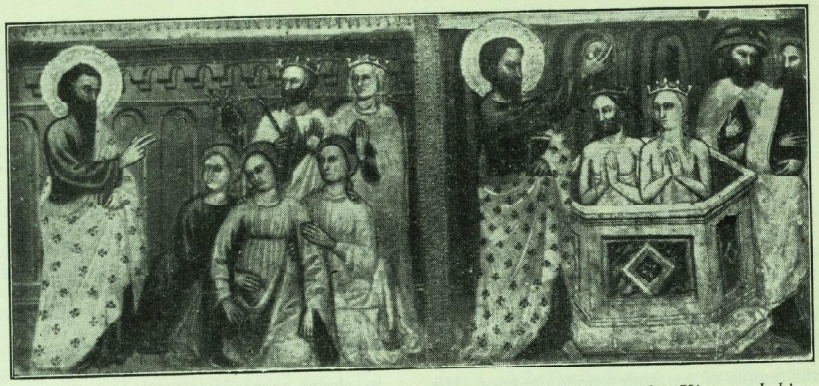
It is in this part of his life that countless alternatives arise as to Bartholomew's exact movements, and having named a few of the centres *en route*, I will mention that he was reported to have been martyred in the following places:—

1. Lycaonia.
2. Areban on the borders of the Black Sea.
3. Derbend on the Caspian Sea, a Carpet-making centre and an outpost of the Persian empire.
4. Albanopolis in Armenia.

Apparently his method of preaching was to emphasize temperance, which I interpret not as a withholding from the grape, but as universal tolerance which was notoriously absent among the peoples of this region at that time. The story I should like to present as representative of the closing of Bartholomew's earthly existence is largely recorded by Gregory of Tours in a sixth century MS., substantiated by the Golden Legend, by Jacobus de Voragine, which was 'Englished,' and printed by William Caxton at the very dawn of British printing.

The story begins in Albanopolis in Armenia. This city was the capital of a kingdom governed by one king Polimius, and was the centre of an idolatrous religion to the god Astaroth. This god was endowed with the ability to alleviate sickness for a month or so, and by this means he would achieve the gratitude of his devotees and eventually become the master of their souls. Bartholomew, travelling in Armenia as a pilgrim, arrived at Albanopolis and lived in the temple of Astaroth among the poor. His presence caused the complete failure of the powers of Astaroth and after a while the people went to a neighbouring temple dedicated to the god Berith to ask the reason for this. Berith explains that this situation has arisen because of the presence of Bartholomew and upon being questioned as to how the people might identify Bartholomew, and thus restore the temple to its former functioning, he describes Bartholomew as follows:—'He has black hair, a shaggy head with a fair skin, large eyes and beautiful nostrils. His ears are hidden by the hair of his head and he wears a yellow beard with a few greying hairs. He is of middle height, neither tall nor stunted, but middling, clothed with a white undercloak, bordered with purple. Upon his shoulders he carries a very white cloak, and his clothes have been worn some twenty-six years, but neither are they dirty, nor have they waxed old. A hundred times a day he bends the knee to the Lord his God, and a hundred times a night does he pray. His voice is like the sound of a strong trumpet and there go along with him angels of God, who allow him neither to be weary, nor to hunger, nor to thirst. His face, his soul, and his heart, are always glad and rejoicing; he foresees everything, he knows and speaks every tongue of every nation. And behold, now, as soon as you ask me and I answer you about him, behold he knows, for the angels of the Lord tell him. If you wish to seek him and he is willing he will appear to you, but if he shall not be willing you will not be able to find him. I entreat you, therefore, if you shall find him, beseech him not to come here, lest his angels do to me as they have done to my brother Astaroth.' They looked for Bartholomew for two days and then one who was a demoniac (possessed of a devil) started to cry out 'Apostle of the Lord, Bartholomew, thy prayers are burning me up.' Then Bartholomew said, 'Hold thy peace and come out of him'. This was but one of the many miracles that Bartholomew had wrought locally and he had acquired as a result of these, a considerable local following, a fact which pleased the local theological hierarchy not at all. In time these deeds of Bartholomew came to the ears of king Polimius, who sent for him and begged him to cure his daughter, who was possessed of an evil spirit. On arriving Bartholomew found her bound in chains to prevent her tearing her limbs to pieces, and to stop her biting her servants. He commanded them to 'loose her and let her go' to which they replied, 'we have her in our power when she is bound with all our force. and dost thou bid us loose her?' To which Bartholomew replies by explaining, 'behold, I keep her enemy bound and are you even now afraid of her? Go and loose her, and when she has partaken of food let her rest and early tomorrow bring her to me'. And they did so, and thereafter the demon was not able to come near her.

The king and queen were overjoyed at this result and sent Bartholomew several camels laden with gold, silver, precious stones and rich clothes. Bartholomew, anticipating the arrival of this reward from a revelation which he had experienced, hid himself, and the bearers of these presents being unable to find Bartholomew returned to the palace, taking the riches with them. On the morrow Bartholomew decided to visit the king and explain his behaviour. On entering the king's bedroom, by passing through the closed door, he explained to Polimius that it was not for earthly gifts that he performed these cures, but from a desire to save souls. With this he begged the king to achieve eternal and heavenly riches by forswearing his present superstitious idolatry, and to accept the doctrine of his true God. He goes on to relate to Polimius the story of the immaculate conception and of the manner of Christ's birth, and of how the devil overcame man, that is Adam, through the eating of an apple, and how in return Christ overcame the devil by fasting. He continues by comparing Adam, the Son of Earth, with



St. Bartholomew exorcises the daughter of Polimius, and baptizes the King and his Courtiers.

Christ, the Son of a Virgin, and explains the significance of baptism into Christ's Church, and urges the king to undergo this.

Polimius agrees to this if Bartholomew will show him further evidence of the power of the Lord. So Bartholomew undertakes to force the idol of Astaroth to confess with his own mouth that he is powerless in the presence of God. The king states that on the morrow at the first hour of the day the priests are to sacrifice, and that he would attend at that time to witness the confounding of the heathen god. In the middle of the service the devil interrupts, and speaking through the idol's mouth he tells of Christ's victory over his kind and of the presence of Bartholomew, one of Christ's apostles, in the temple at that very time. Bartholomew, with the king's permission, then commands the destruction of the idols, and he sanctifies the temple in the name of Christ. To do this the king gives orders for ropes and crowbars to be brought in order to destroy the idols, but these are of no avail. So Bartholomew orders them to remove the ropes and addressing the idol he says, 'In the name of Our Lord Jesus Christ come out of this idol, and go into a desert place, where neither winged creature utters a cry nor voice of man has ever been heard'. And straightway the devil arose at the word of the apostle, and lifted up the idol from its foundation. In that same hour all the idols that were in that place were broken into pieces. Following this the apostle calls on the Lord to redeem this multitude, and when all had responded to the amen, there suddenly appeared an angel of the Lord shining brighter than the sun, winged, and with four other angels, supporting the four corners of the temple. The angel purified the temple and showed the devil, who had previously dwelt therein, as an Ethiopian black as soot, his face sharp like a dog's, thin cheeked, with hair down to his feet, eyes like fire, sparks coming out of his mouth, and out of his nostrils issuing forth smoke like sulphur, with wings spined like a porcupine and his hands bound with fiery chains, and he was firmly kept in. The angel banished the devil to 'where voice of man is not heard, and to remain there until the great day of judgment', and when he let him go the devil flew away, groaning and weeping and disappeared. And the angel ascended into heaven in the sight of all.

The result was so absolute upon Polimius and his people that they demanded immediate baptism into the Church in the name of the Father, Son and Holy Spirit. The king forsook his diadem and with his queen set an example, that was immediately followed by twelve towns of the kingdom, in entering the church. Polimius himself not only became a disciple of Bartholomew while he remained in that area, but later became the first bishop of the Christian Church in that region, presiding for twenty years until his death.

The priests of the overthrown cult were furious and in revenge sent word to king Astyages, the brother of Polimius, who ruled a neighbouring kingdom, as to how the idols, including that of Baldach, had been overthrown. Astyages, on behalf of his ancestors and himself sent 1,000 men to take Bartholomew, who was travelling once more, and to bring him before him. This was done, and Astyages challenged Bartholomew saying, 'Art thou he who has perverted my brother from the gods?' 'I have not perverted him, but have converted him to God', replied the apostle. 'Art thou he who caused our gods to be broken in pieces?' continued Astyages. 'I gave power to the demons who were in them, and they broke in pieces the dumb and senseless idols, that all men might believe in God Almighty who dwelleth in the heavens'. 'As thou hast made my brother deny his gods and believe in thy gods, so I will also make thee reject thy God and believe in my gods'. Bartholomew challenges Astyages with these words, 'I have bound and kept in subjection the god which thy brother worshipped, and at my order the idols were broken in pieces, if thou also art able to do the same to my God thou canst persuade me also to sacrifice to thy gods; but, if thou canst do nothing to my God I will break all thy gods in pieces and thou shalt believe in my God'. After this the king is informed that his god, Baldach, and all the other idols, had fallen down into pieces, whereupon the king rent his clothes and ordered Bartholomew to be beaten and then to be beheaded.

Twelve thousand came from the nearby converted cities and took up the remains of the apostle, and with songs of praise and glory laid them in the royal tomb. Astyages, hearing of this, ordered the remains to be seized once more and to be thrown into the sea. And it came to pass on the thirtieth day after the apostle was martyred, King Astyages was overpowered by a demon and miserably strangled, and all the priests likewise perished, on account of their rising against the apostle, and thus they died by an evil fate. This caused great fear and trembling throughout the land and all came to be baptised in the name of the Lord by the presbyters who had been ordained by Bartholomew. This martyrdom ended Bartholomew's life in A.D. 44.

To be continued

HOSPITAL APPOINTMENTS

The under-mentioned appointments to the medical staff take effect from the dates mentioned:—

Gynaecology & Obstetrics
Senior Registrar (Chief Assistant): N. Gourlay, succeeds J. D. Andrew, 1.4.56.
Registrar: T. P. Jupp (temporarily until permanent appointment made—vice Gourlay).

E.N.T. Department
Senior Registrar (Chief Assistant): P. Timms, succeeds Farrar, 1.4.56.

Diagnostic Radiology
Senior Registrar (Chief Assistant): B. C. Hale, succeeds Green.

Department of Pathology
Senior Registrar: H. Wyatt, succeeds Williams.
Senior House Officer: J. A. Gobert Jones, 16.4.56.

Mr. Naunton Morgan's Firm
Registrar (Chief Assistant): J. D. Griffiths, succeeds Hunt, 1.5.56.
Junior Registrar: G. A. D. Lavy, succeeds Shawe, 1.4.56.

Anaesthetic Department
Registrar: Mr. T. M. Young (temporarily until permanent appointment made—vice Saville).
Senior House Officer: Miss R. Hutchinson, vice Hicks.
House Officer: Mr. Kell, vice Hutchinson.
House Officer: Mr. Fielding (temporarily until end of May).

SPORTS NEWS

SAILING CLUB

The Hospital Sailing Club enters the current season with a much diminished membership, but with a very satisfactory racing record behind it. In fact, last year, Bart's won every Inter-hospital race in which they competed, and the three trophies offered annually for inter-hospital racing now grace the cabinet in the library. This success can probably be attributed to the fine teamwork shown by the regular crew, who have now sailed together for almost three seasons.

It is a pity that these racing successes have been achieved by limiting the number of people involved. This question has been discussed by the club officers many times, and it is felt that in the interests of racing, where only results count, a small permanent team is preferable to a rotation of crews. The rank and file of members can, however, race against helmsmen from other Hospitals in the weekly 'spoon races', for which a points' Cup is presented at the end of the season. Cruising is, of course, open to all.

The Bart's Sailing Club is not in as healthy a state as the racing results alone would indicate; for the past three years membership has been decreasing steadily. From a peak of some forty members it has reached the low figure of twenty-odd members. Absence of active support from Charterhouse has been particularly worrying, but there are signs of awakening interest there, which we hope will produce a strong pre-clinical group in the club.

The Bart's Firefly continues to be stationed at the Welsh Harp, Hendon, where there are good opportunities for racing with the University of London and R.A.F. Sailing Clubs.

The real strength of the club lies in its U.H.S.C. membership. In the Clubhouse one meets men and women from the other twelve teaching hospitals; and one has the exclusive use of the club's nine sixteen-foot dinghies and unrivalled opportunities of crewing on many classes of boats.

As mentioned elsewhere in this issue, Bart's Sailing Club Annual Regatta is taking place this month.

ROWING

HEAD OF THE RIVER RACE

This was held on Saturday, March 24, and was rowed over the Boat-race course from Mortlake to Putney. Owing to a misunderstanding over the entry last year, Bart's rowed as Molesey III and finished 97th. This year the organizers of the Race treated the Hospital as a new entry and so the 1st crew had to take their place towards the bottom in the order of starting, No. 216.

The 1st VIII went off briskly, putting in thirty-five strokes within the first minute; by Barnes Bridge they had drawn level with No. 215 (Royal Veterinary College) and they steadily drew past them. Between Barnes Bridge and Hammersmith the crew were striking 30 and had the boat running well, but at Hammersmith a slight headwind temporarily unsteadied them and they were passed by No. 218 (Sidney Sussex Coll., Camb.). Passing Harrods they were level with No. 208, and recovering well they went ahead. Stroke worked the rating up from Beverley Brook and as the crew passed the finishing post they were only a ¼ length from No. 214 (Royal Navy, Portsmouth).

The 2nd VIII, starting No. 235, did not develop the latent power that they had shown in training and were passed by four crews.

In the final placings, the 1st VIII were 102nd with a time of 22 min. 2 sec., and the 2nd VIII were 221st with a time of 23 min. 29 sec.

Crews

1ST VIII: D. King (Bow), A. J. Ellison, J. Bartlett, J. R. Strong, C. C. H. Dale, E. Makin, E. M. C. Ernst, R. France (Stroke), J. Watson.

2ND VIII: A. Padfield, G. Martinez, W. R. Gray, R. Jones, I. Stewart, G. Hall, P. Fenn, L. J. Farrow (Stroke), J. K. Tabert (Cox).

HOCKEY

SEASON'S RESULTS

Won 6 : Lost 13 : Drew 5

This was a better season for the Club. No side completely mastered us and if fortune had allowed us to field a full side throughout the season the results may well have been excellent. C. S. Goodwin was unable to play at all through illness and E. I. Batterham missed the better part of the season, so leaving vacant the vital centre half position. H. B. Ross and B. Reiss came to the rescue and the Club is extremely grateful for their valuable and enthusiastic play, and earnestly hopes to see them both next year.

The forwards were capable of great things and from time to time really showed their worth. A. S. Anderson, at centre-forward, scored many goals, and on a dry pitch was a formidable player. Another newcomer, N. C. Roles, produced the skill and constructive ideas that have been lacking so long in the side and has been a source of inspiration to the more tardy members throughout this season. A. S. Tabor, having moved to inside-right, improved considerably, and with J. R. Nicholson as his speedy and ebullient partner, began to enjoy his hockey.

C. B. T. Grant and P. G. Ford both had good seasons and their long and valiant service to the Club has been much appreciated.

The Captain, R. P. Doherty, an outstanding goalkeeper led his Regiment from behind, but not like the Duke of Plaza Toro because he found it less exciting. No one has done more for Bart's hockey for many years and his standard of play is justly reflected by his appearance for his county sides. J. B. Nicols, by not taking his secretarial duties too seriously, was responsible for the scoring of several goals throughout the season. He played left-back.

Next year we look forward to a Cambridge Tour, possibly a Festival at Easter and another of those most enjoyable games with the Past.

The Club would like to thank its President for his continued interest and encouragement and to Mr. P. F. Jayes, a Vice-President, for his most generous hospitality to the side.

The second XI had a disappointing season only because it was impossible to field a regular side. D. Wright, the Captain, was a tower of strength and most nobly supported by C. A. McNeil, an able newcomer, and R. White.

SQUASH CLUB

Match Results: Won 7, Lost 13.

The loss of Chalk and Maclay, last year's first and second strings, proved too much of a handicap for this year's team. Our results before Christmas, when only one match was won, showed how ill-prepared the remainder of the team was to take over these places successfully. However, after Christmas six matches were won in a more convincing style.

Although final results are not to hand, calculations prove that our place in our division of the Cumberland Cup Competition has been maintained. This Competition, run on a home and away basis, has proved again a most enjoyable experiment, and we hope next year to enter once more.

All efforts to find new players of first team calibre showed that, although skill was at a premium, the Hospital abounds in enthusiasm. Several young players in a pre-clinical competition showed much promise and should be of value to the side by next year.

The Second team won six and lost two of their matches and thoroughly enjoyed their evenings.

The following represented the Hospital in the Hospitals Cup, when we were narrowly defeated 3-2 by St. Mary's Hospital:

J. R. Nicholson, C. Whally, J. B. Nichols, M. J. S. Scorer, H. Bower.

Our thanks are due to Dr. R. A. Shooter for his enthusiatic encouragement, and for the enjoyable staff match which the Hospital had the ill manners to win, 4-1.

RUGBY

1st XV v. Old Millhillians. At Chislehurst. March 3. Lost 3-5.

This was a game in which neither side could have obtained much pleasure. The Bart's team were suffering from the effects of the long rest enforced by the frost and the hard game against St. Mary's on the previous day, whilst Old Millhillians had not played for a month and were very unfit, not excepting the England scrum-half, J. Williams, who had a poor game.

A draw might have been a fair result, for the Old Boys were fortunate to gain the only try of the match when they scored in the first half. In the second half the weary Hospital side pressed hard and tried to save the game, but their only reward was a penalty goal in the closing minutes from the 25 yard line by Halls.

D. A. Lammiman, F. F. D. Gawne, B. Lofts and R. R. Davies were all absent through injuries acquired on the previous day, but the team were fortunate in welcoming back Dr. M. J. A. Davies who has returned from the Navy, and who will no doubt be a valuable asset next season.

TEAM: B. W. B. Badley; J. Laurent, J. Neely, G. Halls, R. M. Phillips; M. J. A. Davies, C. A. C. Charlton; D. W. Downham, C. J. Carr, K. Priscott, J. S. T. Tallack (Capt.), D. W. Roche, H. Thomas, T. Gibson, J. C. Mackenzie.

1st XV v. Aldershot Services. At Chislehurst. March 17. Lost 6—8.

Chislehurst was at its best on this day with a soft turf, a beautiful sunlit sky, and a feeling of Spring in the air. It was unfortunate that Bart's should have had to take the field without so many regular players, viz. Lammiman, R. R. Davies, Charlton, Downham, Lofts, Gawne, Thomas and Mackenzie. This was especially grievous as a Bart's victory would have been certain with these players on the field. However, those who did play made a very good showing; it augured well for next season when several of the newcomers must take their place in the 1st XV.

The game itself opened with the Services pressing strongly and they took the lead after ten minutes with a dropped goal by their outside half. Near half-time the scores were levelled by M. J. A. Davies who cut through beautifully and swerved past the full-back to gain a try. Halls' attempt at conversion hit the cross-bar.

In the second half the Services regained the lead with a try from their left winger who out-paced Phillips and Badley to score wide out. The kick was successful. The last twenty minutes were taken up with Bart's fighting to regain the lead, during the course of which Halls kicked a grand penalty goal from wide out. Ross played a good game in his first match but was unluckily injured near the end.

TEAM: B. W. D. Badley; J. Laurent, J. Neely, G. Halls, R. M. Phillips; M. J. A. Davies, A. Ross; D. B. Lloyd, C. J. Carr, D. W. Downham, K. E. A. Norbury, D. W. Roche, J. S. T. Tallack (Capt.), T. Gibson, M. Whitehouse.

1st XV v. Harlequin Wanderers. At Teddington. March 24. Lost 0—45.

A most disappointing and tragic end to the season; so overwhelmed were the Hospital that no descriptive account can be written. Bart's were without the services of Badley, Phillips, R. R. Davies, Charlton, Ross, Berry, H. Thomas, Mackenzie, Lofts and Lloyd, so a number of players had to be drawn from the junior XVs. Harlequins, on the other hand, anticipating strong opposition, from recent reports of Bart's strength, included eight of their regular 1st XV in the side, including W. P. C. Davies, the England and Lions centre three-quarter.

It was particularly at forward that the Hospital were beaten, being completely out-pushed in the tight. Costley, at prop, and Beardwell, scrum-half, both of whom had been brought up from the 'B' XV, struggled manfully at a job which

demanded far more than their years and weights could be expected to cope with. Credit must go to them for the brave game they played.

TEAM: W. Walton; J. Laurent, G. Halls, J. Neely, D. A. Lammiman; M. J. A. Davies, C. Beardwell; D. W. Downham, C. J. Carr, W. Costley, K. E. A. Norbury, D. W. Roche, J. S. T. Tallack (Capt.), E. F. D. Gawne, S. R. Costley.

SEVEN-A-SIDE TOURNAMENT
Won by Specials I

In this competition the enthusiasm of the teams made up for any lapses in play. Of the semi-finalists, *Specials I* had received a bye in the first round and had beaten *Childrens* 12-3. *Mtdder and Gynae.* had beaten *Dr. Spence* and then *Drs. Cullinan and Bourne*, thus making a clean sweep of the two medical firms. *Out-Patients* had defeated *Revision* and the *Seniors* had disposed of *Specials II* and *2nd Time Clerks and Dressers*.

The first game in which the *Specials I* trounced *Midder and Gynae* 22-0, produced the only dropped goal of the day; Davies kicked it from the twenty-five yard line and ten yards from the touch-line, a masterly kick. In the other half of the draw, a much less orthodox game ended with *Seniors* having beaten *Out-Patients* 11-0. For the *Seniors* Roche scored the last try after running the whole length of the field.

In the final the favourites, *Specials I*, won conclusively 11-0. The game, however, was full of incident. In the first minute Waldron (Specials) went off with an injured knee, but very soon came back. Walton (Seniors) just missed a penalty goal from a long way out; then Davies (Specials), the outstanding player of this and the Registrar's XV, scored and converted a try after Stainton-Ellis gamely chased him down the field. Waldron's knee recovered enough to allow him to do a nippy touch-line run to score by the corner flag. The game then changed into an undressing contest with Waldron trying to pull two shirts off one person, and Gawne hastily pulling up his trousers which had been yanked down to his ankles. The last try was scored by Edwards after a loose scrum in the Senior's twenty-five.

REPORT FOR SEASON 1955-56

The season has now ended and one can look back on the progress which has taken place during the past two years with some satisfaction; almost all of the clubs that we play have been defeated once in that time. This is encouraging as it shows what can be done when a real effort is made. We have also received what one hopes will be the final reminder of what may happen when a full team does not turn out, and the game is not taken seriously, in the overwhelming defeat by Harlequins in the last match of the year.

At the beginning of the season, the outlook was grim, but a new team was somehow built up and replacements for Macadam, Benedikz, Jewell, Graham, Scott-Brown, L. Thomas, Mulcahy, Murphy, Cohen, Plant and Sleight eventually found and trained, with the result that the record at Christmas was no worse than last year. It was, however, exceedingly difficult to keep a regular team with so many members working for examinations, on the House, or being injured; added to which Lammiman, Norbury, Gawne, Downham and Lofts could not turn out regularly, due to various other commitments. Phillips too was often absent, due to holidays and invitations to play for the United Hospitals and Middlesex. He is to be congratulated on his county selection.

Replacements, in the persons of D. B. Lloyd, Laurent, Carr, Gibson, B. O. Thomas, Priscott, Berry, Halls, and Beardwell all put up a grand show; there should be little to fear for the future if the effort is made, and the team spirit remains intact.

Of the other members, Howard Thomas secured a regular place at blind side wing forward, after Laurie Thomas was injured, and played brilliantly, in spite of a serious knee injury last year. R. R. Davies, who played for Warwickshire II, filled Scott-Brown's position at stand-off half admirably, and freshman Halls was a great find in the centre. He must soon become a candidate for county honours, as must J. C. Mackenzie who was undoubtedly the outstanding player in the team. Badley occupied the full-back position, often with brilliance, especially in matches against strong opponents, giving Walton, who is always good, little chance of showing his talents in the first fifteen.

Amongst the forwards David Roche must be specially mentioned. He has for many years carried the brunt of Bart's battles in the tight and line-out, and this year was no exception. He has been one of our greatest forwards, and is virtually irreplaceable.

M. J. A. Davies, who had earlier captained U.S. Chatham returned to Bart's towards the end of the season and began to settle down in the side. We learn, with great pleasure, that he will be with us next season.

No report would be complete without a word of consolation to Benedikz who has not yet recovered from his injury of last season, and was therefore unable to play; and also to Palmer and L. Thomas whose injuries prevented them playing throughout most of the season.

Several members of the Club played in invitation games: Bradley and Tallack represented Public School Wanderers on their Cornish Tour, and together with Mackenzie played for this team against Welsh Academicals, in the exhibition match at the Rugby Training Course at Butlin's Holiday Camp, Clacton. All three, and Lammiman, were chosen to play against Oxford on Good Friday, but for various reasons were unable to do so. Lammiman's play this season has not been so striking in attack, but his defence improved to make him an outstanding wing-threequarter. We congratulate him on his being selected to be travelling reserve for Leicestershire, in the Leicestershire v. Devon county championship semi-final. Neely toured France at Easter with King's College Hospital and Phillips also went to the same country with Middlesex County, in addition to representing them in county championship matches.

It is hoped that next year more and more Bart's men will gain places in representative sides, and so spread the good name of the Club.

Only nine home games were played this year, so that next season there will be a correspondingly high number played at Chislehurst. It is hoped that full advantage will be taken of this by Hospital supporters.

RECORD REVIEWS

THE FLYING DUTCHMAN *by* Richard Wagner.

Complete recording. Decca LXT 5150-2.

There are now two versions of this wonderful music on records (D.G.G. and Decca), but as I have not heard the former I can only note a few virtues of the Decca issue.

The sound is good and should not be difficult to reproduce faithfully, in addition, being made up of recordings taken at Bayreuth performances, the whole has an atmosphere and spaciousness so often missing in recorded Opera. I should like to mention Hermann Uhde's magnificent performance of the Dutchman and also the outstanding singing of the chorus

Others singing are Astrid Varnay, Ludwig Weber, Elisabeth Schärtel, Joseph Traxel and Rudolph Lustig, with the Bayreuth Festival Orchestra conducted by Joseph Keilberth.

MOZART:
SYMPHONY NO. 33 IN B FLAT (K. 319).
SYMPHONY NO. 40 IN G MINOR (K. 550).
Played by the Vienna Philharmonic Orchestra, conducted by Karl Münchinger. Decca LXT 5124

The Vienna Philharmonic are on the top of their form in these performances; there is a wonderful bloom in the string section and no lack of grace from the woodwind. Münchinger's interpretation of the grave yet lovely G minor Symphony is both straightforward and sympathetic and is probably the best recording of the work so far.

The slighter B. flat Symphony needs the genius of a Beecham to assure me that it, too, is a masterpiece, and although the performance is workmanlike and beautifully played, it is for the G. minor Symphony that this recording is recommended.

* * *

In our April issue we reviewed what was stated to be 'Symphony in E major' by Bruckner. We regret that this was incorrect; it was, in fact, Symphony No. 4 in E flat major (the 'Romantic').

BOOK REVIEWS

A MANUAL OF ANAESTHETIC TECHNIQUES *by* Wm. J. Pryor. John Wright & Sons Ltd. Bristol. 27/6.

This book is a mixture, and like the curate's egg, in parts it is excellent. There are, however, a number of mistakes which should not have occurred. For instance, on page 27 the nitrous oxide cylinder is referred to as holding 200 cu. ft., whereas it should read gallons. The Adams valve is referred to as working at from 10-30 lbs., instead of from 5-7 lbs. On page 48 there is mention of 4-8 mm. of 1 in 1,000 Adrenaline, and again the dosage of adrenaline is given as millimetres when referring to the 'Xylocaine cocktail'. The author also writes of the Minnitt machine as delivering 45% N_2O with 55% air, whereas these machines have for some time past been set to deliver 50% N_2O with 50% air.

There are many references to trade names of drugs where official names would be preferable, and frequently there is an irritating mixture, but this is a minor criticism, and can occur only too easily. There are some omissions: there is no mention (p. 31) of CO_2 build up causing a rise of systolic blood pressure, neither is there mention of deep ether eventually lowering the systolic blood pressure profoundly. No mention is made of thialbarbitone (Kemithal) being less irritating to the larynx than thiopentone, and in the section on local analgesia there is no mention at all of abdominal field block. The author repeatedly mentions the giving of atropine followed by neostigmine, but fails to state by which route the drugs should be given. He also states that thiopentone is immiscible with d-tubocurarine chloride, but a few pages further on admits that it is so. This needs clarifying.

In chapter 6, a paragraph is headed 'Scoline spray', and we are apparently led to believe that the trachea, carina, and cords are sprayed with this drug. We know that this is not so intended, but a young registrar might well wonder what is really meant. On page 76 the author recommends using oxygen at a flow of 500 ml. per min. with nitrous oxide at 9-10 litres reducing to 5-6 litres per min. This would cause serious anoxia if continued for very long. It is recommended that d-tubocurarine chloride be given in a dosage of 2.5 mg. per stone body weight. This means that a patient of 14 stone would receive 35 mg. of the relaxant which seems rather a large primary dose. On page 175 paraldehyde 2 ml. is recommended to be given intravenously to make the patient cough, yet there is no mention of nikethamide being used for this purpose. The author recommends intubation and even the use of succinyl choline chloride for the operation of thymectomy. Sir Geoffrey Keynes and the reviewer found that intubation was undesirable and that the use of any relaxant unnecessary.

However, although there are some mistakes (and what book has none?) there is much good sound sense to be found within these pages. The illustrations are excellent and the book is very well produced.

FRANKIS EVANS.

OBSTETRICS AND GYNAECOLOGY FOR NURSES *by* G. W. Garland: Joan M. E. Quixley. Published by English Universities Press Ltd. 10s. 6d.

Textbooks for nurses on Gynaecology are not numerous and a new one is an event of interest. This one comes from St. Thomas's Hospital; it is

The Edible World

When Mr. Chaplin peppers a daisy before consuming it, or Mr. (Harpo) Marx chews up a telephone with relish, I blush for my own lack of enterprise. Probably most of my environment is eatable, if I would only get my teeth into it. Perhaps if I had taken more pains with my chemistry I might at this moment be biting bits off the roof like Hansel and Gretel, or crunching coal as puppies and babies do. This idea is not as far-fetched as scoffers may suppose, for coal, that universal provider which already gives us heat, light and raiment, now looks like serving us with edible fats as well; and it can only be a matter of time before the chemists offer us bread from a stone.

Minerals apart, there are many members of the animal and vegetable kingdoms which never reach British dining tables, though they would in fact repay the attention of a thoughtful cook. I am not speaking merely of the frogs and snails . . .

What a pity. We have not got the space to publish the rest of this fascinating essay, which appeared originally in The Times. *However, by way of compensation we have reprinted a number of the now famous Podalirius pieces in a special booklet entitled "The Prosings of Podalirius." Would you like us to send you a copy?*

written for the student in general training and it is interesting to note that the authors have given almost as much space to Obstetrics as to Gynaecology.

The field covered is well suited to the nurse's needs and presented with clarity and simplicity. The line drawings are mostly very good and add greatly to the attractive appearance of the book, while the price is very reasonable.

The position of the glossary at the front of the book does not seem to us a happy one and it forms a barrier to the rest of the text. Points of disagreement are matters of opinion rather than of fact. It is for instance unrealistic to speak of a cup and stem pessary as being 'easy to use' when the problems of local hygiene it provokes are nearly insoluble.

Proprietary names of drugs are generally used in Chapter 16 even when the approved ones are the better known. 'Luminal' for instance has surely long fallen into disuse.

W. E. Hector.

ELEMENTARY PHYSICS *by* G. Stead. 9th edition. London. J. & A. Churchill Ltd. 21s.

I welcome the appearance of the ninth edition of this much used textbook. The new setting is a great improvement: the stressing of important statements seems to be better, although there are probably a few instances in which black type might have replaced italics, and the abandoning of small type for difficult sections is to be commended—I have often found it impossible to persuade students to read any of these sections.

I think that the Mechanics and Hydrostatics sections might contain more worked out examples in the text. The Töpler pump (Chapter XII) is unnecessarily detailed and a diagram of a modern *complete* high vacuum system would help. In Chapter XIII the flow of blood could be considered briefly.

The Heat and Sound sections are generally adequate. I am glad to see that the candela has replaced the standard candle in the Light section, but I should like to see a more detailed treatment of the defects of lenses.

The Electricity section has been expanded and modernized. More details of alternating current practice are given and meters of many kinds (with good diagrams) are described.

This book can definitely be recommended.

T. E. Banks.

AIDS TO PRACTICAL NURSING *by* Marjorie Houghton. Published by Baillière, Tindall & Cox.

The steady succession of new editions of Miss Houghton's *Aids to Practical Nursing* indicates its value to student nurses. An example of the thoroughness with which elderly material has been removed is the substitution of picrotoxin for strychnine as an example of the calculation of fractional dosage.

W. E. Hector.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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EDITORIAL

Examinations are formidable even to the best prepared, for the greatest fool may ask more than the wisest man can answer.

—*Charles Caleb Colton.*

In a London medical school, which teaches students from Oxford and Cambridge as well as those belonging to London University, there is hardly a month of the year in which examinations of some sort are not being taken. These activities reach a climax in the Spring and the early Summer, when the First and Second M.B., the Oxford, Cambridge and London University Finals, the Conjoint Board and the Society of Apothecaries' examinations are held. In each case they take the traditional form of practical and oral tests, and written examinations.

There is no doubt that essay questions explore a considerable number of accomplishments as well as the factual knowledge of the candidate; for example, his ability to argue logically and express himself clearly, his handwriting, spelling and punctuation. They are, however, not entirely satisfactory, for, since no more than five or six questions are asked, only a small sample of the student's total knowledge is taken; as a result, there is an element of luck, for the candidate may or may not be asked a question he can answer. The system is also liable to inaccuracy, for the papers have to be marked and assessed by the examiner, whose verdict may be influenced by his own idiosyncrasy.

It was in an attempt to overcome these objections that the American National Board of Examiners, in 1954, adopted the objective form of examination, which consists of a large number of multiple choice questions. Each of these presents a specific situation with five possible answers, only one of which is correct. The student marks his chosen answer and is graded according to the number of questions he marks correctly. As many questions can be answered in a limited time, a very wide range of the student's knowledge can be sampled in three hours; the papers are assessed by machine, so it can be done rapidly, accurately and impartially; and the student is not handicapped by his bad writing, or by his inability to express himself.

It is claimed that these multiple choice questions are far more searching than the essay type, as 'they enable the examiner to test not only the candidate's knowledge, but also the subtler qualities of discrimination, judgment and reasoning. Certain types of question test the student's recognition of the similarity or dissimilarity of diseases, drugs, physiologic and pathologic processes. Other questions evaluate the candidate's judgment as to cause and effect, or lack of causal relationship. Case histories are used to simulate the experience of a physician confronted with a diagnostic problem, and a series of questions can then determine the candidate's understanding of related aspects of the case, such as associated laboratory findings, treatment, complications and prognosis.'

The objective type of examination is, however, not without its drawbacks. It deals largely with isolated facts and the candidate is liable to attempt guessing the answer. But, perhaps the greatest objection levelled against it, is the claim that the student may lose the power of expressing his ideas on paper. This can be appreciated when it is realized that

in those American medical schools where this form of examination alone is used, it is possible for a student to qualify without having taken a single written examination.

The perfect type of examination has yet to be developed, for both the objective and written forms have serious shortcomings. It will, however, be interesting to see if, in the next few years, the popularity of the new type of examination will continue, and if any attempt will be made to introduce it into this country.

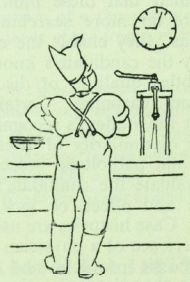
Congratulations

to Dr. E. B. Strauss on his election as President of the British Psychological Society for 1956-57.

to Mr. Naunton Morgan on his appointment as Consulting Civilian Surgeon to the Royal Air Force. Mr. Naunton Morgan is already Consulting Surgeon (Proctology) to the Royal Navy, and Consulting Surgeon to the Army, in which he served during the war.

to Mr. D. F. Ellison Nash on his appointment as Sub-Dean of the Medical College. He succeeds Mr. J. W. Cope, who has held the position since October, 1952.

to Dr. C. F. Harris on his re-election as Deputy Vice-Chancellor of the University of London for 1956-57.



Abernethian Society

The following gentlemen have been elected to hold office for the Session, July to December.

President : C. B. S. Wood
Secretary : C. F. Allenby
Treasurer : L. J. Farrow
Committee : L. J. Chalstrey, J. Parker, N. C. Roles, M. E. Woolrych

In the coming session we hope that the new officers will be able to stimulate the present generation of students into showing more enthusiasm for the Society and its activities.

Charterhouse

At the end of April, the high boundary wall separating the Medical College grounds at Charterhouse Square from Charterhouse, was knocked down and replaced by a low wall and a post and chain railing. These posts have been taken from one of the courts of Charterhouse, Pensioner's Court, which was built in the 1820s, Blower being the architect. It is therefore believed that these posts are about 130 years old.

The land between the wall and the Charterhouse buildings was at one time part of the Monk's Garden, and it is intended to lay out a garden, once more, on this site.

The removal of the wall has been a great improvement, and we look forward to the time when the garden is in full bloom.

William Harvey

On June 3, next year, the world of science and medicine will celebrate the tercentenary of the death of William Harvey, physician to this Hospital from 1609 to 1643. New aspects of his scientific contributions continue to be discovered as each age examines them afresh in the light of contemporary advances. Yet, despite the voluminous literature that has accumulated, comparatively little is known of Harvey as a physician or of his personal life. It is therefore a great occasion when anything new is discovered, for contemporary references are sparse and only rarely can new material be found.

In this issue we are fortunate in being able to publish two interesting anecdotes from his medical practice which seem to have escaped the notice of his biographers: they concern a neurological and a psychiatric patient. On the basis of these cases, the authors, as psychiatrists, briefly survey Harvey's writings for further neurological and psychiatric material. They show that Harvey's observations in these branches of medicine also were in advance of his time, and thus reveal new facets of his many-sided genius.

Statuette of Rahere

The silver statuette of Rahere, which was presented by the Medical Staff to Mr. Thomas Hayes when he retired from the office of Clerk to the Governors in 1937, has now become Medical College property. Mr. Hayes, who died in November of last year, bequeathed it to the Medical College.

The statuette is to be placed in the Library.

Elected Travelling Fellow

The Royal College of Surgeons has appointed Professor Sir James Paterson Ross as Sir Arthur Sims Commonwealth Travelling Professor for 1957

It is expected that the Professor will visit Australia and New Zealand.

Distinguished Visitors

During May, two American professors visited the Hospital and became members of the Staff for a short time.

Dr. Howard Means, formerly Professor of Medicine at Harvard University, was temporary Director of the Medical Unit for the whole month, and Dr. F. A. Simeone, Professor of Surgery in Western Reserve University, Cleveland, Ohio, was temporary Director of the Surgical Professorial Unit for the first two weeks.

Both Professors were elected Perpetual Students of the Medical College and presented with the two volumes of *The History of St. Bartholomew's Hospital* by Norman Moore.

Cambridge Graduates' Medical Club

The Annual General Meeting and Dinner will be held at Queen's College on Friday, June 22, 1956. Will members of the Club who have not received the official notice, or any other Cambridge man who would like to join the Club, please communicate with the Hospital Representative, Mr. John Cope.

11th Decennial Club

The twenty-first Annual Dinner of the 11th Decennial Club was held on Friday, April 27, with Mr. C. K. Vartan in the Chair.

Unfortunately only forty-seven members were present, the lowest attendance ever. This was partly due to the fact that the Dinner of the Association of Surgeons, which was held on the same evening, drew off most of the surgical regulars. In spite of the small numbers it was a most friendly and enjoyable evening, with Mr. Vartan's reminiscences of some of his old chiefs and members of the nursing staff being greatly appreciated. Dr. G. S. Little proposed the health of the Chairman.

Although the secretaries sent out 444 notices they received only 200 replies. Whether this was due to members of the Club failing to notify their changes of address or just their tardiness in replying is unknown ; whatever the cause we hope that it will be remedied in the future.

Next year, the Annual Dinner will be held on Friday, May 10, when Dr. Arnold Barnsley has promised to take the Chair.

Frock-coats

In our January issue of this year, we published an extract from *The Memoirs of Sir Charles Gordon-Watson*, and in it reference

was made to the fact that frock-coats were, at one time, worn by surgeons when performing operations at this Hospital. The relevant paragraph reads:

There were two general operating theatres, a theatre on the gynaecological floor, a small one in Coborn Ward for septic cases, and one in the Ophthalmic Ward. The Old Theatre in the Abernethy Block had seats in tiers to hold about 150 students. The table was made of wood, with thick leather-covered cushions; the head could be raised, but not the other end. There was a cupboard near the door, beneath the arena, where the surgeons kept their blood-stained frock-coats into which they changed to operate.

As it stands, this could mean that the frock-coats were still there when Sir Charles Gordon-Watson first came to the Hospital in May 1893. However, on looking at the original manuscript again, we find that the sentence: 'They [referring to the frock-coats] were abolished just before my time', appears at the end of this paragraph. Evidently, in transcribing the passage this most important sentence was inadvertently omitted. The Editor wishes to apologize for this omission.

Théâtre National Populaire

From our Special Correspondent.

It is the life-long ambition of many actors to appear on the stage of a West End theatre, but seldom is it made possible by attending a medical school. When the Théâtre National Populaire from Paris arrived in London for a three weeks season, the producer required a number of extras for walking-on parts, and by a shrewd move Brian Pidcock, our erstwhile impresario, secured the contract.

A notice duly appeared in the gentlemen's cloakroom requesting applications for 'large lords, stalwart soldiers and medium-sized monks' to star in *Marie Tudor* (pay, 11/5½ per performance!). Whether it was the prospect of footlight fame or the desire to lighten the financial burden is not quite clear, but there was no shortage of applicants.

The day before the first performance a quick rehearsal for the enthusiastic extras was held by the Stage Manager in French. This tested the majority's familiarity with the language to the utmost, but with the help of some wild and expressive gesticulations, understanding was eventually reached.

The first performance was due to start at 7.45 p.m., and at 7.30 the loud-speaker system in the dressing-rooms announced: 'Le spectacle commence dans quinze minutes', followed by a hesitating translation for the benefit of the ignorant English.

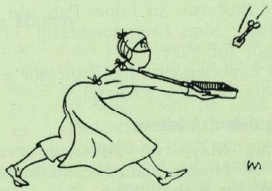
The four non-speaking lords, Badley, Newton, Galbraith and Mike Pidcock, were regaled in tights, false beards and shoes several sizes too small. Friars Nicholson, Hall and Lewis were clothed in black and white habits, and carried wooden candles illuminated by 20th century torch batteries. Pigott was chief walker-on and stand-in and performed well in his various roles. Captain Tidmarsh and Private Cocker formed the palace guard, and standard-bearers Costley and Brian Pidcock completed the distinguished Bart's company of extras.

The six performances of *Marie Tudor* were played to packed audiences, for the T.N.P. is one of the best companies in France and many French-speaking Londoners gladly took the opportunity of seeing some fine acting, the performance of Maria Casarès being particularly noteworthy. Jean Vilas, the producer, expressed his appreciation of the acting of his 'tenebres Anglais', and one hopes that future Bart's students will be given the opportunity of acting with this company should they come to London again.

Nurses' Pay

The Ministry of Health issued the following statement on April 10, 1956.

'The Nurses and Midwives Whitley Council today agreed upon increases in the pay of all hospital nursing staff, ranging from



£20 for student nurses to £95 for the matrons of the largest hospitals. Staff nurses will receive an increase of £30 at the minimum and £35 at the maximum ends of the scale. Ward sisters will receive £35 and £40 respectively.'

After mentioning the status of mental nurses, the statement continued: 'Other improvements include shorter salary scales and bigger increments.' The increases in salary will come into force as from April 1, 1956.

We asked several nurses in this hospital to give their views on these awards. All were glad that there was in fact any increase at all. The probationers appeared more enthusiastic than their seniors, but almost all were disappointed in the amount awarded. Blue belts would have been happy with the amount if there had not been a further de-

duction for income tax, and increased charges for food and board. Apparently, whenever there has been a rise in pay, the hospital authorities have appropriated a considerable proportion to offset the living charges. All, however, agreed that they were well looked after.

The sisters raised another point. Their spokesman suggested that there should still be a much greater award for responsibility, and therefore a bigger gulf between the salary of the nurse in training and that of trained staff. She added that if it was desirous to keep experienced women as ward sisters their salary should at least be equal to that of junior administrators. At present, a ward sister of twenty years standing receives the same salary as her much more junior colleague, because the maximum rate is reached at a relatively early age.

While any increase in nurses' and sisters' pay is welcome, the position is still far from satisfactory, for the sums awarded do not make their salaries sufficient reward for their arduous duties.

Westward Bound

One of the medical teaching centres in the American Continent frequently visited by Bart's men is the University of Michigan. Mr. R. S. Corbett recently gave a description (*St. B.H.J.*, March, 1956) of his return visit to Ann Arbor.

This summer, Dr. R. C. King and Mr. T. B. Boulton are crossing the Atlantic to spend a year there. Dr. King has been awarded a Fellowship by the American Cancer Society: he will be attached to the Department of Internal Medicine, where his chief will be Dr. Marvin H. Pollard, who is the secretary of the American Gastro-Enterological Society.

Mr. Boulton has an appointment as Research Associate and Instructor in the Department of Anaesthiology under Dr. Robert B. Sweet, the Director of the Department. He hopes to work on the problem of post-operative vomiting.

Both Dr. King and Mr. Boulton will be accompanied by their families, and it is rumoured that baby-sitting rotas are already being drawn up.

Russian Surgeons

On Tuesday, April 17, three Russian Surgeons, the guests in this country of the Royal College of Surgeons, visited the Hospital at the invitation of Professor Sir James Paterson Ross. The party consisted of Professor P. A. Kupriyanov, President of the Scientific Association of Surgeons and Principal of Surgery at the Kirov Military Academy at Leningrad; Professor A. G. Savinih, Principal of Surgery at Tomsk Medical Institute; Dr. D. D. Benediktov, Director of the Surgical Clinic of the Second Moscow Medical Institute; and Dr. Duddington from the Middlesex Hospital, who was acting as interpreter. The occasion proved to be truly international when two American Surgeons and an Australian joined the group.

In the morning the visitors watched an aortic graft operation performed by Mr. G. W. Taylor. Up to the present time only homografts have been used in the U.S.S.R., but they are now beginning to use polyvinyl sponge grafts.

After lunch, a brief tour of the Hospital was conducted by Professor Ross. The Square, the Fountain and the Hogarth murals on the staircase to the Great Hall were admired, and in the Great Hall the portraits of famous old Bart's men were examined and their names recognized. It was in the Hall that Dr. Benediktov, who speaks excellent English, gave an impromptu 'press conference'.

We learnt that the first medical college to be founded in Russia was the Medical Faculty of Moscow University in 1755. As in other European countries the teaching of Medicine gradually spread to other univer-

sities, and by this century most of the Russian Universities possessed a Medical Faculty. The medical teaching staff so outnumbered their non-medical colleagues that it was thought advisable to dissociate medical teaching from the universities. In 1935 this was done, and Medical Institutes were set up in the larger cities with separate Institutes for the Army and Navy.

These Institutes are subdivided into the Faculties of Sanitation and Hygiene ; Paediatrics ; and General Medicine. The annual intake is 1,500 at the Moscow Institute and about 800 at the smaller Institutes.

The curriculum does not differ greatly from that in England ; the total course of study lasts six years, the first two years being devoted to pre-clinical subjects and the remaining four to clinical work. The students indulge in many sports and great rivalry exists between Institutes. Unlike their more reticent English counterparts, the Russian medical students are prolific producers of journals, newspapers and broadsheets. The Moscow Institute, for instance, has a daily newspaper produced by students, several journals and even weekly typescripts produced by individual firms. This multitude of publications gives people the opportunity of knowing what is going on throughout the Institute.

12th General Hospital R.A.M.C./A.E.R.

Our Military Correspondent writes:

On April 28, Colonel G. T. Hankey, O.B.E., T.D., relinquished active command of the 12th General Hospital.

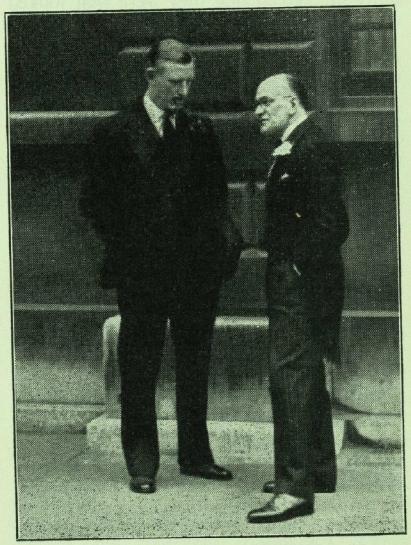
After a distinguished career, both in the Territorial Army prior to 1939 and with the Colours during the last war, Colonel Hankey was entrusted with the task of raising the 12th General Hospital as a unit of the Army Emergency Reserve. He wisely turned to the Mother Hospital as a potential source of volunteers, and at the present time eight Bart's men and one patient are serving with the unit. In addition to the Colonel these officers are: Lt.-Col. Charles Manning, Majors H. Lehmann, Ian Todd, George du Boulay, Ronnie King, Tom Boulton, Capt. J. Caplin and Capt. R. Bowman, the Q.M. (in a plaster jacket).

This year the camp was held under canvas from April 21 to May 5, at Mytchett, in Surrey. During the fortnight, Colonel Hankey was entertained by his officers both in the mess and at the Bush Hotel, Farnham. He was presented with a silver salver by his successor, Colonel H. K. Meller, M.B.E., T.D., and the volunteer officers. It is hoped that Her Majesty the Queen will be graciously pleased to approve the appointment of Colonel Hankey as Honorary Colonel of the Hospital, thereby ensuring his continued association with the unit.

The existence of this unit may be of interest to Bart's men and women. There are vacancies in various departments (including the Q.A.R.A.N.C.) and it is hoped that National Service M.O.s will state a preference for the 12th General Hospital for their reserve training.

View Day, 1956

At exactly 2-o'clock on View Day, the procession of Head Porter, Treasurer, Matron, Steward and Governors left the Square to begin their journey round the Hospital. First to the Surgery where the Nursing Staff was drawn up in a seemingly endless single line,



. . . 'caught unawares' . . .
Drs. G. W. Hayward and A. W. Spence.

next to the Dispensary, then across to the wards in the East Wing, and finally they disappeared into the King George V Block.

For the second year running, it was decreed that 'tail coats need not be worn', and we noticed with some regret that the number of morning suits was even less than last year. But, with or without their tail coats, the members of the Consulting Staff were to be seen relaxing in the Square and our Candid Cameramen did their best to take

About to take . . . 'evasive action' . . .
Drs. K. O. Black and E. B. Strauss.

advantage of this golden opportunity. Encouraged by the *Journal* Staff, they stealthily stalked their prey, attempting to approach from the blind side or ambush them from behind a group of people. Some were caught unawares ; others unconcernedly stood their ground ; but there were also those who took evasive action by either smartly turning their backs or suddenly walking away in the opposite direction. Evidently they were shy.

Meanwhile the energetic toured the various exhibitions specially arranged for the day. The display of Hospital Archives and Mediaeval Deeds in the Great Hall, which

. . . 'unconcernedly stood their ground' . . .
The Warden (Mr. G. Ellis) and the Dean (Mr. E. G. Tuckwell).

disclosed some interesting facts about the Sewage, Drainage and Water Supply Systems of the Hospital as they were many years ago: the Herbals and Prints, and the Natural History Society's Exhibition in the Library ; and the grisly specimens in the Museum. Here also was the smoking machine, which was enviously watched by the addicted as it effortlessly consumed cigarette after cigarette. In the Statistics Department visitors were enthusiastically received and introduced to the intricacies of the Hollerith Mechanical Card-sorting System ; the Dispensary, where the preparation of pills was open to inspection ; and the Fifth Floor of the Medical Block, where we were once more reminded of the horrors of Smog.

Unfortunately the weather was not as good as has come to be expected on View Day, and as the Procession at last finished its tour and emerged from the colostomy it began to rain. This caused the exit from the Square to be even more precipitate than usual as visitors hurriedly made their way to the wards for tea.

NOTICES

Lectures on General Practice

Wednesday, June 20, at 12 noon.

Dr. G. Keith H. Hodgkin of Redcar, Yorks, will give the next lecture in this series in the Hospital Lecture Theatre.

ANNOUNCEMENTS

Births

BEALE.—On April 30, at the Eastern General Hospital, Leith, to Ruth (*née* Clark) and Dr. I. R. Beale, a second son (David).

BRADY.—On April 17, to Margaret (*née* Ambrose) and Dr. Thomas Brady, the Bridge House, Aldham, Essex, a daughter (Alice).

CLARKE.—On April 27, at Trowbridge Hospital, to Barbara (*née* Clilverd) and Dr. L. W. Clarke, twins (Christopher and Camilla).

COOK.—On April 21, at Oldham and District General Hospital, to Rita (*née* Adamson) and Dr. A. B. Cook, M.B.E., a daughter (Gillian Mary).

EVANS.—On April 23, at Carmarthen, to Hazel and Dr. W. Burnett Evans, a son (St. John).

HACKING.—On March 26, at Sussex Maternity Hospital, Brighton, to Betty (*née* Dusart) and Dr. S. Hacking, a brother for Elizabeth Ann (Robert Stanley).

MORRISON.—On April 4, to Norma (*née* Nicholson) and Lt.-Col. R. J. G. Morrison, R.A.M.C., a son (Simon John).

OSTLERE.—On April 19, at King's College Hospital, to Mary (*née* Palten) and Gordon Ostlere, a son.

Engagements

SIMMONS—HOUGHTON. The engagement is announced between Dr. Peter Hamilton Simmons and Miss Elizabeth C. Houghton.

BUCHANAN—DUFF. The engagement is announced between Mr. Robert Laird Buchanan and Miss Maureen Duff.

Marriage

GRANDAGE—BARSHALL. On April 7, at St. George's Church, Hanover Square, Dr. Christopher Landale Grandage to Miss Sybil Barshall.

Deaths

COLLINS.—On April 29, at Frinton-on-Sea, George Fletcher Collins, M.R.C.S., L.R.C.P., D.P.H., in his 95th year. Qualified in 1885.

PRATT.—On March 15, Dr. J. S. Pratt, of 130, Harley Street. Qualified 1938.

SKEGGS.—On April 3, Basil Lyndon Skeggs, M.R.C.S., L.R.C.P., of Stevenage, aged 63. Qualified 1917.

TOMS.—On April 17, Humphrey W. Toms, M.R.C.S., L.R.C.P., of Leigh-on-Sea. Qualified 1918.

CALENDAR

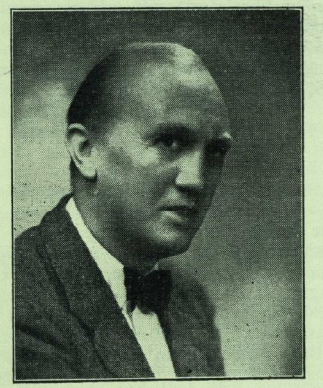
Sat.	June	2	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Tennis: Mixed Doubles Tournament.
Sun.	,,	3	Cricket v. Queens' Coll. Camb. (H).
Mon.	,,	4	Bumping Races at Kew.
Tues.	,,	5	Bumping Races at Kew.
Wed.	,,	6	Bumping Races at Kew.
Sat.	,,	9	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. Middlesex Hosp. (H). Tennis: v. Imperial Coll. (H).
Sun.	,,	10	Cricket: v. Riddels Rovers. (H).
Sat.	,,	16	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty.
			Sports Day
			Tennis: v. West Heath. (H).
Sun.	,,	17	Cricket: v. Horlick's C.C. (H). Tennis: Middlesex Hosp., mixed match. (A).
Wed.	,,	20	Tennis: v. Northants Engin. Coll. (H).
Sat.	,,	23	Medical and Surgical Professorial Units on duty. Marlow Regatta. Cricket: v. Royal Dental & Charing Cross Hosps. (H).
Sun.	,,	24	Cricket: v. Hornsey. (H).
Sat.	,,	30	Dr. G. Bourne and Mr. J. B. Hume on duty. Cricket: v. Jesters. (H). Tennis: v. Stoneyhurst Wanderers. (H).
Sun.	July	1	Cricket: v. Old Roans. (H).
Wed.	,,	4	Henley Royal Regatta begins.
Sat.	,,	7	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. Hornsey. (A).

ALAN SEYMOUR PHILPS

THE death of Seymour Philps at the age of 50 is a very sad loss not only to the hospital but also to Ophthalmology for he was establishing a world-wide reputation.

Born in 1906, the son of Mr. Francis John Philps former editor of the *Financial Times*, he died on April 26. Educated at Aldenham School, he entered St. Bartholomew's in 1924, qualifying in 1929.

He was house surgeon to Professor George Gask and Sir Thomas Dunhill, and in 1931 obtained the F.R.C.S. degree.



His ophthalmological career began in 1936 when he became House Surgeon to the Royal Westminster Ophthalmic Hospital. Other junior appointments followed including that of Chief Assistant to the Eye Department of St. Bartholomew's. In 1938 Seymour Philps was elected Assistant Surgeon to the Royal Westminster Ophthalmic Hospital and full Surgeon in 1944.

Other posts held were those of Ophthalmic Surgeon to the Victoria Hospital for Children and the Miller General Hospital.

During the early years of the war he served with the Emergency Medical Service and was stationed at Hill End Hospital. In 1942 he joined the R.A.M.C. and after holding important posts in this country he took part in the Normandy landing and the advance into Belgium.

On his return to England Mr. Philps became Ophthalmic adviser to Millbank Hospital with the rank of Lieutenant-Colonel. Demobilised in 1946 he resumed his hospital and consultant duties.

In 1947, Seymour Philps was elected Assistant Ophthalmic Surgeon to St. Bartholomew's and in 1948 Surgeon in Charge of the Eye Department.

With the inception of the National Health Service in 1948 he became Consultant Ophthalmic Surgeon to the Mid-Herts group of hospitals and secretary of the Advisory Committee of the N.E. Metropolitan Regional Hospital Board.

In 1951 he was appointed by London University a teacher of Ophthalmology at the Institute of Opthalmology and at St. Bartholomew's Medical School.

He was a brilliant surgeon and interested in all branches of his work, a wise clinician and an inspiring teacher.

In addition to writing many papers on ophthalmological matters to the medical press Mr. Philps was the author of Ophthalmic Operations (1950), a book richly illustrated with his own exquisite drawings. He was an excellent draughtsman.

In 1953 he was invited to visit Australia and there addressed many Ophthalmological gatherings. He returned by way of the United States and Canada and saw eye centres in both countries. He also visited numerous eye clinics on the Continent.

I perhaps knew Seymour best during the early years of the war and I could not have wished for a better colleague. However trying the circumstances he never lost his sense of proportion and was always cheerful and unruffled. He displayed this same serenity during his grave illness of the past two years. Although aware of the incurable nature of his complaint, he carried on his work with amazing fortitude until a few months ago.

Always his hospital duties took first place in spite of a busy practice.

It is sad that he will not work in the new Ophthalmic Ward for which he has striven.

Mr. Philps was married twice, having three daughters by his first wife, formerely Miss Joan Wood Hill. He married in 1948 Miss Dilys Bronwen Jones and they had two sons.

R.S.

THE RELEVANCE OF LEPROSY TO MODERN DAY CONCEPTS OF MEDICINE

by R. G. COCHRANE

Introduction

IT WOULD not be an understatement to say that the average medical student's ideas with reference to leprosy are very largely based on propaganda material which he reads from time to time. His reaction, when leprosy is discussed, would be something like this: "Oh, yes. You can cure leprosy now. There is a pill you can give."

Even after thirty years of more or less concentrated study in leprosy in various parts of the world, I find that the great advances in our knowledge of this subject, apart from therapy, are little known outside the specialist sphere. This is because leprosy has never been considered as a disease which could contribute to the understanding of the more basic, or fundamental, aspects of medicine. I hope, however, to show that leprosy is useful as a handmaiden for the pursuance of fundamental studies, *e.g.* in Neuro-physiology in relation to peripheral nerve damage, in Immunity and tissue hypersensitivity, in our understanding of the Mycobacteria, and in Orthopaedic Surgery, and Physiotherapy. I am fully aware that the readers of this *Journal* wish some information on Therapy (which will also be given), but one of the main objectives of my accepting the kind invitation of your Editor to write this article, is to endeavour to convince all those who read — and your readers are world wide — that leprosy is as relevant today in modern medicine as tuberculosis and many other diseases, which are accepted without the taint of sentimentalism and hysteria so frequently shown when leprosy is the topic of discussion.

I wonder how many, when the subject of leprosy is mentioned, conjure up in their minds the traditional picture of the 'leper', with his clapper and habit, crying, "Unclean, unclean"? If we, however, are to understand the important part leprosy plays in modern concepts of Medicine, we must rid ourselves of all ideas of social stigma and horror, and banish from our minds any suggestion of ostracism. No longer do we hear scientific men talking about 'consumptives'; neither do we hear our physicians in charge of mental diseases talking about their 'lunatics'. It is, therefore, time leprosy was given its rightful place in medicine, and all words such as 'leper', 'tainted', 'unclean', were banished from our vocabulary, remembering that leprosy *is an intensely interesting medical disease, and not a social stigma.*

The Causative Organism of the Disease

It is generally accepted that the *Mycobacterium leprae*, or the bacillus of Hansen, is the causative organism of the disease. The accumulative evidence of the past fifty years or more, particularly that of recent work, is so significant that few now doubt the aetiological relationship of this bacillus with the disease known as leprosy. For instance, it has been shown that in every active case of leprosy *M. leprae* can be found, particularly when specialised techniques, devised within recent years, are used. The organism of leprosy is of unusual interest to bacteriologists because it is on the edge of several worlds:

1. THE PATHOGENIC WORLD—Only under special and particular conditions does it seem capable of causing disease in man.
2. THE MYCOBACTERIAL WORLD—In many respects this organism seems to be on the borderline between mycobacteria and coryneobacteria. With the mycobacteria it has, in common, the acidfastness, but it differs from the tubercle bacillus in its submicroscopical structure. Reclassification may result from recent research.
3. THE VIRUS WORLD—The *mycobacterium leprae*, with its affinity for neural tissues and in its apparent ability to show an ascending neural infection reminds one of the potentialities of the viruses.

A detailed study, therefore, of the *Mycobacterium leprae* in human tissues should open up a very wide field of bacteriological research. In this connection the preliminary study of Electronmicroscopic appearances of the *M. leprae*, which has recently been done at the Strangeways and Cavendish Laboratories, Cambridge[1], indicates that it is an organism worthy of most detailed study. The *M. leprae* has been a challenge to bacteriologists and scientists for many decades, because, so far, it has never been definitely grown outside the human tissues, and no animal, which has been innoculated with the *M. leprae* has, as yet, developed progressive disease.

It is well known that there are mycobacteria which, morphologically, are similar to *M. leprae*, such as the mycobacterium which causes rat leprosy, the mycobacterium which causes buffalo leprosy, and a mycobacterium of frogs has also been described. All these organisms have some similar characteristics, *e.g.* the difficulty of growing them outside the tissues of the animals which they infect, and their specificity to a particular animal tissue. A detailed study, therefore, of the behaviour of the *Mycobacterium leprae* in human tissues, along with a comparison of the metabolism of mycobacteria in general, should throw a great deal of light on this interesting and complicated field of bacteriology.

The Method of Infection and the Path of Spread of the M. Leprae

There is a great deal of circumstantial evidence, based on some very careful work done in Bombay, which indicates that the *Mycobacterium leprae* enters into the body *via* the skin, and that this organism is actually rubbed into the skin, and from there passes into the finer terminals of the nerves *via* the axon-plasmic network. It is fascinating to speculate how the *Mycobacterium leprae* develops within the tissues of the body. The theory, which is now outlined, is based on concrete evidence which has been published. The Mycobacterium of tuberculosis has an affinity for the lymph glands, the lungs, and, to a lesser extent, joints, kidneys, and the central nervous system, whereas the *Mycobacterium leprae* appears to have a particular attraction for neural tissue. In fact, leprosy is a neural disease from its very inception. This is so striking that the word 'neural' has now dropped from the classification of the disease. Recent detailed work, especially of Khanolkar[2] in Bombay, has shown that the *M. leprae* pass from the skin to the axis-cylinders of the nerve *via* the finer axon-plasmic filaments. How this takes place is, at present, speculation, but observed facts give evidence which indicates that the first place where bacilli appear in individuals, who develop leprosy, is in the axis-cylinders of the nerve. As the bacilli multiply or develop within the axis-cylinders, axonal swellings appear which contain *Mycobacteria leprae*, and these ultimately burst, and the mycobacteria are liberated into the corium of the skin. The progress or otherwise of the disease now depends on the ability of the tissues of the body to anchor the *M. leprae*, and so prevent it from passing into the deeper lymphatics of the skin, and entering into the reticulo-endothelial system —for progressive, lepromatous leprosy (often known as nodular leprosy) can be described as a parasitization of the reticulo-endothelial system and the *M. leprae* then establishes an almost perfect host-parasite relationship within the reticulo-endothelial system.

Susceptibility and Immunity

It is well known that the majority of persons at some time or other become infected with the mycobacterium of tuberculosis, as witnessed by the fact that as the majority of persons pass from childhood to adult life, they develop a positive Mantoux reaction. In other words, the Mycobacterium of tuberculosis has entered their system, and there is a general tissue reaction to its presence. Similarly, all those who come into contact with open cases of leprosy are liable to become infected. This does not mean to say that they have leprosy; it simply means that the bacillus has entered their tissues, and, as in tuberculosis, so in leprosy, they harbour the mycobacterium. Whereas the Mycobacterium of tuberculosis usually enters the body through the respiratory or alimentary tracts, the *Mycobacterium leprae* enters into the body through the skin, in all probability as a result of direct skin to skin inoculation; for example, a child sleeping with an open case, or being carried by an open case, or a person sleeping on bedding which has been contaminated by discharge from an open case, or by wearing the clothes of an open case.* Nevertheless, it has been shown that, even under the most favourable

* An open case of leprosy is that form of leprosy in which one can find the Mycobacterium by standard methods of examination, from the skin or mucous membrane of the nose.

conditions of infection, and when children are constantly living with open cases of leprosy, approximately thirty per cent of all such children fail to develop manifestations of the disease. The macrophages of the body are evidently capable of dealing with this mycobacterial invader and destroying it in the tissues.

This raises the complicated question of susceptibility, for susceptibility and immunity are not necessarily related phenomena, and it is known that a person may be infected with the *Mycobacterium leprae*, or the Mycobacterium of tuberculosis, without developing the disease. This indicates a form of immunity, which is little understood, and needs careful investigation, and a study of such a type of immunity in leprosy and tuberculosis would throw great light on the immune processes in disease in general. There is no true incubation period in leprosy, but a latent period, which can be defined as that period between the entrance of the *Mycobacterium leprae* into the body, probably *via* the skin, and the time the first clinical lesions appear. In the absence of obvious disease, *M. leprae* can be demonstrated only by special techniques, and this would seem to explain why this period is so long. This may be a matter of months, or of years, but most authorities consider that the average latent period is between one and five years, although longer periods have been reported. Once clinical lesions appear, the disease then seems to develop in one of three patterns:

1. A form, which indicates hypersensitivity, analogous to the hypersensitivity seen in tuberculosis,
2. A form, in which there is no hypersensitivity, and in which the bacilli are phagocytosed by the macrophage cells, and the reticulo-endothelial system is invaded and parasitised early, and
3. A form, which is unstable, and shows partial hypersensitivity.

The first form is a true type and is stable and known as Tuberculoid leprosy. The second type is also stable, and known as Lepromatous leprosy, whereas, as indicated, the third form is unstable, and has been given the name of the Dimorphous, or the Borderline group, in the most recent International Conference (Madrid, 1953)[3].

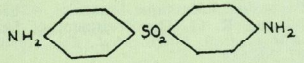
Tuberculoid leprosy, therefore, is a process whereby the tissues of the body effectively anchor the organism in the skin, and prevent it from spreading to the deeper organs, and thus becoming disseminated throughout the reticulo-endothelial system. In tuberculosis tubercles develop systematically, *e.g.* in the lymph glands, kidneys, lungs, etc., whereas, in leprosy, where there is actual or potential hypersensitivity, these tubercles develop in the skin and nerves. The indication of actual hypersensitivity or potential hypersensitivity is shown by the lepromin reaction, which, in all cases of frank Tuberculoid leprosy, is strongly positive.

It has been shown, within recent years, that persons who have a strongly positive 'Mantoux' reaction are also liable to show a positive lepromin reaction; hence, it has been mooted that B.C.G. vaccination will confer immunity in leprosy. A French professor[4], recently, has gone so far as to say that leprosy has largely disappeared from the Western hemisphere as tuberculosis increased. In other words, the existence of the more serious pathogenic disease, tuberculosis, confers an immunity to the less serious pathogenic disease, leprosy. The whole question of B.C.G. vaccination, and immunity in leprosy, raises a number of points of extreme interest, but it is impossible to go into detail in regard to this. All that one can say at this point is that the accumulated evidence indicates that the immune processes in leprosy are not so easily explained as this suggestion would indicate. The analogy between leprosy and tuberculosis is very close, but once one passes from a condition of hypersensitivity, or allergy, to that of desensitisation, or anergy, this analogy tends to break down. This is because, on the whole, the *Mycobacterium leprae*, in this stage, stimulates little or no reaction in the tissues, and establishes an almost perfect host-parasite relationship in the reticulo-endothelial system. This subject of immunity and hypersensitivity is of absorbing interest as applied to leprosy, and illustrates very clearly the relevance of a study of leprosy to the modern concepts of tissue hypersensitivity and immunity in medicine.

Modern Concepts of the Therapy of Leprosy

It is impossible in an article of this nature to give a complete account of the treatment of leprosy and a few references are selected in the Bibliography[5] at the end of this article, to which those interested may refer. It would, however, be surprising if the *M. leprae* had not succumbed to some extent to the attack of modern chemotherapeutic and antibiotic agents. It is, however, still more surprising to find that this field is extremely limited and there is, in reality, only one chemotherapeutic drug which has a marked and consistent effect on the *M. leprae*, interfering at first with its metabolism and then with its growth, and finally causing the bacillus of leprosy to undergo gross morphological change until this bacillus is converted to a mass of acid fast granules, which gradually disappear from the tissues. Whether a person becomes cured from the disease or not depends finally on the ability of the macrophages of the body to deal with the amorphous granular products of the bacilli. There are some authorities who consider when the bacillus gets to this stage it is already dead, but there is no final proof of this as yet.

The drug which is most generally used in the therapy of leprosy is one with a comparatively simple chemical formula, and has been known to scientists since 1908, but up to recently has been considered too toxic for general use. The drug goes under the name of diaminodiphenylsulphone, and is known in the B.P.C. as Dapsone, and has the following simple structural formula:



In addition to Dapsone, derivatives of this substance are also used, such as Promin, Diasone, and Sulphetrone. These are di-substituted products, and when given by mouth are hydrolysed to the parent substance. It can be said, however, that the drug which is most commonly administered is the basic substance, given by mouth. It must be borne in mind that the parent sulphone, diaminodiphenylsulphone, or Dapsone, is a toxic substance, which is detoxicated in the liver. Therefore, when this drug is being given, two principles must be followed. The commencing dose must be low (not more than 50 mgms. twice a week, preferably 25 mgms. twice a week), and the dosage of the drug should be increased very slowly, taking four to six months to reach the maximum dose of 300 mgms. to 400 mgms. twice a week. In cases where there are reactions or untoward symptoms, as the result of the administration of the parent substance, then the di-substituted sulphone, known as Sulphetrone, is recommended. This should always be given parenterally as a 50 per cent solution, for it has also been shown that a 50 per cent solution of Sulphetrone given intramuscularly, or deep subcutaneously, is not broken down to the parent substance, but is transformed into a mono-substituted sulphone[6], and, therefore, is not toxic. The commencing dose of Sulphetrone is a quarter of a cc. intramuscularly twice a week, gradually increasing to a maximum of 3 ccs. twice a week.

Most persons who read about leprosy are under the impression that the Sulphone drugs now are a specific for the disease, and the word 'cure' is being used relatively lightly. As yet we do not know whether *M. leprae* develop permanent resistance to the Sulphone drugs, but recent work and observations from America indicate that resistance may develop[7], but that it takes years to manifest, and may not show itself for ten to fifteen years from the commencement of treatment.

While one must be realistic in one's approach to the therapy of leprosy, one can say that modern drugs, carefully applied, combined with preventive measures, which result in breaking the contact between the infective case and the child, should bring the disease under control in a measurable period of time. Wherever a combination of reasonable and commonsense segregation has been combined with an adequate use of the sulphone drugs, leprosy has tended to become controlled in a community, and there are several areas in Nigeria today where the incidence of leprosy has become so low that one can state that the disease is under complete control. However, these areas are among the most favourable areas in the world, and, while this is the result which one should expect, there are very numerous factors which cause one to issue a note of cautious optimism in regard to the rapid control of leprosy throughout the world.

Modern Concepts of Orthopaedic Surgery and Physiotherapeutic Principles in Leprosy

One cannot close this article without a reference to the important advances which have resulted in application of modern Orthopaedic[8] and Physiotherapeutic[9] principles in the rehabilitation of leprosy patients. The modern development of Ortho-

paedic and Physiotherapeutic treatment in Leprosy, combined with a study of the Radiological Appearances of advanced lesions in Leprosy[10], have demonstrated the fact that all deformity in this disease is completely preventable. In other words, the neuropathies which take place in Leprosy have nothing to do with the specific process, but are entirely due to two factors: (1) the presence of anaesthesia, and (2) the factor of trauma. If adequate preventive measures were taken, no person with Leprosy should ever become deformed. For evidence of this statement, readers are referred to articles published in the *Annals of the Royal College of Surgeons*[11] and in *The Journal of the Faculty of Radiologists*[10]. It has also been realized, within recent years, that while all nerves tend to become invaded by the *Mycobacterium leprae*, there are only certain muscles which become involved. For instance, in the upper extremities the intrinsic muscles of the fingers and thumb are generally paralysed, or, in other words, it is the muscles supplied by nerves passing over bony points, or which come to the surface, that tend to be paralysed. Other muscles usually escape. The small muscles of the hand are affected, since they are supplied by the ulnar nerve after its emergence from the intermuscular septum in the arm. Muscles supplied by the median nerve, after its entry into the carpal tunnel, may also become involved. All the muscles of the lower leg are liable to be affected, except the *tibialis posterior* muscle, and this muscle can be used effectively for the complete relief of drop foot in leprosy. In this connection it is interesting to remind oneself that the nerve supply of the *tibialis posterior* muscle runs a deep course, and does not come to the surface, and this muscle is practically never paralysed. This observation has been of great help to Orthopaedic Surgeons in their approach to the question of muscle transplants in leprosy. Why leprosy is so selective in its muscular paralysis is unknown. The reason may either be because it is those nerves which are on the stretch, or tend to be injured by passing over bony points, that become affected, or it may be due to a difference of surface temperature.

Conclusion

I hope I have said enough to convince my readers that a study of leprosy is indeed relevant in our understanding of basic and fundamental principles of Medicine. We must ever be on our guard against excessive optimism, so that the gains we have made in recent years in our understanding of this most puzzling of diseases may be consolidated, and those who are working in Leprosy may not be tempted to indulge in wishful thinking. The *Mycobacterium leprae* has defeated science for the past eighty years or more, and it is too much to hope that the use of a bottle of Sulphone pills or a tube of B.C.G. Vaccine will result in the complete elimination of Leprosy from the world. This is an object which is one worthy of pursuance, but its attainment will take many years, much hard work, and the application of the best minds to the subject.

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THE MAYO CLINIC

by IAN P. TODD

The Mayo Clinic. This is the name of a medical institution which is perhaps the best known in the whole world. But what is it and where is it? It is not old compared with our own hospital or even other well-known American hospitals. In fact it is not even a hospital. Wherein therefore does its fame lie?

I was fortunate in being able to pay a visit to Rochester recently and was royally treated by the Mayo Clinic staff. Do not make the mistake of assuming that the Clinic is in Rochester, New York, for it is many miles from there in a small town (population 35,000) in the mid-west state of Minnesota, some 350 miles north-west of Chicago.

The first Mayo Clinic building was not opened until 1914, but it is necessary to trace its history back a few years before this to understand the great foresight of the Mayo family.

In 1883, a tornado devastated much of Rochester. Casualties were high and there was no adequate hospital. Thanks, however to the skill of Dr. William Worrall Mayo and the care of the Sisters of Saint Francis, the loss of life was not as large as it might otherwise have been. As a result St. Mary's Hospital, staffed by nuns, was built to take care of any future disaster. This was opened in 1889. It consisted of forty beds and the medical staff was composed of William Worrall Mayo and his two sons, William James and Charles Horace.

As their work increased, other partners joined the practice and by 1900 the nucleus of the clinic was formed.

It is necessary to define 'The Mayo Clinic' as it exists today. It is 'a voluntary association of physicians, the primary interest of which is the conduct of the co-ordinated group practice of medicine.' Thus the clinic is a large group practice dealing with private patients. It owns no hospitals, no buildings nor other property.

In 1911, father Mayo died, but his two sons, who were both to live until 1939, gathered around them men of great ability such as Plummer, Judd and Balfour. One has the impression that each brother had a very different personality. Dr. Will, the elder by four years, a bluff Honest John, kind but shrewd in business, whilst Dr. Charlie was perhaps gentler, less explosive yet equally persuasive. Their work prospered and the name of the clinic became well known for the ability of the staff, their results, researches and publications. At the same time they became rich.

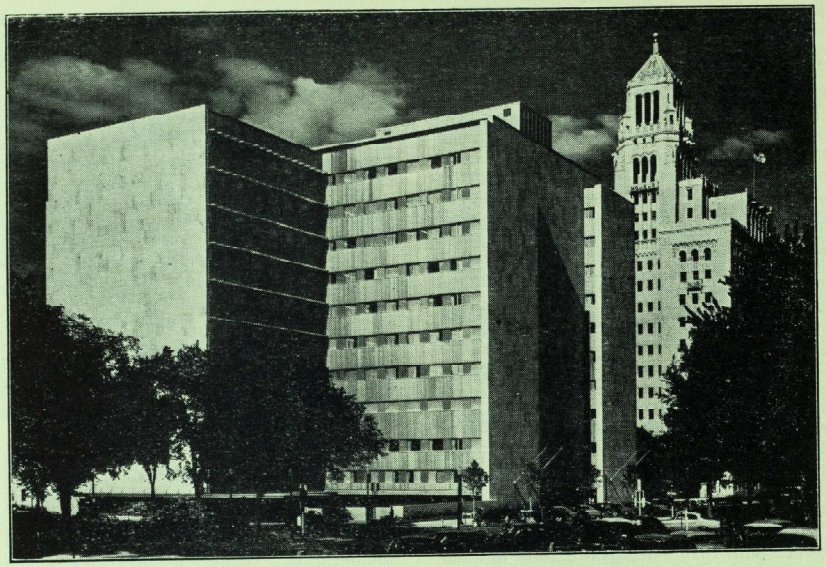
In 1914, a building was opened to house the Clinic, and in the same year the staff were approached by the President of the University of Minnesota. He suggested that educational and research work should form part of the functions of the now famous organization. Thus, in 1915, the Mayo Foundation for Medical Education and Research was formed as part of the Graduate School of the University of Minnesota.

The Clinic prospered exceedingly and, presumably to avoid taxes and the like, in 1919, the Mayo Association was formed. It is a benevolent and educational corporation which acts as trustee to all the assets of the Clinic—buildings, instruments, records and the like.

In 1928, a new building of Romanesque architecture, fifteen stories, some 295 feet high and surmounted by a revolving beacon, were added. In the tower was a Carillon of twenty-three bells cast at Croydon, England. Even this building proved inadequate and in 1955 a ten-storied, ultra-modern, steel framed, concrete building was opened.

The function of the Clinic buildings is much like that of an Outpatient Department of any large hospital. There are physicians, surgeons and representatives of all the specialties. There are departments for all the ancilliary diagnostic units. Patients are passed from one to another as need arises.

As most of the patients come from outside Rochester — there is little emergency work — they stay at a hotel or boarding house until examinations are completed. Thus, a large hotel trade has grown up in Rochester



THE MAYO CLINIC

and the Clinic is able to control them to some extent and to arrange for certain extra services to be given. The largest group of hotels is owned by the Kahler Corporation, who also run the Diet Kitchen, but its light, heating and ventilation is controlled by the privately owned Franklin Heating Station of the Mayo buildings.

If it is decided that in-patient hospital treatment is needed, the patient is admitted to one of the two major hospitals in the city. These are St. Mary's and the Methodist Hospitals (there are certain annexes which compose special departments such as E.N.T. in the Methodist Worrall and radiotherapy in the Curie). St. Mary's, still conducted by the Sisters of St. Francis, now has a large nurses' training school and 860 hospital beds. A further new block is being built. The present Dr. Mayo, Charles W. ('Chuck') works only at St. Mary's. I believe it is true that the Mayos originally promised that they would never treat patients in any other hospital.

Each of the hospitals has its own consulting staff but all are drawn from the Mayo Clinic. The Clinic staff numbers about 300 medically qualified persons.

With the growth of the institution, the chances for research were much increased, and in 1952, the research laboratories were removed from the animal research farm outside Rochester to the new Medical Sciences Building close at hand to the Clinic. In this fascinating building a Fellow, of whom there are about 600 attached to the clinic staff, will probably start his period of graduate work which may lead to a degree from the University of Minnesota. A Fellow usually stays in Rochester for 3–4 years but it may be more or less. He or she will usually come there a year or two after qualifying, though my impression is that this is too early to reap the full benefits from the training. Fellows come from all over the world and though most of the British Universities and London teaching schools were represented, I met no one from Bart's.

The Fellow usually starts his work in the Medical Sciences Building and there, for six months to a year, he will investigate some problem in which he is interested or will fit in with some group project. He may, if he wishes, and he is encouraged to do so, carry on this work throughout his whole stay in Rochester and publish the work. It must however be approved by an editorial committee and also carry the name of the staff member under whom it was carried out. In this way the standard of publication is kept on a high plane. There is almost no branch of research which cannot be carried out. The apparatus which is needed is planned and engineered in the Foundation's own department. This is so large and so up-to-date that graduate engineering scholarships are given to work there. There are facilities for animal study with operating theatres and staffs like a hospital. Operating lists for surgical research projects are posted daily. There are laboratories for biology, bioassay, biophysics, metabolism, intestinal secretion and motility, liver and lymph study, physiology, neurophysiology, isotopes, electroencephalographs, electrocardiographs, electromyographs and many other studies.

From here the Fellow moves into the clinical field and, after passing through the basic departments as a junior assistant, will be attached to a series of clinicians in the department in which he is specially interested. He will in the end, become the first assistant to a staff member. The main criticism which may be launched against this prolonged 'rotating interneship' is that there is little personal responsibility and little practical experience. Whilst this is true, for all the patients are private, he has the chance to see, examine and investigate a vast amount of material and also to appreciate treatment of the best quality. There is little practical surgery for the Fellow who is so interested, but, if he has already some practical experience, the surgery which he will witness can teach him much.

There are many departments in the Clinic which can be of great assistance to the would-be research worker or author. There is an excellent library, with desks close to the shelves. One thousand and nine hundred journals are subscribed to, so it is unlikely that the investigator will find the particular one he wants missing. The statistical department has a very good method of cross reference so that it is possible to find out whether there is a relationship between the most obscure of diseases. The central registry has a method of dispatching notes to any department or hospital within seconds, *via* moving belt conveyors or compressed air.

I've said little about the hospitals for they are not truly part of the Mayo Clinic. They are simple practical buildings suitable for the particular type of work they have to do. There are straight corridors with single rooms, double rooms and four bedded rooms which make up the equivalent of a ward. There is, however, nothing outstanding about them and there are no special gadgets such as one might have expected to find.

The operating rooms (not theatres) are all on one floor and each surgeon has two available at all times. In this way a great deal of time may be saved between cases and during opening and closing of the wound. Work starts at 7 or 7.30 a.m. and many operations are performed in a day. The patients leave hospital as soon as possible and return to a hotel. They are seen in the Clinic daily where dressings may be carried out and stitches removed. This increases the turn over still further.

What of the city of Rochester itself? For the Fellow there is the Foundation House, the old home of the late Dr. Will. There are facilities for sports in the Mayo Parks and the Mayo Auditorium is a fine hall for many kinds of entertainment — I heard the Minneapolis Symphony Orchestra there. The people are remarkably hospitable as only Americans can be and a visit to Mayowood, the old home of Dr. Charlie, now occupied by his son is something one will remember all one's life. There are eight Mayos of the fourth generation but unfortunately none shows a yen for the medical profession. The town itself is neat, well-planned and clean, and has a charming air of friendliness, a feeling which also pervades the Clinic, for the staff works as one large efficient unit without prejudice or rivalry.

Sitting in the coffee bar at the Kahler Hotel one wonders why it is that one is so attracted to Rochester and the Clinic. One's reveries are interrupted, however, as one's neighbour leans across and says 'I guess I'm duodenal, what are you?'

WILLIAM HARVEY

TWO MEDICAL ANECDOTES

The one related by Sir Kenelm Digby, the other by the Honourable Robert Boyle

by RICHARD A. HUNTER AND IDA MACALPINE

ON JUNE 3, 1957, there will fall to be celebrated the tercentenary of the death of William Harvey, 'the most famous of all the great men whose names occur in the history of St. Bartholomew's Hospital' (Moore, 1918). 'It is one of the brightest features in the history of . . . St. Bartholomew's Hospital' wrote Sir James Paget (1846), 'that the great discoverer of the circulation, "*physiologiae lumen: Angliae immortale decus*" [Haller], was for four and thirty years its physician': therefore 'it cannot but be pleasure to dwell on all that relates to the great Harvey.' Yet there is still no definitive account of Harvey's scientific work and life 'which is much needed and must some day be written' (Aveling, 1875). For the former there is available almost too much material because Harvey's observations and researches covered many disciplines which have since developed as separate branches of knowledge. The reverse obtains of biographical material: 'It is strange that of this wonderful life so little that is personal is known to us. In fact, almost all that we do know we owe to the gossiping pages of a layman, Aubrey' (Mitchell, 1912). 'It is not possible', lamented Sir D'Arcy Power (1897) in the most complete life of Harvey so far written, 'to add much that is new'.

What little is known of Harvey's medical practice is mainly derived from scattered observations in his own writings. These also contain tantalising references to a future work to be entitled 'Medical Observations'; unfortunately it was never published and no manuscript of it is known to exist. As it is, *Exercitationes de Generatione Animalium* (1651) contains most of his clinical material, much of it obstetrical and gynaecological. There are also descriptions of a patient suffering from cardiac asthma who died of a ruptured heart, and of another whose jugular veins were 'enlarged to the size of a thumb' and 'pulsated violently': at post-mortem 'the cavities of the ventricles equalled those of a bullock's heart in size.' The only letter from Harvey's professional correspondence to survive (Keevil, 1953), contains directions for treating a lady 'affected with a cholic passion of a hot and bilious nature' by blood-letting and purging (Willis, 1878).

It is therefore an act of homage to place on record two anecdotes of Harvey's medical practice recorded by contemporaries which seem to have escaped the notice of his biographers. We first saw them mentioned by Wanley (1678) in his encyclopaedic collection of startling facts and stories, and from there traced them to their sources. They tell of patients seen by Harvey: the first was primarily a neurological case, the second psychiatric. They are valuable for two reasons. First, they reveal Harvey's interest in the physiology of the nervous system and the functions of the mind, interests scarcely mentioned by his commentators. Second, they add two new names to the list of his friends and so increase what little personal knowledge there is of him.

SIR KENELM DIGBY'S RELATION

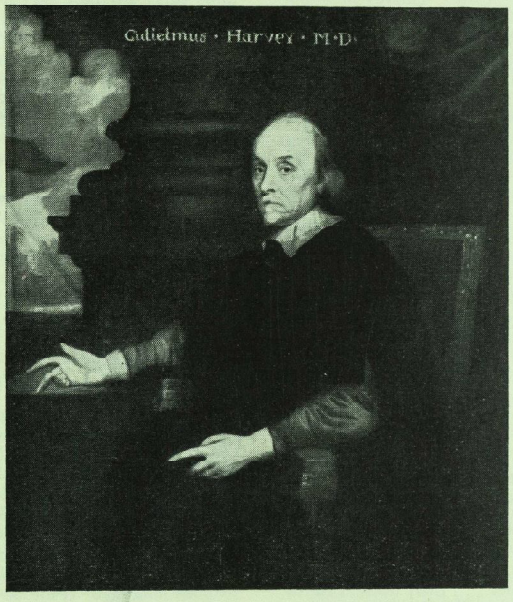
THE CASE OF 'A SERUANT IN THE COLLEDGE OF PHYSITIANS IN LONDON'

Sir Kenelm Digby (1603-1665), bibliophile, writer, philosopher, scientist, naval commander, member of the original Council of the Royal Society, was the most romantic figure among the great intellects who flourished in seventeenth century England. His most ambitious work was entitled 'Two Treatises. In the one of which, the Nature of Bodies; in the other, the Nature of Mans Soule; is looked into: in way of discovery, of the Immortality of Reasonable Soules' (Paris, 1644; London, 1645). It was written as a course of instruction in natural philosophy for his son in England, while Digby himself was in exile in France after almost two years imprisonment by the long Parliament.

In Chapter 32, 'Of sensation, or the motion whereby sense is properly exercised,' Digby discussed the possible function of nerves, in particular the problem of how one and the same structure could conduct both motion and sensation. Digby's friend the 'ingenious and acute Descartes' (Harvey, 1649) thought that motion was actively produced by 'animal spirits' sent along the nerves from brain to muscle, whereas sensation was passively produced by the same nerves mechanically transmitting a vibration to the brain (Descartes, 1637; 1641). Digby disagreed with Descartes, perhaps as a result of previous discussion of this subject with 'the learned Haruey', and as evidence of the inadequacy of Descartes' theory cited one of Harvey's patients whose symptoms clearly contradicted it. In the section entitled 'That the symptomes of the palsie do no way confirme Monsieur des Cartes his opinion' Digby wrote:—

> 'Monsieur des Cartes endeauoureth to confirme his opinion, by what vseth to fall out in palsies, when a man looseth the strength of mouing his handes, or other members, and neuerthelesse retaineth his feeling: which he imputeth to the remaining intire of the stringes of the nerues, whiles the spirits are someway defectiue. To this we may answere, by producing examples of the contrary in some men, who haue had the motion of their limbes intire and no wayes preiudiced, but haue had no feeling at all, quite ouer their whole case of skinne and flesh: as particularly a seruant in the colledge of Physitians in London, whom the learned Haruey (one of his Masters) hath told me, was exceeding strong to labour, and very able to carry any necessary burthen, and to remoue thinges dexterously, according to the occasion: and yet he was so voyde of feeling that he vsed to grind his handes against the walles, and against course lumber, when he was employed to rummage any: in so much, that they would runne with bloud, through grating of the skinne, without his feeling of what occasioned it.'

'Digby's report of this case shows not only that Harvey had noticed an uncommon con-



WILLIAM HARVEY*

* Portrait reproduced by kind permission of the Royal College of Physicians of London.

dition long before similar cases were described by other physicians, but also and more important as appears from the context, he had recognized the significance of the patient's symptoms for the understanding of the physiology and pathology of the nervous system. How interested Harvey was in the problem of motion and sensation can be seen in his anatomical lecture notes of 1616, as well as from observations he made in the case of a young nobleman, whose heart had been exposed by injury. Harvey was not content merely to observe and feel his beating heart, but proceeded to test sensation: 'I cannot be silent on the remarkable fact, that the heart itself, this most distinguished member in the body, appears to be insensible . . . the heart was without the sense of touch' (Harvey, 1651). Clearly Harvey's enquiring and discriminating mind had formulated the fundamental problem in neurology, the conduction of motor and sensory impulses, which remained unsolved until the early nineteenth century when Charles Bell showed that motor and sensory nerves were functionally and anatomically distinct. Only when this knowledge had been secured could scientific neurology begin to develop. Bell's discovery has therefore been rated second in importance only to that of Harvey's discovery of the circulation of the blood (Neuburger, 1897).

Differential Diagnosis

It is difficult to make a definite diagnosis after an interval of more than three hundred years since Harvey saw the patient and Digby wrote his account. Had the patient 'no feeling at all, quite ouer . . . [his] whole case of skinne and flesh', and did Harvey only mention in illustration how 'he vsed to grind his handes against the walles . . . without his feeling . . . it'? If so, this might be the first description of that very rare condition 'congenital universal indifference to pain'. The patient certainly showed no evidence of motor weakness: he 'was exceeding strong to labour'. Nor was there obvious loss of proprioception, for he was able 'to remoue thinges dexterously': this may be taken to exclude a lesion of the posterior root ganglia such as occurs in sensory radicular neuropathy. It is not recorded whether he was insensitive to hot and cold, nor is it entirely clear whether he was suffering from true anaesthesia or merely from 'a morbid indifference to painful stimuli' (Critchley, 1953). If the former, then the diagnosis of early syringomyelia seems the most probable; parietal lobe lesion causing bilateral 'agnosia for pain' is very unlikely in a healthy subject showing no evidence of apraxia. There is no evidence that the loss of sensation was of psychological origin: had it been, one would not have expected the patient to continue hard work which required him 'to rummage' and 'carry any necessary burthen'.

That Harvey was one of the patient's 'Masters' at the College of Physicians suggests Harvey must have seen him at a time when he held office at the College, either as Censor (1613, 1625, 1629), Elect (from 1627), or most likely when he was Treasurer in 1628 and 1629. Unfortunately the College Annals (MS Royal College of Physicians) contain no mention of servants during this period and nothing is known of the patient's subsequent history.

Harvey and Digby

Harvey's biographers do not mention Digby although all the evidence points to them having met repeatedly for discussion of scientific matters of mutual interest. Digby, who 'stands to embryology as an exact science, much in the same relationship as Bacon to science as a whole' (Needham, 1934), referred with admiration to the work 'of that learned and exact searcher into nature, Doctor Haruey'. His ardent advocacy of Harvey's 'curious and excellent doctrine of the circulation of the bloud' was the 'first discussion of Harvey's discovery in the English language' (Fulton, 1937). In Digby's own words, 'if you desire to follow the bloud all along euery steppe, in its progresse from the hart round about the body, till it returne backe againe to its center, Doctor Haruey . . . who hath both inuented and perfected it . . . [and] who most acutely teacheth this doctrine, must be your guide'. They shared not only an interest in the natural sciences but also a number of friends, such as Thomas Hobbes, John Selden and Ben Jonson. Following Harvey's example, Digby experimented on the heart and gave considerable thought to the problems of generation (Digby, 1644), on which he quoted some observations made by Harvey in November, 1633, but not published until 1651 (Harvey, 1651). This led Sir William Osler (1907) to suggest that Digby must have learnt Harvey's views 'from converse, or from the Lumleian Lectures, which no doubt he often attended'. Even Highmore who knew Harvey and whose *History of Generation* (1651) contained many censures of 'The Conceipt of Sir Kenelm Digby concerning the generation of Creatures', credited Digby with being imbued with Harvey's spirit: 'I confesse his curious eye, seldome takes any thing upon trust, or slightly passes by what is observable'. Harvey and Digby probably met between the end of 1633 and the beginning of 1636, the only years during which both were in London simultaneously for any length of time: the otherwise much-travelled Digby being then in voluntary seclusion in Gresham College making scientific experiments while in mourning for his wife. Their personal contact was certainly maintained until 1639: when in that year Harvey's merchant brothers Daniel and Eliab started to deal in land, their first known transaction was to lend Digby £10,000 on mortgage of his estates (Herringham, 1929).

The Honourable Robert Boyle's Relation:

Mr. Hollier's Case of a Maid who had lost the sense of feeling

Robert Boyle, whose name remains attached to his law of gaseous elasticity, was another of the seventeenth century 'natural philosophers' who embraced all knowledge and encouraged the experimental method so brilliantly demonstrated by Harvey. His account of 'the only Discourse I had . . . with our famous Harvey' during which he asked Harvey 'What were the things that induc'd him to think of a *Circulation of the Blood*' (Boyle, 1688), is so well known (Lawrence, 1766) that it has led to an earlier and different version of their meeting being overlooked. In 'Some Considerations Touching the Usefulnesse of Experimental Naturall Philosophy' (1663), Boyle recounted that he had gone to consult Harvey 'about my weak Eyes'. They also discussed general medical matters, such as whether some diseases were erroneously considered incurable from their nature, which when better understood would prove curable after all. Harvey must have thought this was so, for in illustration 'he told me, among other things (as a very remarkable one) that he had once a Patient (whose Name and Profession he told me, but I remember not) that had a confirm'd Cataract in his Eye, and yet upon the use of Physick to which he could not ascribe so wonderful an effect that Cataract was perfectly dissipated, and the Eye restored to its wonted Function'.

Boyle used this case to suggest that 'it were no ill piece of service to Mankinde, if a severe Collection were made of the Cures of such Persons as have recovered after having been judg'd irrecoverable by the Doctors: That Men might no longer excuse their own Ignorance by the impotency of Nature . . . as if the Art of Physick, and their skill, were of the same extent. And the Cures that seem performed by Nature her self need not be left out of such a Collection':

> 'Which brings into my minde another Observation, imparted to me, a while since, by that excellent and experienc'd Lithotomist, Mr. *Hollyer*, who told me, that among the many Patients sent to be cured in a great Hospital (of which he is one of the Chirurgions) there was a Maid of about eighteen Years of age, who, without the loss of motion, had so lost the sense of feeling in the external parts of her Body, that when he had, for tryal sake, pinn'd her Handkerchief to her bare Neck, she went up and down with it so pinn'd, without having any sense of what he had done to her. He added, That this Maid having remained a great while in the Hospital without being cured, Dr. *Harvey*, out of Curiosity, visited her sometimes; and suspecting her strange Distemper to be chiefly Uterine, and curable onely by *Hymeneal* Exercises, he advised her Parents (who sent her not thither out of poverty) to take her home, and provide her a Husband, by whom, in effect, she was according to his Prognostick, and to many Mens wonder, cur'd of that strange Disease'.

Harvey and Bartholin

This patient aroused such interest that the Danish anatomist Thomas Bartholin (1657) also gave an account of her: 'Aliam virginam sanam in Anglia novit *D. London* Medicus, amicus olim meus, quae ustiones in collo non sentiebat, acumq; & fronti impressam & unguinum radicibus intrusam sine ullo doloris sensu admisit' (*A physician of London, an old friend of mine, knew a healthy maid in England, who did not feel her neck being burnt, and allowed* [*needles*] *to be pushed into her forehead and intruded into the roots of her nails without any sense of pain*).

'*D. London* Medicus' literally means 'Master London, physician', but careful search has

not revealed any contemporary physician of that name. Presumably 'a physician of London' was meant, whose name was omitted in error. As to our knowledge, neither this nor any similar case had been reported in any English medical text before 1657, Bartholin must have heard about the patient in a personal communication, of which Harvey himself was the most likely author. Bartholin thought very highly of Harvey and his work (Willis, 1878), and one letter remains of his correspondence with him (Bartholin, 1663). Harvey's only reference to Bartholin, which occurs in a letter to J. D. Horst dated 13th July, 1655, confirms the impression that they had been in correspondence.

Harvey and Hollier

The 'great Hospital' of which Thomas Hollier was 'one of the Chirurgions' was St. Thomas's, a post to which he had been appointed in 1644. In 1663 he also became lithotomist to St. Bartholomew's Hospital. It is not possible to say when Hollier told Boyle this anecdote of Harvey, as he is not mentioned by either Harvey's or Boyle's biographers (e.g. More, 1944); by 1663 when Boyles' book was published it was 'a while since'. On the other hand, it is fairly certain that Harvey saw Hollier's patient between his return to London in 1646 after four years at Oxford (Moore, 1890), and his retirement a few years later. 'He was now 68; a martyr to gout, childless, and suffering under a series of heavy bereavements, he can have had but little heart to re-enter upon an active professional life in London' (Power, 1897). Indeed by Christmas 1650 he had withdrawn to a 'peaceful haven' where he told Sir George Ent 'did I not find solace in my studies, and a balm for my spirit in the memory of my observations of former years, I should feel little desire for longer life' (Harvey, 1651).

A Tale of Tails

It is possible that in this previously unnoticed friendship between Harvey and Hollier, may be found the clue to the author, so far unidentified, of the following fanciful story recorded by Harvey (1651): 'A surgeon, a trustworthy man, and with whom I am upon intimate terms, on his return from the East Indies informed me, in perfect sincerity, that some inland and mountainous parts of the island of Borneo are still inhabited by a race of caudate human beings . . . with a tail, thick, fleshy, and a span in length, reflected between the buttocks, and covering the anus and pudenda: so regularly has nature willed to cover these parts'. There is evidence that Hollier may have travelled in his youth, for he did not commence his apprenticeship to a surgeon until he was over 20 years old, the usual age being 14 (Young, 1890). In 1637, when he received the freedom of the Barber-Surgeons Company (MS Guildhall), he was 27 or 28 (Foster, 1887). He had served seven years' apprenticeship at St. Thomas's Hospital (MS St. Thomas's) with James Molins, who was also lithotomist and cutter of wens and ruptures to St. Bartholomew's Hospital, and perhaps accompanied him in 1634 to the examination of the 'Lancashire Witches' supervised by Harvey (Aveling, 1875). Before starting his formal training Hollier may have spent some years gaining experience as an assistant ship or army surgeon, for which no qualifications were required, and so come to visit the East Indies. That Hollier had qualities that would make him acceptable as a friend to Harvey, is recorded in the diary of his patient and friend Samuel Pepys, where Hollier is described as a pleasant companion who, knowing Latin, was more learned than most surgeons of the time:

> '28th February, 1667. Mr. Hollyard [sic] dined with us, and pleasant company he is. I love his company, and he secures me against ever having the stone again . . . 30th April, 1668 . . . also comes Mr. Hollyard a little fuddled, and so did talk nothing but Latin, and laugh, that it was very good sport to see a sober man in such a humour.'

Clearly Hollier when 'a little fuddled' was quite capable of telling the serious-minded Harvey of 'a race of caudate human beings.'

Harvey's Interest in the Affections of the Mind

It is perhaps no coincidence that these two patients of Harvey whose case-histories have been preserved by contemporaries, suffered either from neurological or mental disease. Harvey's interest in the functions of the nervous system and 'the affections of the mind' may be seen in his earliest known writings, his lecture notes of 1616 (Harvey, 1616). These contain references to hysteria, hypochondria, melancholia and madness.

From a study of Harvey's still unpublished lecture notes of 1627 Sir George Paget (1850) was led to conclude that he 'had recognized the resemblance between the states of dreaming and insanity'. In *Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus* (1628), which is 'justly considered to be one of the most fruitful and important books ever published' (Keynes, 1953), Harvey made another observation, the full importance of which is only now being realized as a result of research in that branch of psychiatry called psychosomatic medicine: 'every affection of the mind that is attended with either pain or pleasure, hope or fear, is the cause of an agitation whose influence extends to the heart.' In *Exercitatio Anatomica De Circulatione Sanguinis* (1649) Harvey returned to this subject when he wrote of 'the signal influence of the affections of the mind . . . in almost every affection, appetite, hope, or fear, our body suffers, the countenance changes, and the blood appears to course hither and thither'.

Selden (1689) recorded Harvey's skill in dealing with patients suffering from mental illness: 'A Person of Quality' complained that 'he had four Devils in his head'. Selden realized 'that 'twas only Melancholy that troubl'd him', and told the patient that apart from himself there was only 'one Physician more in the whole Town that could Cure the Devils in the head, and that was Dr. *Harvey*'. That his colleagues also appreciated his ability as a psychotherapist and turned to him when troubled in mind, we have on the authority of Sir George Ent, who in his preface to Harvey's *Exercitationes de Generatione Animalium* (1651), recounted how 'Harassed with anxious, and in the end not much availing cares, about Christmas last, I sought to rid my spirit of the cloud that oppressed it, by a visit to that great man, the chief honour and ornament of our College, Dr. William Harvey'.

When Harvey went to see Hollier's patient at St. Thomas's Hospital, he recognized at once that she was not suffering from some dread bodily disease, although she had 'remained a great while in the Hospital without being cured'. In 1616 he had first mentioned a 'mad woman' who was insensitive to 'pins in her arme'. In 1651, he referred again to the phenomenon that some patients 'who are deranged in mind, or who are agitated to such a degree by a violent passion that they feel no pain, and pay no regard to the impressions made on their senses'. Harvey saw the reason for Hollier's patient being 'deranged in mind' in the fact that some 'young women . . . when they become marriageable . . . if they continue too long unwedded, are seized with serious symptoms — hysterics, furor uterinus, &c., or fall into a cachectic state, and distemperatures of various kinds' due to 'their eagerness for offspring' (Harvey, 1651). Hence his advice to her parents to 'provide her a Husband, by whom, in effect, she was according to his Prognostick, and to many Mens wonder, cur'd'.

Regarding another patient, 'a noble lady who for more than ten years laboured under furor uterinus and melancholy', he remarked in the pathology of his age, 'How dreadful, then, are the mental aberrations, the delirium, the melancholy, the paroxysms of frenzy, as if the affected person were under the dominion of spells, and all arising from unnatural states of the uterus' (Harvey, 1651). These observations on so-called hysterical anaesthesia and paroxysms, show that Harvey clearly recognized the signs and symptoms of the condition familiarized as 'la grande hystérie' by Charcot at the Salpêtrière more than two hundred years later.

In the same book Harvey gives in passing one of the earliest clinical descriptions of shared delusions or *folie à deux* (Greenberg *et al.*, 1956): a woman with ten children married a second husband and became convinced she was pregnant again. She managed to persuade her sister of the fact and 'No arguments of mine could divest her of this belief. The symptoms depended on flatulence and fat'. He also described another variety of pseudocyesis occurring in a childless patient, who 'experienced in her own person all the usual symptoms of pregnancy . . . calculated the time at which she expected her delivery . . . prepared the bed, cradle, and all other matters ready for the event. But all was in vain. Lucina . . . tutelar deity of childbirth . . . refused to answer her prayers: the motion of the foetus ceased; and by degrees, without inconvenience, as the abdomen had increased so it diminished; she remained, however, barren ever after'.

Conclusion

Although it is often stated that 'Harvey's clinical medicine did not differ appreciably

from that of his contemporaries' (Bayon, 1938; 1939), this short survey demonstrates that in fact he possessed that interest in and understanding of 'the signal influence of the affections of the mind' (Harvey, 1651) which has always characterized the great clinician.

The two anecdotes of his clinical practice recorded by Sir Kenelm Digby and the Honourable Robert Boyle, supported by further evidence from his published writings, show that Harvey applied his genius also to those branches of medicine which have since developed separately as neurology and psychiatry.

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THE EXPERIENCES OF A RAW SURGEON-LIEUTENANT

by Surg-Lt. R. J. Knight

One day late in January last year three ex-Bart's Housemen met on the down platform at Surbiton station and boarded the Portsmouth train. The new bowler and the old and new trilbies were tossed nonchalantly on the rack, and their owners settled back to discuss whether or not they were a day late in joining the Navy. As it turned out they were. Their unpractised minds had been unable to fathom the Admiralty instructions, and a 'phone call to the appropriate department had only confirmed their error. Fortunately for their peace of mind they remained ignorant of this unpropitious beginning to their naval careers until they arrived at the Royal Naval Barracks.

Somewhat to the relief of the newly joined Surgeon Lieutenants, the first person they met on entering the ward room was another Bart's man, who had joined the previous day. He undertook to show them the ropes and directed them to report to the Sick Bay.

The Barracks at Portsmouth are laid out with a main road separating the ward room from the rest of the buildings, and crossing this road when the Dockyard goes home can be very dangerous; it is as bad as King's Parade when lectures are over and the undergraduates are cycling and sprinting back to their Colleges for lunch. Having survived the road, we reached the Sick Bay and started the joining routine. We decided that the most important thing was to draw our kit before the clothing store shut. Everything that the well dressed officer wears, except the uniform suit, was handed over the counter, including two sets of Action Working Dress—blue denim trousers and shirts, ideal for cleaning the car, but not much use for doctoring. These were fitted by eye, and, unfortunately, the Wrens were not very good guessers. The Surgeon Lieutenant who had signed on for four years also received a uniform case which held everything; the others were expected to provide something to carry their clothing away in. Luckily the Wrens kindly produced a couple of cardboard boxes.

Thursday evening at the Royal Naval Barracks was Mess Dinner night, but as none of us had the correct dress, we were fed with the duty officers, thanks to the kindness of the Hall Porter. Most of that evening, however, was spent with needle and thread, sewing on cap badges. One of the House Surgeons, being the sort of chap who wears a belt with braces, had brought the necessary implements with him; without his foresight we would not have been able to appear in uniform the next morning. The sewing bee over, the rawest Surgeon Lieutenants in the Navy went in search of beer, raising their hats politely in return to the sentry's salute.

Friday and Saturday were spent learning about our new life. We learnt about the system of medical documentation, which is now almost identical with that of the other services, and had talks on V.D., Dermatology and X-rays. The Navy has a very compact portable X-ray machine for service afloat, and during the demonstration this produced a reasonable full-plate chest film, which is rather more than it was designed to do. The talks were interesting and well done, and I only wish that more had stuck in my memory.

Sunday saw the group split: four going to the Royal Naval Hospital, Haslar, while I stayed in Portsmouth for the Officers' Divisional Course—a fortnight on how the Navy runs, and how to be a good officer. On the whole it was an interesting course, which taught me about the conditions of service, pay, promotion and punishment; as well as some sword drill, how the N.A.A.F.I. works, and how the Navy gets its films. The course came to an end with a visit by the doctors and executive Sub-Lieutenants to the Royal Naval Detention Quarters. This is probably the best run prison in the country, and the one with the lowest rate for repeated hospitality. The doctors entering the service

have to see what they will have to certify a man fit for, and although the inmates live a strenuous life, they manage to put on weight while they are there.

Haslar Hospital, built in the late 18th century, lies across the harbour from Portsmouth, and was at one time the largest brick building in England. It has a magnificent coat of Royal Arms over the main entrance which completely fills the end of the gable. Some of the wards are similar to those in the Bart's East Wing, only slightly modernized; while others are brand new. Six new wards were opened while I was there—the wing containing them had been gutted and the inside rebuilt. The Hospital is built on three sides of a large square. The wards are in parallel blocks about 15 yards apart, joined at each end by a common stairway. The complete plan consisting of two large 'U's', one inside the other, joined at the corners, ends and middle, as each side is two wards long. There are large lawns and trees in the square, with a church in the middle of the fourth side. Even under snow it is a superb sight.

While at Haslar we were introduced to the peculiarities of diving physiology. We were put through a compression chamber to learn at first hand the effects of pressure on the body. In my case my ears hurt so much that I had to come out. We saw the 100 foot submarine escape-tower being used, but we were not allowed to try it. We also went to sea for a day in a submarine, which is an old Naval custom for newly joined doctors; and, finally, had the exhilarating experience of being rescued from a small rubber dinghy by helicopter. The immersion suit provided for this aquatic sport is excellent; it keeps out the water and most of the cold, but it was designed to be worn with thick socks, otherwise the feet get frozen, as did mine.

Surgeon Lieutenants passing through Haslar are required to do some duty either as medical or surgical admitting officer. Some are lucky enough to be given wards to look after, but this is naturally a job for the Surgeon Lieutenants appointed to Haslar. The Naval day finishes at 4 p.m., except for those on duty. A pleasant change from living-in at Bart's, or any other N.H.S. hospital.

After three weeks at Haslar we spent a week learning about Atomic, Bacterial and Chemical warfare at H.M.S. *Phoenix*, one of the many shore establishments in the Portsmouth area. My general conclusions were that no-one knew much about Atom or Bacterial warfare, and that life would be very unpleasant at sea in another war, with the ships almost hermetically sealed. Still the chances of survival would probably be greater at sea than on land. Thermonuclear weapons (commonly known as H-bombs) are a most depressing subject, about which little is known, or passed on.

We then had a month of general duties; treating coughs, colds, sprains and cuts in the barracks. The field gun competition crew had just been formed, and its members appeared one after the other with wounds of varying severity acquired during practice. Towards the end of this month we received the appointments to our first ship. Those of us, like myself, who were going abroad, drew tropical kit and went on leave.

In these air-minded days most naval drafts to the Far East travel by air. I was lucky and went out by trooper. H.M. Transport *Empire Clyde* was built as the *Camaronia* in 1921 for the North Atlantic run. During the War, and for some years after, she was a troopship. She then had cabins fitted throughout and changed to carrying emigrants to Australia; now back to trooping, she is the only trooper to have no troop decks. Through the Red Sea to Aden, across the Indian Ocean to Colombo, and on to Singapore she was hot, not being built for the tropics. But hot or cold, it was a pleasant month's holiday with pay. The trip was brightened by acting as duty M.O. one day in five, by an epidemic of German measles and by the removal of an appendix at sea. The temperature around the patient was about 110° and one had to pour the ether on the mask in a steady stream. If it was allowed to fall drop by drop, the patient started to get up. All this at 2 a.m. on a Sunday morning.

There were on board a Lieutenant Commander, a Lieutenant, and two Surgeon Lieutenants, who in turn supervised the rum issue to their seven ratings, and attended the weekly payment. The Naval draft ran the ship's daily milage sweepstake, which had an increased turnover compared with the previous voyages. These duties kept us occupied, but even so, the time was occasionally heavy on our hands.

The Royal Naval Base at Singapore is fifteen miles from the city. We were driven there in Naval utility vans, full of our luggage, along the twisty road at a speed which made us certain that we would end in the ditch. The very deep road-side ditches, known as Monsoon ditches, fill almost to the brim when it rains. The island is many shades of green in the bright sun, and though the soil is mostly sand, the heavy rainfall never allowing it to become withered. The Naval Base, which covers a wide area, contains one village for the dockyard employees where the buildings are of concrete and fairly new; and another for the fire-services employees where the houses are of concrete, of wood, corrugated iron, and beaten-out petrol tins; houses for the Naval families; H.M. Malayan Ship *Malaya*, the barracks of the R.M.N., and H.M.S. *Terror*, the R.N. Barracks, both of which look very attractive with their white buildings surrounded by grass: and last, but not least, the Dockyard, which employs some ten thousand men.

I joined my ship, the cruiser H.M.S. *Newcastle*, and the man I relieved left the next day after a wonderful farewell party. I soon found out that the common diseases in the tropics, in the Navy, anyway, are those which are common in England. Skin diseases head the list with V.D. a close second. Within three days we were at sea bombarding the local terrorists one shell every six minutes for hours on end. It was interesting to be in the turrets when the guns were firing, it was also much more quiet there than in the wardroom. We did this for three days, and by the end of it only the Gunnery Officer was sorry that we were leaving. Someone perforated a peptic ulcer on the last night of the bombardment, and we had to return to Singapore; but we soon came back to finish droppping our visiting cards on the terrorists.

This short trip was followed by a week in harbour, during which I did my first day as Medical Guard. At Singapore the Medical Guard is responsible for treating any injury or illness in the Naval Base after the end of the working day. The Navy has a hospital for the local employees, the Royal Naval Asian Hospital, that is run by two Surgeon Lieutenants (shortly to be three). Here in the medical ward I have seen cases of tabes dorsalis, congestive heart failure, lobar pneumonia, dysentery, malaria, coronary thrombosis, and a jaundiced chinaman; and on the surgical side: a perforated ulcer, appendicitis, hand infections, and leg and foot infections, to say nothing of an abortion and an infant with a meningomyelocoele. Patients requiring operation have to make a fifteen mile journey to the Singapore General Hospital. In all, I have been on duty eight days and found that they provided very good revision. The snag is having to rely on an interpreter, and in having to use the vet's approach.

We went to sea for the exercises with the R.A.N. and the R.N.Z.N. that took place during June in the Java Sea. While at sea we had an epidemic fever, possibly malaria, which struck down thirty-five men on the first day; the next twelve days bringing the total number of cases to ninety. A tenth of the ship's company affected, not bad for a few mosquitoes! Having been kept busy with the epidemic, I was not surprised when fate produced a haematemesis in one of the Marine band. Luckily for both of us he did not bleed again.

The ship is also based on Hong Kong, the doorway to Red China, which is swarming with Chinese who do not seem to go to bed at all. Perhaps it is the large number of refugees who make the streets look nearly as busy as during the day. Double-decker green trains, single deck red and silver buses, rickshaws, motorcars, and pedestrians, all jostle each other in the streets, with a slight advantage to the mechanically propelled. The thing that catches everyone's eye is the *Cheung Sam*, the tight-fitting dress worn by the Chinese women, which has a slit up each side (usually going three or four inches above the knee) so that they can walk. This is a very becoming dress for the Chinese figure, which is not blessed with big buttocks.

The island has many attractions for the sailor, mainly because the dockyard is in the middle of the city. On top of the Peak, one of the hills overlooking the city, is the Royal Naval Hospital. It was built after the first war as a memorial nursing home, acquired by the Navy in 1948, and is now a small but well equipped hospital. The only disadvantage to its unique position on the top of the hill at about 1,400 feet, with a picturesque view over the other islands to the sea, is that it is often in the clouds.

My other experiences since leaving Bart's are not connected with medicine or the Navy.

A VISIT TO HILL END AS A PATIENT

by E. M. BUNTON

HAVING been led like an unsuspecting lamb to the slaughter, I arrived at Hill End Hospital one bright autumn morning, little realizing that Fenestration would be such an anguish provoking ordeal. First, in order to assure me that there was more in it than met the eye (or ear), they tested and recorded practically everything, and asked innumerable questions many of which were seemingly irrelevant (How many pillows do *you* sleep on ?)

I was slightly taken aback to discover that I should have to part company with the area of *coiffeur* immediately surrounding my left ear. This provided the amusement of a mild *contretemps* between Sister and the barber, with Sister batting on the side of the patient's vanity.

The Great Day of the operation dawned, and after I had been given the ceremonial Last Meal and Last Drink, my head and I were dressed respectively in a bandage and a crafty white wineyette nightshirt cut to the pattern (*sic*) of a choir boy's surplice. And of course the inevitable long white stockings. Just as I was getting beautifully drowsy I was lifted on to a trolley by a sort of Crazy Gang who struck me, in my bemused state, as being somehow incongruous in the ward.

. . . . As I came out of the anaesthetic I became slowly aware of my blood pressure being checked terribly frequently, and of my asking Sister whether I'd 'been done.' I had. Gradually an increasing feeling of nausea had its way and I was sick. Having got my stomach sorted out I next made the shattering discovery that my leg was in some sort of a splint, and that my foot was becoming painful. 'God ! ' I thought, 'they got me mixed up—I've had the wrong operation.' But soon my ear started asserting itself, so I decided that if I had had the wrong operation they'd realized it in time and done my ear too. Happier, I relaxed again, feeling that all was probably well.

But of course it wasn't at all. My ear and my foot both became more and more painful ; my head couldn't move itself on the pillow ; and I felt incredibly seasick. As it was now daylight I saw that a bottle was attached to my foot by a length of rubber tubing. This explained the sore-foot—there was a needle in it. But the contraption was soon removed, leaving me to concentrate on my earache and my seasickness. It was at this stage that I decided that Fenestration was a Fate Worse than Deafness. The earache became worse whenever I coughed, sneezed, blew my nose, chewed, used the bed-pan, or even just did nothing at all. The seasickness assumed Mid-Atlantic proportions, and there were times when I couldn't have cared if Hill End Hospital had gone down to the bottom with all hands lost. Anyway, I thought, I should be going to meet my Maker in this pure-looking surplice.

During the next few days life seemed to be a giddy round of blanket baths, codeine, bedpans, dramamine, penicillin injections, earache and seasickness. And food—for which I could raise no enthusiasm at all. Everyone was being very sweet and kind, and the customer was *almost* always right.

It was round about this time that it occurred to me to wonder who had done the operation. I had but once seen the surgeon at Out-Patients when he was heavily disguised with a green gown and hat, a mask and a mirror. Had he done the fenestration? I had no means of knowing so it became a vague sort of worry in my life.

Towards the end of the first week I was beginning to feel very much better. Then the Day of the First Repack reared its ugly head and once more we went through the ceremony the clean surplice, the Crazy Gang, the lot ! . . . . And when I came round I felt almost as miserable as I had after the fenestration. What's more I still hadn't set eyes on the surgeon. For all I knew it might have been Jimmy Edwards.

With my ear packed and padded and bandaged I heard less than I had before I came in. And so it was that I formulated my first theory on fenestration :— They keep you with your ear packed for three weeks or so, then when they remove the packing and say, 'There, now you can hear better, can't you ? '—you can ! The other theory was the psychological slant — Being in hospital was such a miserable business that you didn't really care whether your hearing had improved as long as they let you out !

On the tenth day I was allowed up and told to re-educate my balance — a task which proved more difficult than I had anticipated. At first I walked as though I had half a bottle of gin inside me, but gradually managed to convince myself and Sister that I could walk along a (fairly) straight line. All was well as long as I didn't try turning round sharply or bending over sideways.

Soon the day arrived when I was to see the by now mythical surgeon. He appeared, bearing a strong resemblance to the Green-Shrouded-One at Out-Patients (and mercifully none at all to Jimmy Edwards). After he'd unpacked my ear he walked round the room muttering numbers at me, all of which I heard. We all felt this was an encouraging sign, and the following day I waved a tearless farewell to Hill End and returned home feeling weaker than the proverbial kitten.

I had felt that if the fenestration were not successful my disappointment would vary inversely with my optimism before-hand. So I avoided optimism. But eventually I realized that my hearing had definitely improved to a considerable extent, and that I could now hear what most people said, and listen to my gramophone records with the volume control turned lower. I realized too that my next door neighbour was an inveterate banger of doors, that my refrigerator rattled, that my washing machine could have wakened the dead if it had put its mind to it, and that gas cookers were fearfully buzzing devices.

Sometimes I am haunted with the fear that my new window will close up. But if that fear is not realized within the alloted time I will happily return to the E.N.T. ward to have my right ear fixed.

NATURAL HISTORY SOCIETY

On December 9, the Natural History Society held their Annual General Meeting in the Physiology Department Library.

The official business, in the shape of the secretarial report and the election of officers for 1955-56, was quickly disposed of, and there then ensued a presentation of various items of interest by members.

Dr. Vince showed a superb collection of tropical plants and rarer native species, including some most interesting insectivorous plants which derive their raw materials from flies and insects as well as from the soil.

Mr. B. M. J. McGrath introduced the members to a sadly neglected group of animals, the land snails. 'Turn the grass roots aside and find *Cyclostoma Elegans*, the lone ambassador of an abounding continental genus,' he said, as he showed members that dignified specimen. 'Clamber up Box Hill and meet *Helix Pomatio*, England's largest snail.' He went on to tell how he poked into the crumbling mortar of a sun-dried wall to bring to view a dozen twisted shapes of all sizes, and how he burst through tangled weeds, willy-nilly, crushing a vast colony of *Helix Cantiana*, and scooped from the floating scum of a slow rivulet the flattened catherine-wheel, *Planorbis Carinatus*. Members were amazed. He added another example to his collection in dramatic fashion, when Dr. Vince, on opening the closed trap of a Venus Fly-trap discovered a species of *Hyalina* that had been caught there.

Mr. M. D. Constable gave a short talk on 'The Colour of Butterflies', illustrated by some specimens from his collection. He spoke of the function of colour as a means of protection, and its role in sexual differentiation, and then continued to describe some of the different ways in which the colours themselves are formed.

Still in the field of Entomology, Mr. E. R. Nye showed a miscellaneous collection of insects. These included Preying Mantids, an Elephant Hawk and one of its parasites ; a fly which is supposed to be the 'bee' that Solomon saw swarming round his lion ; and another fly, very tiny, which is parasitic on spiders (an eye for an eye), and a number of predatory 'robber flies'.

The meeting ended with an informal discussion of the exhibits.

THE LIFE OF SAINT BARTHOLOMEW

PART III: HIS DEATH

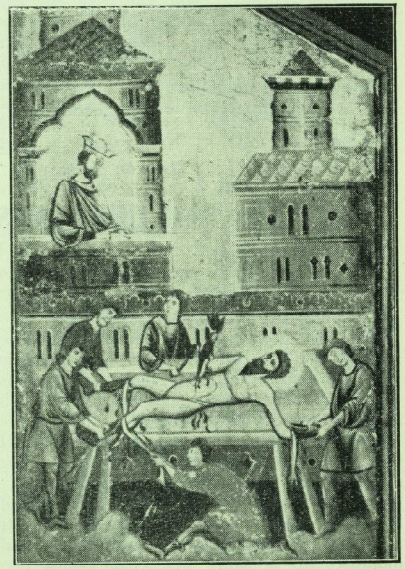
by J. B. DAWSON

THERE are some interesting observations to pursue as to his actual death, because once again many accounts are given. The blessed Dorotheus states he was crucified head down, Saint Theodorus states he was flayed, while Pierre de Natalibus adds that he was beheaded on the second day, so that I think almost any combination of flaying, whipping, and crucifixion in the orthodox manner or upside down, followed by beheading, is possible.

Let us consider each of these in turn. It has been very difficult to discover the method of flaying of those times, but two pictures, one of which is reproduced here, in Tuscan art are available, and I think they illustrate a possible method. They both seem to commence the operation at the extremities, a fact which is ably supported by Von Muralt's description in that 'the skin can easily be removed from the arms, legs and abdomen, but with difficulty from the palmar surfaces and soles of the feet, the forehead and the face, because there it is attached to the fleshy "leather" skin by its fibres and filaments.' It is notable that flaying with crucifixion was common in Egypt and Persia at that time according to Plutarch and Arrian, and flaying is generally accepted as a constant feature of Bartholomew's death.

A rather gruesome addition to the flaying of Bartholomew is reported by Abbé Barraud in his report of a legend which states, that Bartholomew, after he was flayed, bearing the marks of the knife on his flesh, seized his skin from his torturers, put it on the end of a stick and ran through the streets of Albanopolis, to the astonishment of the onlookers, who became frozen with horror at such a terrible sight.

Crucifixion, on the other hand, was, I am led to believe, very different from that depicted in the fourteen stations of the cross. In the first place, crucifixion was reserved for slaves and criminals of the lowest grade, at least this was its extent under Roman law. It consisted of tying a man to an upright stake with his arms in an extended position of some 65° to the vertical, so that his chest was in full inspiration, while his feet rested on a small platform. In order to breathe the victim had to push up on his feet to allow his chest some measure of expiration in order to breathe in further air. This



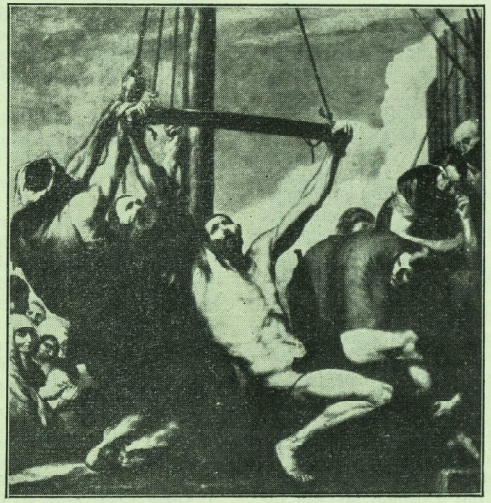
He is flayed.

would mean that this ghastly agony under the burning sun, and torment by flies, might go on for days before complete exhaustion and dehydration brought release through heart failure. Crucifixion head down reported by Assemann in his *Martyrdom of Bartholomew*, the introduction of a mobile cross-piece as is seen in the Ribera picture, to the full development of the Tau cross, are

variations of this most unpleasant method of killing.

The next phase is common to all saints, and consists of the world wide distribution of portions of their body to various centres of religious pilgrimage. In the case of Bartholomew, many great churches lay claim to relics of this great Saint, and the story begins roughly in this manner. Some report that Astyages took the body of Bartholomew off the cross and had it bound in lead and thrown into the sea, to prevent the Christians obtaining it and honouring it as would be their wish. Others state that Polimius, who was now bishop of Armenia, saw that the flayed body was buried with great honour in Albanopolis, a town in Upper Armenia which has since been destroyed. His tomb became the focus of many miracles and Gregory of Tours tells us that when a pagan revival occurred in this region with Christian persecution at its height, the reliquary was taken and hurled into the sea with the words 'Ye shall no longer deceive the people.' It is interesting to note, in passing, that strangling with hurling of the body into the sea was a method of Turkish capital punishment in this period. So perhaps Bartholomew borrowed from all the surrounding countries for his final manner of death.

It is reported that the body encased in a coffin of lead floated with those of four other martyrs to Lipari, an island off Sicily, in the Stromboli group, on which were, according to the ancient Greeks, the forges of Vulcan. These forges took the form of a mountain which caused much grevious harm to the island, so the spirit of Bartholomew removed it some seven miles out to sea. The local



The Martyrdom of St. Bartholomew
Painted by Josepe Ribera (1589-1652).

Christians had been warned of the impending arrival of Bartholomew's remains in a revelation, and they received them with great devotion and built a church for a further tomb. Siegeburt, in his chronicle for 831 A.D., states that when the Saracens later seized the island the priceless sepulchre was desecrated and the bones scattered.

Bartholomew then appeared to a monk saying, 'Rise up, go, and gather together my bones that be departed,' to which the monk replied 'By what reason shall I gather together thy bones, and what honour ought we to do to them when thou sufferest us to be destroyed?' 'Our Lord hath spared this people here a long while by my merits, but

for their sins that they have sinned which cry vengeance unto heaven I cannot get pardon nor forgiveness,' replied Bartholomew. 'How shall I, among so many bones, find thine ?' continued the monk. Bartholomew commanded : 'Thou shalt gather them by night and them that thou shalt find shining thou shalt take up.' The monk did so and took a ship to Benevento in Apulia, which is some 40 miles North East of Naples and some 140 miles South East of Rome. Not long after Emperor Frederick destroyed Benevento, and in particular ordered the destruction of all the churches. Bartholomew, clad in 'all white shining' was seen then in counsel with the other saints, whose churches had been in the city, as to how Frederick should be treated. 'He should go to the judgement of God for to answer thereupon ; and anon the Emperor died an evil death.' About the year 883 A.D. Emperor Otho (Ortho III) asked for the bones of the saint so that he could have them prepared in Rome for future translation to Germany. Thus the bones of Bartholomew are believed to have finally arrived in Rome, where they were placed in a church on the 'Isola Tiberina,' a small island between the Ponte Garibaldi and the Ponte Emilio. The remains stayed there, as Otho died, and the Church, which was then founded, was sited upon the remains of an old temple to Aesculapius, in the Jewish quarter of the city. A position very close to the site of the martyrdom of St. Paul and St. Peter, and in a well-known locality of endemic malaria. Several small points which join up with St. Bartholomew and our Hospital, as will be seen later.

Other Armenian writers relate how Bartholomew's body was buried at Albanopolis, but later the relics passed to Nephergerd from which place they were taken by Emperor Anastasius to Darus, in Mesopotamia. This was a city he had built in 507 A.D. and in 508 A.D. he presented the relics to the city as a gift. From here, according to St. Gregory, who was writing about this time, they were brought to Lipari, where once again, after a Saracen invasion, they found their way to Benevento, and in 983 A.D were once again translated to Rome by Otho III and installed in the Church of Bartholomew about 1000 A.D.

Still further reports state that when Otho III's intention to remove Bartholomew's body to Germany was realized, he was given the body of St. Paulinus of Nola, and so that of Bartholomew, according to this report, did not reach Rome until much later. Now I believe both Saints lie in the church of St. Bartholomew in Rome, but in the interim period both Benevento and Rome distributed relics of assured authenticity.

The porphyry monument which contained Bartholomew's relics under the high altar was uncovered when the Tiber flooded in **1157** A.D. and damaged the church. Since that time the devotion to Saint Bartholomew as a saint has grown, and his church has been much restored, enlarged and altered, and every year, during the octave of his feast, a large number of people come to honour the relics of such a great defender of the Testament.

The most notable of these relics from our point of view is that brought by the Bishop of Benevento when he visited England, in the reign of Edward the Confessor and his Queen, Cnut, to raise a fund for famine relief in Apulia. He brought with him an arm of the Saint which was placed in Canterbury, sometime between 1020 and 1035 A.D. upon donation to the fund of much silver by the Queen. This relic became eponymous for many religious chapels and hospitals which were built in the immediate subsequent period.

To provide evidence of the 'relic muddle,' as one might call it, associated with Bartholomew, the following may give some idea :—

1. In 1238, a head went to the Cathedral of St. Bartholomew in Frankfurt.
2. Other heads exist at Toulouse, Naples, and Riechenau.
3. A crown of the head also resides at Prague.
4. Benevento claims the genuine bones with the support of Bulls from Urban V, Leo IX, Stephen IX, Bunda XII, Clement VI, Boniface IX.
5. Rome makes similar counter-claims to No. 4.
6. Rio Torto also claims a bit of his flayed skin.

This is just another example of the confusion that surrounds this obviously very great and grossly neglected saint, and I should like to leave you with a relevant, if flippant, jingle, to describe the overall situation of our knowledge of Bartholomew, in the hope of prompting someone else to follow up these few threads to greater ends :

'Of thee great saint we know but little,
And what we do is mostly tittle.'

THE GENERAL PRACTITIONER AND HIS PATIENT

ON March 14, Dr. G. F. Abercrombie of Hampstead gave the latest of the series of lectures on General Practice to final-year students.

He spoke, in the main, about the clinical problems of practice, with special reference to the personal relationship between doctor and patient, but suggested, in preface, that all who practise medicine should do some research, and that the keeping of a 'Nosological Return,' recording conditions seen each day under disease headings, would provide a stimulus and indicate a likely subject for serious study. Having chosen the subject, 'get an expert to vet the scheme you have in mind and start on a sound basis.' His main theme he introduced with a case history, from the daily press, of acute appendicitis in a child, fatally mishandled by parents, house officer and practitioner, with a sequel in court. A brief sketch followed of what should have been done by all concerned.

'Go and see your patient in hospital, for the comfort of friends and relations, for your own instruction and to ensure that the hospital gives the best it has to give to one who is still your patient. Never forget that when she is admitted to hospital she leaves outside her only real medical friend and adviser.'

'Some say general practice is 90% trivialities. It depends what you are interested in. If only in tumours, hernias, leucocytes or spirochaetes you miss the point. Actually it is concerned with men, women and children ; if *they* interest you it is fascinating.

'Understand and remember that you give *advice* not orders ; but your advice should, whenever possible, be based on correct diagnosis. So learn to examine your patient and take every opportunity to study the normal range of variation. As diagnostician the general practitioner has three advantages : he can see the patient *early, often*—in the N.H.S. as often as he chooses without cost to the patient—and *at home*. These are real aids, but earliness may bring its own difficulties. Revealing signs are often delayed for several days at least, while the patient presses for a diagnosis.' The pain of herpes zoster, preceding the eruption, is a familiar example and Dr. Abercrombie described a case of thoracic aneurysm, whose sole symptom for many months was a persistent left shoulder-pain, and whose true nature much investigation and expert examination long failed to reveal. Moral :—'Never lose sight of your patient until diagnosis is established, and resist the temptation to label any patient "neurotic" without the very weightiest reasons. An interim, working diagnosis, e.g., "acute abdomen" is often both unavoidable and sufficient. Take the decision "belly to be opened" early, stick to it and act on it. Don't procrastinate because the precise lesion remains in doubt. Always ask yourself "Is it safe to leave this patient here tonight ?" No-one should be allowed to die of acute or obscure disease without the benefit of a second opinion.'

'What should be done about the patient who declines to accept your advice ? To retire from the case may be logical but is seldom the best or kindest thing to do. Remember you are *only* an adviser and it happens, now and again, that the advice you give, though logical and well-meant, is not, in fact, good. So keep in touch and await the natural course of events or practise some innocent guile.

'Doctor is Latin for teacher and your second great function is to teach the general public the medical facts of life, as and when appropriate—early signs of cancer, incubation periods, simple nursing, first aid and so-on. A mother of an infant with a hernia, instructed by her doctor concerning signs of strangulation, took the right action when the thing happened during her doctor's holiday. Primigravidae, instructed concerning labour, amply repay by their intelligent co-operation the time and thought expended'.

How much should one tell the patient ? 'Everything you know to be true.' 'Very often that isn't very much, particularly as to prognosis, but I am convinced that the patient, if well enough to understand, and certainly his relative if he is not, is entitled

to be told as much as you know to be true. After all, the decision rests with him and your duty is to give him all the facts you can to enable him to reach a wise decision. It is important but exceedingly difficult to discover malignant disease early. Never accept a previous diagnosis when you take over a patient. Search for yourself and, if necessary, repeat the search.'

A fellow practitioner, being also a Perpetual Student of the Hospital, listened to this lecture, found it excellent, whether as entertainment or instruction, and wished it were being heard not only by *all* final-year students, whatever their plans and hopes, but also by housemen and registrars, for it threw the light on the practice of medicine without the walls, and on the relationship, which should be so much more intimate and reciprocal than it is, between hospital and general practitioner.

The next lecture in this series will be given by Dr. Keith Hodgkin, of Redcar, Yorkshire, at 12.0 noon on Wednesday, June 20.

HOSPITAL APPOINTMENTS

The undermentioned appointments to the medical staff take effect from the dates mentioned:—

Gynaecology & Obstetrics

Registrar: P. F. C. Jackson succeeds Gourlay 14.5.56.

Diagnostic Radiology

Senior Registrar (Chief Assistant): B. C. Hale, 21.5.56.

Senior House Officer: Miss M. E. Sidaway, 1.6.56.

House Officer: J. A. P. Darvell, succeeds Berwick, 1.5.56.

Dental Department

Casualty House Surgeon: C. N. Hudson, 1.5.56.

Department of Pathology

Senior House Officer: J. A. Parrish, 18.6.56.

EXAMINATION RESULTS AND AWARDS

CONJOINT BOARD

Final Examination, April 1956

PATHOLOGY

Butler, A. C. — Morgan, D. R.
Deering, R. B. — Jewell, G. J.
Jewell, W. H. M. — Jones, P. M.
Dawson, J. B. — Parker, J. D. J.
Roberts, I.

MEDICINE

Arthur, J. K. — Bloomer, A. C. S.
Goodliffe, A. D. R. — Kielty, M. G.
Lloyd, D. B. — Roberts, I.

SURGERY

Arthur, J. K. — Ashbee, C. R. N.
Jewell, G. J. — Jones, P. M.
Kielty, M. G. — Millard, F. J. C.
Murphy, J. K. — Winstock, D.

MIDWIFERY

Bloomer, A. C. S. — Goodliffe, A. D. R.
Millard, F. J. C. — Winstock, D.

The following students have completed the examination for the Diplomas M.R.C.S., L.R.C.P.

Jones, P. M. — Bloomer, A. C. S.
Millard, F. J. C. — Jewell, G. J.
Winstock, D. — Kielty, M. G.
Goodliffe, A. D. R.

UNIVERSITY OF LONDON

Special Second Examination for Medical Degrees

MARCH 1956

Passed

Ballantine, B. N. — Beardwell, C. G.
Besser, G. M. — Birt, A. M.
Bonner-Morgan, R. P. — Brookes, B. M.
Chambers, R. J. — Chapman, J.
Collier, B. R. — Davies, D. G.
Dobson, J. L. C. — Dymond, G. S.
Hayle, T. H. — Hill, B. D. G.
Johnson, T. O. — Noble, M. I. M.
Owens, J. — Patterson, M. J. L.
Sime, M. O. — Stubbings, R.
Sugden, K. J. — Thompson, A. J.
Tyrrell, M. J. — Warrander, A.
Willis, G. T. — Woolmore, M. J. F.
Wright, D. S.

* * *

Bentley Prize, 1956
Awarded to: V. T. D. H. Major

Wix Prize, 1956
Awarded to: L. J. Chalstrey

RECENT PAPERS BY BART'S MEN

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*——. Stamps of medical interest: Benjamin Franklin (1706-90). *The Alchemist*, 20, Jan., 1956, p. 34.

*——. Thomas Graham (1805-69). *Nature*, Dec. 17, 1955, pp. 1150-1.

*——. Alexander Hugh Freeland Barbour, (1856-1927) of 'Barbouis Ring'. *Med. Press*, Jan. 4, 1956, pp. 20-1.

*——. François Magendie, 1783-1855. Father of experimental pharmacology. *Chem. & Drugg.*, Oct. 8, 1955, p. 414.

*——. Theodoric of Lucca, 1205-96: Monk, physician and surgeon. *Chem. & Drugg.*, Nov. 12, 1955, p. 558.

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*——. Alfred C. Post (1806-1886). *Med. Press*, Jan. 11, 1956, p. 43.

*——. Benjamin Franklin (1706-1790). *Med. Press*, Jan. 18, 1956, p. 65.

*——. Wolfgang Amadeus Mozart (1756-1791). A puzzling case history. *Med. Press*, Jan. 25, 1956, p. 90.

*——. Henry Maunsell (1806-1879) of the 'Dublin Medical Press'. L. A. J. Brocq (1856-1928). Nilo Rosén von Rosenstein (1706-1773). Frederic Kammerer (1856-1928) of Kammerer's incision. *Med. Press*, Feb. 1, 1956, pp. 121-2.

*——. James Ware (1756-1815). Joseph François Malgaigne (1806-1865). J. C. G. Ackerman (1756-1801). Heinrick Heine (1799-1856), poet and patient. *Med. Press*, Feb. 15, 1956, pp. 165-167.

*——. John Singer Sargent (1856-1925) and 'the four professors'. *Med. Digest*, Feb., 1956, p. 53.

*——. Robert Montgomery Bird (1806-1854) truant from medicine. Agostino Bassi (1773-1856). Lawyer, farmer, amateur microscopist. *Med. Press*, Feb. 8, 1956, pp. 145-6.

*——. E. F. W. Weber (1806-1871). Robert Bridges (1806-1882). *Med. Press*, Mar. 7, 1956, pp. 219-220.

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**Reprint received and herewith acknowledged.*

SPORTS NEWS

RUGBY

The following have been awarded colours for the season 1955-56.

C. J. Carr, G. Halls, D. B. Lloyd, J. Laurent, H. Thomas, and M. Whitehouse.

Colours have been re-awarded to the following. B. W. D. Badley, D. W. Downham, C. A. C. Charlton, E. F. D. Gawne, D. A. Lammiman, J. Neely, R. R. Davies, K. F. A. Norbury, J. C. Mackenzie, B. Lofts, D. W. Roche, J. S. T. Tallack, and R. M. Phillips.

RUGBY CLUB RECORD

Season 1955-56

Played 27: Won 11: Draw 1: Lost 15
Points for: 183 Points against: 260

Sept.	21	Berkshire Wanderers	Away	Won	6-3
,,	24	Stroud	Home	Lost	0-18
Oct.	1	Trojans	Away	Won	8-3
,,	8	Woodford	Home	Won	16-8
,,	15	R.M.A. Sandhurst	Away	Lost	6-17
,,	19	Cambridge LX Club	Away	Lost	3-6
,,	22	Old Whitgiftians	Away	Won	12-3
,,	29	U.S. Chatham	Away	Lost	3-6
Nov.	5	Penzance & Newlyn	Away	Lost	0-3
,,	7	Devonport Services	Away	Won	5-3
,,	9	Paignton	Away	Drawn	9-9
,,	12	Rugby	Home	Lost	11-24
,,	19	Old Alleynians	Away	Won	13-6
,,	26	Metropolitan Police	Away	Lost	5-8
Dec.	3	Esher	Away	Lost	9-14
,,	10	Saracens	Home	Won	5-0
,,	17	Old Cranleighans	Home	Won	6-3
Jan.	7	Old Rutlishians	Away	Lost	3-9
,,	14	Taunton	Away	Won	15-3
,,	18	London University	Home	Won	8-0
,,	21	Cheltenham	Away	Lost	14-15
,,	28	Oxford U. Greyh'ds	Away	Won	14-6
Feb.		All games cancelled			
Mar.	2	St. Mary's H. (Cup)	Rich.'d	Lost	0-17
,,	3	Old Millhillians	Home	Lost	3-5
,,	10	Loughborough Coll.	Home	Lost	3-6
,,	17	Aldershot Services	Home	Lost	6-8
,,	24	Harlequin Wanderers	Away	Lost	0-45

MIDDLESEX SEVEN-A-SIDES

As usual, Bart's entered two sides for this year's Middlesex Seven-a-side Competition. The preliminary rounds were held on April 21, at Beckenham. Here, the Bart's second team were eliminated in the First Round, but the senior team made triumphant and impressive progress, finally emerging winners of their section, thus qualifying for the final rounds at Twickenham the following week. During the day's play Bart's amassed a total of 56 points while conceding only 6, and disposed of the much favoured Streatham and Blackheath teams *en route*.

At Twickenham, on April 28, the Hospital were unlucky to be drawn against London Welsh, the eventual winners of the Competition. They lost this game 16-3, M. J. A. Davies scoring the only Bart's try, the result of a very good combined movement. It was during the first half, when the Hospital team, obviously overawed by the occasion, failed to settle down, that London Welsh scored the majority of their points. In the second half they were able to show some of the skill which they undoubtedly possessed. But, apart from the one try, no gaps were found in the solid London Welsh defence.

Although defeated the team had the consolation of knowing that they had been beaten by the Champions of the Day.

Team: R. M. Philips; G. J. Halls, M. J. A. Davies; H. Thomas; E. F. D. Gawne, B. W. D. Badley, J. C. Mackenzie.

CRICKET

1st XI v. London House. Sunday, April 29th, 1956. Won by 74 runs.

The opening day of the season was true to form —very cold, and Bart's having won the toss elected to bat. Frankly, the London House bowling was poor, and runs were amassed fairly quickly thanks to Alan Whitworth. In contrast, the London House batting was sounder and the Bart's attack did well to dismiss them for so small a score.

St. Bartholomew's Hospital: 161 for 7 dec. (A. Whitworth 44).

London House: 88 (Whitworth 4 for 25).

1st XI v. U.C.S. Old Boys. Saturday, 5th May, 1956. Won by 30 runs.

A magnificent Summer day did not inspire the Bart's batting, who found themselves in the unfortunate position of 72 for 7, before Bloomer and Mitchell came together and hit the ball sensibly and firmly giving the score the respectability of three figures.

The Old Boys on paper were a strong batting side, and they seemed to have the game well in hand. However, the whole side rose to the occasion led by the magnificent bowling of Garrod who took 4 wickets for 17 runs. All the bowlers attacked well and some of the ground fielding was excellent. In fact, the whole performance was most creditable and we hope bodes well for the Cup match on the 17th May.

St. Bartholomew's Hospital: 110 (J. Stark 28).

U.C.S. Old Boys: 80 (A. Garrod 4 for 17).

1st XI v. Putney Eccentrics. Sunday, May 6th, 1956. Won by 4 wickets.

A disappointing day in the field for Bart's in which only Nicholson's catch at cover stood out

The Bacterium at the Breakfast Table

"Eat up your nice flannel," the clothes-moth is credited with saying to her child, "or you won't get any mink."

Bacteria have no mothers. They merely split into two, and it would puzzle even a Freudian to discern a mother-child relationship between the halves. This method of reproduction, besides sparing them many complexes, enables them to eat whatever they like. Nature, however, is a universal mother, and one of the old school; she sees to it that they eat the right things, or else.

I need hardly remind you that the bacteria which cause disease are very fond of battening on the likes of you and me. And what is it, you may well ask, that they find so delicious?

Well, one of the things, which it seems we keep always on the menu, is known to biochemists by the insufferable name of . . .

If only we had space for the rest of this instructive medical essay, which appeared originally in The Times, *you could read it here. What we have got, however, is a collection of these diverting articles from the same celebrated pen. Would you like a copy of "The Prosings of Podalirius"? Just drop us a card at the address below.*

against a background of rather dilatory ground fielding. Mackenzie and Rosborough bowled well but the slow bowlers suffered from the fielding.

Bart's lost their early batsmen inexplicably on a lovely wicket and it was left to Nicholson and Whitworth to take advantage of its placid nature. They batted extremely well and put on 99 runs together.

Although a few wickets fell after their departure the remaining runs were scored quickly and light-heartedly.

Putney Eccentrics: 182 (Mackenzie 3 for 18, Rosborough 3 for 25).

St. Bartholomew's Hospital: 186 for 6 (A. Whitworth 75, J. Nicholson 59).

2nd XI v. Royal Free. Saturday, May 5th, 1956. Lost by 6 wickets.

St. Bartholomew's Hospital: 63 (Jaíler 15).
Royal Free: 64 for 4.

RECORD REVIEWS

J. S. BACH St. Matthew Passion.

AGNES GIEBEL (Soprano) LORE FISCHER (Contralto) HELMUT KRETSCHMAR (Ten.) HORST GUNTER (Bass) with The Kantorei dar Dreikönigskirche, Frankfurt, and The Collegium Musicum Orchestra, conducted by Kurt Thomas. Editions de L'Oiseau-lyre. OL 50113-6.

For those who prefer the more orthodox approach to the St. Matthew Passion this recording will have a greater appeal than the recent Nixa/Scherchen issue. It is straightforward and complete, and the artists' respect for this, the greatest example of religious music ever written, is clearly shown.

The success of a performance of this work depends largely on the soloists, and in this recording they all reach a very high standard. I particularly liked Agnes Geibel, whose singing is pure and expressive; unfortunately, Lore Fischer lacked tone on some of the longer phrases, and at times appeared to be forcing her voice.

The choir is excellent throughout, their singing being stylish with good attack.

On the whole this is a fine and well-balanced recording, and is thoroughly recommended.

FAURE: Requiem Op. 48.

Suzanne Danco (Soprano) and Gerard Souzay (Baritone), with L'Union Chorale de la Tour and L' Orchestre de la Suisse Romande conducted by Ernest Ansermet. Decca LXT 5158.

Fauré's Requiem is undoubtedly one of the most delightful works ever written: it has such deep religous feeling. This recording does justice to the music; it is clear, sound reproduction is faithful, and the chorus, soloists, organ and orchestra are finely balanced. Ansermet conducts with great feeling and coaxes some inspired playing from the orchestra. Both soloists give good performances, particularly Souzay, who sings with a devoutness and fervour that is most moving: his singing of the *Hostias* is exquisite.

This recording can be recommended without reservation, it is one of the best I have heard for a

MOZART PIANO CONCERTOS

CONCERTO No. 25 IN C (K. 503).

CONCERTO No. 26 IN D (K. 537), THE "CORONATION".

Friedrich Gulda with the New Symphony Orchestra of London conducted by Anthony Collins. Decca. LXT 5138.

CONCERTO No. 27 IN B FLAT (K. 595).
SONATA No 11 IN A (K. 331).

Wilhelm Backhaus with the Vienna Philharmonic Orchestra conducted by Karl Böhm. Decca. LXT 5123.

After the nondescript previous recordings of Mozart's concertos, Decca must be congratulated on the fine performances of these three, the last Mozart composed. K. 503 is a lively and sometimes dramatic work, and deserves to be more widely known; K. 537 is on the whole superficial. In both Gulda's firm precision and controlled momentum are well integrated with the orchestra under Collins' virile direction.

K. 595, written shortly before Mozart's death, has no hint of melancholy. Backhaus excels, his sensitive phrasing and tone-colour is masterly in both the sonata and the concerto, and the Vienna Philharmonic does him ample justice.

Both these records are strongly recommended.

BOOK REVIEW

OUTLINE OF ORTHOPAEDICS *by* J. Crawford Adams. E. and S. Livingstone Ltd. pp. 411. 32s. 6d.

It is always difficult to cover a speciality in a simple and concise way, without either leaving large gaps or, as the Author states, 'resorting to the style of a synopsis'. Mr. Crawford Adams has on the whole succeeded in his aim to present an outline of orthopaedic surgery in 'the shortest compass consistent with accuracy', but his book remains an 'outline'.

The book falls into two parts, the first (Chapters 1 and 2) dealing with General Orthopaedics, and the remainder dealing with different regions in a little more detail. Perhaps this division into two parts could have been made a little more definite, as Chapter 2, 'General survey of Orthopaedic Disorders', is rather too long, having nearly a quarter of all the pages in the book. If the book was clearly divided into two parts, it might then have been possible to sub-divide Chapter 2 into two or three Chapters of 30-40 pages each, which would make systematic reading easier.

The general layout of each chapter in the second part of the book is very good, and particularly helpful is the method of starting each chapter with a discussion on the investigation and routine examination of the part, followed by a simple classification, and concluded by a reminder of possible extrinsic causes of symptons.

Perhaps the best features are some simple and clear diagrams, especially those illustrating pathological changes.

One or two minor criticisms can be raised on some details.

No mention is made about the general health of the child in the section on Rickets (p. 95), nor the pain at night so often complained of in Neck and Shoulder conditions, nor the rotational deformity of the vertebrae in scoliosis (p. 154).

In Tuberculosis of the Hip, the statement that 'the patient is *usually* a child of 2 to 5 years' (p. 303) is no longer true as it was. Many will not agree with the impression given in the discussion on treatment of osteo-arthritis of the hip (p. 308 and 309) that arthroplasty is to be preferred to the 'palliative operations', among which the Author includes Displacement Osteotomy. The association of metatarsalgia with Hallux Valgus deformity is not mentioned. More serious, perhaps, is the omission of any real description of the principals of splinting, or physiotherapy, the use of appliances or the operative treatment of paralytic disabilities of the foot.

This little book undoubtedly fulfils what it sets out to do: to provide a clear and concisely summarised account of orthopaedics for students taking qualifying examinations, physiotherapists, and orthopaedic nurses. For the student who is content with an outline the book can be strongly **recommended.**

W. D. COLTART.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LX **JULY 1956** **No.7**

EDITORIAL

'Come, and take choice of all my library,
And so beguile thy sorrow'.

William Shakespeare.

SO URGES our Librarian to those burdened with the sorrow of ignorance, and his article on the use of the library appears on another page. It is unfortunate that any such exhortation is required, but it is a fact that the Medical College Library is used much too little: its reference books are consulted only by the research worker; its unique, and almost complete collection of books by Bart's men is unknown to many. The Library, for most, is a room from which a required textbook is snatched, a room in which the minimum amount of time is spent.

Several factors are concerned in causing this reluctance on the part of students to browse in the hospital's treasury of knowledge.

At this time of year the chill winter is already forgotten. Yet during a cold spell the Library is hardly warm and cheery, with the temperature inside falling almost as low as that prevailing in the Square. Figures can be seen at each end courting disaster as they huddle ever closer to the completely inadequate gas fires. This discomfort has at times been so acute that the library staff were forced to keep hot water bottles on their laps, and a previous librarian had a hot brick delivered to him twice a day by the fireman, in order to maintain the circulation of his feet. While not suggesting that a brigade of firemen be hired, we do think that an electric fire could be placed in each alcove to supplement the ineffective central heating.

During the winter the dim light can hardly penetrate the gloom; it is difficult to absorb information from a text when one needs to strain to see it. That more efficient lighting is urgently required has been recognised by the authorities, and rewiring was, in fact, begun, but it stopped short at the entrance to the Museum. In summer the frosted glass obscures the modicum of sunshine that we do have, and the brown wood does not make for brightness. Even the seats do not encourage the student to linger. The old wooden chairs from the canteen and out-patients' departments could, with advantage, be replaced with comfortable armchairs.

Assuming ideal conditions for study, there is still the frustration of searching for a book which has not been returned. It is a great privilege to be allowed to borrow books

overnight, a privilege which is abused daily. No fines are imposed ; the worst that happens, and this only after several days' recalcitrance, is that a letter may be sent threatening the offender with a report to the Dean. We feel a greater sense of responsibility should be felt by those who borrow books ; this might reduce the annual loss of £100 which the library suffers from those who fail to return volumes. Although theft is rarely the intention, it is, to say the least, inconsiderate not to bring books back, whether they are left in an obscure corner in the home, or forgotten on the window ledges of the Abernethian Room.

It is not, however, the students who are responsible for the absence of certain periodicals from the library. Those who are inquisitive enough to look up an original article may find that the journal containing it forms part of one of the six departmental libraries, to which access is jealously guarded. This seems to us to be a case in which greater centralisation would be advantageous.

A new pre-clinical library is to be built in Charterhouse Square on the site of the recently demolished physiology building. We trust the opportunity will not be missed for attending to the warmth and comfort of the readers and staff. However fine this new building may be, it is to be hoped that the improvements suggested above will not be neglected. We would like to enjoy our library.

B.M.A. Meetings

AT THE annual meeting of the B.M.A., to be held at Brighton on July 5-12, several members of the Hospital staff are participating in the scientific sessions.

Dr. R. Bodley Scott will be chairman of the round table conference on Leukaemia, and Dr. W. M. Levitt will be on the panel.

Dr. Levitt will also speak on the radiotherapy of cancer in the plenary session devoted to Recent Advances in Knowledge of Cancer. In another plenary session on Handicapped Children, Mr. W. D. Coltart will speak on the Child Handicapped by Orthopoedic Conditions.

Mr. J. P. Hosford will be vice-president of the section of surgery ; Dr. G. W. Hayward will be the official reporter of the section of cardiology ; Dr. C. F. Harris will be vice-president of the section of child health ; Dr. G. F. Abercrombie will be vice-president of the section of general practice ; Mr. W. D. Coltart will be vice-president of the section of orthopoedics ; Mr. F. C. W. Capps will speak in the session on nasal obstruction ; and Sir Archibald McIndoe will be president of the section of plastic surgery.

University of London

The degree of Master of Surgery was conferred on Mr. C. Naunton Morgan.

Congratulations

to Surgeon Lt.-Commander J. S. P. Rawlins, R.N., M.A., B.M., B.Ch., on his receiving the M.B.E. in the Birthday Honours published May 31, 1956. Surgeon Lt.-Commander Rawlins qualified from Bart's in December, 1945.

to John Potter, M.B., F.R.C.S., on his appointment as consultant Neurosurgeon to the Manchester Royal Infirmary and Manchester Regional Hospital Board.

View Day Ball

The View Day Ball was held on Friday, May 18, at the Park Lane Hotel. The President of the Students' Union, Dr. E. R. Cullinan, presided, and it was gratifying to see that he and his party were still enjoying themselves in the small hours of the following morning. Amongst the other members of the Staff, who were regretfully few in number, we were pleased to see Mr. E. A. J. Alment and Dr. R. W. E. Watts.

Dinner was very sensibly served a little later than advertised, and most of the guests had arrived and taken their places at the tables by the time the army of waitresses and waiters made their first onslaught. Although none of the dishes were particularly exotic or original, it was a considerable surprise to many when each guest received a whole small roast chicken.

Shortly after midnight, a cabaret was given by Nancy Watts, John Creightmore, John Bench and Jack Laurent. Delightfully topical, they based most of their items on View Day, the Hospital and the Hospital Staff. It is to be hoped that such talent will always be available for these occasions. The sequence of quick-steps, waltzes and Latin

Dr. Cullinan's party at the View Day Ball

American dances was broken twice by some Scottish Dancing played to the sound of two immaculately dressed pipers.

The Ball Committee is to be congratulated on their organization of the evening's entertainment. The only drawback was the small floor-space which did not allow everyone to dance at once ; no doubt this will be remedied next year.

From Bart's to U.S.A.

We have news of two other members of the staff who are travelling to America in the coming months.

Dr. D. A. McDonald, University Reader in Physiology at the Medical College, has received a Rockefeller Award to visit centres at which the study of the circulation of the blood is being undertaken. Dr. McDonald is at present investigating the problem of flow in pulsating vessels ; a short account of which is given in the report of the Physiological Society meeting.

Dr. J. Q. Mathias, at present a Demonstrator in Pathology, has received a clinical appointment in medical cancer at The Memorial Centre, New York. He will spend one year there, working on what the Americans call 'The Lymphoma service.' The Memorial Centre occupies a whole city block on the east side of the city, forming part of Cornell University Medical School. The Centre includes the Memorial Hospital, the James Ewing Hospital, the Strang Cancer Prevention Clinic and the Sloane-Kettering Institute for Cancer Research.

Nurses

We are pleased to publish in this issue an article by one of the nurses. We feel that news from the nurses would be welcomed by readers of the *Journal*, of which nurses are themselves forming an ever increasing proportion. There is already a yearly publication concerned entirely with past and present Bart's nurses, but there is a need for more current news. A large number of the nurses in this Hospital are students, sharing the same interests as medical students. It would, perhaps, be beneficial to the societies, as well as to the nurses, if the latter were to play an active part in the organization of the societies. The *Journal* will be pleased to consider any material submitted for publication by nurses ; and, if a candidate presents herself, will appoint a nurses' representative to provide information on activities of general or special interest.

Henry Ward

On Friday, June 1, a new ward for fracture patients was opened in the East Wing. The

nineteen beds include nine for men and ten for women, the sexes being separated from one another by a dividing wall. The opening of this ward will free two beds from each general surgery ward, which had previously been reserved for fractures. Mr. Coltart and Mr. Jackson Burrows will both have beds in this ward.

The name *Henry* is presumably derived from the old name of Henry VIII, which was used in the East Wing during the late nineteenth century.

The beds themselves have large wheels which makes their transport easy. There is a side room for each half of the ward.

In conjunction with the fracture ward, a new theatre, Theatre J., has been opened. This is in the basement of the East Wing, and contains, apart from the usual equipment, an x-ray plant and camera, plus a dark room. This will allow x-ray pictures to be taken while the patient is on the table, and will enable the surgeon to see the films within a very short time.

Royal College of Surgeons

The Begley Prize has been awarded to C. R. N. Ashbee.

Sir Charles Gordon-Watson

The medals of the late Sir Charles Gordon-Watson are now in the library. They include the C.M.G., and K.B.E. The plaque on the box containing the medals reads:

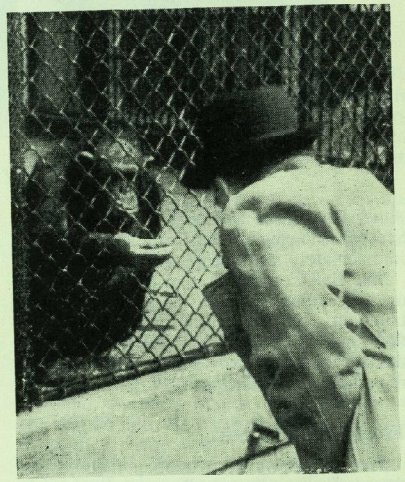
1874-1949
Presented in memory of
Major-General Sir Charles Gordon-Watson,
K.B.E., C.M.G., F.R.C.S.,
Consulting Surgeon to St. Bartholomew's Hospital

We published, in the January *Journal*, excerpts from his memoirs, and we hope to publish further extracts from time to time. Sir Charles Gordon-Watson qualified in 1898, was appointed Assistant Surgeon to Bart's in 1910.

Societies

On another page we give a full account of the meetings of three of the college societies. We congratulate the Abernethian Society on having a record attendance at the meeting addressed by Dr. Fuchs. We trust that this is an omen of a revived enthusiasm in the society.

The Physiological Society deserves our praise for their meeting introducing the research in progress in the physiological department. This type of meeting could be extended to other departments, so that the students would know the nature of the work being carried out by their teachers. In America during the vacation many medical students work in the research laboratories of their own hospital; surely if supplied with information of the current work of the various departments, the pre-clinical students would welcome any opportunity of being associated with research.



Professor Cave exchanges snuff
At a recent outing of the Natural History Society

Our congratulations to the Natural History Society, which has had a full and varied season. We urge all its members to refer to a letter by Mr. H. E. Quick in the correspondence pages.

Percy

In the April *Journal* we urged some public-spirited gentlemen to repair the Bart's mascot. Unfortunately his condition has become even more grave; as well as the erythematous rash which was mentioned in April, he now suffers from a complete dislocation of his cervical vertebrae.

His history entitles him to more consideration. He was created by Messrs. Dove Bros. for the 1939 revival of the St. Bartholomew's Fair held in the Square. This fair was organized to raise money for the Hospital: and Percy played his part nobly. He suffered nails to be hammered into him for the enjoyment of the public. After that hour of glory he languished for some years outside the entrance to the clinical lecture theatre. His morale improved, however, when he was removed to the more sympathetic atmosphere of Charterhouse. Here he was treated with such kindness, that he became fit enough to attend the procession of the Treasurer of the Hospital, Sir George Aylwen, when he was installed as Lord Mayor of London. It was considered fitting by the students, if not by the police, that this mark of respect should be paid to our Treasurer. Without vigorous treatment we fear that Percy will never again be in sufficient health to venture forth in public. This is to be regretted.

Retirement

Sir Weldon Dalrymple-Champneys, Deputy Chief Medical Officer of the Ministry of Health, will be retiring from public service at the end of July.

Rugger Club

The annual dinner of the St. Bartholomew's Hospital Rugby Football Club was held on Thursday, May 31. The President, Dr. Scowen, was in the chair, and after an excellent meal, he made a typically witty speech. The President then called on next season's captain, Mr. J. C. Mackenzie, to propose the health of the Club. Mr. Mackenzie, after referring to injuries acquired on the comparative calm of the cricket field, went on to praise the captaincy of the retiring captain, Mr. J. Tallack. Before proposing the toast, the red-headed Mr. Mackenzie caused considerable amusement with a story involving a ginger tom cat.

Mr. Tallack, replying, urged the members of the Club to give their wholehearted support to the new committee. Having fulfilled his duty, he then entertained those present with a series of anecdotes, some of which brought back memories of the Cornish tour, as they had last been told on that occasion.

The party adjourned to the bar, where many reputations were made or marred, as the final function of the 1955-56 season drew to a close.

Christian Union

Our correspondent writes:

On the evening of Friday, May 11th, the St. Bartholomew's Hospital Christian Union began its annual weekend conference, held this year in the country house of 'Greenwoods,' which is set in a hundred and twenty acres of delightful formal gardens and parkland in Essex. Nearly fifty students and nurses attended.

Dr. and Mrs. Norman Green, of Chelmsford, were our hosts and the conference addresses were given by the Revs. Raymond Turvey and Richard Hovil, both of Christchurch, North Finchley.

There was plenty of time to play tennis, croquet or bowls, to walk in the bluebell woods, or to just sunbathe and talk. We heard an account of missionary work in Malaya; Dr. G. Lavy chaired a Brains Trust where a variety of questions were discussed; and films were shown illustrating Christian work which undergraduates can do during their vacations.

We came away on Monday morning regretting that the time had been so short, and agreeing that we had had a weekend that was both most enjoyable, and valuable in the things we had learnt of the Christian life and its practical works.

Journal Staff

Mr. G. D. Stainsby has resigned from the post of Editor. The Assistant Editor, Mr. J. T. Silverstone, has been elected Editor in his place.

Oxford—Bart's Club

The Oxford-Bart's Club are holding their Annual Sherry Party at Dr. Strauss's Rooms, 45, Wimpole Street, on the evening of Wednesday, July 25. Anyone who is eligible for membership, but has not received an invitation, is requested to write to the Hon. Secretary, The Abernethian Room, St. Bartholomew's Hospital.

LITERARY PRIZE

THE Publications Committee have decided to award two literary prizes. One will be for the best scientific contribution, and the other for the best non-scientific contribution written by a student or subscriber who has been qualified not longer than ten years, which has been published in the *Journal* during 1956. Each prize will be £5, and will be awarded by Christmas, 1956 and be announced in the January 1957 *Journal*. Additional smaller prizes will be awarded for poems, drawings or photographs published during 1956, if a sufficiently high standard is reached.

The object of these prizes is to encourage writing by students and those recently qualified.

Births

BEASLEY.—On May 30, to Valerie (*née* Thomasson) and Dr. Reginald Beasley of West Bromwich, twin daughters.

CAVE. — On April 28, to Pat (*née* Scott-King) and Dr. David Cave of Faversham, a son (Peter).

DALLAS ROSS. — On May 30, to Margaret and Dr. W. P. Dallas Ross, a daughter.

KELLY.—On April 30, to Diana (née Murray-Shirreff) and Dr. W. Pierce Kelly of Weston-s-Mare, a daughter.

LAVY. — On May 24, to Patricia and Dr. Gordon Lavy, a daughter (Fiona Ruth).

MCGRIGOR. — On May 11, to June and Ronald Buchanan McGrigor, M.B.E., F.R.C.S., a sister for Alastair.

MASON.—On May 31, to Marion (*née* Grant) and Dr. Seymour Mason, a son.

ORPWOOD.—On May 9, Alison and Dr. R. M. Orpwood of Banstead, a son (Stephen Glyn).

STONE.—On May 5, to Elisabeth and Dr. Patrick Stone of Chelmsford, a daughter.

VON BERGEN. — On May 16, to Sheila and Dr. J. E. Von Bergen, a daughter.

Engagements

LAIDLAW—MCINNES. — The engagement is announced between Dr. Eric F. Laidlaw and Mrs. Brenda McInnes.

HOVENDEN—GRUNDY. — The engagement is announced between Dr. B. J. Hovenden and Miss A. C. Grundy.

Deaths

CHEESE.—On June 10, at Stourbridge, Dr. Frederick William Cheese, M.D. Qualified 1902.

LEVICK.—On May 30, at Budleigh Salterton, Surgeon-Commander G. Murray Levick. Qualified 1902.

QUENNELL. — On May 31, at Torquay, William Eyre Hamilton Quennell, M.R.C.S., L.R.C.P. Qualified 1925.

SILBIGER. — On May 10, Benno Silbiger, M.D. (Prague), M.R.C.S., L.R.C.P. Qualified 1942.

WEAKLEY. — On January 27, Dr. A. L. Weakley, aged 70, Qualified 1908.

* * *

Treasurer's Prize

Awarded to: A. D. L. Guest.
Certificates: P. G. Cassell.
D. M. Humphreys.

CALENDAR

Sat.,	July	7	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Cricket: v. Hornsey (A). Tennis: v. King's College Hospital (A).
Sun.	,,	8	Cricket: Past v. Present (H).
Wed.	,,	11	Golf: v. St. George's Hospital (H).
Sat.	,,	14	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Cricket: v. Incogniti (H). Tennis: v. Roehampton L.T.C.
Sun.	,,	15	Cricket: v. Hampstead (H).
Wed.	,,	18	Tennis: v. West Heath L.T.C. Golf: v. King's College Hospital (H).
Sat.	,,	21	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty.
Wed.	,,	25	Golf: v. Middlesex Hospital (A).
Sat.	,,	28	Medical and Surgical Professorial Units on duty Tennis: Singles and Doubles Finals.
Sun.	,,	29	Cricket: v. R.N.V.R. (H).
Sat.,	August	4	Dr. G. Bourne and Mr. J. B. Hume on duty. Tennis: Stoneyhurst Wanderers (H).

LETTERS TO THE EDITOR

FROCK COATS

Sir,—In 1895, on the day that I entered Bart's, I was shown amongst other things the cupboard in the Operating Theatre (the new theatre at the top of the East Block was opened a few years later) in which the black frock coats matted with blood were still hanging, but the Sister said that she had never seen them used. All the surgeons used white coats—usually one was sufficient for the whole session.

I saw the carbolic sprays in several wards. They were occasionally used for septic cases, i.e., open virulent wounds, and particularly in the septic ward (Coborne). Most of the wards had discarded them, but all of them used gallons of Carbolic Acid and the air was always perfectly sweet.

Gloves of white cotton were first used by Butlin and a little later by Lockwood while I was still a dresser. Rubber gloves after 1900.

In 1901, when I succeeded D'Arcy Power as head of the Throat Department, the tonsil and adenoid operations were performed in the 'boxes' in the O.P. Department and between the operations the nurse washed the instruments literally under the tap. Our dear old Sister Surgery, who had been in charge there for many years, was furious when I insisted on having them sterilised and considered it quite ridiculous as she said '*even* Mr. Butlin had never wanted them sterilised.' To be even with me she would only have them dipped in the steriliser for a few moments.

I have not just imagined these facts.

Yours faithfully,

DOUGLAS HARMER.

Red Willows,
Littlestone-on-Sea.

Sir,—One's memory tends to fade, but I remember in 1891 being especially shown the cupboard for the frock coats. I was in the theatre in that year and certainly the operating staff wore gowns. Later on I was House Surgeon to Butlin and Lockwood, and they were very particular about cleanliness, and I remember Lockwood taking snippings from one's fingers. I do not think I ever saw anyone operate in his coat. We had very little minor sepsis after clean operations, but we had not any extractor fans in my time.

Yours sincerely,

J. PRESTON MAXWELL.

The Grove,
Brinkley,
Newmarket, Suffolk.

Sir,—I joined the hospital in 1891 after five years at Cambridge, where I was contemporary with Dr. Herbert Morley Fletcher and Horton Smith (later Sir Percival Horton-Smith Hartley).

I qualified in 1893 and remember well the stories of frock coats stiff with pus and blood: but there were no coats in the cupboard when I joined the hospital. I believe there is no living person who saw them there. I have little doubt that there were some grounds for the stories, which have been exaggerated by age and repetition. Surgeons in my day usually worked in their shirt sleeves turned up above the elbow and it is probable that they took steps to protect the rest of their clothing. In fact I have seen surgeons pin a towel round their necks as I have often done myself in the operation theatre at Bart's.

In the cupboard on the right of the auditorium in the Abernethy theatre there was a row of black hat pegs, each with the name of a surgeon painted over it in black letters—Sir William Savory, Mr. Tom Smith, Mr. Willett, Mr. Langton, Mr. Marsh. I have thought that these hat pegs may have been provided for the surgeons to hang their hats and overcoats, although I have never known anyone do this. The surgeon of the day always hung his coats and hat in the instrument room, attended by Mr. Rumbelow, the instrument curator.

Abernethy's operation table was still in the theatre and remained in use for several more years, and I have given many hundreds of anaesthetics on it. There were only two

operation theatres in the hospital: the Abernethy theatre and a small theatre in Martha (the gynaecology) ward, built and equipped by Mr. Harrison Cripps for his own use.

Carbolic sprays were not used, but at Addenbrooke's Hospital, Cambridge, Sir George Humphry used them freely. He turned two sprays on the students because, as he said, they were so dirty. The consequence was that it was not uncommon for the poor fellows to pass black urine, much to the alarm of some of them.

Yours faithfully,

GEORGE SHUTER.

6, Chiswick Lane,
London, N.W.4.

Sir,—I was very much astonished by the suggestion in Sir Charles Gordon-Watson's memoirs (January, 1956), that the surgeons still operated in old frock coats as late as 1899. The correction which you made in the June *Journal* showed that the coats had disappeared before 1899 and the letter from Mr. Douglas Harmer (qualified 1898) confirms this. The letters from Dr. George Shuter (qualified 1895) and Professor James Preston Maxwell (qualified 1896) show that the coats had disappeared by 1891 when they came to the hospital. Professor Sir Frederick Andrews (1927-28) gave a most interesting address to the Abernethian Society on "The Beginning of Bacteriology at Bart's." When he came to the hospital in 1882 the coats were still used, but he could not remember when they were abandoned. He thought that Mr. Bruce Clarke (assistant surgeon 1883, surgeon 1903) was the first to take off his coat and operate in shirt sleeves, but I have failed to find any mention of this in his writings.

I would have expected that such a complete change in practice would have been commented on in the *Journal* or Hospital Reports. Unfortunately, the *Journal* was first published in October, 1893, and the Reports from 1875 onwards make no direct reference. Moreover, the reports of many important discussions in this period—although I cannot pretend to have read them all and may well have missed some statement—never refer to this point. They nearly all deal with the principle of antiseptics, and whether the results of cleanliness are as good as those obtained by the use of antiseptics.

The Hospital Reports for 1893 contain two important papers: Mr. Harrison Cripps (assistant surgeon 1882, surgeon 1902) gave an account of the abdominal operations which took place in the new Martha theatre. A steriliser for instruments and bowls had been installed and the dressings were sterilised in the theatre itself. He gave elaborate details of the preparation of the theatre and the final preparation of the patient involved the washing of the patient all over, including the hair, on the morning of the operation with 1 in 20 carbolic. He also says: 'it remains for the surgeon to be particularly careful as to the cleanliness of his own person and hands and I make a point of changing all my clothes in the ante-room of the theatre and find nothing more comfortable to operate in than in a clean, thin flannel shirt.' He was clad like this in 1906, but had added an apron.

In the same volume Sir Henry Butlin (assistant surgeon 1880, surgeon 1892) described the results of the first year's work after he became full surgeon. He gave each dresser a printed address, in which he says that 'wounds do badly because they are poisoned from without. There are good reasons for believing that the poisons which injure wounds are not present in any serious form or quantity in the air of our wards or in the ordinary water of the hospital. Poisons may be introduced into wounds in various ways—by the fingers of the operator or assistants, by sponges, ligatures, instruments, dressings.' He gave minute details of the preparation of the patient's skin and the dresser's hands. He say 'it is some years since the carbolic spray was laid aside as useless; we have gradually come to feel less and less fear of the entrance of air into freshly made wounds even when it is the air of hospital wards and theatres.' Lister (1890) had himself abandoned the use of the spray in 1887. Although Butlin gave such minute details he never mentions his clothes.

However, his assistant surgeon, Mr. C. B. Lockwood (1890) had accepted the principles which Butlin practised (though he spoke of microbes not poisons) and published a series of 14 monthly instalments in the 'Journal on Aseptic Surgery.' In August, 1895, he said: 'The surgeon and his assistant should remove their coats, turn up their sleeves and put on aprons to protect themselves from the jets of blood and splashing of lotions. The aprons, not having been sterilised, must never be touched with the disinfected hands or be allowed to touch the wound.' The towels were also not sterile and instruments were not allowed to be placed on them. These notes were afterwards published in book form in 1896 and the reviewers in the 'Lancet' and 'British Medical Journal' made no comment on the clothes or on the meticulous care with which he disinfected his hands and took snips of skin for culture from everyone who was concerned in the operation to show that the hands had been properly disinfected. Although the article was not published until 1895 it seems most probable, in view of his paper in the 'British Medical Journal,' that he had taken off his coat in 1890 when he worked at the Great Northern Central (now Royal Northern) Hospital, and it is impossible to believe that Butlin was still wearing his 'frock coat' in 1892.

All Butlin's operations were done in the Abernethy theatre, which had a big auditorium which would hold more than 100 students, and one door opened directly onto the landing leading to the square. It used to be packed for surgical consultations and in 1905 Sir Anthony Bowlby, for whom I dressed, would occasionally operate immediately after the crowd had gone. It seems wonderful that so little sepsis occurred, but I do not think an extractor fan was provided in those days.

I think Butlin's views about the possibility of the air of the wards not containing poisons refer to the rarity of acute infectious diseases like erysipelas and hospital gangrene. Andrewes said he had never seen a case of the latter terrible disease in 1883, and in 1905 patients with erysipelas were isolated at once.

Dr. Mervyn Gordon in 1903 showed again the danger of the airborne infections in the theatre when he placed petrie dishes in Lockwood's theatre. He found that bacteria were spread throughout the theatre whenever anyone spoke without wearing a veil of at least four thicknesses (Douglas Harmer personal communication). The dangers of infection by the air have recently been shown by Sir James Paterson Ross, since minor sepsis occurred because the inlet fan supplying filtered air to the theatre was weaker than the extraction fan, so that air from the outside passages was sucked into the theatre. When the balance was corrected the minor sepsis ceased.

Although the idea of the "frock coats" seemed so appalling to me in 1905 and must seem still more so to the present-day students who see the sterilised gowns, towels, caps, masks, gloves and rubber boots, it must be remembered that Lister, who did not retire from hospital until 1893, never wore a gown. He either took off his coat, rolled up his sleeves and pinned on a huckaback towel to protect his clothes (Sir Rickman Godlee) or just rolled back his cuffs (Sir St. Clair Thompson). He relied on the carbolic acid which he used on his own and the patient's skin and for his instruments, coupled with the antiseptic dressings to the wound.

St. Clair Thompson (1937) relates that when he was house surgeon in 1883 'I, myself, for operations, put on an old blue frock coat which I had previously worn in the dissecting room. It was stiff and glazed with blood. Yet so careful were we of any local contamination of the operation area that our wounds healed as rapidly and smoothly as they do with the ceremonial and ritual of sterilisation and asepsis nowadays. I suppose that the blue frock coat soon became impregnated with the carbolic from the spray which Lister was then using, and would not be quite so terrible as it sounds in modern times.'

Sterilised gowns similar to those now in use for the surgeons had been introduced in Professor von Bergmann's clinic in Berlin before 1892 (Schimmelbusch 1892), but those of the sister would not pass muster now.

The evolution of the modern theatre technique from the dreadful days before 1865 is an intriguing study, and Sir Rickman Godlee's Life of Lister and Sir St. Clair Thompson's personal memories make very interesting reading.

Yours faithfully,

GEORGE GRAHAM.

13, Park Crescent,
London, W.1.

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AFRICAN TOUR

Sir,—I have read with gratification the letter from Dr. C. Sims Davies in the May *Journal* about my recent visit to Southern Rhodesia. I greatly enjoyed the whole episode, and not least the delightful gathering of old Bart's students at the New Club in Salsibury. There was another equally satisfactory Bart's meeting at lunch in Bulawayo, at which Dr. King was host. But did Dr. Sims Davies really write in his letter that my lecture lasted for *three* hours? The lecture was not on the same evening as the dinner and my memory of the occasion is quite clear. I have a conviction that no lecture ought to last more than one hour, though I am afraid that at Salisbury I did speak for an hour and a quarter. I then invited anyone who had had enough to leave—though no one did so besides the two ex-patients—and the film then occupied another quarter of an hour. Dr. Sims Davies's other remarks are so kind that I cannot believe that one hour and a half seemed like three. I trust that your compositor has misread his script.

Yours faithfully,

GEOFFREY KEYNES.

120, Regent's Park Road.
London, N.W.1.

We must assume that Dr. Sims Davies allowed his pen to slip. His letter unmistakeably said three hours. EDITOR.

SNAILS

Sir,—As an old Bart's man, about 1906, and ex-president of the Conchological Society and of the Malacological Society, I was delighted to see the account of the Natural History Society in the June *Journal.*

May I suggest, however, that the nomenclature of the snails be modernised. Specific names begin with a small letter and not a capital (even when derived from proper nouns), and many of the old omnibus genera are now split up. *Cyclostoma Elegans* should be *Potomias elegans, Helix Pomatio* should be *Helix Cantiana* should be *Monachia cantiana,* and *Planorbis Carinatus, Planorbis carinatus.*

Hyalina is probably intended to be *Hyalinia,* an old generic name now split up into *Oxychilus, Retinella, Zonitoides,* etc.

But enough of pedantic grousing nomenclature is a dry subject.

It is well that some members of a great medical school should study snails, for apart from an inherent interest of beautiful shells, intricate anatomy, evolutionary and ecological interest, many molluscan species transmit debilitating or fatal diseases to man and animals. In many tropical regions Bilharzia infects a very large proportion of the population and its control is more difficult than that of malaria, and demands team work by medical men, biochemists, geneticists, botanical ecologists and sanitary inspectors, and molluscan specialists are as important in this field as mosquito experts were in the control of malaria.

I would recommend the study of Dr. Alan Mozley's many sided and beautifully illustrated works on the subject—they should be in the library.

If I can be of any help to members in the identification of British species or references to literature, I will willingly do so, but they could get still more help and information by joining the Conchological Society which would be more suitable for their purpose than the Malacological.

Yours faithfully,

H. E. QUICK.

Craythorne,
Shinfield Road.
Reading, Berks.

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Letters received by July 14 will, if accepted for publication, appear in the August issue.

SOME AIDS TO AUTHORSHIP

by JOHN L. THORNTON

MOST professional men at one time or other during their lives feel the urge to appear in print. It may be that a letter to *The Times* or the *British Medical Journal* is indicated; a rare case, or more lengthy research must be reported; or historical research on a subject of special personal appeal demands to be shared with a wider audience. Before an article is prepared for the press it is essential to ensure that the facts are accurate; that previous work has been considered: that something new and worthwhile is presented; and that the style and lay-out is similar to that advocated by the periodical to which the article is sent for publication. Research work should begin in the library, and not in the laboratory, for it is essential to appreciate what has already been accomplished in any field before attempting to further its progress. An editorial in *Endeavour* declared: "Every student of science should be specifically instructed in the bibliography of science." Knowing how to use libraries and the bibliographical tools contained therein should be an important feature of the research worker's education.

The amount of printed material on any specific subject is truly appalling. Thousands of books and periodicals are published annually, and no specialist can hope to read more than a very small proportion of the literature devoted to his particular interest. To guide research workers to the relevant articles certain indexes, catalogues and abstracting organs are provided, and some of these are mentioned here. Assuming that a rare case has been encountered, and one is desirous of tracing previous occurrences; or the literature on a specific subject is being sought, the following bibliographical tools can be consulted to advantage. *Excerpta Medica* is divided into seventeen sections each covering a specialist subject. The total cost of this periodical is almost one hundred pounds, and we do not subscribe to it, but *Excerpta Medica* demands a mention as being the most comprehensive of medical abstracting periodicals. The abstracts are in English, and the service aims at covering "every available journal in the world." Contributions are by experts, and although too expensive for the smaller medical library, specialists should consider subscribing to the sections covering their specific fields. *Abstracts of World Medicine,* published since 1947 by the British Medical Association, is selective, but the abstracts are authoritative and extremely useful. The *International Abstracts of Surgery,* published as a supplement to *Surgery, Gynecology and Obstetrics* is of primary significance in its field, and several specialist periodicals contain abstracts. These include *Anaesthesia, British Journal of Dermatology, American Journal of the Medical Sciences, British Journal of Urology* and *Thorax.*

Probably the most used bibliographical aid in any medical library is the *Quarterly Cumulative Index Medicus.* This does not contain abstracts, but lists under both authors and subjects the contents of most of the medical periodicals published throughout the world. Despite its title, it now covers six monthly periods, and is also very late in appearance. To supplement this organ we have the *Current List of Medical Literature,* issued monthly by the Armed Forces Medical Library, Washington, which lists under the titles of periodicals their main contents, but with author and subject indexes as guides to this unusual arrangement.

The *Medical Annual,* as its name implies, surveys the important literature published each year on selected subjects, and is akin to the fuller *Year Books* on various specialist

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John Leonard Thornton

Born 1903 at Edgware, Middlesex. He trained at University College, London University from 1929 to 1934 in the School of Librarianship. He then became a member of the staff of the Welcome Historical Medical Library in 1934. Mr. Thornton came to Bart's in January, 1938, and was appointed Librarian to the Medical College the following year. During the war he served four years in the Royal Signal Corps.

He is the author of 'John Abernethy,' and several other books on librarianship and the history of medicine and science.

medical subjects published in the United States in increasing numbers. The *Medical Annual* deserves wider recognition for its valuable summaries of recent literature, and can prove of use to examination candidates by providing up-to-date information long before it appears in the textbooks.

Tuberculosis Abstracts and *Ophthalmic Literature* are both issued quarterly, and are invaluable guides to specialists in these fields. *Biological Abstracts* covers an extremely wide range, as does *British Abstracts of Medical Sciences*. *Chemical Abstracts* and *Nutrition Abstracts and Reviews* are vital in their respective fields, while *Annual Review of Biochemistry*, and *Annual Review of Physiology* represent periodicals containing review articles covering the literature of specific subjects. *Physiological Reviews* and *Pharmacological Reviews* must also be mentioned as being of special value for their review articles containing lengthy bibliographies.

All these are current guides to the literature of medicine and cognate subjects, and from these references can be collected for investigation. Utmost accuracy in transcribing references must be emphasised. Take complete details, particularly of volume number, date of publication, and pagination, thus saving time later. There are too many inaccurate references, copied from bibliography to bibliography, causing immeasurable trouble to research workers and librarians, solely because the references have been incorrectly transcribed, and never checked.

The investigation of historical material presents similar problems, and it is generally advantageous to make oneself acquainted with the history of the subject in which one is particularly interested. Much work is duplicated because research workers fail to appreciate the work of their predecessors, and the knowledge of the ancients is not merely of historical interest. We can learn from their errors, as well as from their successes, for these are the men who laid the stepping stones leading up to modern science. We can trace the development of specific subjects by consulting general histories of medicine, and histories of its specialist branches. Standard texts containing extensive bibliographies can be consulted, or the actual literature of the past can be perused. Interest in the people who have made the history of medicine engenders in one the desire for biographical research, and the following are suggested as possible sources of information. The quarterly *Current Work in the History of Medicine* issued gratis since 1954 by the Wellcome Historical Medical Library is an invaluable guide to recent literature, and is indispensable to the medical historian. The *Index Catalogue* of the Armed Forces Medical Library, now unhappily discontinued, records in dictionary catalogue form the contents of one of the largest medical libraries in the world. Of no use in tracing current writings, the *Index* is invaluable for biographical and bibliographical research, and has been described as "America's greatest contribution to medicine."

The *Bibliotheca Osleriana*, published in 1929, is a catalogue of Sir William Osler's library now housed at McGill University. It is a relic of the days when private book-collecting on a grand scale was possible, and contains a choice selection of the greatest contributions to medicine. Freely annotated, and endowed with something of the personality of Osler, the *Bibliotheca* is one of the most readable catalogues ever compiled. It is unique in concept and execution, enduring as a practical monument to a great character who once stated: "There is no better float through posterity than to be the author of a good bibliography."

Garrison-Morton's *Medical bibliography*, first published in 1943, with a second edition dated 1954, contains classified under subjects, and arranged chronologically within these subjects, details of most of the important texts contributing to the history of the medical sciences. By means of this book we can trace original descriptions of diseases, and reconstruct the development of specific subjects by means of milestones in the relevant literature. Complete forenames of authors are given, together with dates of birth and death, and many entries are suitably annotated.

General histories of medicine and of its branches provide useful information, particularly as these tend to fit subjects proportionately into their backgrounds, but most of the histories of medicine are unsatisfactory for various reasons. For example, they present general rather than detailed surveys; they are too often compilations rather than the results of scholarly research, and thus they may perpetuate errors.

Biographies of individuals vary in value. We find the balanced biography but too rarely among the strictly critical, the offerings of the worshipper, and the over-emphasised word-for-word reconstructions so frequently poured out as biography. No biography, however satisfactory, can be all-inclusive and final. Fresh evidence presents itself, new letters are discovered, or the passage of time necessitates a re-evaluation. Obituary notices are sometimes the sole source of information on an individual. They are usually laudatory, for who would criticise even his bitterest enemy when he can no longer answer back? To isolate the reliable information from the unreliable is a most difficult task, and is one of the chief duties of the biographer. He should take nothing for granted, endeavouring to trace all information to its original sources, consulting parish registers, records of birth and death, documents at the Public Record Office, manuscripts and documents at the British Museum, the Wellcome Historical Medical Library, the Royal College of Surgeons, the Royal College of Physicians, and similar collections.

Collective biographies must also be consulted, particularly the *Dictionary of National Biography*, Plarr's *Lives of the Fellows of the Royal College of Surgeons*, and Munk's *Roll of the Royal College of Physicians*, where appropriate. The latter two have been brought up to date in recently published volumes. There are many similar reference works that may prove helpful. The biographies of contemporaries, and the histories of hospitals and other institutions with which an individual was connected may prove fruitful. Furthermore, the archives of hospitals, particularly the older ones, contain valuable information regarding appointments and activities of the staff.

Having collected together references from the bibliographies, abstracts, *etc.*, and decided which of these are to be consulted, the next problem is to locate them. Books can be looked for under authors' names in library catalogues, and if not available, should be asked for from the library staff. No library can hope to stock every book published, but there is machinery for obtaining books from almost any library in this country, and even from abroad. By sending a request to the National Central Library books are located by means of joint catalogues, or by means of regularly circulated lists. Unfortunately, this process may entail considerable delay, as although libraries may possess the requisite books, they may be unwilling to lend them. The best policy is to ask the librarian how to obtain a given volume. He can advise you (a) whether or not he stocks it, or can borrow it from Lewis's Lending Library or from another source with little delay; (b) if it is available in other institutions to which readers other than members are admitted; (c) if there is no immediate hurry, the librarian can approach the National Central Library; or (d) he can advise you to try the British Museum Library, or similar copyright institutions.

Journals are listed on cards in our catalogue in a separate drawer headed PERIODICALS, and a list of current journals available in all the libraries in the Hospital and College is available gratis. Catalogues of periodicals housed in several other medical libraries are also available for consultation in the Library, and the locations of most scientific periodicals is provided by the *World list of scientific periodicals*. Incidentally, photostat copies of articles in periodicals taken by the Science Museum Library can be obtained quite cheaply, and the Royal Society of Medicine offers both photostat and microfilm reproduction facilities. We have a microfilm reader in the Charterhouse Branch Library. The Royal Society of Medicine and the British Medical Association take most of the important medical periodicals, but these libraries are available only to members. The Royal College of Surgeons of England specialises in its own subject, and welcomes visitors to use its excellent library facilities. The University of London Library is open to all students and members of the staff within the University.

The material has now been collected, and will probably be represented by piles of notes that must be sifted, boiled down and arranged into a coherent article. Study the periodical for which the article is intended, read the instructions to contributors, and note the arrangement of previously pub-

lished articles. In the Library there is a file containing many of these "instructions to the contributors" collected together for the use of potential authors, and these rules, closely followed, may make all the difference between the acceptance or rejection of a contribution. The file in the Library contains several other items of special interest to authors. One issued by the Royal Society is entitled *General notes on the preparation of scientific papers*, 1950, containing hints on the arrangement of papers, footnotes, title and headings, references, tables, illustrations, nomenclature, proof correction and similar subjects. Another pamphlet published on behalf of the Royal Society Information Services Committee consists of *A list of British scientific publications reporting original work or critical reviews*, (1950). This provides details of publisher, title, date of foundation, synopsis of contents, rate of publication (e.g., weekly, monthly, *etc.*), page size, price, names of editors, addresses, and similar information.

The World list of scientific periodicals previously mentioned not only indicates the locations of the periodicals recorded therein, but also contains abbreviations of the titles of journals. These abbreviations have been adopted as the standard required by numerous medical and scientific periodicals for the references given at the end of articles. UNESCO and WHO have published another list of abbreviations of titles compiled by L. T. Morton and entitled *World medical periodicals*, 1953. The British Standards Institution also has in preparation a set of rules for abbreviating such titles. Another British Standards Institution publication contained in the Library bears the title *Bibliographical references*, and provides examples of standard methods of bibliographical citation.

Proof correction also devolves upon authors, and it is essential that any alterations, additions or deletions should be intelligible to the printers. Standard conventional signs are used for this purpose, and we have a copy of *Printers' and authors' proof corrections*, published in 1945 by the British Standards Institution, and also a framed list of the more commonly used symbols.

There are several guides to the writing of articles and theses, and two classic examples are housed in the Library. These are Sir Humphrey Rolleston's *On writing theses for M.B. and M.D. degrees*, 2nd edition (1925), and Sir Clifford Allbutt's *Notes on the composition of scientific papers*, 1905. The latter is particularly valuable, giving information on the choice of subjects, on titles, references, grammar and punctuation, among other details. We also stock S. F. Trelease: ***The scientific paper, how to prepare it, how to write it***, 2nd edition, 1951, and W. R. Bett's booklet: *The preparation and writing of medical papers for publication*, issued gratis by Menley & James, Ltd.

The list of references appended to articles can be of vital importance to readers. If headed "Bibliography" these lists should be exhaustive, but the less exacting title "References" implies that the books and articles listed therein have been consulted in the preparation of the article, and contain additional material on the subject. References should not be added to articles merely as padding. Too frequently items are taken from abstracts, bibliographies, *etc.*, and appended to papers as "furniture." The originals have not been consulted, quite frequently the references are incorrect, and readers searching for additional information are misled.

Rules for the arrangement of details contained in references vary, but generally speaking the following information is essential: (a) surname of author, followed by forenames or initials; (b) date of publication (if used in the text in conjunction with the author's name to guide readers to specific references); (c) title of book; (d) edition; (e) place of publication, and perhaps name of publisher; followed by the date of publication if not previously quoted. In the case of articles in periodicals, (a) and (b) as above are given, and in my opinion the title of the article should follow in all instances. Many periodicals omit this feature, but very frequently a research worker tracing references knows immediately upon seeing the title that the article can have little interest for him. This information is followed by a recognisable contraction of the title of the journal carrying the article, then the volume number, date (if not previously given), and inclusive pagination. In my opinion this latter feature also is essential, for a brief mention of the first page of the article cannot convey any idea of its size. A twenty-page review

of a subject may be more attractive than a summary in two pages, and intending readers should be given guidance in this matter. Unfortunately, editorial policy is rigorous, and the rules laid down for intending contributors must be closely followed. Shortage of paper and high printing costs tend to dictate these rules, so that accuracy and consideration for the reader have in many instances been sacrificed to brevity.

Finally, I would appeal to all intending to conduct research and to write for the press that they should make a point of accurately noting all references of interest. When referring to an article or book take complete details of it, appending these to your notes, and if your reference reaches proof form, recheck it at this stage. Learn how to use libraries. The catalogues, bibliographies and other reference tools housed therein are keys to an immense store of knowledge. The time spent in finding out how to use these keys is eventually amply compensated for by the time saved in providing the basis for your own work. L. T. Morton's *How to use a medical library*, 2nd edition, 1952, is an excellent guide for research workers and students, but when difficulties arise consult the library staff. With constant practice, librarians learn to find their way through the intricacies of medical literature, gaining a general knowledge of that literature which busy practitioners and research workers can never hope to acquire. Librarians cannot be expected to have an extensive knowledge of medicine and its numerous branches, but they know where to look for that information. Libraries are arranged and administered to give readers the greatest benefit from the literature housed therein. Take the trouble to appreciate this arrangement; learn to help yourself to the wealth of knowledge contained in the writings of your colleagues and of your predecessors.

STUDENTS UNION

COUNCIL MEETING

A meeting of the Council was held on Wednesday, 30th May. Business discussed included the following items:—

1. The Council was informed by the secretary of the Boat Club that the cost of hiring boat racks and changing facilities for the coming year would be £18 12s.; this included £15 for changing facilities, £12 12s. to London R.C., £21 for racks to Barclays Bank R.C., and £33 to the University of London R.C. Permission for this expenditure was granted.

2. New equipment has been ordered for the telephones in the men students' cloakroom following the visit by G.P.O. inspectors. It is hoped that this will soon be installed.

3. The secretary was asked to write to the Assistant Clerk to the Governors describing the state of the midwifery clerks' sitting room, and asking if the situation could be remedied in the near future.

4. The following officers were elected:—
   Senior Secretary ..... B. W. D Badley.
   Junior Secretary ..... R. G. White.

5. The Ball Committee report was read and approved. It was agreed that the basic price for the tickets should be increased by 5s., and that tickets bought one week prior to the Ball would be reduced by a similar amount. Tickets reserved but not collected one week before the Ball would not be sold at the reduced price.
   Professor Rotblat thanked the members of the Ball Committee for their work in arranging the Ball.

6. Mr. White had written that, owing to rising costs of food and labour, teas could no longer be provided at 1s. 3d. each. He proposed individual set teas to be obtained from a buffet, at an increased price. The Senior Secretary was authorised to offer Mr. and Mrs. White £5 to cover the loss incurred over Provision 7 teas. The suggestion was made that the price of teas be raised immediately, and the Senior Secretary agreed to discuss the matter with Mr. White.

7. The following have been awarded Honours Colours:—
   Ladies Hockey ..... Sheila Macail.
   Rugby Football ..... J. C. Mackenzie.
   B. W. D. Badley.
   Boat Club ..... D. A. Chamberlain.
   Squash Club ..... J. B. Nichols,
   R. C. Whalley.

8. Permission was granted for the Boat Club to change their uniform from a black blazer to a white blazer with one inch black trimming, and a hospital crest on the pocket.

R.G.W

HUMAN HAEMOGLOBINS

by HERMANN LEHMANN

ADULT AND FOETAL HAEMOGLOBINS

THE different chemical and physical states of normal adult haemoglobin are of considerable clinical interest. Compounds such as methaemoglobin or carboxy-haemoglobin differ from each other in the state of the haem or in their gaseous saturation. It has, however, been known since 1866 that there are at least two essentially different types of human haemoglobin: adult haemoglobin (haemoglobin A) and foetal haemoglobin (haemoglobin F). They differ in the nature of the globin part of their molecules and can therefore not be converted into each other by simple experimental procedures.

At birth 60-80 per cent. of the respiratory blood pigment is haemoglobin F. None is formed after birth, and at the age of 4 months all of it has been replaced by haemoglobin A. The faculty of producing haemoglobin F is maintained whenever there is, in early infancy, a diminished production of haemoglobin A. Haemoglobin F may then persist into childhood, or even into adult life. Hence it can be found in severe haemoglobinopathies, and occasionally in leukaemias and in other haematological disorders with early onset. Haemoglobin F by itself is not the cause of a blood disease, but its presence after the age of 4 months serves as an indicator of some such condition. It can be differentiated from haemoglobin A and its variants by a specific plateau in the ultraviolet spectrum ranging from 2898 Å to 2190 Å. It was discovered 90 years ago by reason of its resistance to denaturation by alkali, and to this day the routine determination in the laboratory is based on a measurement of the 'alkali resitant' haemoglobin.

VARIANTS OF ADULT HAEMOGLOBIN

The production of haemoglobin F is under a genetical control which differs from that of haemoglobin A. The genes for haemoglobin A and its variants (S, C, D, E, G, H, I, J) are, however, multiple alleles, one locus on one chromosome being occupied by the genes for haemoglobin A or one of its variants. As we inherit two chromosomes for haemoglobin A, one from each parent, we can be homozygous for haemoglobin A (AA), or heterozygous for haemoglobin A and one of the variants (AS, AC, AD, AE, AG, AH, AI, AJ). Provided we possess at least one effectively functioning A gene no haemoglobinopathy will result. If, however, for example, we are homozygous for the variants S or C (SS, CC) we will suffer from sickle-cell anaemia or haemoglobin C disease respectively. Similarly, heterozygotes for S and C will suffer from sickle-cell: haemoglobin C disease. Haemoglobin A and its variants are differentiated by electrophoresis where they show different mobility, and by difference in solubility in salt solutions of various pH.

THALASSAEMIA

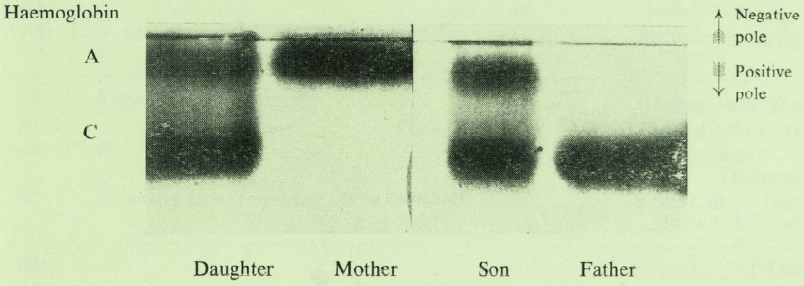
Deficiency in haemoglobin A can be due to the replacement by one of its variants, but its formation can also be suppressed by the genetically independent inheritance of the thalassaemia gene. This gene specifically interferes with the expression of the A gene. An AA homozygote who inherits a single thalassaemia gene will show no gross abnormality, and his condition is described as thalassaemia minor. The homozygous inheritance of the thalassaemia gene will, however, interfere so seriously with the formation of haemoglobin A that a severe anaemia will result: thalassaemia major. The haematological picture is similar to that of an iron deficiency anaemia. But whereas

Hermann Lehmann

Dr. Lehmann was born in Germany, and studied at Heidelburg and Basle, where he took his M.D. He then worked with Otto Meyerhof on muscle metabolism. After coming to England he obtained a Ph.D. from Cambridge, while working in Sir Gowland Hopkin's laboratory. During the war he spent much time in India with the R.A.M.C. A period in East Africa preceded his arrival at Bart's in 1951. He is at present Associate Chemical Pathologist to the Hospital, and a member of the M.R.C. sub-committee on sickle cell anaemia.

the shortage of haemoglobin in the deficiency anaemia can be overcome by iron therapy, no such remedy can be applied in thalassaemia major. There is the apparent paradox of a hypochromic microcytic anaemia with copious iron stores in the bone marrow and a high serum iron level.

Whereas a single thalassaemia gene will not cause a major disturbance in an AA homozygote, it may give rise to an anaemia not dissimilar to that of thalassaemia major in individuals who possess only one gene for haemoglobin A. Thus heterozygotes for A and a haemoglobin variant such as S, C, or E who also carry one thalassaemia gene will no longer possess the one effectively functioning A gene which can protect them against a haemoglobinopathy. However, the anaemia in these double heterozygotes is variable and at least sickle-cell: thalassaemia may not always be a severe condition.



Paper Electrophoresis of the Haemoglobins of a Family
The Father is homozygous for haemoglobin A, the Mother is homozygous for haemoglobin C. The Son and Daughter are heterozygotes for the haemoglobins A and C.

PHENOTYPE AND GENOTYPE

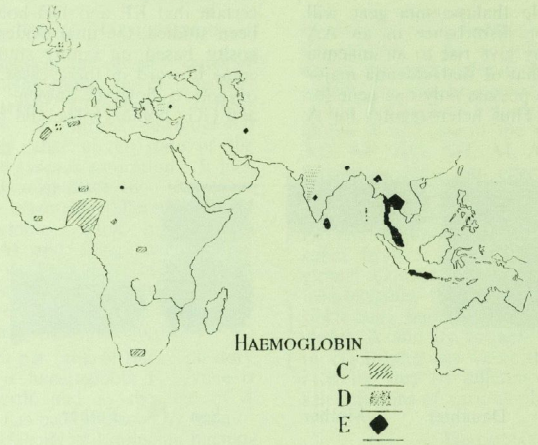
The suppression by a thalassaemia gene of A formation in an A heterozygote may be so marked that the analysis of the haemoglobin may not demonstrate the presence of haemoglobin A in the phenotype. The possession of only one haemoglobin variant other than A may therefore not necessarily denote that the individual is a homozygote for this haemoglobin variant. The true genotype can only be established by family studies. Recently a number of individuals who seemed to be SS homozygotes were found to be in fact double heterozygotes for the A and S haemoglobins and for the thalassaemia gene. Some of their children were AA homozygotes. Though it is reasonably certain that EE and DD homozygotes have been studied, the final evidence of homozygosity based on family study has not yet come forward in these cases. A GG homozygote is however known. The EE, DD, and GG 'homozygotes' did not show severe haemoglobinopathies, and it is doubtful whether the terms 'haemoglobin E disease,' 'haemoglobin D disease,' 'haemoglobin G disease,' are applicable in these cases. These conditions might perhaps prefably be described as E-haemoglobinaemia, D- haemoglobinaemia, and G-haemoglobinaemia.

SICKLE-CELL HAEMOGLOBIN (S)

The haemoglobin which has been studied most intensively is the S haemoglobin. (It was named haemoglobin B at one time, but the name was changed to haemoglobin S (sickle) for reasons of alliteration, hence the letter B is missing from the annotation of the haemoglobin variants). In 1910 Professor J. B. Herrick of Chicago described an unusual form of haemolytic anaemia in a West Indian Negro student. A noteworthy feature were 'peculiar elongated and sickle

shaped red cell corpuscles.' It was then found that red cells of other perfectly healthy Negroes could be induced to 'sickle' when they were deprived of oxygen. These people were called sickle-cell trait carriers to differentiate them from the sickle-cell anaemia patients. The sickling tendency was found to be an inherited character. In 1949 J. V. Neel, in the United States, and E. A. Beet, in Northern Rhodesia, showed that the sickle-cell trait seemed to be the condition found in the heterozygote, and that sickle-cell anaemia was the homozygous state, where the sickling tendency had been inherited from both parents. These theories were fully confirmed in the same year by Linus Pauling and his colleagues working at the California Institute of Technology. They showed that the haemoglobin of sickle-cell trait carriers could be separated by electrophoresis into two components; one was normal adult haemoglobin, and the other a hitherto not known pigment which they called sickle-cell haemoglobin. In sickle-cell anaemia patients only haemoglobin S was found. Haemoglobin S differs from haemoglobin A by being relatively insoluble in the reduced state. When cells containing haemoglobin S are de-oxygenated, haemoglobin tactoids are formed, these intracellular formations stretch the cell envelope, thus causing the sickling phenomenon.

The life span of the AS red cell is normal, but that of the SS cell is reduced, hence sickle-cell homozygotes suffer from a haemolytic anaemia. In addition, intravascular sickling causes blockage of small vessels, thrombosis, and infarcts.



Map showing distribution of Haemoglobins C, D, and E

HAEMOGLOBINS C, D, E, G, H, I, J.

Haemoglobin variants other than S do not cause the sickling phenomenon, but homozy-

Sickle Cells

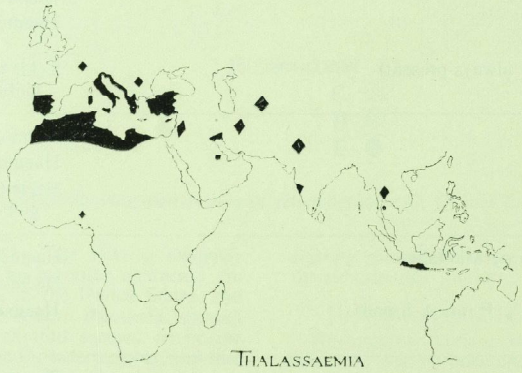
KNOWN HAEMOGLOBIN COMBINATIONS

Haemoglobin A and its variants S, C. D, E, G, H, I and J are under a different genetical control from that of foetal haemoglobin (F), and of Thalassaemia.

AA		Normal Adults
AA	F	Infants
AA	T F (not always present)	Thalassaemia minor
AA	TT F (nearly always present)	Thalassaemia major
SS	F (nearly always present)	Sickle-Cell Anaemia
AS		Sickle-Cell Trait
AS	T F (presence of A often assumed only)	Microdrepanocytic Dicease
CC	F (sometimes present)	Haemoglobin C Disease
AC		Haemoglobin C Trait
AC	T F	Haemoglobin C—Thalassaemia
SC	F (nearly always present)	Sickle-Cell — Haemoglobin C Disease
DD		Haemoglobin D Disease
AD		Haemoglobin D Trait
SD	F	Sickle-Cell — Haemoglobin D Disease
EE	F (traces occasionally)	Haemoglobin E Disease
AE		Haemoglobin E Trait
(A)E	T F (20-40% F, no A found)	Haemoglobin E—Thalassaemia
AA E		Traces of an E like Hb can be found sometimes in normal individuals, and in
AA E T F		Thalassaemia minor (Kunkel-Wallen i u s phenomenon)
GG	No anaemia	Homozygous G
AG		Haemoglobin G Trait
AI		Haemoglobin I Trait
AH	Genetical Position not yet clarified	Haemoglobin H Disease
AJ		Haemoglobin J Trait

gotes may show a reduced red-cell survival. In the case of haemoglobin C disease (CC) this may cause a considerable haemolytic anaemia. In the others, increased destruction seems to be well compensated, but it is likely that additional stress may cause a haemolytic anaemia to become apparent.

The various haemoglobins differ from one another in their electrophoretic properties. At alkaline pH, haemoglobins H and I move faster than haemoglobin A, and the other variants move more slowly. Haemoglobins H and I, S and D, and C and E move either identically or very similarly at alkaline pH. H and I, and C and E differ, however, considerably in their electrophoretic properties at acid pH and can thus be distinguished.

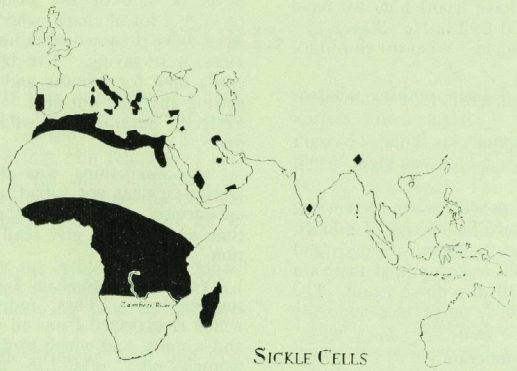


Map showing distribution of Thalassaemia gene

Haemoglobin D cannot be sorted out from haemoglobin S by electrophoresis, but it differs from S by not being so insoluble in the reduced state, and it can be identified by solubility determinations.

Anthropological Significance of the Haemoglobin Variants

Of particular interest is the differential distribution of the haemoglobin variants amongst the human races. Haemoglobin S is found all over tropical Africa, but it is not equally distributed amongst the African races. It is also found in some centres in the Mediterranean countries, in the Middle East and in some aboriginal tribes of Southern India. Haemoglobin C is present at high frequency in Western Africa, elsewhere it has occasionally been observed wherever it might have been introduced by the importation of West African slaves. In West Africa the highest incidence has been seen in the Northern Gold Coast, it falls towards the Southern Gold Coast, and declines both in the territories east and west of the Gold Coast. '. . . . Never in the history of genetics, with the possible exception of Ford's melanism story in the moth, have geneticists and those with kindred interests been quite so close to having a ringside seat at the origin and dissemination of a "new" gene' (from a personal letter by J. V. Neel). Haemoglobin D has been seen occasionally in 'white' families in North America, Algiers, Britain, and Turkey. Recently we have found that it occurs with some regularity in North-West Indians and in Gujeratis from what was once the Bombay Presidency. Haemoglobin E is frequent in Burma and in Siam, and it is also found in Indonesia and Ceylon. Recently we have seen examples in people from Bengal and from Malaya. The other haemoglobins have so far been seen in single families only. The thalassaemia gene is predominantly found in the Mediterranean countries, but it is also present in the Middle East, India, Burma, Siam, Indonesia, and possibly in China. Some examples have also been seen in West Africa. No abnormalities have been seen in Australian and Melanesian aboriginals.



Map showing distribution of Sickle Cells

Balanced Polymorphism

The distribution of the sickling gene has been particularly studied from the point of view of population genetics. A large proportion of SS homozygotes die from sickle-cell anaemia before they reach the age of reproduction. In spite of this loss of S genes in every generation, the sickle-cell is present at high frequencies in many parts of tropical Africa, and in some population-isolates in Italy, Greece, Arabia, and India. This paradox has now been explained by the higher resistance to malignant malaria found in AS heterozygotes. Malignant malaria removes or used to remove a considerable proportion of infants in all these regions. The greater death rate of AA infants compared with that of AS heterozygotes balances the loss of the S gene by sickle-cell anaemia.

Increasing Importance of the Haemoglobinopathies

Morbidity and mortality due to parasites and malnutrition are on the decline in tropical and subtropical countries. However, we know of no effective measures to deal with the haemoglobinopathies. Palliative treatment can be applied in sickle-cell crises, and blood transfusion may tide a patient over a period of stress, such as pregnancy. Thus the haemoglobinopathies are on the increase in the populations affected. It has been calculated that in British West Africa alone there must be a quarter of a million children with sickle-cell anaemia. In the Southern Gold Coast, three out of every hundred children born should suffer from some form of haemoglobinopathy. It will soon become necessary to consider the need for marriage advice. Certainly in Italy and in Greece the population is well aware of the hereditary aspects of thalassaemia major and of sickle-cell anaemia. It is only a question of time before the peoples of Africa and Asia will ask for a considered approach to these problems.

THE WHITE SLAVES OF NEO-SLAVONIA

by PETER QUINCE

THE REST of the household had gone up to bed. My host thoughtfully replenished both our glasses and settled himself comfortably.

'I suppose you have heard how we have dealt with our Social Evil in Neo-Slavonia?' he asked with a chuckle, 'What do you think of it?'

I confessed that I knew nothing whatsoever about it.

'What!' he slapped his knee, 'haven't you heard? Oh, I must tell you then. You'll love this.

'Every now and then we would have outcries against the prevailing laxity of morals, as I expect you do. Bishops, judges and newspapers suddenly wake up, and there's a to-do, and then it all dies down again. The last time it happened, our Prince suddenly took action.'

He laughed immoderately.

'I really ought not to laugh,' he said apologetically, 'but it really was superb. I ought not to be saying this either: but I just cannot make up my mind whether our sovereign is a knave, a fool or a genius. He certainly has the devil's own luck with his Anglophile projects. As usual, he said, "What would the British do?" and before you could say Johann Nosnibor he had inaugurated a Ministry of Masculine Entertainment, extracted a weekly contribution from every male between the ages of sixteen and eighty-six, and by the subtlest propaganda persuaded all the geishas to be nationalized. There was supposed to be Free Choice, but every male was put on one Nominal Roll or another to begin with. The geishas were allowed to have up to a thousand—or was it two thousand?—names on their lists at a capitation fee of twenty schillings per annum. A nice, steady, assured income, what? . . . . Guess what happened?'

'I really cannot conceive,' I replied, 'I've never heard of anything like it.'

'Well, these poor girls got no rest—apart from the statutory day and a half off each week and a four weeks' leave each year. Otherwise they were on call twenty-four hours a day. It didn't work out quite so badly as that, of course; but they could never be sure of any leisure. And sooner or later a lot of chaps, who otherwise would never have dreamed of calling upon their services, were saying, "I've been stamping my cards now for months and months without getting anything out of it. What about it?" Perfectly natural: just what one would expect.

'The next thing was that the General Duties Geishas got a bad name for indifferent service. Poor dears, they simply had no time or energy to give really personal attention.'

'Yes, I can see that,' I said, and quoted sententiously—"That individual attention which is expected from all professional men and women, and which professional men and women take pride in giving." Carlyle, wasn't it?'

'I don't know. At any rate, they couldn't. Nobody can when they are metaphorically rushed off their feet. And then, as I told you, we had this Nationalized Litigation Scheme, and that added to their worries. True, all costs and damages are paid by the State, but the publicity of a court case is bad.'

'But what happened to private practice?' I asked,—'Surely it must have enjoyed a terrific boost—or was it made illegal?'

'Not quite: every possible obstacle was put in its way, however. Oddly enough, it fell off considerably. People said, quite reasonably, that they weren't going to pay twice. No. There were much more cunning moves. A hierarchy was established within the Service: specialist appointments with shorter hours and higher pay, merit awards—you'd never believe the scramble to get into administrative jobs, the applications to Take Silk, and advertisement of posts and the short-list parades.

'There is one very happy result: no geisha encourages her daughter to follow in her footsteps. They put them into uniform. Domestic service usually; failing that, Medicine.'

'But did the geishas take this lying down, as it were?' I asked.

'Most of them followed their leaders—who were already in Administrative jobs—like so many sheep. Every now and then a few reactionaries hold indignation meetings, but it does them no good. There was one the other day in this very township. They moved a resolution deploring the manner in which their profession has been—I don't know the English equivalent. They use a Neo-Slavonian expression which I fancy has a different meaning with you. They say their profession has been *doctored*.'

'No. We only apply that phrase to neo-Tom Cats.'

SPORTS DAY

THIS YEAR Sports Day was held at Chislehurst on Saturday, June 16. Such an event depends greatly on the weather, and we regretfully record that rain fell almost continually. This in no way dampened the enthusiasm of the competitors, the officials, or the hardy spectators who must all be congratulated.

The Captain of the Athletic Club, Donald O'Sullivan, greeted the participants and visitors with the following note in the programme:

'Together with drinking beer and consorting with nurses, Rugby Football is the accepted pastime of the medical student, but there have always been a few strange fellows who went running, just running their hearts out after nothing, not even a nurse or a football.

'Bart's Athletic Club can find among its vice-presidents, holders of Olympic gold and other medals and world record breakers; and it is fitting that one of the oldest athletic clubs in the country, and also one of the oldest clubs in the hospital should make a great occasion of its Sports Day.'

The detailed results of each of the events are summarised below, but such bare facts cannot describe the excitement which occurred in some of the races. In the 440 yards, for instance, the Club secretary, C. P. Roberts, avenged last year's defeat by beating O'Sullivan by a yard. Roberts was the outstanding athlete of the day; he won four events, including the three middle distance races and the high jump, with true versatility. His successes greatly helped the Preclinical C team to secure a winning margin of points with the accompanying prize of a barrel of beer. The Captain lived up to his reputation as an international hurdler by winning both sprints convincingly.

A large number of ladies, after much coaxing by well wrapped males, agreed to run in the 80 yards race. The field got away to a good start. Miss Barnard strode ahead to win by a yard from Miss Chambers.

Mrs. E. G. Tuckwell graciously presented the cups and prizes.

3 MILES—Sir Charles Gordon-Watson Cup
R. G. Thompson; C. P. Roberts; J. H. Lewis 16'13"
120 YD. HURDLES—B. N. Ash Cup
A. S. Tabor; P. R. Ernst; M. I. M. Noble 17.3"
JAVELIN
A. J. Garrod; D. Rosborough; A. Ross
HIGH JUMP—Mrs. Reginald Vick Cup
C. P. Roberts; P. R. Ernst, A. J. Garrod 5'6"
220 YARDS—Griffiths Cup
D. O'Sullivan; A. S. Tabor; B. D. G. Hill 25.0"
1 MILE—Mrs. Morley Fletcher Cup
C. P. Roberts; R. G. Thompson; J. H. Lewis 4'44"
100 YARDS—Bowlby Cup
D. O'Sullivan; R. Fell; A. S. Tabor 10.5"
WEIGHT
D. F. Craggs; A. J. Garrod; A. Ross 34'
120 YARDS (handicap)
A. S. Tabor; D. F. Craggs; D. Rosborough 12.7"
880 YARDS
C. P. Roberts; R. G. Thomson; B. D. G. Hill 2'13.4"
LONG JUMP—Edgar Hartley Kettle Cup
A. S. Tabor; P. R. Ernst; M. I. Noble 19'8½"
DISCUS—B. N. Ash Cup
A. J. Garrod; D. Lammiman
LADIES 80 YARDS
Miss B. Barnard; Miss J. Chambers; Dr. P. Lindop, Miss Hartley, equal.
440 YARDS—Mrs. Harrison Cripps Cup
C. P. Roberts; D. O'Sullivan; D. D. G. Hill 55.5"
INTER-YEAR RELAY
Clinicals B (Tabor, Martin, O'Sullivan, Lewis)
POLE VAULT
J. Sugden; C. P. Roberts 13'6"

OUTPATIENT DENTAL ANAESTHESIA

by T. B. BOULTON

THESE notes were written for a demonstration of an out-patient 'gas' session given by Mr. T. Schofield and myself, during a course for general dental practitioners in the Dental Department of the Hospital last November. It was suggested that they might be of wider interest to students and occasional dental anaesthetists.

This account describes the use of nitrous oxide, with the addition of supplements when indicated, for out-patient dental cases of all ages. Brief reference is also made to certain other agents and techniques.

Nitrous oxide is a weak anaesthetic; when used alone anoxia is required to assist in producing anaesthesia. Normal adults tolerate the degree of anoxia required well and recover more rapidly and completely than from any other anaesthetic, and, if necessary, may be sent home unescorted.

SELECTION OF CASES

There are few adults who cannot be satisfactorily anaesthetised with nitrous oxide, provided they enjoy normal health. Difficulty is sometimes experienced with plethoric individuals who are heavy drinkers, and a supplement may then be required to produce adequate anaesthesia. Procedures which last longer than fifteen minutes are not suitable for general anaesthesia in the dental-chair. Certain patients do not tolerate the required degree of anoxia well, these include children under 12 years, cardiac cases, hypertensives, anaemic patients, epileptics, asthmatics, bronchitics, and pregnant women; supplements should be used in these cases.

SUPPLEMENTS

The excretion time of a supplement anaesthetic is always longer than that of nitrous oxide. Patients' reaction times are lengthened and their judgment impaired for some hours; they should not, therefore, be sent home unescorted. Trilene is the most commonly employed supplement, it is a non-explosive vapour administered from a vapouriser which is designed to give a vapour of low concentration suitable for dental anaesthesia. Thiopentone, an intravenous anaesthetic administered in sleep doses of 100 to 200 mg. as a preliminary to nitrous oxide-oxygen anaesthesia, is useful in resistant individuals; it is not suitable for patients with the medical complaints mentioned above.

APPARATUS

The most commonly employed machines are the Walton apparatus marks 1, 2, 3 and 4, and the McKesson, all of which can be equipped with suitable trilene vapourisers. These machines all have the following controls: nitrous oxide—oxygen percentage control, positive pressure control, valve tension control on the mask, and the trilene control lever. Accessory apparatus required includes dental props, throat packs, mouth-gags of the Fergusson type with quick-release locks and tongue forceps.

PRELIMINARY PREPARATION

Anaesthetics should not be administered within four hours of a solid meal, or within two hours of drinking fluids. Great care should always be taken with children or pregnant women who are apt to retain food in their stomachs for many hours, especially when they are in pain or apprehensive. The bladder should be emptied immediately before anaesthesia.

Premedication is not required by the majority of patients. Many patients who are in pain will have had aspirin or codein and these are useful premedicants. Phenobarbitone grs. 1 and methyl pentynol (Oblivon) 250 mg. are also satisfactory. Children may be given Oblivon elixir or aspirin; barbiturates are not recommended as they tend to make children restless or refractory.

Thomas Babington Boulton

Mr. Boulton entered Bart's in 1946, after spending his preclinical years at Emmanuel College, Cambridge. On qualifying he was appointed House Surgeon to Mr. Hosford. Since then he has become F.F.A.R.C.S., and is at present Senior Registrar Anaesthetist at this hospital. Mr. Boulton saw active service in Malaya, and was mentioned in despatches. He has just sailed to America, where he is spending a year, (June *Journal*).

A patient who walks into the surgery in a normal manner, and who does not volunteer a history of organic disease, may usually be considered fit for a short dental anaesthetic with nitrous oxide.[1] The practice of 'examining' the patient by a brief application of the stethoscope to the apex-beat serves no useful purpose and may only cause doubt in the patient's mind; the value of such a procedure as a defence in a court of law is also open to doubt. If, however, the patient volunteers a history of organic disease or asks for a 'check-up' an examination should be carried out.

The psychological approach of the anaesthetist to the patient is of great importance. All apparatus, both dental and anathesthetic, must be ready and as unobtrusive as possible when the patient enters the surgery: noisy changing of cylinders, etc., may create the impression that 'something is wrong with the machine' and destroy confidence. A smile and a word of encouragement from the anaesthetist allays the patient's anxiety and may make all the difference between a good anaesthetic and a complete shambles.

The position of the patient is of prime importance; a patient who is uncomfortable may be difficult to induce and, if the head is in the wrong position, great difficulty may be experienced in keeping a clear airway. The chair should be tipped slightly back so that the patient does not slip down during anaesthesia. We do not use a strap as we think that it gives the patient an impression of being tied down. The patient must sit well back in the seat with the cervical and dorsal spines in a straight line. The head should be slightly extended at the atlanto-occipital joint and the nape of the neck must rest firmly on the neck-rest. The feet should rest comfortably on the foot-rest. The patient is asked to interlace his fingers; this is a precaution against clawing at the mask during the excitement stage. The dental prop. is inserted by the surgeon.

INDUCTION AND MAINTENANCE OF ANAESTHESIA.

The signs of anaesthesia observed during the administration of nitrous oxide differ from those observed during the administration of other general anaesthetics, such as ether, because of the concurrent anoxia and the fact that nitrous oxide does not cause relaxation.

The stage of induction lasts from the start of the administration to loss of consciousness. The patient is asked to close his eyes and relax. The machine is set for the administration of 100% nitrous oxide. A gentle flow of gas is produced by setting the pressure control. The tension spring on the mask is set so that gas just does not escape at the set pressure. The mask is held half an inch from the patient's nostrils and the patient is told to inhale through the nose. Throughout the induction the patient is encouraged by the anaesthetist in simple terms. This is very important as, if all is silence, the patient may suddenly lose confidence and start to struggle because he thinks that the dental surgeon may be about to begin operating. Good dental anaesthesia is often partly hypnosis, the patient may be practically talked to sleep by simple suggestion made in a quiet voice. It is a good thing to keep on repeating "breathe through your nose" as this is the single most important factor in a smooth induction and, at the same time, it gives the patient something definite to do, thus diverting his attention from his anxiety.

The eye-lash reflex is the first eye reflex to disappear. This is elicited by touching the eye lash very lightly; when this stimulus no longer causes contraction of the orbicularis oculi the patient is almost unconscious. The mask may now be lowered on to the face to fit closely round the nose, so that the valve on the mask may be heard to hiss with each respiration. The tubes leading to the nose piece are held between the first fingers, and the thumbs and other fingers are held under the angles of the jaw to ensure a clear air-way.

The stage of excitement is entered immediately the eye-lash reflex has disappeared. This stage represents the release of the patient from conscious control. The patient may react violently to stimuli, such as the premature application of dental forceps. A patient who has concealed his nervousness may suddenly start to struggle when his conscious control is lost; one should always beware of the young man who breezes into the surgery with a forced gaiety and some such remark as 'Going to give me a spot of gas, Doc.?' These individuals often struggle violently when self discipline is re-

moved in the stage of excitation. In this stage a patient may often suddenly start to mouth-breathe. The hand or other impervious object should never be used to encourage nasal breathing as this may lead to the patient getting the sensation that he is being suffocated. If a patient is a persistent mouth-breather a piece of gauze should be touched on the lips, or a Trewby mouthpiece, which supplies a flow of gas, should be employed. The eye-lid reflex (a contraction of the orbicularis oculi when a gentle attempt is made to passively open the eyes), remains present throughout the stage of excitation and the respiration is usually irregular.

The stage of surgical anaesthesia is reached at the moment that the respiration suddenly becomes regular, at this stage there is often a slight catch in the respiration as the tongue falls back for an instant. The eye-lid reflex is now negative, the eyes can be easily opened with the finger. The eyeballs at first oscillate to and fro and then become fixed in a squint due to the onset of anoxic spasm of the small muscles of the eye.

The patient is now ready for surgery. 5 to 10% oxygen can be introduced. If the administration of 100% nitrous oxide is continued, jactitations due to anoxic spasm of other muscles of the body may occur. These consist of irregular twitching movements which are purposeless and usually start in the extremities. They are an indication for oxygen and must never be confused with purposive movements, such as clawing at the mask, which are seen in the stage of excitation ; these latter movements are, of course, an indication for deepening anaesthesia.

Cyanosis is not a sign of anaesthesia. The existence of cyanosis depends on an absolute amount of reduced haemoglobin in the blood. This amount is about 5 Grams per 100 c.c. so that a patient with a 33% haemoglobin can never become cyanosed, while a plethoric individual can become very cyanosed while still retaining an appreciable amount of oxy-haemoglobin in the blood.[1]

The Extraction of Teeth

The gauze swab is inserted by the anaesthetist or by the surgeon according to preference. The tongue should be packed away from the side on which extractions are to be made. Counter pressure for the lower teeth is provided by the anaesthetist's fingers under the angles of the jaw and for the upper teeth by pushing the head against the anaesthetist's body. If the tooth is difficult and the patient is becoming light the surgeon should desist for a moment to allow the anaesthetic to be deepened, this always saves time in the end. The surgeon should take care not to obstruct the air-way by pushing the tongue or pack back into the pharynx. At the end of the operation all debris, the pack and, if possible, the prop, should be removed ; this is the joint responsibility of the surgeon and the anaesthetist. If the surgeon requires to extract teeth from both sides of the mouth at the same session the mouth-gag is used in the opposite side to the prop, which is then removed.

Special Cases

Children. It is usually best to ask the mother to remain outside. The trilene supplement technique is satisfactory. The mask should be held away from the face until the child has definitely lost consciousness. If possible the child is carried out to the waiting parent in the recovery room before consciousness is regained.

Diabetics are best given their normal breakfast and normal morning insulin and anaesthetised mid-morning. There is thus no danger from a full stomach and the patient recovers in time for the next meal.

Oedema of the glottis. Patients with trismus, oedema of the floor of the mouth and glottic obstruction are unsuitable for out-patient anaesthesia and should be admitted to hospital.

Other Anaesthetic Agents

Thiopentone. Apart from its use as a sleep dose we do not consider this drug suitable as a single-dose anaesthetic for dental work. It has the following dangers: respiratory arrest due to depression of the respiratory centre, laryngeal spasm, inhalation of debris and obstruction due to the tongue because of relaxation of the lingual and pharangeal muscles, depression of the blood-pressure, especially in the erect posture which may lead to syncopy and even cardiac arrest. Facilities for endotracheal intubation and artificial respiration with oxygen should always be at hand when thiopentone is administered.

Cyclopropane.[5] This cannot be administered satisfactorily with the ordinary nitrous oxide-oxygen machine. A Boyle-type apparatus is required. Cyclopropane is explosive even, perhaps, to the sparks from teeth unless administered with a special 50:50 mixture of nitrogen and oxygen[6]. Recovery is rapid, but the patients are apt to be more nauseated than after nitrous oxide.

Ethyl chloride on an open mask is a useful anaesthetic for small children, but it is more unpleasant to inhale than nitrous oxide and an ethyl-chloride induction may leave a lasting frightening impression on a child's mind. It has the disadvantage of being a single-dose anaesthetic. It does produce good relaxation of the jaw, which is an advantage when a child does not tolerate a prop before induction.

Vinesthene has the same advantages as ethyl chloride. It has the additional disadvantages that it is expensive and requires a special inhaler (Goldman's or the Oxford modification).

The Recovery

When the operation is over it is best to give a few breaths of oxygen before removing the mask. If the prop has not been removed during surgical anaesthesia it should be left in place until the patient is conscious, otherwise he may interpret its removal as the extraction and say that he 'felt' it. Similarly the adjustment of a skirt during recovery has led to brief erotic dreams with possible unfortunate legal consequences. During recovery the head should be held forward if blood and saliva is likely to accumulate in the back of the throat and obstruct the air-way.

Slow recovery from a 'gas' is rarely due to anoxic damage to the brain. Certain reports[2] which are often quoted of permanent cerebral damage following nitrous oxide refer to a now outmoded technique known as "secondary saturation." which attempted to produce relaxation for general surgery with nitrous oxide and prolonged asphyxia alone. If a dental operation proceeds for some time (say over five minutes) it is surprising how much oxygen can be introduced, often over 15%. One cause of apparent failure to regain consciousness is hysteria.[3] The patient, often a young woman, rapidly regains her normal pink complexion, but remains flaccid and apparently comatose. Simple suggestion, such as talk about injections, often rouses these patients.

The Use of Supplements

Trilene.[4] The patient is induced as above until the mask is lowered on to the face. The trilene is then introduced and the machine immediately set at 7 to 10%. After a few breaths the oxygen can usually be still further increased.

Thiopentone is given in a 'sleep' dose of 100 to 200 mg. and anaesthesia maintained on 80 to 90% nitrous oxide. This technique is particularly useful for resistant individuals.

Hypnosis

This technique is becoming increasingly popular with the dental profession. It is particularly useful in the induction of children.[7] It may be used alone in certain susceptible individuals or as a preliminary to general or local anaesthesia. It must be stressed that anaesthesia sufficient in itself for extraction, requires considerable hypnotic depth and this can only be attained in a minority of patients. Sufficient depth to allow painful fillings to be carried out is more easily obtained, especially if the patient has to make several visits as, within limits, repeated hypnosis enables a greater depth to be reached.

The administration of dental anaesthetics requires skill and practice, above all, it is necessary that the anaesthetist should be in complete control of the situation from the moment the patient enters the surgery ; it is only in this way that the patient's confidence will be gained and tranquil and pleasant anaesthesia result.

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NURSES OFF THE LEASH

by ROSEMARY STOCKEN *and* ANGELA HARVEY.

FOUR OF US crossed the Channel from Folkestone by overnight ferry. This enabled the inexperienced driver of our Morris Minor to practise driving on the right hand side of the road before much traffic appeared. Half-asleep, we drove along the wet cobbled streets and out on to the dull, straight road extending for miles across the undulating plains of Northern France. Unexpectedly, little difficulty was experienced with right-hand driving, and before long we were able to compete with the speed of the French drivers, taking our corners on two wheels.

Dunkirk in the drizzling dawn spurred us on to Dijon, where we spent a grim first night at the so-called 'Youth Hostel'. Already Spring was giving us new thrills as we advanced further south; miraculously the blossom came out, the cypress trees appeared, and we passed through the colourful vineyards of the Cote d'Or. Then up the Alpes Maritimes: the snow had only recently been cleared from the Col du Bayard, and the panorama of snow-clad mountains all round was magnificent. Unaccustomed to such steep gradients and hairpin bends, the car brakes finally gave out, and it was some time before we could get them relined at a French Riviera garage. However, we crossed over the Basses Alpes,—*et voila*—we were in the midst of the exotic flowers, giant cacti and palms of the Riviera; eyeing greedily the luscious-looking oranges and lemons that hung temptingly from the trees bordering the road.

After scorching in the brilliant sunshine of Cap d'Ail and Monte Carlo, we pressed on into Italy. Disgruntled French Customs officials compared unfavourably with the sleek, dark Italians. Scarcely had we driven up to the frontier than we were invited out dancing that evening; four young English girls were too much of a good thing! That was typical of the reception we had throughout our stay in Italy. Hilarious Italians escorted us on motor-scooters, in cars, lorries and even coaches, forever blaring their raucous horns endeavouring to attract our attention. We waved graciously from our open car feeling nothing less than Royalty!

Bordighera was our first stop in Italy. Here the hills rise steeply from the sea and are terraced with carnations. The Youth Hostel was at the summit of one of these hills overlooking the sparkling blue bay. Colonies of croaking frogs, living in the water tanks, were our only neighbours. They tuned up at twilight and by midnight were in the full-throated chorus of a passionate cantata. We said goodbye to the frogs, and drove along the Riviera coast road over the Ligurian Alps on to Lerici in the Gulf of La Spezia.

Lerici is proud of its large castle built on a promontory overlooking a small, attractive harbour, its clear blue-green sea studded with fishing boats and brightly coloured yachts. We were somewhat amazed when told that the Youth Hostel was *il castello* itself. Up and up the dark, dank steps with only a glimmer of light piercing the narrow slit windows in the 4 ft. walls; suddenly we were in brilliant sunshine, the Hostel being on the ramparts. The castle's oldest inhabitants were the ghosts of Sesame and Henry V of France. The view from the flag tower was superb; at night the glow-worm boats of the octopus-catchers twinkled in the bay.

Here we had some very hot weather, and good bathing. But these Italians! We were sunbathing peacefully one day, at a cove accessible only by sea, when our blissful quiet was shattered by boat-loads of fiery Italian youths. Language was no problem, and they insisted on taking us for a sail in their Star Class yachts.

It was sad leaving the Mediterranean shore, but to be in Florence at Easter was

Miss Rosemary Stocken
Born and brought up in Plymouth, Miss Stocken came to Bart's as a student nurse in April, 1952. She became S.R.N. in June, 1955, and is at present a blue belt on Smithfield Ward.

Miss Angela Harvey
Miss Harvey came from Brighton to train at Bart's in March 1952, and became S.R.N. in June 1955. She is studying for her midwifery diploma at St. Andrew's, Fife.

compensation enough. We were driven over the cobbled streets in an old horse-drawn brougham, hoping to capture something of the atmosphere.

Then to Venice with its gay markets and crowded waterways. Gliding in a gondola, we listened fascinated to the deep call of the gondolier, and watched the gentle rhythm of his body as he steered us skilfully round each narrow bend in the darkness.

From Venice through the Val Sugana bordering the Dolomites, to Riva, on Lake Garda—a lakeside town full of trinkets and straw hats. Our ukelele provided us with a sing-song on the jetty and drinks all round! The lakeside road along the western shore is noted for its tunnels through the enormous cliffs that rise almost vertically to a great height above the lake.

Lake Como was calm and peaceful when we arrived after a grillingly hot and exhausting day visiting Milan. We stayed at the very good Youth Hostel at Lecco, and it was with amusement that we read the notice "Dear Wanderer, when you come to this Home, please report to the Father"—especially when the 'Father' made advances to one of us as soon as we had presented ourselves! The hostels were certainly varied: in France, we were once given a warm welcome at what we thought was a hostel, but which turned out to be a maternity home.

Cooking did not present much of a problem as we had our own small methylated spirit stove and bought food as we went along. How well we remember those long, narrow, deliciously crisp loaves, bought literally by the metre; the ripe cheeses that left their aroma in the car for days afterwards; the freshly gathered oranges; the inevitable Italian macaroni and salami; and, of course, the wine.

We were determined to go to Zermatt on our way back for some skiing, and this meant crossing the Alps by one of the higher passes, as very few are open to traffic in early April. We chose the superb Maloja and Julier Passes, which had only just been cleared. It was a wonderful experience in the clear, exhilarating atmosphere of a brilliantly sunny day, to climb steadily upwards from the green valley of Chiavenna, through the pinewoods and past rushing waterfalls. Each hairpin bend seemed more acute, and the gradient more alarmingly steep, and we thought that at any moment, two, if not three, of us would have to plod up on foot instead. We had several minor skids, and our hearts sank somewhat on seeing other cars that had been stuck in the snow, or had skidded into the drifts. But we came through with only a smashed rear light, and spent the night near Oberalp.

Josephine Iliff, Angela Harvey, Audrey George and Rosemary Stocken

Oberalp Pass is closed to traffic until June so we had to drive via Zurich, Lucerne, Interlaken, Kandersteg and the Lotschen Tunnel in order to reach Zermatt.

We drove the car on to a railway truck safely hitched on to the rear of the train, but before we had time to board the passenger compartment ourselves, the train was moving off, and in absolute horror we stood on the railtrack watching our precious car, plus all we possessed, disappear into the darkness of the tunnel—without us. Those were awful moments, as the train was the last stopping train that day, and it was imperative that we caught the last train to Zermatt from St. Nicklaus. However, by bribing the Station Master, we persuaded him to telephone Berne, and arrange for the next express train to be stopped for us. This he did, and whilst we boarded it ignominiously, we heard him and the guard having a 'few words' at the rear of the train.

We were much relieved to see the car shunted on to a siding at the far end of the tunnel, but from there we had a hair-raising descent of some 2,000 ft. to the Rhone Valley. It was an incredibly steep and winding mule track, cut out of the face of the mountain, with nothing between us and certain death. We hugged the nearside of the track, clung nervously to our seats and dared not look down to the valley far below.

Thankful that our brakes had been so recently relined, we reached the valley safely, sped along to Visp, and then raced the Zermatt train to St. Nicklaus, where we just caught it. Our stay in Zermatt was not the success it should have been as the skiing just then was unusually poor. So, much bruised and slightly disappointed, we started homeward. The return journey was uneventful but for our running out of petrol one evening, several kilometres from any garage. We were rescued eventually by a young Frenchman in his Citroen, who towed us unconcernedly at 60 m.p.h., at the end of an old, frayed and oily lobster-pot rope that we had found in our boot. It snapped outside a garage 7 km. onwards, when we and the French driver chose different times to brake. We passed our last night on the Continent at Arras, another place best not remembered. Our remaining francs went on wines and cheeses purchased in Boulogne just before embarking on the ferry. With these to fortify us, we cheerfully went back on to the leash.

SOCIETIES

ABERNETHIAN SOCIETY

One of the best attendances at an Abernethian Society meeting since the war, was attained when Dr. Vivian Fuchs spoke on the subject of the Commonwealth Trans-antarctic Expedition.

Dr. Fuchs introduced his lecture by apologising for being, as he put it, a 'bogus doctor.' He continued by emphasising the scientific nature of the expedition, saying that it was unfortunate that the press had occasionally reported him as denying this.

Dr. Fuchs then went on to explain, with the aid of some excellent colour transparencies, the way in which the ice-breaker "Theron" had drifted in the pack ice of the Ross sea, during the recent expedition to establish a base camp. From this camp the polar ice cap would be crossed. He described much of the equipment which would be used by the expedition, and showed pictures of the type of country over which it would have to be used. Dr. Fuchs also mentioned the medical care of the expedition which was in the hands of Dr. Rainer Goldsmith, a Bart's man (see January *Journal*).

Dr. Fuchs showed slides of the establishment of the antarctic house. He ended his talk on a cheerful note by indicating that the party wintering at the base were in goor spirits. He said that, although they had lost a very large quantity of stores, including all their coal, the messages had all been cheerfully worded. The first had said simply, 'All well.' This was soon followed by others stating that the temperature was – 60° F., 'Paraffin not quite congealed.' The members of the advance party urged those at home to disregard any 'scare' newspaper reports. They may not be comfortable, but they will be able to last through the winter.

PHYSIOLOGICAL SOCIETY

The following is a report of the meeting of the Society held on May 28, when members of the Physiology Department spoke on their personal research.

PROFESSOR K. FRANKLIN considered his more recent research as falling into two phases: that which he had started in Oxford, which he termed 2-D; and the problems which he had started since coming back to Bart's, termed 3-D, because they included the dimension of time. This latter was part of the Nuffield Research Unit project on ageing. The earlier work concerned the investigation of blood flow through the kidneys during asphyxia, and the demonstration of the contraction of the interlobular arteries. This led on to records being taken of blood pressure in the uterus during parturition, and the relation of water intake and urine output in pregnancy. This was the first time that such measurements had been published in this country.

DR. D. A. MCDONALD gave a brief account of his work on the measurement of flow along pulsatile blood vessels. The method that was employed involved the photographing of injected bubbles of oxygen travelling along the arteries, this required the use of a high speed camera (which had in fact been used in studying falling cats. See *Journal*, August, 1955). The flow was found to be not at all constant, and after an acceleration during systole, there was often a reverse flow during diastole, especially in the larger arteries. If pressure was measured simultaneously, it was discovered that the flow bore a mathematical relation to the pressure, such that differentiation of the pressure gradient produced a curve very similar to that obtained from direct flow measurements. This meant that, for the first time, flow could be predicted from pressure measurements alone.

MISS ULLMANN commenced by stating that one of the reasons she agreed to participate in the meeting was that she was in need of volunteers to act as experimental subjects. She felt it was only fair that prospective 'guinea pigs' should know for what their services were required. The research began as a study of kidney function under conditions of low blood oxygen tension. The diuresis of alkaline urine, which resulted under these conditions, was at first explained as being due to a respiratory alkalosis, brought about by hyperventilation. However, if the alveolar carbon dioxide were kept constant, the urine was still alkaline, and there was still considerable diuresis. One explanation was that there might be volume receptors in the blood vessels of the chest, leading to reflex changes in the kidney during hyperpnoea.

DR. WIDDICOMBE discussed his work on other receptors in the lungs, the pulmonary stretch receptors, which form the afferent receptors for the Herring-Breuer reflex. These receptors have now been shown to be located in the smooth muscle of the bronchi, mainly at their points of branching. He thought that these receptors were involved in some mechanism for controlling bronchial tone, and that they were concerned with a possible optimum rate of breathing. Work is in progress with Dr. Marshall, who is on the Medical Professorial Unit, on a study of optimal breathing rates in man.

DR. AUMONIER introduced the demonstration he had set up. This included an interference contrast microscope, used by him for measuring the total protein content of muscle fibres from animals infected with Coxsackie virus; and a planometer and projector used for measuring the average thickness of the mucous membrance of the gums. These latter were employed in his research on the hyperplasia of gum epithelium brought about by brushing.

NATURAL HISTORY SOCIETY

In February Mr. James Fisher spoke to a large audience on the Birds of Britain. He gave an account of the work of ringing, which enables a survey to be made of migratory habits. Especially fascinating was the description of the startling spread of the Fulmer which, 70 years ago, was confined to a Scottish islet, and now is to be found all over the British Isles.

More recently a party was taken on a conducted tour of the London Zoo by Professor Cave. The willowy giraffes made excellent subjects for a discussion on deglutition, while their more toothsome neighbours, the hippopotami, were very cooperative in allowing their teeth to be used as a topic for instruction. The raucous wheedling of a parrot for a pencil was reminiscent of certain spoilt children, but much more entertaining. The outing provided many opportunities for the photographers.

SAINT BARTHOLOMEW AND HIS ASSOCIATIONS

PART I: RELIGIOUS

by J. B. DAWSON

PATRON SAINT

FROM THE story of his flaying, the reason for all leather workers adopting St. Bartholomew as their patron saint becomes evident. Thus tanners, butchers, bookbinders, glove-makers, cobblers, tailors, plasterers, and in Florence the Guild of Salt, Oil and Cheese Merchants, all supplicate his protection. In Rome there is a church of St. Bartholomew of the Tanners, the dedication of which was granted by St. Pius V to the Corporation of Tanners and Curriers on account of its proximity to their artisan shops. The reason for plasterers adopting Bartholomew is not obvious. However, many quaint and touching customs have become associated with all the details of the Saint's life.

PILGRIMAGES AND MIRACLES

As an example of pure piety, there was a pilgrimage to Montcoutant in the diocese of Poitiers, to reverence an altar and tableau of St. Bartholomew.

There is another devotional tradition in which the mothers of the small parish of Archambaut carried their newly-born to the chapel of St. Bartholomew in the village of the Martrais.

Bartholomew is invoked to encourage theological upbringing in the town of St. Pardoux. Here, on the fete day of the great saint, little children about to make their first communion are taken to church for an introduction to the gospels of the New Testament.

A more recent ritual involving St. Bartholomew is mentioned by Dr. Pickles in his epidemiological classic. He writes: 'Every year the inhabitants of one of the villages, with due solemnity and ritual, burn the effigy of their patron saint, "Old Bartle"; and a large gathering from all the district roundabout assists at the ceremony'. The district where this takes place I assume to be in Wensleydale, Yorkshire.

It used to be the custom at the Abbey of the Isle of Croyland in the See of Lincoln, to distribute little knives, presumably modelled on those used for flaying, to all visitors on August 24th, the accepted fete day of St. Bartholomew. Apparently one can still find some of these knives lying amongst the monastery ruins, and on the banks of the nearby river. The monks carried on their habit a shield of three knives crossed with three martinets (hammers). A similar escutcheon bearing three knives is quite often found in association with St. Bartholomew. I have seen it in Reading, at Orford in Suffolk, and in St. Bartholomew the Great.

Two examples of the saint exerting a spiritual power in his own right now follow. The first describes 'a woman who brought a vessel full of oil to replenish a lamp burning to St. Bartholomew; however much she inclined her vessel to pour out the oil it would not issue forth. And then one cried, "I trow this oil be not agreable to the apostle that it should be in his lamp." Wherefore she put it into another lamp and it issued anon.' The second example comes from a book of saintly miracles, and tells how 'a certain master hallowed solemnly the feast of St. Bartholomew. And the devil, in the form of a maid, appeared to this master that preached. And when he saw her he bade her come and dine with him, and when they were set at the table she enforced him much to draw him to her love. And the St. Bartholomew came to the gate and prayed that he might come in for the love of St. Bartholomew, and she would not, but sent him bread, and he would none take, but prayed the master by his message that he should say what thing that he supposed was most proper in a man. And he answered, "To laugh." And the maid said, "Nay, it is sin in which man is conceived, born and liveth." And St. Bartholomew answered that he had well said, but she had more profoundly anwered. And the pilgrim demanded that of the master, "Where the place was containing the space of a foot where God made the greatest miracle." And he said, "The sign of the Cross, in which God had made many miracles." And she said, "Nay, it is the head of a man, in which the little world is." And the apostle allowed the sentence of that one, and of the other, and then he demanded the third time, "How far is it from the sovereign seige, or seat in heaven, unto the lowest and deepest place of hell." And the master said that he wist not, and she said, "I know it well, for I fell down from that one to that other, and it behoveth that I show it to thee." And the devil fell down into hell with a great bruit and howling, and then they sent for the pilgrim and he was vanished and gone away, and they could not find him.'

Finally, one finds after 'The Legendary of Autun' in France, that St. Bartholomew was invoked as a powerful mediator of great storms, and as patron saint of blacksmiths. The reason for this is said to be that August 24th was a holy day of the god Vulcan, and gradually Bartholomew, which apparently signifies *filius suspendentis aquas*, replaced the god of fire. This connection might also be related to the coming ashore of the sarcophagus of Bartholemew at Lipari, the site of 'The Forges of Vulcan', a volcanic mountain group.

The painting of St. Bartholomew by Goya
Showing the Saint subjugating the Devil, he holds a flaying knife

CHURCH DEDICATIONS IN ENGLAND

There are a great number of churches dedicated to St. Bartholomew in England; one hundred and forty seven pre-reformation

churches, three chapelries of doubtful period, three eighteenth century, ten early nineteenth century and twenty-four late nineteenth century, making a total of one hundred and eighty-seven. But many have ceased to exist, such as St. Bartholomew by the Exchange, which was demolished in 1841, and yet other new churches have been built, for instance, I have seen a new red-brick church in Reading with the characteristic shield of Bartholomew outside its doors, and another church was named after the saint in 1939 in Binley, Warwickshire.

I feel, however, that not all of these can be accepted as fostered by our great St. Bartholomew. In Europe there have been many saints of this name ; in England, during the twelfth century, lived a Yorkshireman who travelled to the island of Farne, off the coast of Northumberland, where he adopted a hermitic life. Sir Norman Moore, the historian of our hospital, describes this St. Bartholomew as living in an 'odour of sanctity.' There was one church officially dedicated to him at Lindisfarne, but I expect that many of the Yorkshire dedications were made in his name. The Rector of St. Bartholomew at Orford suggests that his very fine twelfth century church may have been inspired nominally by one Bartholomew de Glanville, who was associated with Wimar the chaplain in its building. The churches in and around Kent may safely be attributed to St. Bartholomew as a result of the relic brought by the Bishop of Benevento to Canterbury. This act also inspired hospitals to minister to the sick in the name of Bartholomew in the eleventh and twelfth centuries. Chatham (1087), Dover and Rochester, all had such hospitals, the latter being reserved for lepers. And a small, but very fine, leper hospital at Bartlemas, Oxford, is still standing. This originally belonged to Oriel College. Here there is the characteristic sloping floor, which facilitated scrubbing down, found in these buildings.

STAFF GOLF MATCH

THE ANNUAL golf match against the staff was played on Wednesday, May 16th, on the Denham Golf Course and ended in a win for the staff by eight matches to six with one game halved.

The staff match traditionally starts with lunch and so the players of both sides left the square soon after midday to observe this excellent custom. Nor were they disappointed, for the Denham catering was once again quite admirable and both teams did full justice to it.

This year the students were conceding three *bisques*, and the methods of best employing this handicap were fiercely debated on the staff side. Opinion seemed to vary. Dr. Graham led a school of thought which maintained that the handicap should be claimed as soon as possible, on the theory that to be 3 up with no *bisques* left was better than to be level with all three in hand. Dr. Hayward and his followers on the other hand, thought that the psychological effect on the opponent of three *bisques* yet to be brought into play against him, would be enough to cause him to top his approaches into gorse bushes, and to miss the shortest of putts. The ensuing play did not help resolve the problem, for followers of both schools won with equal ease ; so one supposes that next year the debate will be fiercely resumed. Perhaps Dr. Strauss might be able to decide the point?

Now for the match itself. A golf course covers a large area and all the strokes

played in each match cannot be seen, especially when your correspondent is engaged in combat himself. Consequently the following account has had to be built up partly from players' descriptions and partly from observations made when the geography of the course allowed ; it is hoped that justice will be done.

In the top match Dr. McIlroy's local knowledge proved too much for Scorer, who was defeated far from home. The students'

biggest cannon had exploded with the violence of a damp squib, but rumour had it that Dr. McIlroy had been practising, and so almost violating the rules of this contest!

The staff went further ahead in the second match, when Mr. Fiddian beat Deering in a close match. The next two matches saw the score levelled. Galbraith beat Dr. Graham and White beat Dr. Shooter. Dr. Graham's experience of this encounter now goes back for more than 30 years and it is a great tribute to his skill and enthusiasm that he still plays so near the top of the order—an example, might one suggest, to be followed by some former pillars of the staff side who appear to have gone into a somewhat premature retirement from the fray! The students went ahead in the third match when Dr. Borrie was narrowly defeated by Bloomer. Despite the fact that his pullover of the brightest yellow put the very buttercups to shame, Dr. Borrie was just vanquished on the last green. The students' last success came in the sixth match, when Stevenson played excellent golf and beat Dr. Murrel with something in hand. From now on the staff forged ahead. Because one of their number failed to arrive, Dr. Thomas, for the staff, was asked to take on both Hughes and Mackenzie. Undismayed by this apparently additional handicap, Dr. Thomas proved more than equal to the task, and in the end levelled the match for the staff by returning in triumph to the clubhouse with both points securely won. The last three points went to the staff. Dr. Draper beat Batterham in the ninth game and Dr. Morgan, who happened most fortunately to be on leave from his appointment in Khartoum, played very well indeed and gave poor Rhys Phillips no chance of raising his head. Finally, Dr. Hayward, leading his regiment from behind, as it were, timed his effort to perfection, and won at the home hole—and this, despite the fact that his clubs had last been used in the corresponding match a year ago! Nor did he deem it necessary to abandon his pipe during play.

With a lead of three games, the staff went out in confident mood after tea for the foursomes and the students could do no more than get one match back. Two of the afternoon winners, Bloomer and Galbraith, were defeated by Drs. Borrie and Graham, but Deering and Batterham turned the tables on Mr. Fiddian and Dr. Draper. White and Scorer beat Drs. Shooter and McIlroy and finally Rhys Phillips and Mulcahy halved with Drs. Hayward and Morgan.

The full results were:—

Singles

0	M. I. S. Scorer lost to Dr. McIlroy	7 & 5	1
0	R. B. Deering lost to Mr. Fiddian	3 & 2	1
1	A. W. Galbraith beat Dr. Graham	5 & 4	0
1	H. J. O. White beat Dr. Shooter	5 & 3	0
1	A. C. Bloomer beat Dr. Borrie	1 up	0
1	C. Stevenson beat Dr. Murrel	6 & 5	0
0	R. C. G. Hughes lost to Dr. Thomas	3 & 1	1
0	J. C. Mackenzie lost to Dr. Thomas	5 & 4	1
0	E. J. Batterham lost to Dr. Draper	6 & 4	1
0	D. Rhys Phillips lost to Dr. Morgan	8 & 7	1
0	D. Mulcahy lost to Dr. Hayward	1 down	1
4			7

Foursomes

0	Bloomer and Galbraith lost to Dr. Borrie and Dr. Graham	2 & 1	1
1	Deering and Batterham beat Mr. Fiddian and Dr. Draper	1 up	0
1	Scorer and White beat Dr. Shooter and Dr. McIlroy	2 & 1	0
½	Rhys Phillips and Mulcahy halved with Dr. Hayward and Dr. Morgan		½
2½			1½

The staff 8½, beat the students 6½, by two matches.

The members of the students' golf club would like to express their appreciation to the staff side for a most enjoyable day and to Dr. Hayward in particular for organising the occasion once again.

HOSPITAL REGATTA

THE Hospital Sailing Regatta was held on Wednesday, Thursday and Friday, 9th, 10th and 11th of May. For those who travelled down to Burnham by car, the trip was a pleasant one with clouds of blossom being blown from the cherry trees along Eastern Avenue. The wind-driven blossom provided a hint that the three days were not going to be calm.

Although the weather conditions limited our activities, everyone had their fair share of sailing. A record total of fifty-five members stayed for some, or all of the three days. Because of the weather, only one race was sailed, but there was no lack of enthusiasm to snatch the periods, when the wind abated somewhat, to go out cruising.

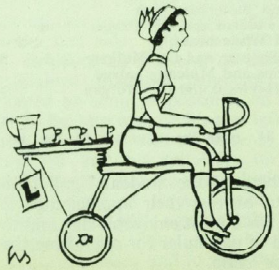
On the Thursday evening, a diversion was provided by the wind dropping completely and leaving three boats temporarily stranded on a rising tide some distance up the Crouch. However, if any of us were worried as to the fate of their occupants, we were reassured by the arrival in the bar of the Anchor Inn, of a mud-covered and shoe-less messenger, who told us that she had been put ashore from the secretary's boat on supposedly dry land.

On the Friday morning, all nine boats were raced for the Commodore's Trophy. The race proved a most exciting one, the condition of the wind and tide giving ample opportunities for making a mistake, or snatching an advantage. All the crews behaved like tried seamen, and even those detailed to bail appeared to enjoy their task. There were one or two anxious moments in the heavy sea at the mouth of the Roach, but it is to the credit of the helmsmen that no capsizes occurred and no damage was done. After a duel with Martin Hayes during the last beat up the Crouch, Henry Blake reached the finishing line first; thus winning the Commodore's Trophy for the second consecutive year.

The club dinner was held in the congenial surroundings of the Ship Inn. We were very pleased to welcome one of our Vice-Commodores, Mr. Cambrook, and our Rear-Commodore, Mr. Alment, to this function. The former presented the prizes.

A LA TRICYCLETTE

The following letter was received by the Clerk to the Governors. We are uncertain as to the seriousness of the suggestion, but if adopted, we look forward to interfirm races for the entertainment of the patients.



Dear Sir,

Having seen the film 'The Feminine Touch' depicting how nurses suffer with too much work and painful feet from too much standing and walking about, why not allow nurses in Hospitals to use a sort of simple wooden tricycle with a tray in front to use up and down wards and also threequarter trousers for added comfort?

Yours truly,

A FOOT SUFFERER.

SPORTS NEWS

VIEWPOINT

SINCE assuming the captaincy of the Rugby Football Club two seasons ago, John Tallack has done much for the Club. It is indeed fair to say that its success during this period, which has been far greater than at any other time since the War, has come about almost entirely by his untiring efforts, on and off the field. The achievements of the Club have been reported in the *Journal* month by month, and need not be discussed in detail here. We would like to take this opportunity of expressing the gratitude of the Hospital to Tallack, now that his term of office has expired. We trust that the new captain, J. C. Mackenzie, will continue the good work, and we wish him every success.

As a permanent contribution to the Hospital, Tallack is compiling a history of the Club, which is due to be published in March 1957. It is certain that old Bart's rugger men will find many hours of enjoyable reading in this book.

So far this season the Tennis Club has not enjoyed outstanding success. The increased support that will be given to the captain, J. T. Beach, by the return after a long illness, of the vice-captain, C. S. Goodwin, will surely help revive the fortunes of the Club.

RUGBY

ANNUAL GENERAL MEETING

This was held on Tuesday, 22nd May, with the President, Dr. Scowen, in the chair. The retiring secretary, Mr. Badley, told the meeting that although the 1st XV record was not as good as last year, it was still the second best since the war, and might well have been the best if it had not been for a bad period after the February freeze-up. He praised the retiring captain, Mr. Tallack, for his work in raising the standard of Bart's rugger during his two years as captain. Mr. Tallack then thanked everyone for the support they had given him. He mentioned the poor end of the season as a warning of what could happen if training were allowed to slip. He suggested that it was a bad policy to ask anyone to captain the Club for two successive seasons. History, and his own experience, showed that things never went as well in the second season.

The President, and a distinguished list of Vice-Presidents were re-elected unanimously. The following were elected for the 1956-57 season:—

Captain, J. C. Mackenzie.
Vice-Captain, R. M. Phillips.
Secretary, C. J. Carr.
Treasurer, C. A. C. Charlton.
Pre-Clinical Representative, A. P. Ross.

CRICKET

1st XI v. U.C.H. (Cup Match). Thursday, May 17th. Won by 6 wickets.

U.C.H. won the toss and chose to bat on a wicket with a little moisture in it of which Garrod took full advantage, taking their first two wickets very cheaply. From this unpromising start U.C.H. really got down to it and although never getting on top of the bowling scored 171. Whitworth bowled well and Garrod suffered his inevitable misfortune of being just too good for the batsmen to get an outside edge.

Bart's lost a wicket in the first over, but Bower scored a very enjoyable 28 and paved the way for the later players. Nicholson and Whitworth saw the score to the 90's, then Nichols getting his first runs of the season edged things on, latterly assisted by the dour Marks. The match was well won with one firmly middled, and hopes ride high for the next round.

U.C.H.: 171 (Whitworth 4 for 34).

Bart's: 174 for 4 (Nichols 51 not out. Whitworth 44).

1st XI v. Hampstead. Sunday, May 13th. Lost by 10 wickets.

The less said the better; no roses at the end. After so good a start to the season Hampstead was approached with confidence, but just like last year Kenney took those early wickets quickly and the Hampstead fielding was depressingly brilliant. The side inexplicably collapsed after Bower had promised great things.

Their opening batsmen offered one chance which was not accepted and then slaughtered the pace bowling. As one of them was the Natal opener until last year it was some consolation. In their turn, they said our fielding was the best they'd seen for some time, but then there was little else they could say.

Bart's: 64.

Hampstead: 65 for 0.

1st XI v. Romany. Sunday, May 20th. Lost by 157 runs.

A weaker side by reason of the Whitsuntide holiday, but if only those catches behind the wicket

had been held early on from Garrod's splendid opening spell, we may well have won. Bloomer had a good day with the ball, but most of the bowling, especially the left arm slower stuff, was of a most untidy length. Romany scored deliberately and consistently and then proceeded to get us out cheaply.

Their opening bowler produced two or three off cutters which were just too good and only the determined Marks batted well enough to please our welcome spectators. A very hot day on which the Captain should not have been allowed to lose the toss.

Romany : 264 for 8 declared (Bloomer 4 for 64).

Bart's : 107 (Marks 21).

UNITED HOSPITALS

BUMPING RACES

The second annual bumping races were held on the evenings of June 4, 5 and 6. Bart's entered four boats. This was more than any other hospital could muster, and reflects the keenness instilled into the Boat Club by the captain, C. C. H. Dale.

The first three places remained unchanged, being occupied by St. Thomas's, St. Bartholomew's and Guy's. The best performance by the Bart's 1st VIII was on the first evening, when they came within half a length of St. Thomas's. On the following two evenings they did not look quite so impressive, but never were in danger of being caught by Guy's.

The 2nd VIII were bumped on Monday by a fast Westminister crew, which became the only crew to make a bump on each successive evening. The other two nights the 2nd VIII rowed over, thus finishing in eighth place.

Both the Bart's 3rd and 4th VIII's went ahead on the second evening, the former bumping St. Mary's and the latter Guy's 2nd VIII. This should give encouragement to the Junior VIII's in their preparation for next year's races, especially as the 3rd VIII came within a canvas of St. Thomas's 3rd boat on the last evening.

There were several unusual incidents ; two oarsmen, Ormerod in the 1st VIII and Mackenzie in the 3rd VIII accomplished the difficult feat of breaking an oar apiece ; the bow in the 4th VIII literally hurled himself into the boat from his car just as the starting gun boomed ; and finally, the 3rd VIII managed to row a whole course with a leak stuffed up with grease.

Crews : 1st VIII, D. King, E. J. B. Makin, T. P. Ormerod, J. R. Strong, C. C. H. Dale, J. M. Besser, C. M. Hudson, G. D. Stainsby (Stroke), A. R. Geach (cox).

2nd VIII, P. Weaver, G. S. Martinez, L. K. H. Therkildsen, E. R. Gray, I. Stuart, G. Hall, P. Fenn, A. J. H. Ellison (stroke), A. Padfield (cox).

3rd VIII, A. Padfield, P. Norris, R. G. White, L. Farrow, D. A. Lammiman, J. C. Mackenzie, C. Davies, M. Burfoot (stroke), M. Scorer (cox).

4th VIII, B. Hadley, D. Birkett, J. Bartlett, B. Thom, B. P. Harold, A. Bolton, R. France, D. A. Chamberlain (stroke), J. Watson (cox).

Results :

JUNE	4	5	6
DIVISION 1			
St. Thomas's I			
St. Bartholomew's I			
Guy's I			
St. Thomas's II			
The London I			
Middlesex I			
St. Bartholomew's II ...			
Westminster I			

DIVISION 2			
St. Mary's I			
St. Thomas's III			
St. Bartholomew's III ...			
The London II			
St. George's I			
London School of Economics			
Guy's II			
London III			
St. Bartholomew's IV ...			

WILLESDEN REGATTA

Maiden IV. Our crew had a good start, and were leading Hammersmith Town R.C. by half a length at the half-way buoy, but were unable to maintain this lead being overtaken in the last 200 yards, to lose by 1¼ lengths.

Crew : R. Madley, W. R. Gray, P. Weaver, G. S. Martinez (stroke), A. Padfield (cox).

Junior Sculls. C. M. Dale beat M. L. Hicken (Lewsbury R.C.) by 5 lengths. But he lost to J. Hopkins (Sons of Thames R.C.) by 2 lengths in the final.

CHISWICK REGATTA

Junior - Senior IV. In their first race in a coxless IV the crew did well to beat Mortlake R.C. by 1¼ lengths. Following a poor start the crew settled down, and were under rating Mortlake all the time as they steadily drew level. In the last 300 yards the Hospital drew away.

In the second round our IV started poorly from the stake boat and were soon 2 lengths down. They gained a little on their opponents over the latter

half of the course, but were beaten by 1¼ lengths by the Westminster Bank R.C., who went on to win the final.

Crew : D. King (bow and steers), E. J. M. Makin, J. J. D. Bartlett, J. M. Besser (stroke).

CHESS

The Chess Club, who rarely report their progress, have completed their third year in the top league of the University chess clubs. A good win was scored against University College, and London Hospital was also beaten ; so, despite four losses, the Hospital team will meet the strongest opposition again next season.

There is renewed chess activity in Charterhouse Square, but it remains difficult to find players sufficiently strong for the eight board teams. Any aspirants to the Hospital team are requested to contact the secretary. A lightning tournament was held in January, and several previously unknown players enjoyed the evening, though the regular members of the team won the top places.

In the six board Pugh Cup knockout competition, the Hospital beat the London School of Economics in the first round, but have not yet played the second round. In the inter-hospital cup, Guy's, the holders, were beaten in the first round, but then Bart's lost to U.C.H., although University College, of which U.C.H. forms a part, had previously been beaten over eight boards.

The enjoyable home and away fixtures with Bromley Chess Club were continued, but the France Cup, lost three years ago, has yet to be regained.

A. D. R. Goodliffe reached the semi-final in the individual championship of the University for the second successive year.

The players this year have included : N. E. Winstone, J. M. Laurent, A. D. R. Goodliffe, A. M. Gould, R. I. Harrison, C. Allen, T. Hill, M. W. Sleight, D. Rosborough, R. France, and L. Thirkildsen.

SAILING

ANNUAL GENERAL MEETING

At the Annual General Meeting of the Sailing Club, held on the 13th May, the following officers were elected :—

Commodore, Mr. Frankis T. Evans.
Vice-Commodores, Mr. J. Cambrook, Dr. J. Coulson.
Rear-Commodore, Mr. A. Alment.
Secretary, J. J. Misiewicz.
Asst. Secretary, M. W. Bradbury.
Charterhouse Secretary, D. M. Welch.
Brent Secretary, R. M. Ridsdill-Smith.

SHERREN CUP

The thirteen member hospitals of United Hospitals Sailing Club compete annually during Whitsun for this trophy, which Bart's has held for the past two years.

The heats took place on Saturday, when after a bad start, the Bart's crew improved their position to finish second, thus qualifying for the final.

The final was held on Whit Monday just after high water, with a moderate S.E. breeze. A long course of about 10 miles had been set : down the Crouch to Holliwell Buoy, then round the Potton Buoy high up the Roach, back to Red Wand and home.

Bart's, sailing in *Amber*, started in the windward position and reached the Holliwell Buoy, close behind Guy's, with the London boat lying third. As the boats crossed into the mouth of the Roach the wind slackened, while the tide, ebbing fast, kept us close inshore. The tail of the fleet closed with the leaders and positions changed several times as tacking began. Guy's, still in the lead, chose the west shore, an experiment that paid handsomely, as they had built up a good lead by the time the remaining boats entered the Roach ; Bart's was lying fourth at that stage. Soon, however, the third crew cut things too fine in cheating the tide, and ran aground, letting our boat through. Bart's gained slowly and eventually overtook the London boat.

In Potton Reach we were lying a close second, and soon halved the distance by hoisting a spinnaker before Guy's recognised the advantage. As the Potton Buoy was rounded, only a few feet of water separated the two boats. Guy's stood to windward and into the now favourable ebb, but Bart's went about immediately and, getting a clear wind sailed into the lead which they held until the finish. Helmsman : H. V. Blake. Crew : Miss A. Thomas, M. Bradbury.

SWIMMING

NURSES SWIMMING GALA

A damp but enthusiastic group of spectators gave vociferous support to their colleagues competing in the Bart's Nurses Swimming Gala held on June 12 at the Y.W.C.A. Baths, Great Russell Street.

Organized by the Nurses Swimming Club, this anual event produced some exciting finishes, and several good times were recorded. Especially notable was the performance of Miss E. A. Bennett who scored victories in the free style, back stroke, and obstacle races — this last was perhaps her finest achievement, as anyone who has swum 20 yards clad in pyjamas while carrying a lighted candle will appreciate.

Miss M. J. Hargreaves won the diving contest. The two relay races were closely contested, Bart's Smithfield beat Bart's Hill End by a touch, and the Second Year Nurses just got home first in the inter-year race.

The prizes were presented by Miss Keeling — the Swimming Cup going to Miss Bennett, whose performance in this, her first year, augurs well for the future of the club.

We wish the club success in the Inter-Hospitals Cup to be held later in the year.

BOOK REVIEWS

Learning hath gained most by those books which the printers have lost.—FULLER.

PHYSICAL MEASURES IN THE TREATMENT OF POLIOMYELITIS *by* R. J. S. Reynolds. Faber, 12s. 6d.

This book, though written primarily for Physiotherapists, should be of interest to anyone dealing with patients suffering from Polyiomyelitis.

The Author describes in detail the complete régime employed at Queen Mary's Hospital, Carshalton. The book is divided into sections, each stage being described with great care and accurate detail. For example, the first section deals with methods of positioning, types of bed and the application of hot pack.

Under 'Re-education' the Author explains the importance of maintaining full flexibility in all soft structures and the essential fact that voluntary movement is only possible if proprioreception is present, and that movement must be built up through sensation.

Great stress is laid on precision and re-education during the first few months while recovery can still be hoped for, and this is described in considerable detail. The author also explains the early walking which is taught to stimulate normal gait patterns. Later the emphasis is more on functional activity and trick movements when no further recovery can be hoped for.

Altogether this is a most careful and reasoned exposition of what has proved an efficient method of treatment.

T. WAREHAM.

ATOMS AND THE UNIVERSE *by* G. O. Jones, J. Rotblat and G. J. Whitrow. Published by Eyre & Spottiswoode. Pp. 254. Price 25s.

This is a popular book in the best sense of the term. It succeeds admirably in its task of making understandable to the intelligent reader untrained in physics, the recent discoveries which have formed the basis of the great advances leading to the 'atom age.'

The relation of physics to other scientific disciplines is discussed, and a brief account follows of experimental method, the only method by which progress can be made. The universe is considered from within outwards, from the structure of the atom to the structure of matter, to that of the solar system and finally to that of the whole universe. This plan, although varying considerably from the history of physical discovery, enables a coherent picture to be built up. The theory of atomic energy becomes comprehensible, quantum mechanics are seen as a logical scientific tool.

There can be nothing but praise for this book which could, with advantage, be required reading in all schools. If appreciation of literature is rightly considered to be part of everyone's education, surely some understanding of the structure of the world we live in is also necessary.

HUTCHINSON'S FOOD AND THE PRINCIPLES OF DIETETICS revised *by* V. H. Mottram, M.A., and George Graham, M.D., F.R.C.P. 11th edition, London, Edward Arnold (Publishers) Ltd. 40s., 630 pages.

The authors have completed what they say will be their last revision of this classic text in the field of nutrition and diet therapy. Much of the book has been re-written, notably the sections concerning proteins, minerals and food processing; and, in the clinical sections, the régimes advocated for the treatment of steatorrhoea, obesity and liver and renal diseases. Nevertheless the needs of the student of the history of nutrition and therapeutic dietetics are well provided for; there can be few texts which still include descriptions of so many of the earlier modes of dietary treatment.

The student will find this book invaluable as a reference text on methods of food processing and the distribution of nutrients in foods, particularly those from recondite sources.

MISS M. FURNIVALL.

SIR JOHN BLAND-SUTTON, 1855-1936 *by* W. R. Bett. E. & S. Livingstone Ltd. Pp. VIII, 100, + 7 plates. 20s.

An autobiography of Sir John Bland-Sutton was published in 1930 as *The Story of a Surgeon*, but in common with most autobiographies, it is unsatisfactory as a record of the author's achievements. It presents a discursive account that disappoints those in search of a pen portrait of the man, and a re-evalution of Bland-Sutton twenty years after his death is a welcome addition to medical biography.

The son of a market gardener and butcher, Bland-Sutton entered the Middlesex in 1877, and occupied numerous posts on the staff, finally becoming consulting surgeon in 1920. He was also associated with the Chelsea Hospital, and occupied numerous positions of honour, receiving many distinctions from universities and professional bodies. A keen naturalist from an early age, Bland-Sutton travelled extensively to indulge his wide interests, and wrote effusively of his experiences. His best-known book, *Tumours, innocent and malignant*, went into seven editions between 1893 and 1922.

Bland-Sutton worked hard to achieve his ends, and reached the peak of his profession by sheer force of character coupled with a tenacity of purpose. A brilliant lecturer and writer, he became prominent as a gynaecologist and surgeon, and financial success rewarded his efforts. At the back of his house in Brook Street he erected a replica of the Apodama at Susa (Persia), where he entertained lavishly.

The writings of Dr. Bett are well-known to Bart's men, for they occupy a conspicuous proportion of our *Recent Papers*, and this latest contribution from his pen will be welcomed as a valuable contribution to medical history. It is produced by the publishers in their well-known series of biographies which is attractive both in format and content.

J. L. THORNTON.

A SHORT PRACTICE OF SURGERY, 10th edition, *by* Hamilton Bailey and R. J. McNeill Love. Published by H. K. Lewis & Co. Ltd. Pp. 1126. Price £4 4s. 0d.

This familiar textbook has undergone a change in shape tending to reduce its stoutness. Unfortunately there is an associated increase in price; this edition costs over one-third more than the previous edition. Another departure from tradition is in the co-operation of specialist authors, an indication that the field of general surgery has become so vast that it cannot be encompassed by any one man. The best feature of this book, in common with previous editions, is the high standard of the illustrations.

WHYS AND WHEREFORES IN TUBERCULOSIS *by* George Day. Published by the N.A.P.T. Pp. 44. 3s. 6d.

Written by an old Bart's man, who has had many years of experience looking after patients suffering from Tuberculosis, this booklet is intended primarily for the layman. For this purpose it is entirely suited, being written in a simple conversational style which makes it easy to read and which should present no difficulties to those who are unfamiliar with medical terminology.

This book could also be read with advantage by those who are medically qualified; they will almost certainly be entertained by the author's sense of humour and choice of phrase.

MEDICAL TERMS, 2nd edition, *by* Ffrangcon Roberts. Published by Heinemann. Pp. 88. Price 6s.

A fascinating little book which gives the derivations of most common medical terms. The principles of etymology are outlined in the first part. The second part consists of lists of Latin and Greek words arranged according to the ideas represented, as in a thesaurus, followed by a literal translation and the medical word which incorporates it. A full index increases its value.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LX **AUGUST 1956** **No. 8**

EDITORIAL

THE MOST famous criminal court in the English-speaking world stands but a few hundred yards from our Hospital. The Old Bailey, or as it is officially known, The Central Criminal Court, has provided the setting for some of the most famous trials in history and fiction.

Although recognised as a valuable training ground for aspiring young barristers seeking to observe the practice of Criminal Law, it is hardly considered a place which medical students might attend with advantage. One hundred years ago William Palmer, an old Bart's man, was tried at the Old Bailey for murder What made the trial especially interesting to the student of Medical Jurisprudence was the importance placed on the medical evidence, which was called by both sides in abundance. Were the students from St. Bartholomew's Hospital among those that came day after day? If so, we hope they did not, in later life, emulate many of the expert witnesses. Professor John Glaister in his account of the trial, considers some of the more ludicrous attempts at differential diagnosis, and quotes the Attorney General's remarks concerning the debasement of their profession by some of the medical witnesses. If we include the criminal clumsiness and ineptitude at the post-mortem preceding the trial, a strong case can be made against the practitioners of that time.

Yet, even without any suggestion of bias, it is difficult for the modern doctor to be faced with the complicated legal procedure and forceful cross-examination without faltering, or unwittingly contradicting himself. Another difficulty facing a medical man in court is that all his descriptions and opinions must be couched in simple English. Those who restrict themselves to medical writing and discussion will find they are at a disadvantage when forced to give concise accounts to the layman. To overcome this difficulty it is necessary for the student and young doctor to train himself in both the technical aspects of the relation of the law to medicine, and fluency in English. The first can be obtained from text-books, lectures and attendance at cases where medical evidence is an important feature; the second can only be gained by practice in writing and speaking.

This *Journal* has always welcomed any literary efforts by students and the newly qualified. In order to encourage further writing, the Publications Committee, as announced in the last issue, are offering two literary prizes; one for the best scientific contribution, and the other for the best non-scientific contribution published in the *Journal* during the year 1956. Full particulars appear on another page. We hope that these prizes will increase the number of contributions from a relatively silent group, and will thus help to raise the standard of writing among the younger members of the profession. Let not the scorn of a Judge be poured upon the head of a medical witness who was a member of this College.

Registrar's Laboratories.

Before the war it was the practice for the Chief Assistants on each firm to carry out several of the pathological investigations which were required. At present the Pathology Department is burdened with the scores of specimens that are sent up each day from the wards. Thus the Registrars have, to a great extent, left the pathology labs. on each floor of the George V block to the sole use of students.

On the ground floor of the surgical block, the pathology laboratory has been divided into two, by a partition. The half allotted to students, although somewhat curtailed in space, has been improved by the newly painted walls. This lightens considerably what was one of the more dull rooms in the block. None of the student amenities have been sacrificed, a new hand basin and a blackboard have been introduced. Although the partitioning wall is said to be soundproof, dressers might be well advised to be a little more guarded in their speech.

The purpose of this renovation is to furnish the Registrars with a laboratory for research. We welcome this step, for there are many problems which can best be investigated by those with a clinical bias. It is to be hoped that the students on the firm will be allowed to take an interest in the problems which will be studied, and perhaps thereby be able to gain an insight into the rewards, as well as the pitfalls, of research.

American Visitors

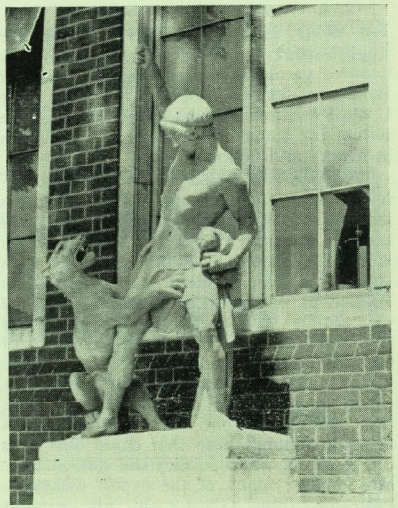
During the past year a student from the University of Pennsylvania, Robert E. Jones has been a member of the Medical College. He has been a popular guest, and we hope that he will take back pleasant memories of his stay at Bart's. He has contributed to the life of the Hospital in many ways, including writing a very informative article for the *Journal* on the comparison between English and American medical schools, ('East Side, West Side', March 1956 *Journal*). Jones' example has been followed by two other members of his university, J. Thomas Murphy III, and Joe B. Dudley, who have just spent six weeks here.

Murphy comes from the environs of Philadelphia, and went to Dartmouth College before entering medical school. He hopes to become a general surgeon. Dudley lives in Winston-Salem, North Carolina, a centre of the tobacco industry. Before going to medical school he spent four years at Davidson College, being a member of the tennis and basketball teams. He hopes to go into general practice in the Southern part of the United States.

We hope that visits of this type will become more frequent, for we widen our understanding of the United States by being able to live and study with our American contemporaries.

A Greek God ?

The statue which formerly stood on the steps of the old Biochemistry building has been moved to the northern side of Charterhouse lawn. The origin of this work of art is obscure : some think that it is a copy of a



The Statue in its present site

famous Greek statue ; others maintain that it is a product of a now defunct Bart's Sculpture Club. The subject matter gives equal cause for speculation. The male figure appears to be holding a small leopard cub, while the mother is coaxing him to return it. At the moment chosen by the sculptor the issue of the incident is still in doubt ; although from the position of the warrior's spear (no longer extant) one might predict that the cub-stealer would vanquish the mother at the expense of a few unpleasant lacerations. The theme suggests that the figure represents Bacchus, who was well known to have a weakness for leopards.

More is known of the recent history of the Group. It was brought here in 1935 by the then Dean, Sir Girling Ball, and erected in the entrance hall of the old Physiology building. There, in addition to its artistic inspiration, it served as a useful repository for coats and books. Sir Girling's affection for the statue was well demonstated on his occasional visits to the physiology department ; on such occasions he would ruthlessly sweep an assortment of bric-a-brac onto the floor from between the legs of the god. When the building was bombed the Group was moved onto the steps, where it remained until its recent re-erection.

On the weather-beaten pedestal the enigmatic letters GERICHAN challenge and possibly puzzle the inquisitive passer-by.

Congratulations

to Professor K. J. Franklin on his election as President of the British Society for Research on Aging.

to Dr. Frankis Evans who has been co-opted on to the Council of the Royal College of Surgeons to represent the branch of Anaesthetics

Ward Decoration

During July, Percivall Pott and Lawrence Wards have been closed for re-painting. The duties of the Professorial Unit were taken over by Mr. Hosford's and Mr. Naunton Morgan's firm. During August Rees Mogg and Paget will be closed, with the Surgical Unit and Mr. Naunton Morgan's firm taking over the duties. In September Waring and Abernethy will be closed and the duties will be covered by the other surgical firms.

News from Canada

On the retirement of Professor E. G. D. Murray, O.B.E., M.A., L.M.S.S.A., M.D., D.Sc., F.R.S.C., from the Chair of Bacteriology and Immunology at McGill University, (see October 1956 *Journal*), a supplementary issue of the Canadian Journal of Microbiology has been dedicated to him '*in recognition of his conuribution to science.*' The articles, which are by emminent bacteriologists throughout the world, include one from Professor L. P. Garrod.

We have received a letter from Dr. W. F. Tissington Tatlow, M.D. M.R.C.P. (Lond.) F.R.C.P. (Canada) inviting any Bart's men in Montreal to get in touch with him. His address is :

3446 Grey Avenue,
Montreal.

Dr. Tissington Taylor is an Assistant Professor of Neurology at McGill University, and a Neurologist at three Montreal hospitals.

Strychnine Evening

Despite the forbidding title the Abernethian Society played hosts to the Osler Society of London at a scintillating joint-meeting. The subject was strychnine in all its aspects, with special reference to its use by an old Bart's man, William Palmer under trying financial circumstances. Gordon Ostlere wrote a witty essay on this theme entitled 'The untimely end of an old Bart's man', which appeared in the *Journal*. Dr. M. J. Linnett, another ex-editor of the *Journal*, contributed greatly to the enjoyment of the evening with his entertaining review of the life of Palmer, which is published in this issue. The highlight of the meeting was the erudite dissertation on Palmer's trial by Professor Glaister. He congratulated the societies on their choice of subject, and told the audience that he was pleased to leave his 'highland fastness' for an opportunity of discussing this landmark in the history of Medical Jurisprudence. We are very pleased to publish his address which appears on another page.

Dr. Quilliam from Charterhouse Square briefly reviewed the pharmacology of strychnine. The botany and ecology of *nux vomica* and the closely related curare were expertly presented. Dr. Keith Simpson stressed the importance of proper examination and storage of organs at autopsy, citing the Palmer case as an example of how not to do it. Mr. Ernest Lustgarten, the well known legal journalist, stated that his primary object in attending was to venerate Professor Glaister. He proceeded to regale the audience with a series of very funny medico-legal anecdotes.

The discussion was greatly assisted by the participation of Professor John Fulton, who, after a brilliant career as a physiologist, now holds the Chair of Medical History at Yale. He is an honorary member of the Abernethian Society.

While quite understanding any reticence the students present might feel, we were sorry that they did not take a more active part in the meeting, if only to have asked intelligent questions. It is this apathetic attitude on the part of members of the Abernethian Society which earned the censure of this *Journal* last October.

The secretary of the Osler Society, Dr. W. R. Bett, himself a Bart's man, brought the thoroughly enjoyable and valuable evening to an end.

The Boilers

The great constructional operations in progress at Charterhouse require ingenuity in a field which is often overshadowed by the more glamorous aspect of building; namely, plumbing. Large quantities of hot water and, of course, hibernal central heating are required by physicists and physiologists. To meet this demand plans are in hand to expand the boiler department which lies under college hall. This department already has the appearance of a small modern factory. The four burners are fed automatically with coal by 'worms', and the traditional bellows has been replaced by a compressed air system. This feeding is all controlled by an intricate network of thermostats which lines the walls and mystifies the uninitiated. It is possible that this already somewhat futuristic system may soon be declared obsolete and be replaced by an oil-burning heating unit.

A recent dispatch from the Chief Engineer concerns a final stage in the local Emancipation of Women. The heating pipes in the rooms on the sixth floor are to be replaced by real radiators similar to those in the male apartments.

Wix Essay Prize

The subject for next year's Wix Essay will be 'The Life and Works of Andrew Boorde.' Andrew Boorde was a Rennaissance Physician; he was born two years before the discovery of America and died in 1594. He was also Bishop of Chichester and a Carthusian monk. His surviving works include a Breviary of Health and a Compendyous Regimen.

Journal Staff

Mr. J. Price has been elected Assistant Editor.

The Refectory

The College Refectory was closed on July 16th in order that certain repairs could be carried out. These were made necessary by the Hygiene Act which came into force July 1st this year. Under this Act all materials likely to retain food, such as wood, are not allowed to be used in kitchen fittings. Therefore new stainless steel sinks were installed.

Although the Refectory is run and maintained by the College, the kitchen is controlled by the Hospital. It was felt by the authorities that, though the kitchens were by no means unhygienic, any catering in this Hospital ought to be undertaken with the most modern equipment available.

CANDID CAMERA

And there goes Sister.

LITERARY PRIZE

THE Publications Committee have decided to award two literary prizes. One will be for the best scientific contribution, and the other for the best non-scientific contribution written by a student or subscriber who has been qualified not longer than ten years, which has been published in the *Journal* during 1956. Each prize will be £5, and will be awarded by Christmas, 1956 and be announced in the January 1957 *Journal*. Additional smaller prizes will be awarded for poems, drawings or photographs published during 1956, if a sufficiently high standard is reached.

The object of these prizes is to encourage writing by students and those recently qualified.

ANNOUNCEMENTS

Births

BROOKER. On June 9th at Ramsgate Hospital, to Kathleen and Dr. A. E. W. Brooker, a son (Stephen Edward).

FULLER. On June 28th at Thorney, to Ruth (*née* Shaw) and Dr. J. D. Fuller, a daughter.

HAVARD. On June 22nd to Mhair (*née* Both) and Dr. C. W. H. Havard, a son (Mark William Kenneth).

HIRST. On June 8th at Croydon, to Pauline (*née* Briggs) and Dr. Geoffrey Hirst, a son.

KELLY. On April 30th at Weston-super-Mare, to Diana (*née* Murray-Shirreff) and Dr. W. Pierce Kelly, a daughter.

ORPWOOD. On May 9th at Banstead, to Alison and Dr. R. M. Orpwood, a son (Stephen Glyn).

POWELL. On June 15th at Salisbury, to Janet (*née* Strand) and Dr. F. J. Powell, a son.

Engagements

CAIRNS—CRIDLAN. The engagement is announced between Dr. D. A. O. Cairns and Miss V. A. Cridlan.

MCKINNA—PEARCE. The engagement is announced between Mr. Alan McKinna and Miss Marilyn Pearce.

TAYLOR—LOCKE. The engagement is announced between Dr. Murray George Taylor and Miss K. M. Locke.

Deaths

ARCHER. On June 17th at Wareham, Dorset, Charles William Archer, F.R.C.S., J.P., aged 71. Qualified 1909.

CHEESE. On June 10th at Stourbridge, Frederick William Cheese, M.D., aged 80. Qualified 1902.

COOPER. On April 30th at sea, William Fortescue Cooper, M.B., B.Chir., D.P.H., Colonel, I.M.S. retd., aged 54. Qualified 1926.

DILLON. On June 11th at Blackheath, London, John Desmond Dillon, M.B.E., M.R.C.S., L.R.C.P., aged 55. Qualified 1925.

DRUITT. On June 11th, Arthur Edward Druitt, M.R.C.S., L.R.C.P., of Sway, Hants., late of Nigeria, aged 85. Qualified 1896.

FOX On June 24th, George Raymond Fox, F.R.C.S., J.P., of Rockrose, Downderry, Cornwall, aged 86. Qualified 1894.

KERR. On May 31st at Cannes, Roy Russell Kerr of Nether Alderly, Cheshire.

MIDDLETON. On July 9th, suddenly at Cambridge, Hugh Middleton, M.A., M.B., B.Chir. Qualified 1948.

CALENDAR

Sat.	August	4	Dr. G. Bourne and Mr. J. B. Hume on duty. Tennis: v. Stonyhurst Wanderers (H)
Wed.	August	8	Tennis: Mixed Match v. Guy's Hospital (A)
Sat.	August	11	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Tennis: v. St. George's Hospital (A)
Wed.	August	15	Golf: v. The London Hospital (A)
Sat.	August	18	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Tennis: v. London House (H)
Sun.	August	19	Cricket: v. Bromley (A)
Wed.	August	22	Golf: v. St. Thomas's Hospital (H)
Sat.	August	25	Dr. E. R. Cullinan and Surgical Professorial Unit on duty. Tennis: v. Middlesex Hospital (A)
Wed.	August	29	Golf: v. St. George's Hospital (A)

WILLIAM PALMER

by M. J. LINNETT

ONE HUNDRED years ago, on June 14th, 1886, died William Palmer, a famous graduate of this Medical College. His interest in the less reputable aspects of Toxicology is not fully reflected by the events which led up to his eventual appearance at the Old Bailey, and a short survey of his life and works may be instructive.

Palmer was born in 1824, fourth child and second son of a wealthy timber merchant in Rugeley, Staffordshire. The father, Joseph Palmer, had seven children of whom five were boys, and started life as a working sawyer. He was described in a contemporary sheet as 'a coarse, unscrupulous, insolent, pushing fellow' who accumulated such business that when he eventually died of an apoplectic fit, he left the considerable fortune of £70,000, which was divided into shares of £7,000 for each of the children, with the residue, some £21,000 to his widow.

William was educated at the local Grammar School where we hear various reports of his character—on the one hand he showed 'great aimiability and kindness' and on the other he had 'a sly and underhand manner.' His clergyman brother Thomas, in a long letter to the Lord Chief Justice after his trial, claims that 'no man was gentler of heart—his charity was inexhaustible (which, one might add, was helped by his settled principle of avoiding payment of his debts)—to him the wanderer resorted in his afflictions : by him the poor and homeless were fed and comforted.'

On leaving school he joined the firm of Evans & Sons, wholesale Druggists in Liverpool, where shortly afterwards it was noticed that customers' remittances were not reaching the coffers of the firm at their usual rate. Careful investigation soon revealed the culprit, and Palmer left his first employment in a hurry.

Michael Joseph Linnett

Qualified from Bart's in 1949, where he had been editor of the *Journal* in 1948. He was Demonstrator in the Department of Applied Pharmacology and is now Junior Registrar on Dr. Bodley Scott's firm.

He was next apprenticed at the age of 18 to Mr. Tylecote, a surgeon of Heywood, near Rugeley, with whom he remained for just over four years. Here, too, he outstayed his welcome. There were a series of petty financial swindles practised on Tylecote's patients, and a number of seductions, culminating in the occasion when he was discovered carousing at a low level in a nearby town having carried off one of the village girls at a time when he was supposed to be at work in the practice.

With more generosity than wisdom, Tylecote after dismissing him, got him a place as a pupil at Stafford Infirmary, and it was presumably at this time that his interest in Toxicology started, since he is chiefly remembered for conduct causing the Pharmacy to be forbidden to all pupils during his time there.

He then went to London to learn his medicine partly from a crammer and partly in the wards of this Hospital. He lodged in Bartholomew Close, and lived the gay life, holding champagne breakfasts and squandering money lavishly. He early attracted the attention of Sir James Paget, the first Warden of the Medical College, who, in his entry book of students for the session of 1843-44, now at the Royal College of Surgeons, writes against his name :—

> 'Idle, dissolute, extravagant, vulgar and stupid. He scarcely practiced, and was chiefly engaged on the turf. He was hung for the murder of a friend.'

To add emphasis to this point, he later writes in the Hospital Reports :—

> 'He was an idle dissipated student, cursed with more money than he had the wisdom or the virtue to use well.'

He qualified M.R.C.S., in August 1846 at his second attempt and was appointed House Surgeon to Mr. Stanley at Bart's in September. However, next month he left to start a general practice in Rugeley and later took as his colleague Benjamin Thirlby, who was better businessman than doctor, and who eventually took over most of the

practice as Palmer's racing committments left him less and less time for medicine. The extent of his betting and his speculations had already begun to cause Palmer some financial embarrassment, and he was by this time resorting fairly frequently to the money lenders and bill discounters.

He therefore spent his first year in practice paying court to Anne, the illegitimate daughter of Col. Brooks, Indian Army (retired) by a Mrs. Thornton, who lived in Stafford. Anne, it is said, was a clever, amiable, pretty, accomplished and loveable girl, having moreover a clear income of £200 a year besides the £700 her mother gave her on her marriage in 1847. This modest fortune however was hers only for life, and in 1854 Palmer thought it wise to insure her life for £13,000. She bore Palmer 5 children, of whom all but the first died tragically of convulsions early in infancy.

Shortly after his marriage, Palmer invited his mother-in-law to lend him some money, and to come and live with her daughter at his house. Initially she refused both invitations, but later, fearing that Palmer's wrath might be visited on her daughter, she sent him £20 and consented to go and live with them, remarking as she left her home that she was afraid she would not live a fortnight in his house. She had, however, overestimated her survival time by ten days —and on her death, her money went to her daughter.

Meanwhile, Palmer's debts grew pressing. In 1854, shortly after her life had been insured for £13,000, his wife was suddenly taken ill. Palmer was assiduous in his attentions to her, but it was noted that as often as he took her food, the poor lady became worse and vomited. Five days after the onset of the illness, Dr. Bamford, an octogenarian local practitioner, was sent for and told that it was a case of 'English Cholera'—though the symptoms consisted mainly of constipation, nausea and vomiting. Bamford prescribed pills of calomel and colocynth, with an opening draught, but notwithstanding this heroic treatment, the patient died; and at her husband's request, Bamford signed the death certificate as 'English Cholera.' The other signatories were Dr. Knight, picturesquely described as 'one of the antiquities of Stafford,' 82 and stonedeaf, and Palmer's assistant, Benjamin Thirlby. At exhumation a year or two later, quantities of antimony were found in the remains. Palmer was greatly distressed at his wife's funeral, and said he should not last long after her. However, it appears that he found his consolations, for nine months later his maidservant, Elizabeth Tharm, gave birth to an illegitimate child who was undoubtedly his.

The insurance companies demurred at first when asked to pay up £13,000 so soon after payment of the first premium, but as the death certificate was signed by three doctors, they eventually gave in. However when, soon afterwards Palmer tried to insure the life of his brother Walter, a drunkard Corn factor, for £82,000, they drew the line. The sum realised on his wife's death had been swallowed up by immediate liabilities, and his debts were again mounting. The only office which would touch Walter's life was only good for £10,000; and shortly after this policy had been effected, Palmer kindly set his brother up in apartments with an old scoundrel named Wyrenden, whose chief function seems to have been to keep his charge in gin, of which Walter consumed rather more than a quart a day. Shortly after his surgeon brother was known to have purchased rather a large quantity of Prussic Acid, Walter died suddenly of an apoplectic fit. His brother was greatly distressed, and caused him to be hermetically sealed in a lead coffin before his relations could see him. In a consoling letter to Mrs. Walter, he wrote :—

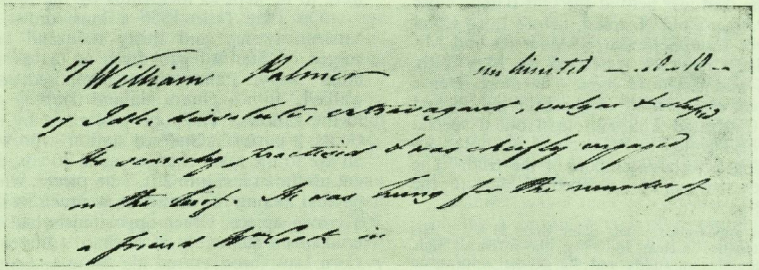
'Ah poor fellow, I often think of him, and only wish I could have done more for him while he was alive; and I assure you I did a very, very great deal for him—perhaps a great deal more than you are aware of.'

But despite all this brotherly care and attention, the insurance company was suspicious, and adamantly refused to pay up. The next person whose future Palmer tried to provide for was George Bate, described by him in his proposal to the insurance company as 'a gentleman and Esquire, with a famous cellar of wine.' The detective sent down by the company to investigate found the Esquire hoeing turnips as a change from his usual job of cleaning out Palmer's stables.

Palmer's other method of raising money was through a solicitor and money lender in London named Pratt. It is the usual story of progressive debts and accumulating interest — in this case at the extraordinary rate of 60% and most of Palmer's bills were

raised on forged securities of his mother's. By November 1955, Pratt was pressing him for payment of eight bills totalling £12,500, so that when he attended the Shrewsbury race meeting with his friend and betting companion, John Cook, he was a greatly harassed man.

John Parsons Cook was a young solicitor who, like Palmer, had forsaken his profession for the turf. He was hale and hearty, but a trifle hypochondriacal, and for some time he had been convinced, despite his doctor's protests, that he had contracted Syphilis, for which he had in the past taken



The extract from Sir James Paget's entry book

Mercury. He was quite well-off and owned several racehorses, one of which, Polestar, won at Shrewsbury on November 14th 1855. Cook, they say, was so surprised that he was unable to speak for three minutes. As a result of bets in this race, he collected between £700 and £800 on the course, and stood to gain over £1,000 at Tattersall's when he went up to London with his betting book.

That evening Cook held a drinking party in his rooms at the Raven hotel, during which his friend Palmer was observed by a race-going lady, Mrs. Brooks, on the landing outside Cook's room, holding a small glass with some watery fluid in it up to the light and staring at it intently. He then went back into the room. Shortly afterwards Cook was exhorted by Palmer to drink up his brandy and water, which he did, complaining immediately afterwards of a burning sensation in his throat. Palmer sipped what was left in the glass and said there was nothing in it. Cook soon felt very ill, left the room, and was violently sick, remarking later to a bookie friend that Palmer had poisoned him.

The series of events which followed are analysed in detail elsewhere in this issue. poisoned him.

However, next day he was sufficiently recovered of his illness and his suspicions to accompany Palmer to Rugeley, where he took a room at the Talbot Arms, opposite Palmer's house, and retired to bed forthwith.

Cook was overtaken by a series of symptoms, a return of the vomitting preceding two attacks of convulsions, the last of which, on November 20th, resulted in his death; and there was again a marked connexion between the exacerbations of illness and Palmer's attentions.

When Mr. Stevens, the dead man's stepfather, arrived in Rugeley, several circumstances, including the disappearance of Cook's betting book and all the money he had won at Shrewsbury, led him to request a post-mortem examination. This was performed on November 26th, in the presence of numerous people, including Palmer himself, and seems to have been a most ill-conducted affair. While the stomach was being opened, Palmer gave the pathologist a push that caused the contents of the stomach to be spilt, remarking to old Dr. Bamford 'They won't hang us yet!' The viscera were placed in a jar and sealed, and during the proceedings the jar mysteriously moved to the door, and its seal was broken. and finally, Palmer saw the boy who was to drive Mr. Stevens and the jar to the station, and tried to bribe him with ten pounds to upset the carriage en route.

Notwithstanding these vicissitudes, the jar eventuallly reached Dr. Alfred Swaine Taylor of Guy's, a leading authority on Medical Jurisprudence of his day, who sent his report to the Rugeley Coroner. This report was opened before delivery by the Postmaster at Rugeley, and its contents reported to Palmer, who had offered a substantial reward for this service. In addition he sent two hampers of game to the coroner, and even sent him a letter saying he knew of Taylor's report, and suggesting the line the inquest might take, but in spite of all his efforts, a verdict of murder was returned, and Palmer was arrested.

The trial was held at the Old Bailey, close by Palmer's old Hospital, before Lord Chief Justice Campbell, Baron Alderson and Mr. Justice Cresswell, it started on May 14th, 1886 and lasted 12 days. The most intense interest was aroused amongst the public, and the Illustrated Times brought out a special edition devoted to Palmer and his notes, including a verbatim report of the trial. The Times newspaper described Palmer in the dock as. . . . .

'In appearance much older than 31 . . . .His countenance is clear and open, the forehead high, the complexion ruddy and the general impression . . . rather favourable than otherwise, although his features are of a common and somewhat mean cast. There is certainly nothing to indicate . . . the presence of either ferocity or cunning.'

During the trial a large number of medical witnesses were called from the most eminent medical and medico-legal men of the day. Much fierce argument was caused by Dr. Taylor's failure to demonstrate the presence of strychnine in the specimens sent him from Rugeley, although there can be little doubt that Cook's symptom's were compatible with strychnine poisoning. The learned doctors gave a variety of alternative diagnoses, including Idiopathic Tetanus, Epilepsy, Angina Pectoris, Arachnitis and Syphilis. Mr. Serjeant Shee, whose eloquent, not to say logorrheic, defence of Palmer excelled even Sergeant Buzfuz in the trial of Mr. Pickwick, gave in an eight hour speech a masterly but extraordinary review of the symptoms of tetany, and instructed the jury with all the passion at his command.

'You cannot find him guilty. You dare not find him guilty on supposition. The country will not stand by you if you believe it to be true. You will be impeached before the whole world if you say that it is true. I believe in my conscience it is false, because, consistently with the laws that govern human nature, it cannot be true."

However, the jury were unmoved by those cosmic threats, and took a less confident view of human nature: after an absence of one and a half hours they returned a verdict of guilty, and Palmer was sentenced to be returned to Stafford and there publicly hanged as an example to his fellows.

The prisoner waited calmly for his execution and refused to admit his guilt, although in an interview with a clergyman he is reported to have half admitted being concerned in the death of his wife and brother in addition. Mr. Serjeant Shee sent him a present of a 'beautiful bible, together with a most affecting note,' which, said the papers, were to be kept as mementos by the family.

On June 14th, 1856 a huge crowd of between twenty and thirty thousand converged on Stafford gaol from as far as 100 miles away. Palmer was composed, and walked 'with a jaunty air and tripping gait to the gallows.' The rope was made by one Coats, a porter at Stafford station, who with an eye to the main chance, made 30 yds, and cut up the excess into 2 ft. 3 in. pieces, which he sold among the crowd at as much as half a crown apiece. Other opportunists had got hold of an engraving of Richard Cobden of Corn Law fame, erased his name and inserted that of Palmer, and were selling copies at sixpence a time.

The body was allowed to hang 'for the accustomed time' and was then taken down, when Mr. Bridges of Liverpool immediately took a cast of the head, which he said, was phrenologically decidedly bad.

So died William Palmer, amidst the detestation and execration of his fellows. The burgesses of Rugeley were so perturbed by the notoriety which had fallen about their unhappy heads that they petitioned the Prime Minister that the name of their town be changed forthwith. The Prime Minister replied that they might certainly make the change, providing they did him the honour of renaming it after him. And the only reason why Rugeley town is Rugeley still, is that the Prime Minister at that time happened to be Lord Palmerston.

ACKNOWLEDGEMENTS

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THE TRIAL OF WILLIAM PALMER

by JOHN GLAISTER

THIS IS a most fascinating, yet also a most complicated subject. In the light of present-day medico-legal advances, however, many of the outstanding controversial issues raised at the time of the Palmer trial seem to have simplified themselves. What then was apparently veiled in some mystery, seems to have shed its cloak and revealed itself in much simpler garb.

In 1856, Dr. William Palmer, at the age of thirty-one was sentenced to death for the murder of John Parsons Cook, a young man of twenty-eight.

Money was the object.

The meeting of Palmer and his victim arose from a common interest—the race course.

Palmer, very involved financially, had forged certain bills. But the principal motive attributed to the poisoning of Cook was that Palmer had actually stolen winnings due to Cook, resulting from a heavy bet which Cook had placed on his horse, Polestar.

This was the background of the case.

The trial will endure as a most remarkable one, both in the annals of jurisprudence and forensic medicine.

Sir James Stephen, in his authoritative work, *History of the Criminal Law*, says that he attended this trial, and that it made an impression upon him which the subsequent experience of thirty-four years had only confirmed and strengthened. He considered that the trial as a whole was one of the greatest trials in the history of English Law.

John Glaister

Born in 1892. Qualified from the University of Glasgow in 1916. He obtained an M.D. with honours in 1925, and a D.Sc. in 1927. Professor Glaister is a Barrister-at-Law of the Inner Temple, and a Justice of the Peace of the City of Glasgow. Between 1928 and 1932 he was Professor of Forensic Medicine at the University of Egypt. He has been elected a Fellow of the Royal Society of Edinburgh, and a Fellow of the Royal Faculty of Physicians and Surgeons, Glasgow. He is Regius Professor of Forensic Medicine at the University of Glasgow, and is an international authority on Medical Jurisprudence.

To say the least of it, the trial was most intricate in character. Perhaps this is most clearly reflected in the fact that three judges presided, and that the Attorney-General received assistance from no fewer than four distinguished members of the Bar.

Why did the case attract such deep and widespread interest? Why has its memory survived so long, and yet still remains fresh?

The answers are not difficult to seek. A new and deadly drug—strychnia by name—had made its debut in a murder trial. And then there was the ingenious mode of its administration. It had been given to the murdered man by the substitution of poisoned pills for innocuous ones prescribed by the patient's own doctor.

Palmer was a man of education and one having a certain degree of respectability, in part, no doubt, conferred upon him by his training at St. Bartholomew's.

At the trial, evidence clearly showed that the poison, to which death was ascribed by the medical witnesses for the prosecution, could not be detected in the victim's body.

May I now recapitulate, very briefly, some of the clinical events leading up to young Cook's death. Here was a man who, hitherto, had enjoyed good health and had never been subject to fits or convulsions.

On the evening of November 14th, while in Palmer's company, Cook first turned ill with severe vomiting, after drinking some brandy and water. From this he recovered, but on various subsequent occasions, he suffered from attacks of sickness until his death on the night of the 20th of November.

During this period of six days, Palmer was with Cook every day, and had sent him some broth which precipitated vomiting. It is of considerable importance to note that a servant, illicitly sampling this soup before giving it to Cook, also became affected with sickness.

Now on the 17th of November, Palmer called in a very elderly practitioner, Dr. Bamford, by name, to examine the patient and, on the following day, Palmer sent a letter to a medical friend of Cook's, a Dr.

Jones, asking him also to have a look at the patient.

Dr. Bamford prescribed two pills, each containing calomel, rhubarb, and a ½-grain of morphia acetate. These were taken by Cook on the nights of the 17th and the 18th of November. But on the night of the 19th, at about half-past ten, Palmer gave Cook two pills before leaving him.

About an hour and a quarter later, Cook was heard to scream.

Let us for a moment re-enact what followed in Cook's bedroom, and hear what the servant, who attended the sick man, has to say.

'As soon as I entered the room, I found him sitting up in bed . . . At that time he was sitting up and beating the bed clothes, with both hands and arms stretched out . He said, "I cannot lie down. I shall suffocate if I do! Oh, fetch Dr. Palmer!"

'His body, his hands and neck were moving then —a sort of jumping or jerking. His head was back. Sometimes he would throw back his head upon the pillow and then he would raise himself up again. This jumping and jerking was all over his body. He appeared to have great difficulty in breathing. The balls of both the eyes were much protruded. It was difficult for him to speak, he was so short of breath. He screamed two or three times while I was in the room.'

Palmer eventually arrived on the scene and prescribed for the patient, giving him a dark fluid and pills.

Touching upon the question of this treatment, the servant continues:

'When I gave it him from the spoon, his body was then jerking and jumping. He snapped at the spoon with his head and neck, and the spoon was fast between his teeth. It was difficult to get it away.'

Cook became sick. The attack lasted about half an hour. Palmer was with Cook when the servant left about three o'clock that morning. Cook was dozing, and Palmer was asleep in an arm-chair.

Later that day, Cook asked the servant whether she had seen anyone suffer such agony as he had been in.

Turning now to the fatal night, November 20th, Dr. Jones, Cook's friend, whom you will recall Palmer summoned, met old Dr. Bamford in consultation, when it was agreed that Cook should again have the morphia pills that night. Palmer said nothing to the other doctors about the illness the previous night, and instead of the pills being sent by messenger from Bamford, as was the previous practice, Palmer, on the evening of the 20th, called at Bamford's and took the pills away.

Before their administration to Cook, they had been in Palmer's possession for about three-quarters of an hour, adequate time for a substitution.

Cook, afraid of a recurrence of his illness, persuaded Dr. Jones to sleep in the same room that night. About an hour after the pills had been taken, illness commenced, and this is what Dr. Jones had to say about its clinical description.

'He suddenly started up in bed and called out, "Dr. get up; I am going to be ill; ring the bell for Mr. Palmer" . . . He asked me to rub his neck. I rubbed the back part of his neck and supported him with my arm while doing so. There was a stiffening of the muscles, a sort of hardness about the neck.'

Palmer then arrived and gave Cook two pills which he said were ammonia pills.

Dr. Jones now continues his statement.

'Directly he swallowed them, he uttered loud screams, threw himself back in the bed and was dreadfully convulsed . . . the convulsions lasted about five or ten minutes . . . All the muscular fibres were convulsed; there was a violent contraction of every muscle of the body, and a stiffening of the limbs . . . He was quite sensible . . . he died very quietly. From the time when he raised himself in bed and called to me . . . to the time when he died, would be from ten minutes to quarter of an hour.'

These are the descriptions of Cook's last two illnesses supplied to us by a lay person and a doctor respectively.

Under cross-examination, Jones added to his description of Cook's illness in the following terms:—

'In this case, the head was quite bent back by spasmodic action. The body was twisted back like a bow; the backbone was twisted back. If I had placed the body at that time upon the back on a level surface, it would have rested upon the head and heels. As his face was turned away from me, I did not observe anything immediately after, or at the time of death, about the jaw.'

To my mind, even making generous allowance for omissions by observers, due to the lack of knowledge of the clinical manifestations of strychnine poisoning, the pictures of Cook's two illnesses turned me to the definite conclusion that they were fully consistent with strychnine poisoning.

Oddly enough we have no description of Cook's facial appearance during these seizures, yet one would have expected that the contraction of the muscles at the angles

of the mouth producing the ghastly, and well recognisable, *risus sardonicus*, could hardly have escaped attention.

The procedure adopted in the medical and chemical investigation has an important bearing on this case, since the poison to which death was ascribed by the Crown witnesses was not found in Cook's body.

A picture of the trial taken from a contemporary publication

This state of affairs implied that proof had to be established to the satisfaction of the jury on other than chemical grounds, and placed a heavy load upon the medical evidence. There is, of course, no rule of law according to which the poison must be found in the body of the deceased, and his Lordship was careful to point this out to the jury, adding that all that was known respecting the poison was that strychnia was not found in that part of the body which had been analysed.

This, no doubt, referred to the stomach, the liver, the spleen, and the two kidneys, together with a small sample of blood.

The examiners did, however, find about half a grain of antimony which was recovered from the liver, the left kidney, the spleen and the blood sample. It was clearly ascertained that antimony had not been prescribed by any medical practitioner in attendance upon the deceased.

The administration of antimony would of course, readily account for the earlier bouts of sickness from which Cook suffered, and thus establish a suggestion of illness prior to the administration of strychnine which was eventually to bring the victim's life to a close.

Cook died on the 20th of November, but a post-mortem examination of his body was not undertaken until the 26th of November.

The procedure here is well worth comment, more particularly in the light of present-day routine technique.

A Dr. Harland, a physician, supervised the autopsy. A Mr. Devonshire, an undergraduate at London University, did the manual work. A Mr. Newton assisted

him, while old Dr. Bamford and, to make matters complete, our sinister friend Dr. Palmer, were in attendance.

A word or two about Newton would, in my view, be opportune at this stage. This was Newton's first experience of an autopsy. He was on intimate terms with Palmer, indeed he secretly supplied Palmer with three grains of strychnine on the night of 19th November, the night preceding Cook's death when the maid was in attendance. He was also aware of Palmer's purchase of six grains of strychnine on the day Cook died.

On the evening of 25th November, the evening prior to the autopsy, he had discussed with Palmer the fatal dose of strychnine, and whether this poison could be found in the body after death.

Could anyone have provided a better watching brief for Palmer, fortified as Newton was with two wineglassfuls of brandy before proceeding to the autopsy?

Synopsizing the findings of the post-mortem examination, Dr. Harland stated in evidence that:

'About the whole body generally there was no appearance of disease that would account for death,'

MR. HUDDLESTONE, Q.C. THE ATTORNEY-GENERAL. MR. BODKIN. MR. WELSBY. MR. EDWIN JAMES, Q.C.
THE COUNSEL FOR THE CROWN.

If strychnine had in fact been responsible for Cook's death, I do not consider these findings at all surprising. There are no typical post-mortem indications of death by this poison. The most constant appearances are engorgement of the lungs and of the vessels of the brain and spinal cord, findings commonly also encountered in cases of death from other causes.

Harland's report did, however, touch upon this matter, since he added that,

'The lungs contained much fluid blood in their posterior parts which would be accounted for by gravitation . . . the dura mater had its arteries injected with blood, but the brain appeared to be healthy.'

I feel, however, one must not overlook the possibility of misleading effects in the body created by the time lag which operated between death and the examination of the body.

Further procedural effects are noted on a close review of this post-mortem examination.

At one point in the examination, Palmer actually tried to upset the jar in which the stomach had been placed and, at a later stage in the proceedings, when this jar had been covered with a bladder, he cut slits in the covering but without succeeding in tampering with the contents.

On the other hand, Devonshire, while opening the stomach, allowed a spoonful of the contents to fall upon a chair.

Next, when Harland and Devonshire were engaged in the examination of the stomach lining, Newton suddenly turned the stomach inside out, and an additional half-teaspoonfull of contents was lost, the remainder of the contents falling into the jar. Eventually the stomach was tied up, placed in a jar, and sealed.

But added to this previous confusion, evidence was led to show that Palmer finally attempted to bribe a post boy to overturn the carriage which was conveying the specimen to its destination, so that the jar might be irretrievably broken.

On 29th November the body was re-opened, and the liver, the kidneys and the spleen removed. But it was not until *two months* after death, following exhumation, that the spinal cord was removed.

In Harland's view, the cord was normal and healthy. This was corroborated by another Crown witness.

What Dr. Swaine Taylor had to say about the stomach in the jar, when it arrived at his place, was this:

'On opening the jar we found the stomach cut open from end to end, turned inside out, with its mucous membrane lining in contact with the intestines.'

The stomach was cut in various directions, the mucous membrane was smooth and free from any contents. There was no appearance of any ligature.

A second jar was also sent. This contained some viscera and, in the midst of this, turned upside down, was a corked bottle containing some blood.

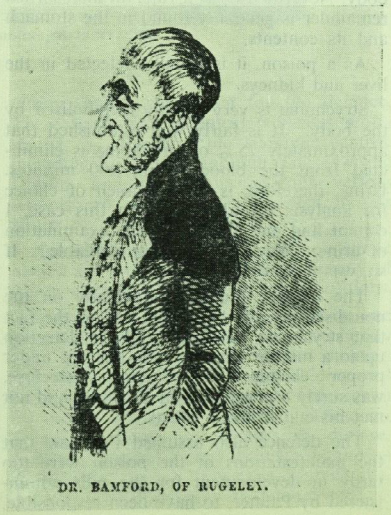
It will be fully appreciated that, viewed by present-day standards, the whole investigative procedure was grossly mismanaged. It therefore becomes impossible to express any worthwhile opinion as to whether or not strychnine was originally present in the material submitted for analysis.

This aspect of the case provides a model for the teaching of what not to do in the medico-legal investigation of poisoning cases.

Now let us consider briefly what the three major medico-legal issues in this case actually amounted to.

(1) The case for the prosecution was that Cook had been poisoned with strychnine, yet no evidence of the presence of this poison in his body could be detected as the result of analysis.

(2) The manifestations of the poisoning did not develop until about one hour after the alleged administration of the fatal dose of strychnine by Palmer. Was such a delay consistent with strychnine poisoning? And,



DR. BAMFORD, OF RUGELEY.

(3) Did death result from poisoning or from natural causes?

To account for the failure to detect strychnine, the Crown witnesses stressed the opinions that they could more safely rely on the principles of physiology and pathology than on the more crude speculation of chemistry. That deadly poisons may destroy life in such doses and in such modes of administration, that while no chemical tests might reveal their presence in the body, their use might be surely and satisfactorily indicated by the suddenness, intensity, and peculiarity, as well as by the fatal rapidity, of the symptoms which they produce.

It was pointed out that a small yet fatal dose of strychnine could sufficiently account for the negative results without resort to any other hypothesis and that, so far as the stomach was concerned, strychnine might or might not be found, according to the amount swallowed and the degree to which it had been absorbed.

This thesis, of course, is perfectly true, since strychnine is rapidly absorbed from the stomach.

There has been a considerable number of cases of death from undoubted strychnine poisoning in which competent chemists have been unable to isolate the alkaloid from the body. Nevertheless, as a rule, an unabsorbed remainder is generally found in the stomach and its contents.

As a poison, it is usually detected in the liver and kidneys.

Strychnine is very rapidly metabolised by the body. It is fairly well established that approximately 75% of strychnine is eliminated from the blood within 100 minutes. Urine, therefore, is the specimen of choice for analysis for alkaloids. In this case, I cannot find any allusion to the examination of urine. Was such material available? If so, was it overlooked?

The defence founded principally on the non-discovery of strychnine, and to the fact that strychnine was susceptible to detection up to a minute quantity. Its absence under proper chemical investigation, therefore, was surely a proof that the deceased had not met his end from its effects.

The defence also assumed the view that the manifestations of the poison were too tardy in development for the pills administered by Palmer, to have been responsible.

They also contended that certain aspects of the clinical picture were inconsistent with strychnine poisoning.

In a word, it seemed that the non-discovery of strychnine in Cook's body could be explained either on the theory of the prosecution, or the defence.

So far as the Crown evidence went, it was to the effect that no form of natural disease could explain the symptoms or the death of Cook, and that his terminal illness was wholly consistent with death by strychnine poisoning.

More than one of the defence witnesses was forced to admit that most of the signs and symptoms were not inconsistent with such poisoning. Thus if strychnine had been disclosed by analysis, the matter at issue would have been finally established.

A number of the medical witnesses for the defence, however, expressed very different views.

In the light of present-day knowledge, the mode of administration of strychnine will undoubtedly exert a strong influencing effect on the interval of time following which the symptoms will first appear.

The theory of the prosecution was, I think, a correct one, namely that pills were used and that if these were of hard composition and thus not readily soluble, it would greatly delay the action of any contained poison.

In the Palmer trial, as in many others both past and present, it is clearly seen that science does not speak the last word. Medical evidence, like any other evidence, is open to criticism and can be rebutted by opposing technical witnesses.

The law of evidence does not confer any special authority on such evidence. Its value must be assessed on the same general principals as all other forms of evidence, and such principles include the capacity, credit and weight of the witness, as in the instance of the ordinary witness.

Medical witnesses are permitted considerable latitude and may express their technical opinions freely. In this way information so obtained can be readily linked up with other important issues arising in the course of a trial.

The truth concealed in a complicated and disputed case can only be disclosed and

tested by a fair expression of different opinions on both sides.

When differences in the opinions of experts arise, as they so often do, the fact should not lead to the inference that the opinion should be written off as having no value. On the contrary, such differences, explored by capable counsel, through examination and cross-examination, and by the presiding judge, surely provide one of the best means of unearthing the truth.

Drs. Taylor and Rees performing their Analysis.

It would appear, however, that some of these observations cannot rightly apply to the medical evidence in the Palmer case, since it presented a mass of irreconcilable conflict.

Some of the comments of the Attorney-General in his closing address may conveniently be recalled.

'I cannot help saying, to me it is a scandal upon a learned, a distinguished, and a liberal profession, that men should come forward and put forward such speculations as these, perverting the facts, and drawing from them sophisticated and unwarranted conclusions with a view of deceiving a jury. I have the greatest respect for science, no man can have more; but I cannot repress my indignation and abhorrence when I see it thus perverted and prostituted to the purpose of a particular cause in a Court of Justice.'

No less than some twenty-four doctors and scientists gave evidence for the prosecution, and some fifteen for the defence. These thirty-nine technical witnesses represented a diversity of training centres, including London, Edinburgh, Glasgow and Dublin, and so I consider our various schools are adequately represented in this affair.

Among these witnesses were men whose names are well-known to science, many of whom occupied high professional positions.

Both time and inclination preclude me from describing the medical evidence in any great detail. But I should like to mention that in the attempted differential diagnosis between poison and disease, a wide menu for choice was made available. These included at least five classes of disease, namely, general convulsions, tetanus—idiopathic and traumatic—arachnitis, epilepsy, and epilepsy with tetanic compli-

cations and, last but not least, angina pectoris.

The witnesses spoke freely, and quite authoritatively, about tetanus. It has been said that during this trial so many references to different types of tetanus were made as almost to give the impression that strychnine could produce tetanus.

This was in 1856, yet successful animal innoculation with material from a tetanus wound was effected jointly by Carle and Rattone only in 1884, while similar successful experiments with garden soil were made by Nicolaier only in the following year.

Not until 1889, however, did Kitasata successfully isolate the tetanus bacillus.

The evidence showed confusion between the clinical manifestations of poisoning by strychnine and tetanus. There was a lack of appreciation that in tetanus, fixation of the lower jaw is one of the earliest and most enduring symptoms, whereas in strychnine poisoning it is only part of the general tetanic contraction of the body muscles, which passes off with the muscular relaxation during the periods of remission.

The fact that the onset of strychnine poisoning is sudden, but of tetanus gradual, with some premonitory symptoms of illness, seems to have been entirely lost sight of as a factor in the differential diagnosis.

So far as the chemical evidence for the defence was concerned, Herepath, Professor of Chemistry at Bristol Medical School, contended that he could have succeeded in detecting strychnine under circumstances in which Taylor had failed.

Let us now step into the Court and hear but a snatch or two of the medical evidence.

First, what Dr. Jones, who was with the deceased at the time of death, has to say.

'In my judgment, as a medical man, he died from tetanus, or in ordinary English parlance, lock-jaw.'

But Dr. Alfred Swaine Taylor's view was different.

'As a professor of medical science, do you know any other cause in the nature of human diseases to which the symptoms of Mr. Cook's death can be referred, except the strychnine, he was asked.

'I do not.'

The medical witnesses for the Crown did not hold the view that death had resulted from tetanus or apoplexy, but thought it fully consistent with strychnine poisoning.

The defence had a very different story to tell. Here are some extracts from the evidence.

'Cook died from some convulsive disease.'

His death is
'irreconcilable with everything I am acquainted with.'

'Idiopathic tetanus,' was suggested by another.

'I think all forms of convulsions arise from a decomposition of the blood, if a person has probably an incipient tendency to disease of the brain, that it always may be affected, and that the decomposition of the blood might set up the diseased action.'

Question and answer from a further witness.

'Will opium bring on convulsions?'

'Yes, but a different form of convulsion from epilepsy.'

Finally we have this passage.

'This case accords with all the descriptions of angina pectoris, by the best authors.'

'Are the symptoms in the evidence more like the symptoms of angina pectoris or strychnine poisoning?'

Answer:

'I should certainly say angina pectoris.'

We must not forget that all this happened a hundred years ago, and it is easy for us to be armchair critics, forgetful of the facts that at the time the knowledge of strychnine poisoning, the quality of the medico-legal autopsy, and the subject of chemical analysis were in their relative infancy, and had not attained the insight and impetus of the present day.

The medical and chemical experts were insufficiently acquainted with the strychnoid poisons to trace their differences. The evidence of the witnesses suggested something of the kind, so inconsistent were their opinions.

Advances have been many since then, and refinements in analytical methods and extensions of the scope of their employment have gone far.

To the end Palmer maintained, 'I am innocent of poisoning Cook with strychnine.'

That he poisoned him with something is, to my mind, quite clear and, if it was not strychnine, then it was a poison closely akin to it. It is of course not possible to make reliable comment on the degree of purity of strychnine procurable in those days, especially as at that time this was a poison about which much had still to be learned.

At the present day, in cases of poisoning by the crude drug, it is regarded as highly desirable that it should be assayed for the brucine content, as well as for strychnine. And it must not be forgotten that the colour test for strychnine is obscured by the presence of no more than an equal weight of brucine. Further, that the colour reactions of the two alkaloids are very different.

This may throw some light on the findings in the Palmer case.

Brucine resembles strychnine very closely and its action although weaker and less toxic, is slower in appearance. This, in turn, would account for any possible attenuation of clinical manifestation.

The conclusion of the Palmer case has, in my opinion, been aptly summed up in the following words, and I cannot find a more fitting conclusion to what I have said.

'William Palmer was not convicted upon loose coincidences but, irrespectively of all medical theories, he led to his own conviction by a series of acts which, in the mind of every unbiased person, were perfectly inconsistent with his innocence.'

STUDENTS UNION

COUNCIL MEETING

A meeting of the Students Union Council was held on Wednesday, July 4 with Dr. Cullinan in the Chair. The following items were discussed.

1. It was reported that the new telephone equipment had been installed in the students cloakroom.

2. The Ball Finance Report was read and approved.

3. Mr. Badley reported that the midwifery clerks sitting room had been redecorated and suggested that a picture should be bought to brighten the walls.

4. Teas: Mr. White was present at the meeting, and new proposals for the provision of teas at Chislehurst were discussed. Mr. White suggested that teas should be served from a buffet counter, where people could buy either: (1) a set tea comprising two rounds of sandwiches, two cakes and one cup of tea for 1s. 6d.; or (2) single cups of tea and sandwiches as required. This latter was useful Mr. White felt, because some do not require a full tea. This suggestion would ensure that late-comers had a tea ready for them, for in the past their tea was sometimes eaten before they arrived.
Mr. White informed the Council that to continue under the present system would necessitate a rise in price to 1s. 8d.

It was agreed by the Council that these suggestions be given a trial at the beginning of the coming rugger season. It was hoped that the proposed price of 1s. 6d. would cover costs; if not the price would be reviewed, and any loss incurred by Mr. White would be reimbursed to him by the Students Union.

5. The Council approved the awarding of Honour Colours to the following:
Hockey: J. B. Nichols.
Athletics: B. I. Thom.
Soccer: A. M. Gould, R. C. Kennedy, R. Pilkington.

6. The Editor of the *Journal* asked that the sports club secretaries submit their reports of matches to the Sports Editor, Mr. D. Rowlands, one month before the publication date. Reports of later games could be accepted up to a fortnight before publication.

7. Permission was granted for the Rugger Club Annual Ball to be held in the gymnasium at Charterhouse Square on Wednesday, November 21.

8. A sub-committee consisting of Mr. Hume and Mr. Badley, was formed to study the Constitution of the Students Union, as well as the constitutions of the various clubs. The sub-committee agreed to report to the Council at the next meeting.

WHY NOT TANGANYIKA?

by N. CHILTON

THERE WAS once a young Bart's man who had done a voyage as a Ship's surgeon, completed five house appointments, tried a little general practice, and failed in an attempt at the M.R.C.P. He was sitting in a pub near Bart's and wondering what to do next, when the door opened and in came a friend, a few years older than himself. The friend said 'I have just come home on leave from Tanganyika. It's a grand country. Why don't you go there?' Next day, having looked up Tanganyika on the map, the young doctor wrote to the Colonial Office, and before many months were out he had taken the D.T.M. & H. at the expense of the Tanganyika Government and was on his way to East Africa. That was twenty-seven years ago, and up to the time of writing he has lived happily ever after. In case any readers of the *Journal* might like to follow in his footsteps, a few notes on the conditions of service and life in Tanganyika are given below.

Tanganyika is a large country, as you can see if you look at the map. It is divided up into eight Provinces, each containing a number of Districts. Occasionally a new medical officer might find himself in sole charge of a district hospital, but more likely he would at first be posted to one of the larger hospitals where he would share this responsibility with one or more colleagues. In either case he would find plenty of medical and surgical work. In addition he would be concerned with the training of African Staff, and the health supervision of a large district, through which he would travel, inspecting his dispensaries and dealing with epidemiological problems as they arose. Much of the charm of the Colonial Medical Officer's work lies in the opportunities for travelling. He is not tied down for the rest of his life to one small area, like the practitioner in this country, whether he works in Harley Street or elsewhere.

Another great advantage of Colonial service lies in the fact that the young practitioner is able to gain experience and insight into all kinds of medical work. In a one-man station he is the physician, surgeon, obstetrician, pathologist, and medical officer of health. With the assistance of an African Medical Officer or an Asian Assistant Surgeon, one or two European Nursing Sisters, African Medical Assistants and an African Nursing staff he deals with everything that comes his way. If he is in serious trouble he can ask for the help of a Specialist, but the Specialist may be hundreds of miles away, and it is then up to the Medical Officer himself to decide on and perform whatever treatment is required. In such ways the colonial doctor becomes self-reliant, and obtains a practical, all-round experience greater than anything which comes the way of his colleagues in England. He deals not only with such diseases as are seen in this country, but also with those peculiar to the tropics.

Specialists are nearly always appointed from among suitable officers within the Oversea Service who hold the necessary professional qualifications. If, after a few years of general duties, an officer wants to specialise in some approved subject, he may find that the Government will help him to do so. Such help is given by extending his vacation leave in order to allow time for study and for attempting the necessary examinations, and also by the payment of training and examination fees, with some form of subsistence allowance during the course. If he passes his examinations, he does not automatically become graded as a Specialist, since the number of Specialist posts is limited. He does, however, become a Special Grade Medical Officer on an increased salary, and he is in the field for promotion to the rank of Specialist in his own or some other Colonial Territory when a vacancy occurs. Special Grade Officers may still be required to perform general duties, but if possible, and depending on local circumstances, use is made of their particular qualifications and experience. The higher qualifications which are at present recognised as entitling an officer to Special Grade status are the following:—

Fellow of a Royal College of Surgeons.
Fellow or Member of a Royal College of Physicians.
Fellow or Member of a Royal College of Obstetrics and Gynaecology.
Master of Obstetrics (Dublin)
Diploma in Ophthalmic Medicine and Surgery.
Diploma in Ophthalmology.
Diploma in Psychological Medicine.
Diploma in Bacteriology.
Diploma in Clinical Pathology
Diploma in Medical Radiology (Diagnosis).
Diploma in Medical Radiology (Treatment).
Master of Radiology (Liverpool).
Master of Surgery.
Diploma in Public Health.
Diploma in Anaesthetics (if held prior to November, 1953).
Fellow of the Faculty of Anaesthetists.
Fellow of the Royal Faculty of Physicians and Surgeons (Glasgow).
Doctor of Medicine (London) in Pathology.

Not everybody wants to specialize. For those who do not, there are opportunities for promotion on the administrative side of the service. Thus a medical officer, may in time find himself promoted to the superscale post of Senior Medical Officer, and later to that of Assistant Director of Medical Services. Further promotion to Deputy Director or Director of Medical Services may eventually occur. A Senior Medical Officer is normally in administrative charge, under the Director, of all medical work done in the Province in which he is stationed. The salary of an assistant director is much the same as that of a specialist.

Government quarters are provided for officers in the service at rentals varying from £30 to £78 a year according to size and type, and furniture at a rate varying from £12 to £24 a year. But there is a shortage of houses, and it occasionally happens that an officer has to live in an hotel until a house falls vacant. It seldom happens that doctors have to wait long to be housed, because they are regarded as essential members of the community. In many stations a house is kept exclusively for the doctor, and the new man moves straight into it when his predecessor departs on leave or transfer. It should be mentioned here that the Government quarters are far from being palatial. The majority of them would accommodate reasonably well a married couple with two children, but it is not always easy to find quarters big enough for large families. Most of the officials' houses nowadays have electric light and water sanitation. These quarters are kept in repair by Government, without cost to the occupier.

Free passages are granted for an officer and his wife in both directions between Tanganyika and his home. Children's passages are payable by Government up to the cost of one adult fare. Officers on first appointment usually travel by sea. Their passages cost a lot of money, and if an officer, after coming out to Tanganyika at Government expense, decides to resign before he has completed a normal tour of service, he may have to refund part of the cost. No one could quarrel with such an arrangement. The normal tour of service is from 30 to 36 months.

Income tax is paid at E. African rates, which are much lower than those prevailing in the United Kingdom. There is no purchase tax in Tanganyika, but customs duties amounting on the average to 15 per cent *ad valorem* are payable on unused household or personal effects. Tobacco, cigarettes and alcoholic drinks cost slightly less than they do in England.

Vacation leave is granted at the rate of five days per month. Thus, if an officer has served for 30 months he has earned 150 days leave. The sea voyage takes anything up to a month each way between the United Kingdom and East Africa; but if an officer travels by air he can get nearly five months' leave in respect of his 30 months' tour. Full pay is drawn during leave. In addition to vacation leave, officers are granted short holidays, known as local leave, during their tours of service.

Educational facilities are available for European children up to the Cambridge Oversea School Certificate, at schools within Tanganyika. There is a number of primary schools catering for children between the ages of 5 and 9. For those children who cannot attend school there is a Government correspondence course equipped to provide tuition covering the full primary school course. From the age of about 8 on-

Noel Chilton

Dr. Chilton qualified in 1925 from Bart's, having previously taken his B.A. at Oxford. He obtained a D.T.M. & H. in 1929, and has spent most of his working life in Tanganyika—rising to the post of Assistant Director of Medical Services. He became a D.M. in 1938. Having reached the retiring age of the Colonial Medical Service, Dr. Chilton has joined the World Health Organisation and is at present in Brazzaville, French Equatorial Africa.

wards those children who are not sent to preparatory schools in England usually attend one of the primary boarding schools which are situated in the cooler parts of the territory, and which provide education for boys and girls up to the age of 11 or over. It must be admitted that owing to the large increase in children of school age in recent years it is not always possible for a pupil to gain admission to the school of the parents' choice at the time desired. Where it is necessary to send children of over 8 to private primary boarding schools in Kenya or Tanganyika, for lack of accommodation at Government owned or assisted boarding schools, the Tanganyika Government may grant a limited sum to the parents as a contribution towards the cost involved. Secondary grammar, modern and technical types of education are now available and it is believed that full facilities for secondary education of all types will eventually be provided in Tanganyika. Until such facilities are in existence for all pupils, some fixed financial grant may be made by the Government in respect of any child attending a secondary school in the United Kingdom or elsewhere outside Tanganyika.

The fees payable at Government primary and secondary schools in Tanganyika are very much lower than those payable for similar education in this country. Free transport by recognised routes is provided for Tanganyika children attending boarding schools in the Territory. Escorted parties for children attending such schools are arranged at the beginning and end of each term.

Those who have read as far as this will perhaps be beginning to wonder what are the emoluments of the post of medical officer. Before these are stated, it must be explained that there are two types of appointment, i.e. (1) on a permanent basis, with the prospect of a pension (non-contributory) at the age of 55, and (2) on a short-term contract, with gratuity payable on satisfactory completion of service. In addition, a doctor already in the National Health Service can be seconded to Tanganyika while retaining his N.H.S. Superannuation rights for a period not exceeding six years. Such an officer on completion of his engagement in Tanganyika may receive a gratuity (taxable) of 20 per cent of the aggregate of his salary. If however he has decided to continue his career in Tanganyika, and is accepted for permanent service, he would be eligible to be considered for promotion, like any other medical officer, and his previous service would probably be held to count towards a Tanganyika pension. In that case he would naturally not be eligible for a gratuity, and he would forfeit his superannuation rights under the N.H.S., since he would have exceeded the normal permissible six-years period of secondment from the N.H.S.

The salaries of Medical Officers are on an ascending scale from £1,116 to £1,836 a year. Doctors who enter the service when they already possess an approved higher qualification enter the salary scale at points above the minimum. Also increments of salary on first appointment are granted for approved professional experience. In certain cases periods spent in compulsory military service are held to count towards increments in the salary scale.

All officers on the permanent staff are normally appointed on probation in the first instance, for a period of two years. During this period they are expected to pass a simple examination in the Swahili language; they may also be required to take a course for the D.T.M. & H., either before assuming duty or during their first vacation leave. At the end of the probationary period, officers whose service has been satisfactory and who have passed the prescribed examinations are confirmed in their appointments; that is to say, they are placed on the permanent and pensionable staff, their period of probation being in that case counted as part of their pensionable service. The salaries of officers rise by annual increments, but they are divided into classes by efficiency or promotion bars which occur from time to time. The exact point at which a bar exists is stated in each officer's formal letter of appointment. To pass a bar, an officer requires a special recommendation from the head of his department. Provided that he 'pulls his weight' he will find that there is no difficulty in passing an efficiency bar.

A temporary cost-of-living allowance, at the rate of 10 per cent of the salary but not exceeding £162 a year, is paid in Tanganyika. In most stations medical officers are permitted to indulge in a modified form of private practice. The statutory fees charged for the treatment of non-official patients in hospital are collected by and paid to Government. When they have been paid, one half of the fee is remitted by Government to the medical officer concerned. African and Government officials are treated free, but there is nothing to prevent a Government doctor from attending a non-official non-African patient in his own home and collecting his own fees. It may be stated that doctors in the permanent Government service need not expect to become very rich, but they are assured of an adequate income, and there is the prospect of a reasonable pension when they retire. They are also freed from anxiety for their dependents, by reason of the Widows and Orphans Pension Scheme to which all officers pay contributions.

The climate varies in different localities. In the coastal belt it is distinctly hot, except in the months of July, August and September when it is comfortably warm. In the central plateau there is a low humidity and a fairly high mean temperature with marked daily and seasonal variations. In the Northern and Southern highlands the climate is cool and bracing; log fires are used in the colder months of the year. In recent years the advance of scientific knowledge and administration has made it much easier to avoid tropical diseases, and to treat them when they do occur, than was formerly the case. Few parts of the country where white men live and work could now be called unhealthy and it might even be suggested that the officer who takes reasonable precautions is no more liable to contract severe illness in Tanganyika than his counterpart in the United Kingdom. He is certainly spared the constant menace of infectious respiratory complaints which are picked up so easily in this country in trains, buses and tubes.

Various forms of recreation are available. On the coast there is bathing, sailing and fishing in addition to the other sports like golf, tennis, hockey and football which are to be found in most stations. There is a keen territorial cricket club which arranges matches for its members when they are on leave in England. Bird-shooting can be enjoyed in some areas. Some officers go in for big-game shooting while on local leave. The photography of game is a fascinating pastime, but this also takes up more time than a doctor can easily spare, except when he is on holiday. Botany and bird-watching can be had almost from one's front door. One does miss the more cultured sides of life. Art exhibitions are few and far between. Some stations have amateur dramatic societies and there are cinemas, of a kind, to be found in most towns. Dar es Salaam has a flourishing musical society which performs choral works but has few instrumentalists. If you are keen on music, you will not get as much of this as you would like, unless you have your own radio and gramophone. Suitable types of these can be obtained locally. Many officers are keen gardeners. The soil varies, but even on the coast, where it is sandy, gratifying results can be obtained by the use of proper methods.

Dress is pleasantly informal. The men wear open-necked shirts and shorts in the daytime and change into light tropical suits in the evenings. Ordinary full evening dress is seldom required. A 'bum-freezer' or short mess jacket is worn with black trousers instead of 'tails'; white, rather than black, dinner jackets are used. One of the great advantages of living in Tanganyika is that you can have a clean shirt every day. You do not have to send your clothes to the laundry and wait for their return. The 'boy' washes them and except in the rainy season they are dry, ironed, and ready to be worn again in a few hours' time. Nor do you have to cut the wood, light the kitchen fire, lay the table, cook, wash up, make your own bed or clean your shoes as we do here. The average home has about four African servants, who do all this for you on a total wage bill of about £10 a month.

It has not been possible, in this short article, to give a full picture of life in the medical service in Tanganyika. Any reader who thinks that he might like to apply for an appointment is advised to write to the Director of Recruitment, Colonial Office, Sanctuary Buildings, Great Smith Street, London, S.W.1, from whom advice could be obtained. Further help and advice on local conditions might also be sought at the Empire Information Bureau, Royal Empire Society, Northumberland Avenue, or at the East African Office, Grand Buildings, Trafalgar Square, W.C.2.

The Librarian has a file containing information on Colonial and Overseas Medical Appointments—
EDITOR.

SAINT BARTHOLOMEW AND HIS ASSOCIATIONS

PART II: ST. BARTHOLOMEW'S DAY

by J. B. DAWSON

Feast Day

THIS GREAT fair was celebrated on August 24th, which is generally accepted in the Roman menologies as St. Bartholomew's fête day. This date is supposed to commemorate in the first place the day of the Saint's martyrdom and translation in the sense of his ascension, and secondly his translation, meaning the transportation of his earthly remains to Rome. However, the choice of August 24th became confused with August 25th because this latter date, according to Pierre de Natalibus, was the date on which he was beheaded, while the 24th was the date of his flaying. Baronius supports the evidence for the translation being on the 25th, and many churches celebrate the feast on this day. To avoid confusion on this issue Pope Innocent III ordained that each diocese should keep its own custom in this matter, and as a result, the 24th is chosen in France and England. In Rome Bartholomew's fête is represented as a Double Feast of the second class, and is suitably associated with red vestments, the whole feast consisting of an octave extending from the 25th.

The Massacre

The Roman church, during its violent phases of theological upheaval was unfortunately associated with a disgraceful act of massacre known as 'the Massacre of Saint Bartholomew'. To fully appreciate the significance of this terrible occasion the historical background must be summarised. The scene is sixteenth century France and shows two conflicting creeds stemming from a common religion. The lesser, viewed from the aspect of the numbers of its supporters was Protestantism. Many prominent members of the French nobility supported this movement, and adopted the name of Huguenot, which name was derived from the German 'Eidgenossen' meaning 'confederates'. This powerful group of men, descendants of the 'Reformed Church Party' of the Amboise plot of 1560, perpetrated many outrages which embittered them to their Catholic opponents. This schism crystallised in disaster for the Protestant cause in March 1569 at the battle of Jarnac. This battle was lost, and their chief leader, le Prince de Conde, was taken and assassinated: and the party scattered. It may be mentioned at this juncture that Chamberlen of 'forceps' fame fled to England, being a Huguenot, and commenced his obstetrical innovations with his sons. Meanwhile the Protetestant cause slowly revived under the nominal leadership of the young king of Navarre, but under the active guidance of one Admiral Coligny.

The Catholic background of this period is somewhat involved. Let us take the death of Francis I of France in 1546 as a starting point. His son, Henry II, succeeded him, and along with the throne adopted his father's mistress, Madame de Breze, who was not only 19 years his senior but also had two children. This in itself might seem strange, but in addition Henry II had already married Catherine de Medici, an Italian, while he was dauphin. Their first 10 years of married life had unfortunately produced no heir, a fact of public ridicule and comment. This subfertitity, coupled with her husband's dalliance, produced a bitter and twisted woman, who on the death of her husband while he was jousting in fun with Montgomery in 1559, found herself free. She had by that time overcome her subfertitity and had borne ten children by her husband. The first of these was Francis II, who died in his youth, the second was Charles IX, and a later child became Henry III. Before the massacre, Catherine was acting as regent for Charles IX in his minority, and her scheming, her intrigue at court, coupled with the national religious ferment of the time, led up to the grand and ghastly finale. Much diplomacy had been deployed by ministers of state and even by 'Gloriana' herself, in trying to knit these two theological polarities, and superficially

there was a temporary ensheathment of activity. So much so that Coligny had arrived in Paris under royal invitation from Charles IX to attend the marriage of the young Protestant king of Navarre with the Catholic Margaret, a marriage which was to be a further link in the creation of religious unity. Soon after his arrival on August 22nd 1572, while under a guarantee of safety Coligny was shot in the arm while passing a house in Villemur. Charles, on hearing of this, offered him a room in the Louvre itself, but the physicians said he was not to be moved, so Charles ordered Paré, the great French physician, to attend Coligny at his residence.

Public announcement was then made that this attack was inspired by the Duc de Guise in revenge for the murder of his father some years earlier at Orleans, and public feeling rose to fever point. Many of the Huguenot leaders rallied to Coligny's side, and although the wound was not gross, muttered threats and cried vengeance on the real perpetrator of the deed, Catherine de Medici. Catherine was now considerably alarmed, for the Huguenots had brought strength with them to Paris, and she laid her schemes quickly. Her weak son, Charles IX, was prevailed upon by a group, including the Duc of Anjou, the Count of Angouleme, Ranate, Birague, Count de Retz and Marshall Tavannes, to issue an edict that Coligny's hotel was to be forced and that he and his principal councellors were to be assassinated.

It was the eve of St. Bartholomew, and Coligny sat with Paré and a friend in his room, when suddenly the bells of St. Germaine L'Auxerrols began to peel madly.

This was the signal, and a mob, headed by three hundred soldiers, under the Duc de Guise, and the Bastard of Angouleme, made for the Admiral's lodgings. Coligny, hearing the oncoming mob and guessing its intent, ensured first the escape of Paré over the rooftops to the Louvre, and then resigned himself with calm dignity to face his end. He was assassinated by the sword of one Berne and his body was hurled ignominiously into the courtyard below. The populace, now berserk, slaughtered all the leaders of the party and their avowed, or even suspected, followers throughout Paris during the passage of the next few days. The foul contagion spread to the provinces, where similar scenes of repulsive lawlessness occurred, causing the death toll to rise to the fifty thousand. The subsequent denial by the Duc de Guise that he had instigated the plot, and the exposure of the prime mover, Charles, at the instigation of his mother, brought forth congratulations from Pope Gregory XIII and Philip II of Spain.

Bartholomew's Day

There is also an English religious association with Bartholomew's name, known as St. Bartholomew's day, but the occasion it commemorates, in true English style, was a mild affair compared to the French 'Massacre'.

The introductory scene was inspired by Cromwell, who over a period of years from 1640 onwards radically altered the English church. By the very power of military despotism, Cromwell substituted some 7,000 orthodox clergy with Puritan ministers who had promised to renounce all forms of episcopal administration, and to dispense with the prayer book in their parishes.

Upon the defeat of Cromwell around the year 1660, and the restitution of the monarchy, the church was remodelled yet again. It was deemed to be impractical to remove all the clergy once more, so terms were offered. The general policy of the terms was that the episcopal structure of the church and the prayer book order of the service were to be restored. This was to be instituted under an Act of Parliament, known as the 'Act of Uniformity', which included two lesser Acts. The 'Conventicle Act' which declared; "seditious and unlawful any meetings of more than five people not in accordance with the Book of Common Prayer' and the 'Five Mile Act' which prohibited any non-conformist minister from coming within five miles of any town sending an M.P. to Parliament, or of any village in which he had ever exercised his ministry. Some 2,000 of Cromwell's puritan lay clergy refused to adopt these terms and withdrew from their parishes, accepting the alternative of swearing an 'Oath of Non-resistance' or going to prison.

This Act of Uniformity operated from St. Bartholomew's day 1662, and was considered by many to be tactless and bad diplomacy on the part of the Royalists. Thus in the name of the Saint a major upheaval of the church was achieved in a truly British spirit of compulsive tolerance.

EXAMINATION RESULTS

UNIVERSITY OF OXFORD

Final B. M. Examination

Trinity Term 1956

Medicine, Surgery and Midwifery

J. B. Dawson.

The following completed the examination for the Degree B.M., B.Ch.:

J. B. Dawson.

UNIVERSITY OF CAMBRIDGE

Final M.B., Examination

Easter Term 1956

Pathology and Pharmacology

Parker, J. D. J. Shaw, J.

Priciples and Practice of Physic

Beard, M. F. Cameron, D.
Chamberlain, D. A. Downham, D. W.
Goodliffe, A. D. R. Keegan, F. J.
Mulcahy, P. D. Rice, N. S. C.
Salsbury, A. J. Shaw, J.
Shaw, J. H. W. Sleight, M. W.
Swinburne, K. A. McL. Thompson, J. M.
Whalley, R. C. White, H. J. O.
Wooster, E. G

Principles and Practice of Surgery

Beard, M. F. Chamberlain, D. A.
Dawrant, A. G. Downham, D. W.
Jones, P. M. Keegan, F. J.
Mulcahy, P. D. Rice, N. S. C.
Salsbury, A. J. Shaw, J.
Sleight, M. W. Swinburne K. A. McL.
Thomas, D. W. P. Thompson, J. M
White, H. J. O. Wooster, E. G.

Midwifery and Gynaecology

Beard, M. F. Bloomer, A. S. C.
Cameron, D. Chamberlain, D. A.
Dawrant, A. G. Downham, D. W.
Goodliffe, A. D. R. Keegan, F. J.
Mulcahy, P. D. Rice, N. S. C.
Salsbury, A. J. Shaw, J.
Sleight, M. W. Swinburne, K.
Thomas, D. W. P. Thompson, J. M.
Whalley, R. C. White, H. J. O.
Wooster, E. G.

The following completed the examination for the Degree M.B., B. Chir:

Beard, M. F. Chamberlain, D. A.
Dawrant, A. G. Downham, D. W.
Jones, P. M. Mulcahy, P. D.
Keegan, F. J. Rice, N. S. C.
Salsbury, A. J. Shaw, J.
Sleight, M. W. Swinburne, K. A. McL.
Thompson, J. M. White, H. J. O.
Wooster, E. G.

UNIVERSITY OF LONDON

Final M.B., B.S., Examination

April 1956

Honours

Elliott, D. H., and Hunter, C. J. W. Distinguished in Obsterics and Gynaecology.

Pass

Ashbee, C. R. N. Bedford, M. A.
Bekenn, P. J. Bolton, T. W.
Burrage, M. V. Clissold, E.
Coleman, D. V. Evans, J.
Evans, R. G. Ford, P. G. T.
Gillett, G. B. Gould, R. A.
Gordon-Watson, M. A. Grant, C. B. T.
Gray, J. M. Hecht, B.
Hewer, R. L. Kielty, M. G.
Langham, G. D. Lloyd, D. B.
McGill, B. S. Millard, F. J. C.
Murphy, J. K. Nash, F. J.
Nye, E. R. Pigott, J. F. G.
Roche, W. D. Sanford, W.
Scharff, E. A. Scott, P. J.
Shacklock, H. T. Smith, M. E.
Stainton-Ellis, D. M. Taylor, C. G.
Walton, W. J. Winstock, D.
Worthy, J. A. R.

Supplementary Pass List

Part I

Rickham, E. E. M. Blake, H. V.
Butler, A. C. Cochrane, I. H.
Edwards, V. G. Freestone, D. S.
Harrold, B. P. Jewell, W. H. M.
Lammiman, D. A. McGladdery, J. A.
McKinna, J. A. Misiewicz, J. J.
Newton, S. E. Pool, K. S. J.
Pringle, L. Read, J. M.
Rosborough, D. Taylor, G. P.
Thom, B. T. Womersley, B. J.

Part II

Balhetchet, M. S. Deering, R. B.
Macvic, S. I. Ormerod, T. P.
Plumb, M. E. Pringle, L.
Roberts, I. Smith, G. C.

Part III

Deering, R. B. Plumb, M. E.

Part IV

Balhetchet, M. S. Ormerod, T. P.
Smith, G. C.

HOSPITAL APPOINTMENTS

The under-mentioned appointments to the medical staff take effect from the dates mentioned :—

Cardiology
Senior Registrar ... ... J. Wedgwood 13.8.56. (succeeds Duff).

Dr. Cullinan's Firm
Registrar (Chief Assistant) ... ... E. D. R. Campbell, (succeeds R. C. King who leaves 27.7.56).

Medical Unit
Junior Registrar ... ... P. J. A. Butcher, 1.7.56.

Dr. Spence's Firm
Junior Registrar ... ... H. Wyatt, 1.7.56.

Children's Department
Senior House Officer ... ... R. Popper, 7.7.56.

Junior Warden of the College : Mr. J. A. Parrish, as from 1st. July, 1956, Dr. J. Q. Matthias having resigned.

HOUSE APPOINTMENTS

Dr. G. Bourne
Dr. G. W. Hayward
P. H. N. Wood
M. A. Bedford (until 30.9.56)
D. A. Chamberlain (from 1.10.56)

Dr. E. R. Cullinan
Dr. K. O. Black
K. E. A. Norbury
D. H. Elliott (until 30.9.56)
R. E. Nottidge (from 1.10.56)

Dr. A. W. Spence
Dr. Neville Oswald
Miss M. J. Witt
E. Clissold (until 30.9.56)
Miss R. G. Evans (from 1.10.56)

Dr. R. Bodley Scott
Dr. W. E. Gibb
J. E. A. Wickham
N. S. C. Rice (until 30.9.56)
A. J. Salsbury (from 1.10.56)

Dr. E. F. Scowen
Dr. H. W. Balme
R. M. Buckle
R. L. Hewer (until 30.9.56)
P. D. Mulcahy (from 1.10.56)

Mr. J. B. Hume
Mr. A. H. Hunt
W. G. Harris
D. A. Chamberlain (until 30.9.56)
M. A. Bedford (from 1.10.56)

Mr. R. S. Corbett
Mr. A. W. Badenoch
A. D. Ferguson
A. J. Salsbury (until 30.9.56)
N. S. C. Rice (from 1.10.56)

Mr. J. P. Hosford
Mr. E. G. Tuckwell
J. A. Tait
R. E. Nottidge (until 30.9.56)
D. H. Elliott (from 1.10.56)

Prof. Sir J. P. Ross
Mr. G. W. Taylor
J. Viner
P. D. Mulcahy (until 30.9.56)
R. L. Hewer (from 1.10.56)

Mr. C. Naunton Morgan
Mr. D. F. Ellison Nash
L. Cohen
Miss R. G. Evans (until 30.9.56)
E. Clissold (from 1.10.56)

CASAULTY H. P.
J. F. G. Pigott

CHILDREN'S DEPARTMENT
Dr. C. F. Harris I. H. Backhouse
Dr. A. W. Franklin F. J. C. Millard

E.N.T. DEPARTMENT
Mr. Capps Mr. Jory T. A. Evans
Mr. Hogg Mr. Cope D. W. Roche

SKIN & V.D. DEPARTMENTS
Dr. R. M. B. MacKenna J. S. Malpas
Dr. C. S. Nicol

EYE DEPARTMENT
Mr. H. B. Stallard P. V. Rycroft
(and Mr. Dobree temporarily)

GYNAE. & OBS. DEPARTMENTS
Mr. Beattie R. W. Beard (Intern)
Mr. Fraser D. Fairbairn (Intern)
Mr. Howkins
C. N. Hudson (Junior H/S.)

ANAESTHETISTS A. McL. Keil
R. C. Nainby Luxmoore

DENTAL DEPARTMENT J. Darvell (until 31.10.56)

ORTHOPAEDIC DEPARTMENT (Fractures) J. A. R. Worthy

CASUALTY HOUSE SURGEON H. J. O. White

HILL END HOSPITAL

E.N.T. DEPARTMENT T. A. Evans
D. W. Roche

ORTHOPAEDIC DEPARTMENT
Mr. S. L. Higgs A. G. Dawrant
Mr. Burrows M. W. Sleight
Mr. Coltart

THORACIC DEPARTMENT
Mr. D. S. Tubbs H. B. Ross
Mr. Hill J. Griffith Edwards

DEPARTMENT OF NEUROLOGICAL SURGERY
Mr. J. E. A. O'Connell E. L. Rees

RESEARCH SCHOLARSHIPS

The following Research Scholarships have been awarded :—

Lawrence Research Scholarship	Dr. E. G. Rees
Luther Holden Scholarship	Mr. J. D. Griffiths
Cattlin Research Fellowship	Dr. G. H. Apthorp Dr. R. Marshall Dr. D. Weitzman
Cooper and Coventson Scholarship	Dr. G. H. Apthorp Dr. R. Marshall Dr. D. Weitzman

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SPORTS NEWS

VIEWPOINT

MOST OF the games in which Bart's teams participate leave in their wake a toll of injuries. The majority are, of course, of a minor nature, but occasionally more serious accidents do occur. Different games have varying risks attached to them : the chances of injury in a game of football are greater than those during a round of golf. Nevertheless, the risk is present in every sport, and it is quite possible for a young medical student to jeopardize his whole career while upholding the sporting honour of the Hospital on a Saturday afternoon.

The chances of such a mishap occurring may be remote and most people adopt the 'it couldn't happen to me' attitude. But why do the majority of Rugby Football Clubs insure their players against such a risk ? Obviously because they recognise that the danger is ever present. It is therefore suggested that the Students' Union might give this matter consideration. They could negotiate an insurance policy to cover all students who take part in the sporting activities of the Hospital. Various medical insurance agencies send circulars to individual students putting forward their insurance schemes. These agencies might be prepared to cover students as a group of sporting embryo-doctors.

CRICKET

1st XI v. Romany. 20th May. Lost by 157 runs.

Romany batted first on a good wicket and after surviving some hostile opening overs from Garrod proceeded to score 264. This was largely due to an individual score of 134 by one of their players. As the opening attack was depleted it was not surprising that the bowling was mastered for the first time this season, although Bloomer threatened to break through at one stage.

In reply, Bart's scored a very undistinguished 107 against bowling which didn't deserve to get us out.

Romany 264 (Bloomer 4 for 64).
Bart's 107 (Marks 21).

1st XI v. Balliol College. May 26th. Lost by 6 wickets.

Another tale of disappointment due to batting failures against indifferent bowling on a good wicket. Nicholson scored an excellent 64 and just when things looked promising was run out, and the tail-enders failed to take advantage of his ground work.

Balliol made the runs all too easily after the Captain allowed himself to bowl them in very comfortably.

Bart's 147 (Nicholson 64).
Balliol 148 for 4.

1st XI v. Radcliffe Infirmary. May 27th. Won by 62 runs.

At last another win, but not very creditable as the opposition were not strong by anybody's standards. MacKenzie scored a most attractive 73 not out, including six sixes. The innings was closed at 147 because the tea urns arrived and Radcliffe never looked like getting the runs. It was perhaps unfair to allow Garrod to bowl off cutters on such a green wicket.

Bart's 147 for 5 dec. (Mackenzie 73 not out).
Radcliffe 85 (Garrod 4 for 20).

1st XI v. Queen's College, Cambridge. June 3rd. Lost by 4 wickets.

The batting failed and the attack most menacing, a recurrent theme throughout the season. Queens' bowled really well on a wicket with just a little life, but people got themselves out in the most bizarre manner. Garrod and Mackenzie bowled with considerable verve, but there weren't enough runs to bowl at . A very enjoyable day, but to be beaten by a College side is a little disappointing.

Bart's 107.
Queen's 108 for 6 (Whitworth 6 for 28).

UNITED HOSPITALS CUP

1st XI v. Middlesex Hospital. June 6th. Drawn.

The second round of the Cup Match. A match of extraordinary fluctuating fortunes. Middlesex were 94 for 7 and 225 all out. This reversal was due to some wonderful hitting by one of their tail-enders who never gave a chance in an undefeated 80. Bart's fielding was patchy, a few non-benders and a few who were prepared to sacrifice their flannels.

The weather then broke and the rest of the match was played in continuous drizzle and gloom. The ball skidded through occasionally on the greasy surface but again people failed to take command in the middle. Stark batted courageously and adventurously for a pleasing 52, but it was left to Marks to play out time and save the day.

Middlesex 225 (Bloomer 3 for 31).
Bart's 119 for 9 (Stark 52).

1st XI v. Middlesex Hospital. June 14th. Lost by 14 runs.

The mixture as before, but Middlesex were all out for 128 after being 75 for 7. Again the trio of Garrod, Mackenzie and Whitworth looked really effective. Once more the rain came, but if anything the wicket was easier for the Bart's innings. After the inexplicable early loss of Bower and Stark, Nichols and Nicholson struck some hopeful blows, but apart from Gillett's masterly and almost match winning innings, the rest of the batting was depressingly negative. If only the lower order batsmen had taken a lead from their opponents' methods this match and so many others could have been won convincingly. To hit the ball hard and often seems to have become rather *demodé*, and the forward defensive lurch, with oceans of room between bat and pad, its most ineffective successor.

Middlesex 128.
Bart's 114.

SUSSEX TOUR

August 5 v. Hurstpierpoint.
August 6 v. St. Andrew's, Burgess Hill.
August 7 v. Rottingdean.
August 8 v. Littlehampton.
August 9 v. Barcombe.
August 10 v. Keymer and Hassocks.

ROWING

READING REGATTA

The VIII raced Bristol University and King's College, London, in their heat of the Thames Cup Eights. Bristol University had a very fast start and soon established a comfortable lead over the other two crews. Although at one time a ¾-length behind King's, Bart's managed to beat them by a few feet to finish second.

MARLOW REGATTA

The VIII lost to Magdalene College, Cambridge, by 2½ lengths. The IV lost to Pembroke College, Cambridge, by 2½ lengths.

HENLEY ROYAL REGATTA

Both crews were required to row in the Eliminating Heats on Saturday, June 30.

VIII v. King's College, Cambridge. Conditions were rather tricky with a strong cross head wind. After some difficulty in getting straight at the stakeboat the Hospital went off with a good start but after about fifteen strokes a gust of wind caught the bows and swung the boat into the booms. Fortunately no blades were broken but by the time that the boat had been pushed off from the booms and the crew re-started King's College were three lengths ahead. This proved to be too big a handicap and the Hospital failed to make any impression on their opponents.

Verdict : easily. Time : 7.38.

IV v. Caius College, Cambridge. After two minutes the Bart's crew was half a length down but by Fawley had managed to decrease this lead. Caius then spurted and went away to lead by two lengths; this distance was decreased slightly along the Enclosures.

Verdict : easily. Time : 7.39.

ANNUAL GENERAL MEETING

At the Annual General Meeting of the Club on Tuesday, June 12, with Dr. J. H. Coulson in the Chair, the following officers were elected for the year 1956-57.

Captain : J. R. Strong.
Secretary : C. C. H. Dale.
Treasurer : G. D. Stainsby.
Committee : G. M. Besser, R. France, J. U. Watson.

Professor L. P. Garrod was re-elected President and the following Vice-Presidents were re-elected :

Dr. A. G. S. Bailey, Dr. J. H. Coulson, Dr. J. C. M. Currie, Dr. M. Donaldson, Prof. K. J. Franklin, Dr. E. F. Scowen, Dr. A. W. Spence, Mr. O. S. Tubbs, Mr. J. H. M. Ward, Prof. A. Wormall.

Dr. C. N. Hudson was elected a Vice-President.

TENNIS

1st VI v. King's College Hospital. Saturday, 7th July. Lost 1—8.

As the previous four games were cancelled owing to inclement weather, it was not surprising that the Bart's players seemed to be in need of match practice. Lounging in easy-chairs watching the Wimbledon Championship had evidently not enabled them to emulate the fluent strokes of their respective heroes, and they could not hold a good King's team. However, the match was more closely contested than the final score suggests, and the second-string, Goodwin and Lemon, won their match in straight sets.

In spite of the result, a pleasant afternoon's tennis was enjoyed by all, and it was quite a change to play under a hot sun, instead of the wind and rain which has prevailed this season.

Team : C. G. Stephenson, C. S. Goodwin, J. Collier, J. Lemon, R. White, J. Bench (Capt.)

ATHLETICS

The Athletic Club has had an unfortunate season with several injuries ranging from pulled muscles to the spontaneous pneumothorax of Halls, a new and most promising sprinter. The results therefore were meagre on paper, and most of the lesser matches were lost. In the Hospital's Cup O'Sullivan and Tabor gained 2nd and 3rd places in the high and long hurdles respectively,

but Prys Roberts, after an illness did not run his best in the half mile. The final score, however, was a few points better than last year.

Sport's Day was run in the rain; this did not affect the dance which was a success, being under cover.

O'Sullivan again ran for Great Britain at the White City and Prys Roberts is captaining United Hospitals' Athletic Club most efficiently.

GOLF

SUMMER MEETING

The Golf Club held their Summer Meeting at Sunningdale this year on June 27, and the entry of twelve members for the scratch and handicap cups reflected a much greater enthusiasm than last year. Play was over 18 holes of the 'New' course and although conditions were good, few low scores were returned. H. J. O. White, the captain, won both cups with an 82 gross and 74 net, M. J. S. Scorer being beaten by one stroke, returning an 83. The other members, although failing to produce such accurate golf enjoyed the chance of playing a good course under such pleasant weather conditions.

In the evening, a draw for partners was made, and a 10 holes foursomes Stableford competition was played, the captain generously offering to provide a prize for the winning pair. Scorer and Dobson with 25 points were clear winners from Bloomer and Rhys-Phillips with 22.

An Autumn meeting is being held in October and it is hoped that another good day's golf will be enjoyed then.

v. St. Thomas's, Wednesday, June 20.

M. J. S. Scorer, Lost 5 and 4. R. B. Deering, Won 2 and 1. A. W. Galbraith, Won 3 and 2. C. G. Stephenson, Won 6 and 4. R. C. G. Hughes, Won 2 and 1. J. Dobson, Won 3 and 1.

Result: Won 5 matches to 1.

SAILING

INTERHOSPITAL RACING.

9th June. 11½ miles.

The Bart's boat made a good recovery after being aground at the start, working its way into second place at the finish.

Helm: H. V. Blake. Crew: M. Bradbury, L. Farrow.

Result: St. Mary's 1st. Bart's 2nd. U.C.H. 3rd.

16th June.

Six boats crossed the line to sail an 11½ mile course in trying conditions of variable wind and pouring rain. Bart's, in Amber, took the lead early on, retaining it in spite of a strong challenge by U.C.H.

Helm: J. Misiewicz. Crew: Miss A. Thomas, H. V. Blake.

Result: Bart's 1st. U.C.H. 2nd. Charing X 3rd.

23rd June. 8½ miles.

This was sailed in light airs from N.E., giving a simple fetch to Red Wand and a beat down the Roach. Bart's sailing garnet started well, but were last to round Red Wand. Two places were saved on the beat, but we just could not make the boat sail as fast as the others.

Helm: J. Misiewicz. Crew: M. E. B. Hayes, L. Farrow.

Result: London 1st. St. George's 2nd. Guy's 3rd

30th June. 8½ miles.

In a nice breeze from the S.E. and over a flood tide, Bart's, in Chrysolite, got away to a good start and an early lead, when a gear failure in another boat necessitated a resail. In this we did not fare so well, losing a place through a tactical error.

Helm: J. Misiewicz. Crew: H. V. Blake, L. Farrow.

Result: London 1st. St. Mary's 2nd. Bart's 3rd.

OFFSHORE.

North Sea Race.

(Harwich— West Hillder L.V. — Smith's Knoll L.V. — Hook of Holland. 220 Miles).

M. Hayes, J. Misiewicz and G. Nash (Guy's) crew of an R.N.S.A. 24 racer, Ben's Choice, which finished 4th in her class. The crew visited Amsterdam, and then Ben's Choice cruised from Rotterdam to the Hamble.

Cherbourg Race.

(Southsea — Owers L.V. — Varne L.V. — Cherbourg. 230 miles).

M. Hayes, J. Misiewicz and G. Nash (Guy's) formed the crew for Ben's Choice. The boat finished fifth, cruising back to the Hamble via the Needles channel.

Boulogne.

J. Cocker, B. Pidcock and R. Herniman cruised in their 18 ft. centreplate sloop "Elizabeth" from Burnham on Crouch to Boulogne, via Ramsgate, Margate and Dover. Their plans of a more westerly passage were foiled by much bad weather, including strong winds, rain and fog.

Clyde - Cowes.

Dr. E. Nainbey-Luxmore is sailing his new Vertue 5 tonner to the South Coast from the Clyde. Dr. J. Murrell is crewing.

INTERNATIONAL.

Mr. J. Marsden has been invited to crew for Dr. F. Penman who is representing Great Britain in the European Snipe Championship in Ostend in August.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LX **SEPTEMBER 1956** **No. 9**

EDITORIAL

WHEN A PATIENT comes to hospital for the first time he enters a strange world, beset with fears and anxieties. As the mental attitude of a person can markedly influence his physical state, every effort must be made by those coming into contact with the patients to help reduce these fears.

The patient becomes disturbed as soon as he is advised by his own doctor to seek specialist opinion. Many have never had direct experience of a hospital, and their only knowledge is based on alarming reports of their friends' 'operations'.

It must be realised that the patient comes to hospital 'to see the doctor', and no one else can allay his anxiety concerning his illness—the more the doctor himself can explain to the patient the more reassured he will be.

Some patients are used as subjects for an outpatient class. We wonder how much they are informed of the procedure before they enter the class room. We suggest that any general practitioner referring a patient to a teaching hospital should warn the patient that he might be required for a class, and tell him what this involves. Such forwarning would certainly offset the shock that some patients obviously get when they enter a large room full of white-coated figures.

If a patient is advised to come back as an inpatient he is sent to the Almoners Department. On another page, Miss Cross, an Almoner of this hospital, describes her work, and discusses some of the difficulties experienced by patients who will have to spend time away from their jobs and homes.

When a bed becomes available for a particular patient, the Houseman on the firm informs the Steward's Office, and they contact the patient. The letter the patient receives tells him how to get to the hospital, where to report, and what to bring with him. We think it would help those entering this Hospital if they were sent a small leaflet describing the Hospital, and more importantly, the services that exist for the welfare of patients, such as the library and postal services. A list of visiting times might prove useful. All these facts are ascertained sooner or later, but to know them before admission would relieve small worries.

Once in the ward, the patient usually adapts himself remarkably quickly and makes friends with his neighbors. On the whole they complain little, and realise that everything is being done for their care. Yet on questioning they will admit to one cause of uneasiness; they often feel that they are not told enough about what is wrong with them, and what is to be the course of treatment. We believe that in the case of the more intelligent patient, fear of the unknown is much worse than almost any knowledge about their condition.

Remarks directing the attention of the Staff and Students of this Hospital to patients' welfare are largely superfluous. But most will not spend their lives within these hallowed walls: thus we have given a reminder to everyone dealing with patients that they are not cases but people.