

**THE BRIGHT COUNTENANCE.** A personal biography of Walter Morley Fletcher by Maisie Fletcher. London. Hodder & Stoughton, 1957. pp. 851, 25s.

Sir Walter Morley Fletcher was the youngest son of Alfred Fletcher, sometime Chief Inspector of Chemistry of the Local Government Board in London and the younger brother of Herbert Morley Fletcher, who was for many years a notable figure in this hospital as a Physician. Walter came to the hospital just after he had been elected to a Fellowship at Trinity College, Cambridge. He then led a very strenuous life having to lecture at 9 a.m. three mornings a week, catch a train to London, work in the wards and outpatient departments, return to Cambridge too late for dinner in Hall and then prepare his lecture or read medicine or surgery books. He did this for 24 weeks in the year and had only a little more time in the vacations of the University. He passed his finals at Cambridge in two years. A strenuous life indeed but not more so than that which he was to lead throughout his life. When he was Director of Studies for the Natural Science undergraduates at Trinity he used to conduct revision courses in Physiology three evenings a week from 6 to 7 p.m., see his men to advise about their work at other times, lecture to advanced students and fit in his research work at odd times or in the vacations besides taking part in the full social activities in the College and University.

Marriage in 1904 did not diminish his activities as he became at the same time one of the four tutors and finally senior tutor which entailed additional work. His important paper in collaboration with Dr. (later Sir) Gowland Hopkins was written under these conditions. Then in 1914 he began the work by which he will always be remembered. He was made secretary to the newly created Medical Research Committee (later Council), a product of Lloyd George's National Insurance Act. This ended his own research work but his interest in physiological and medical problems enabled him to see what wanted doing and his really great powers of organisation together with his sympathy with the aims and talents of younger men were responsible for the great advances made while he was secretary. An attack of pneumonia in 1920 followed by an empyaema which took some time to heal, caused some diminution in his activities for a while and it was a recurrence of the empyaema together with a cerebral abscess which caused his death thirteen years later. Lady Fletcher has written an intimate and sympathetic account of her husband and the inclusion of many revealing letters adds greatly to the interest of the book. Sir Arthur McNalty has written a good factual account of the setting up of the Medical Research Committee and the part played by Fletcher in its work. This also stresses the active part which he took in its work and organisation and the vast amount of his time which he devoted to it. It is certainly a book to read and meditate about and is a worthy tribute to the man who was always a true son of St. Bartholomew's.

Leonard Graham.

**TEXTBOOK OF SURGICAL PATHOLOGY**  
7th ed. by C. F. W. Illingworth and B. M. Dick. J. A. Churchill. Pp. 730. 63s.

A new edition of this excellent textbook is to be welcomed by all those preparing for their final examination or higher surgical qualification. The full list of references is a valuable aid to the specialist.

Several changes from the last edition have been made including a new chapter on the constitutional effects of injury. In this there is a discussion of electrotype balances in relation to surgical pathology.

The text has been fully revised to incorporate more recent work. For instance in the chapter on breast pathology the modern concepts of fibro-sarcoma and the hormonal basis of carcinoma are considered.

With many new illustrations, which reproduce well on the glossy paper, this edition lives up to the high reputation of its predecessors.

### BOOKS RECEIVED

*Inclusion in this column does not preclude review at a later date.*

**THE BREASTS AND BREAST FEEDING** by Harold Walker. Heinemann, Pp.56. 7/6.

**A THERAPEUTIC INDEX**, 2nd edition by C. M. Miller and B. K. Ellenbogen, Baillière, Tindall & Cox. Pp.156. 12/6.

**NERVES EXPLAINED** by Richard Asher. Faber & Faber. Pp.155. 10/6.

**SYNOPSIS OF SURGICAL ANATOMY**, 8th ed., by A. McGregor. John Wright & Sons. Pp.808. 32/6.

**INTRODUCTION TO BACTERIAL PHYSIOLOGY** by C. E. Clifton. McGraw Hill Book Co. Pp.414. 58.50.

**PATIENTS AND DOCTORS** by Kenneth Walker. Pelican. Pp.182. 3/6.

**DE MOTU CORDIS**, William Harvey, Translation from the original Latin by Kenneth J. Franklin. Blackwell. Pp.209. 17/6.

**MEDICAL ETHICS** edited by Maurice Davidson. Lloyd-Luke. Pp.165. 20/-.

**INTRODUCTION TO CLINICAL ENDOCRINOLOGY** by A. Stuart Mason. Blackwell. Pp.193. 22/6.

**FLUID BALANCE IN SURGICAL PRACTICE** by L. P. Le Quessne. Lloyd Luke. Pp. 140. 20/-.

**LEFT HANDED DOCTOR** by Peter Quince. J. M. Dent. Pp.194. 16/-.

**PRINCIPLES AND ART OF PLASTIC SURGERY** by Sir Harold Gillies and D. Ralph Millard, Jr. In two volumes. Butterworths, London. 2472 illustrations. £12 10s. 0d. per set plus carriage and packing.

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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## EDITORIAL

*You write with ease, to show your breeding,  
But easy writing's vile hard reading.*

*Clio's Protest in Moore's Life of Sheridan.*

SUCH AN OUTCRY made as latterly as 1825 epitomises only too well the dissatisfaction on the part of readers of most forms of writing of a contemporaneous nature. It is not our avowed aim in these lines to enunciate all the possible causes for the decline of the art of literal expression: the task is one of such gargantuan proportions that even the combined talents and knowledge of the better qualified could provide at best only a barely plausible explanation. That many factors must play a part is evident. The price paid for our 'highly modern and civilised' existence with its push-buttons, 'gadgets', 21-inch television screens and what-have-you-Scope, is unduly high. The art of reading and writing have been pushed further into abeyance. In *The Bishop Orders His Tomb*, Browning stated that 'the rough and ready man that write apace, read somewhat seldomer, think perhaps even less'—one wonders whether he could have foretold that these words of wisdom passed on his fellow men would one day assume such formidable dimensions of reality.

To be able to write with ease in the times of Thomas Moore was to be in keeping with a person's station or breeding. The illiterate masses had no form of compulsory education for their edification. To be able to write at all in present times is unfortunately not quite always in keeping with a person's station or breeding. This, in spite of compulsory education and state grants, would seem a consequence devoid of any logical sense. Apart from some of the reasons given before,

what are other causes for this state of insufficiency?

Critics who fancy themselves as purists expostulate upon the slightest pretext at the use of certain words alien to them but which convey more than adequately apparent and purposeful meaning. Styles of writing are also prone to onslaught. Such a hubbub as fear of criticism of context and style from quarters professing to unqualified learnedness is unfortunate, particularly when the criticism is unwarranted or when the budding writer has not the self-respect to defend himself. The essence of Clio's protest in Thomas Moore's *Life of Sheridan* was that easy writing provided 'vile hard reading.' We would point out that hard writing provides even more vile and difficult reading. 'Style is the man himself' (de Buffon) and 'Style is the dress of thought, a modest dress: neat, but not gaudy, will true critics please' (Samuel Wesley)—two testimonials to the futility of argument over correctness of style in writing. Each man is entitled to his own favourite coat and his favourite louse. One should heed Coleridge's words—'Until you understand a writer's ignorance, presume yourself ignorant of his understanding.'

Practice should make for perfection, but the import of the axiom is allowed to slip too often because of lethargy or because of a sense of defeatism illustrated best by Dogberry's averment to Seacoal in *Much Ado About Nothing*—'... to be a well-favoured man is the gift of fortune: but to write and read comes by nature.' Nothing can be further from the truth.

The rewards harvested from writing are

rich and varied. Recognition, fame and even lucre form but a few examples. Having one's writings clasped to the bosom by posterity must be the acme of one's efforts. One such person who succeeded in achieving this was Oliver Goldsmith on whose tombstone was

engraved the touching epitaph — 'To Oliver Goldsmith, A Poet, Naturalist, and Historian, who left scarcely any style of writing untouched, and touched nothing that he did not adorn.' Incentive for future Goldsmiths from Bart's ?

### A Step Forward

After a therapeutic trial had been carried out on the Ground Floor recently with gratifying results, the builders and in particular, the plumbers, have been allowed to invade the dignified atmosphere of the Surgical Unit to carry out extensive alterations to the sterilising and washing arrangements. Instead of the former arrangement by which access to the sluice room could be gained through the sterilising room, the new order is for these two rooms to be interchanged so that the sluice is now next to the ward and the sterilising room made into a separate and non-septic entity. The swinging doors opening into the wards have been replaced by those of a sliding variety to lessen the occupational hazards which constantly threatened the nursing staff. As a final gesture of deference to the maxim 'cleanliness comes next to godliness,' an extra bath has been installed for the use of patients.

Whereas there is every confidence that these changes comprise a step forward in the right direction leading to an increase in efficiency in the business of coping with the unromantic but highly necessary chores of the wards, it is to be hoped that the installation of an extra bath will have no adverse effects on the potency of the Unit as a driving force in surgical progress. The fall of the Roman Empire was ascribed by Gibbon to the predilection of its young men to hot baths.

### A New Haemoglobin

Dr. Herman Lehmann, working in collaboration with Dr. Ager of St. Thomas's Hospital, has recently isolated and described a new haemoglobin to add to the already formidable list of types of haemoglobin known to be in existence. It is now 90 years

since Körber first described the differences between foetal and adult haemoglobin, thereby starting the search for other types. With the development of more modern techniques, the search has become increasingly more fruitful. Before this latest discovery of Dr. Lehmann's, 11 types had already been isolated.

By its electrophoretic and chromatographic properties, the newest haemoglobin was identified in the blood of a Punjabi Indian; it has been named, whimsically perhaps, Haemoglobin L, the other types known before being A, C, D, E, F, G, H, I, J, K, and S.

As the range of abnormal haemoglobins is becoming so vast, one feels that in order to have a full grasp of the complexities involved in the subject, one would have to have not so much the mental acuity of a trained person as the intellectual power of an intelligent 'layman.'

### A new addition

Prof. R. L. Kahn, who first described the well-known flocculation test used in the diagnosis of syphilis, paid the hospital a visit during August—this being the second in three years. With a truly scientific turn of mind Prof. Kahn explored the pathology department, the canteen, and the library.

Whilst in the library Prof. Kahn offered Mr. Thornton a first edition of his book *Serum diagnosis of syphilis by precipitation methods* which was published in 1925. Mr. Thornton accepted this generous offer and reciprocated the gesture by presenting Prof. Kahn with a book on John Abernethy and one on Bart's. It is hoped that these two volumes will encourage our distinguished visitor to make Bart's a regular port of call when in London and further to convince him that his book will be a valuable acquisition by this hospital—the traditional home of medical erudition.

## NOTICES

### Decennial Club

The 10th Decennial Club Dinner will be held at the Bath Club on the 23rd October at 7 for 7.30 p.m. Members of the 8th and 9th Clubs will be welcome. Will those members desirous of attending kindly contact Miss Dixon, Secretary to Mr. S. L. Higgs, at 17, Wimpole Street, W.1.

### Wessex Rahere Club

The Autumn Dinner of the above Club will take place at the Lansdown Grove Hotel, Lansdown, Bath, on Saturday, 26th October, 1957.

It is hoped that Dr. R. Ballantine will be present as Guest of Honour.

Membership of the Club is open to all Bart's Graduates practising in the West Country.

Further details will be circulated to members and to any other Bart's Graduates who are interested and who will get in touch with the Hon. Secretary, Mr. A. Daunt Bateman, at 11, The Circus, Bath, Somerset.

### The Journal

Mr. M. J. L. Patterson has been elected to the post of Assistant Editor.

The post of Assistant Manager will soon be vacant. Applications for the post should be addressed to the Editor by the 30th of September.

Contributors are reminded that the JOURNAL goes to Press on the 1st of the month preceding that of publication. Articles, sports reports and notices *must* reach the JOURNAL Desk on or before the 1st of the month in order to be included in the ensuing number. Contributors are urged to write legibly if they cannot type, and to leave wide spaces between lines, using only one side of each sheet of paper.

### University of Cambridge

Lord Adrian, Master of Trinity College, has been elected Vice-Chancellor for the academical year 1957-58.

### University of Edinburgh

Dr. R. H. A. Swain, Senior Lecturer in the department of Bacteriology, has been appointed reader in Virology.

### University of London

M.S.—J. C. S. Leverton, M. Caine.  
M.D.—A. E. Dormer.  
Diploma in Public Health—P. G. Haigh.  
Diploma in Bacteriology—S. P. Lapage.

The title of Reader in Histochemistry has been awarded to Dr. A. G. E. Pearse in respect of his post at the Postgraduate Medical School of London.

### University of Toronto

Diploma in Public Health—G. E. Stoker.

### British Medical Association

Sir Henry Hallett Dale has been awarded the Gold Medal of the British Medical Association in recognition of his distinguished services in the fields of physiology and pharmacology.

### Canadian Life Insurance Fellowships

Dr. J. B. Dossetor has been awarded a Fellowship for research on factors influencing the rate of electrolyte excretion in health and disease.

### Prizes and Scholarships

*Treasurer's Prize* (Practical Anatomy) Awarded to M. M. Orr and A. L. Russell.

*Wix Prize* (General Learning) Awarded to M. J. Pemberton.

**Junior Scholarships** (Anatomy and Physiology) First Scholarship awarded to A. B. Shaw; Second Scholarship awarded to A. L. Russell.

## ANNOUNCEMENTS

### Engagements

**SKEGGS—HUGHES.** The engagement is announced between David Bartholomew Lyndon Skeggs and Anita (Anne) Hughes.

**TAMLYN—VAUGHAN PHILLIPS.** The engagement is announced between Geoffrey William Tamlyn and Elizabeth Vaughan Phillips.

### Births

**ARDEN.**—On July 15, to Ann, wife of Surgeon Commander Leonard Arden, R.N., a daughter.

**DAVY.**—On July 11, to Jill, wife of Dr. Peter Humphrey Davy, a sister for Christopher and Julia.

**DROWN.**—On July 5, to Freda, wife of Dr. G. K. Drown, twin brothers for Rosemary.

**MACONOCHIE.**—On June 30, to Elizabeth, wife of Dr. A. D. A. Maconochie, a daughter, Frances Anne.

## OBITUARIES

### E. M. Elmhirst, T.D., M.S., F.R.C.S. (1915-1957)

Edward Mars Elmhirst-Baxter was born on December 18, 1915, and was educated at Wellington College. He qualified here in 1939, and in the previous year won the Wix Prize Essay on David Pitcairn (*St. Bart's Hosp. Rep.*, 72, 1939, pp. 278-302). He later assumed the name Elmhirst. During the war he served in Burma and the Near East, and in 1951 was awarded the Territorial Efficiency Decoration.

After holding appointments at this Hospital, the British Postgraduate Medical School, the Central Middlesex and Hampstead General, Elmhirst went to the East Suffolk and Ipswich Hospital as senior surgical registrar in 1952, and three years later became honorary secretary of the East Anglian Regional Registrars Group. Having qualified F.R.C.S. in 1948, Elmhirst took the London M.S. last year, but was unable to attain consultant status. He left England to become a consultant surgeon in Bermuda, where he died on August 1, 1957.

Elmhirst was keenly interested in history,

**ROBINSON.**—On June 25, to Barbara, wife of Dr. Keith Wallace Robinson, a daughter, Claire Elizabeth.

**SAMRAH.**—On June 15, to Margaret Josephine, wife of Dr. Maurice Ed. Samrah, a second daughter, Kären Gabriella Lorraine.

**WINSTONE.**—On July 22, to Anne, wife of Dr. Norman Winstone, a son, Mark Edward.

### Deaths

**COZENS.**—On August 17, Dr. F. C. Cozens, aged 65, at his home, 8, The Downs, Herne Bay, Kent. Qualified 1921.

**HUGGINS.**—On July 25, Sydney Penrose Huggins, aged 83. Qualified 1896.

**SCAWIN.** On June 12, Harold Willis Scawin. Qualified 1909.

**UPSHON.** On July 24, Lt.-Col. Hector Marshall Upshon, R.A.M.C. (Ret'd.). Qualified 1940.

**WOODFORDE.**—On July 2, Robert Edmund Heighes Woodforde. Qualified 1898.

heraldry and painting, in addition to being a confident surgeon. His early death is deeply regretted by all with whom he came into contact, and our sympathy is extended to his widow and five children.

### Robert Henry Dale

The sudden death of Robert Henry Dale, who went to Saskatoon, Canada, in 1953, must have come as a sad blow to his colleagues, friends and patients. At the age of 47, Robin Dale had all the attributes of a man for whom the years ahead held great promise.

As the prominent son of a famous father, he had a heritage of critical scientific thinking and self critical humility. To this was added the education background of Cambridge and Bart's. His postgraduate medical career in general practice, general surgery, orthopaedic and traumatic surgery and finally plastic surgery provided this extremely competent doctor with the kind of background difficult to achieve in these days of ever lengthening postgraduate training and ever narrowing

specialisation. At the time of his death, he was engaged in the writing of a textbook of surgery of the hand.

He was at home in any kind of company and always showed that happy knack of not talking medicine in the company of non-medical friends or colleagues. His meticulous care and skill were amply known and demonstrated in his own specialty but he managed to apply the same attention to detail and the same infectious enthusiasm to less academic pursuits. His buoyant good

humour and endearingly rugged individualism showed just as well in a piece of nonsensical verse or in a remarkable homemade musical instrument as in his wonderful reconstructive work with burned and disfigured human tissues.

In the four short years in Canada, Robin Dale proved himself to be not only a surgeon of outstanding skill and dedication but also a warm hearted and lovable man of real stature.

B. J. R.

## LETTERS TO THE EDITOR

### A CASE OF MISTAKEN

#### IDENTITY

Sir,—Much confusion has been caused by the fact that my name is so similar to that of Dr. Geoffrey (H) Bourne of the London Hospital. I would be grateful if you would publish this letter. I have nothing to do with ageing, except in so far as my own metabolic processes are concerned, nor have I any interest in hair growing, beards, or other such appurtenances of senility.

Yours sincerely,

GEOFFREY BOURNE.

20, Harley House,  
Marylebone Road,  
N.W.1.

### PALMER'S JOCKEY

Sir.—Recently, while perusing through a book\* by Robert Gibbins, I came upon a passage which might be of interest to those of your readers who followed the story of William Palmer in September of last year. The author is describing a journey made down the Thames in a punt in the summer of 1939; one could not do better than quote his own words:

"But next day I had time to stop and make a little drawing of the church at Appleford, and, when that was finished, there was a dryness in my throat which sent me in search of the village pump. In the course of my exploration I found 'The Black Horse,' and there I learned of Mr. John Faulkner, a jockey, who but lately had taken 'his last hurdle.' He had lived to the age of a hundred and four, had ridden his first winner at the age of eight, and was still in the

saddle when over seventy. He married twice, and had thirty-two children, all of whom are still living, save one who died from an accident. The eldest is now eighty-five and the youngest thirty-nine.

"An' didn't 'e 'ave a wunnerful funeral. Four black 'orscs drawn the wagon to the church."

"Wasn't one of them 'orscs painted, Bill?"

"Well, 'c warn't the same colour a week afore."

"Everybody knew 'Old John.' He had his own corner in 'The Black Horse,' and nobody ever sat in it after he had entered the bar." . . . "He broke his thigh at the age of ninety, something to do with a mule. 'You'll never walk again,' said the doctor. 'We'll see,' said Faulkner. Seven weeks after, he walked to Abingdon and back, a distance of eight miles.

"He rode many races for an owner called Palmer, who afterwards achieved an unenviable notoriety.

"'Ever 'eard of Palmer, sir? 'Ung for murderin' 'is wives. One arter another 'e married an' then 'e poisoned 'em. 'Kep' a lot o' 'orscs."

"Faulkner had horses of his own too—'Biscuit,' which he is said to have ridden second in the Grand National, and 'Rip Van Winkle,' which, though bought for five shillings, won several small races.

"His last words were to ask for a glass of beer. When he was unable to drink it his family knew that 'the old man was finished'."

This charming story, though largely irrelevant, does at least illustrate two things. First, that in spite of his unorthodox activities Palmer was a much maligned man, having in fact murdered only one wife; and secondly, that it was possible for those who came into contact with him, provided they were hardy enough, to survive quite a reasonable number of years.

Yours sincerely,

JOHN PRICE.

Abernethian Room.

\*Sweet Thames Run Softly by Robert Gibbins.  
J. M. Dent & Sons Ltd., 1940.

## EPONYMS AND BART'S MEN

by JOHN R. BROWN AND JOHN L. THORNTON

AT ONE TIME it was common practice to associate the names of their discoverers with the muscles, nerves, tests, signs, diseases, operations etc. that they had initially described, and medical nomenclature is rich in this type of terminology. However, the revision of anatomical nomenclature, for example, has resulted in the disappearance of many of these eponyms, which is to be deplored. But it is apparent that first descriptions were sometimes misapplied, that occasionally discoveries were made simultaneously and independently, and that while some diseases etc. are known by joint eponyms, others are known under several different names.

This article is an attempt to list Bart's men (a term interpreted in the widest sense), whose names have been associated with medical terminology. Material has been gathered from E. C. Kelly's *Encyclopedia of medical sources*, 1948, Jessie Dobson's *Anatomical eponyms*, 1946, and elsewhere, but as far as possible all the material has been checked, and in certain cases corrected.

- ABERNETHY, John. (1764-1831). Surgeon.  
*Fascia*—fascia covering the external iliac artery.  
*Lectures on anatomy, surgery and pathology*, 1828. (Described in connection with ligation of external iliac artery.)  
*Operation*—for ligation of external iliac artery. Case of femoral aneurism, reaching as high as Poupart's ligament, cured by tying the external iliac artery. *Edinb. med. surg. J.*, 3, 1807, pp. 46-57. (First performed by him in 1796.)  
*Sarcoma*—fatty tumour mainly found on trunk.  
*Surgical observations, containing a classification of tumours, [etc.]*, 1804, pp. 26-33.  
 Thornton, John L. *John Abernethy, a biography*, 1953.
- ADDISON, Christopher, Viscount Addison of Stallingborough. (1869-1952). Lecturer on Anatomy.  
*Point*—midpigastic.  
*Transpyloric line or plane*.  
 On the topographical anatomy of abdominal viscera in man, especially the gastrointestinal canal. *J. Anat. Physiol.*, 33, 1899, pp. 565-586.  
 Obituary. *St. Bart's Hosp. J.*, 56, 1952, pp. 320-22.

Details here presented include full names; dates of birth and death where applicable; nature of association with Bart's; and details of eponymous association. Only the earliest reference to the writer's description is included in most cases, but additional information can be gleaned from the above books by Kelly and Dobson, or from Garrison and Morton's *Medical bibliography*, 2nd edition, 1954. In addition, one reference is given to a further source of biographical information.

Dates of appointments held in the Hospital are not included, since these are generally the last held, and thus the dates may prove misleading. For example, a person may have been Assistant Surgeon for twenty years but full Surgeon for only two. Certain of our entries have, of course, served in several capacities on the Staff, after first qualifying here as students.

We cannot expect to have included every eponym associated with Bart's men, but hope that we have resurrected some that are not commonly recognised.

- ANDREWES, Christopher Howard. Former Student.  
*Test*—for uraemia.  
 An unexplained diazo-colour-reaction in uraemic sera. *Lancet*, 1924, I, pp. 590-91.
- BAKER, William Marrant. (1839-1896). Surgeon.  
*Cyst*—of the knee joint.  
 On the formation of synovial cysts in the leg in connection with disease of the knee-joint. *St. Bart's Hosp. Rep.*, 13, 1877, pp. 245-61; see also *Ibid.*, 21, 1885, pp. 177-90.  
*Tubes*—tracheotomy. On the use of flexible tracheotomy tubes. *Med.-chir. Trans.*, 60, 1877, pp. 71-84.  
 First described, Erythema serpens. *St. Bart's Hosp. Rep.*, 9, 1873, pp. 198-211.  
 Obituary. *St. Bart's Hosp. Rep.*, 32, 1896, pp. xxxix-xlix.
- BERRY, Sir James. (1860-1946). Surgical Registrar.  
*Ligament*—lateral ligaments of thyroid. Suspensory ligaments of the thyroid gland. *J. Anat. Physiol.*, 22, 1888, Proc. Anat. Soc., July, 1887, pp. iv-v.  
*Lives of the Fellows of the Royal College of Surgeons of England, 1930-1951*, 1953, pp. 73-6.

- BRODIE, Sir Benjamin Collins. (1783-1862). Student.  
*Abscess*—chronic inflammation of head of bone. On trephining the tibia. *Lond. med. Gaz.*, 2, 1828, pp. 70-74; see also *Med.-chir. Trans.*, 17, 1832, pp. 239-49.  
*Bursa*—semimembranosus-gastrocnemius.  
*Pathological and surgical observations on the diseases of joints*, 5th edition, 1850, p. 393.  
*Disease*, 1—chronic synovitis with pulpy degeneration of affected parts. (Also known as Brodie's knee or joint.) Pathological researches respecting the diseases of the joints. *Med.-chir. Trans.*, 4, 1813, pp. 207-77; see also *Ibid.*, 5, 1814, pp. 239-54.  
*Disease*, 2—hysterical pseudo-fracture of spine.  
*Pathological and surgical observations on diseases of the joints*, 1818, p. 281.  
*Operation*—for ulcer or fissure of anus.  
*Pile*—sentinel pile.  
 Lectures on diseases of the rectum. Lecture III. Preternatural contraction of the sphincter ani. *Lond. med. Gaz.*, 16, 1835, pp. 26-31.  
*Tumour*—serocystic tumours of breast. Lectures on sero-cystic tumors of the breast. *Lond. med. Gaz.*, 25, 1840, pp. 808-14.  
 Holmes, Timothy. *Sir Benjamin Collins Brodie*, 1898.
- BULLIN, Sir Henry Irentham. (1845-1912). Surgeon.  
*Operation*—excision of tongue.  
 A lecture on removal of the contents of the anterior triangle of the neck in cases of malignant diseases of the tongue. *Brit. med. J.*, 1905, I, pp. 285-89.  
 Obituary. *St. Bart's Hosp. Rep.*, 42, 1912, pp. 1-8; portrait.
- CABOT, Hugh. (1872-1945). Honorary Perpetual Student, 1926.  
*Operation*—for treatment of hypospadias. (With W. Walters and V. S. Counsellor.) Principles of treatment of hypospadias in theory and practice. *New Engl. J. Med.*, 214, 1936, pp. 871-6.  
*Operation*—for undescended testis. The management of the incompletely descended testis. *South. Surgeon*, 4, 1935, pp. 331-44.  
*Technique*—of nephropexy  
*Modern Urology*, Vol. 2, 1936, pp. 480-84.  
 Obituary. *Lancet*, 1945, II, p. 322.
- CAMMIDGE, Percy John. Former Student.  
*Reaction or Test*—for diseases of the pancreas. The Arris and Gale Lecture on the chemistry of the urine in diseases of the pancreas. *Lancet*, 1904, I, pp. 782-7.
- CRIPPS, William Harrison. (1850-1923). Surgeon.  
*Operation*—colotomy in iliac region.  
*Cancer of the rectum: its pathology, diagnosis and treatment*, 1880, pp. 135-42.  
 Obituary. *St. Bart's Hosp. Rep.*, 57i, 1924, pp. 1-4, portrait.
- CUSHING, Harvey Williams. (1869-1939). Honorary Perpetual Student, 1922.  
*Haemangioblastoma*.  
 (With P. Bailey.) *Tumors arising from the blood vessels of the brain. Angiomatous malformations and hemangioblastomas*. Springfield, Ill., 1928.  
*Operation*—decompression over cerebellum.

- The establishment of cerebral hernia as a decompressive measure for inaccessible brain tumors; with the description of intermuscular methods of making the bone defect in temporal and occipital regions. *Surg. Gynec. Obstet.*, 1, 1905, pp. 297-314.  
*Operation*—exposure of gasserian ganglion and three divisions of fifth nerve by direct route.  
 A method of direct extirpation of the gasserian ganglion for trigeminal neuralgia. By a route through the temporal fossa and beneath the middle meningeal artery. *J. Amer. med. Assoc.*, 34, 1900, pp. 1035-41.  
 The major trigeminal neuralgias and their surgical treatment based on experience with 332 gasserian operations. *Amer. J. med. Sci.*, 160, 1920, pp. 157-184.  
*Operation*—for hydrocephalus.  
 The special field of neurological surgery. *Bull. Johns Hopk. Hosp.*, 16, 1905, pp. 77-87.  
*Operation*—for intracranial haemorrhage. Concerning surgical intervention for the intracranial hemorrhage of the new born. *Amer. J. med. Sci.*, 130, 1905, pp. 563-581.  
*Operation*—on pituitary.  
*The pituitary body and its disorders*, Philadelphia, 1912.  
*Law*—increase of intracranial tension causes increase of blood pressure to point slightly above pressure exerted against medulla. Concerning a definite regulatory mechanism of the vasomotor centre which controls blood pressure during cerebral compression. *Johns Hopk. Hosp. Bull.*, 12, 1901, pp. 290-92.  
*Syndrome*—angle tumours.  
*Tumors of the nervus acusticus and the syndrome of the cerebello-pontile angle*, Philadelphia, 1917.  
*Syndrome*—of pituitary-basophilism.  
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## A FORTNIGHT IN NORWAY

by E. L. KENNAWAY

THE SCANDINAVIAN countries have great advantages for the study of cancer as it occurs in man because:

- they do not present any great complexity of race, religion, and industrial conditions;
- their populations are comparatively small, that of Norway being 1/13 that of England and Wales (Sweden 7,250,000, Denmark 4,400,000, Finland 4,100,000, Norway 3,375,000, Iceland 160,000);
- their standards of accuracy in science and medicine are as high as those of any countries in the world;
- morbidity data are supplied by Cancer Registration which has been established in Denmark (1945), Norway (1952) and Finland (1953).

### PATHOLOGY AND CANCER RESEARCH IN OSLO

These advantages are shown in the most complete study which has yet been made of any one form of cancer in one country, namely that of Professor Leiv Kreyberg on the "Occurrence and Aetiology of Lung Cancer in Norway in the Light of Patho-

logical Anatomy!" which was the subject of a Special University Lecture at the London School of Hygiene and Tropical Medicine on 1st May, 1956. This is also the first study of cancer of the lung upon any such scale in which the various histological types included under that term are distinguished<sup>1,2</sup>.

Recently my wife and I spent two weeks in Norway, of which the first, in Oslo, where we were the guests of Professor Kreyberg's Institute, was occupied largely with matters relating to cancer, while the second, at Bulken, at the foot of the mountains of Western Norway, a delightful spot chosen for us by Professor Kreyberg, was a holiday.

Professor Leiv Kreyber was appointed in 1935 Professor of General Pathology and Pathological Anatomy but the development of the department was prevented by the war and in 1952 the subject was divided between two chairs, of which he held that of General and Experimental Pathology, located on the 10th floor of the new main block of the Rikshospital, with animal rooms on the 11th floor, and a chair of Pathological Anatomy (Professor Olaf Torgersen) for which the accommodation is in another building.

Professor Kreyberg's Institute of General and Experimental Pathology carries out all the diagnostic work for the Rikshospital of 1,200 beds, which takes cases of all kinds except the neurological, which are the concern of a separate hospital. Autopsies are performed in the Department of Pathological Anatomy under the direction of Professor Olaf Torgersen. Professor Kreyberg keeps in close touch with the clinicians, and holds weekly conferences with the surgeons, and with the physicians, in which all the clinical, laboratory and radiological material relating to individual patients is discussed and for such occasions half-plate enlargements of photomicrographs are prepared. When examining a biopsy from an operation he can discuss the findings with the surgeon in the theatre by telephone.

The investigations on cancer of the lung are carried on quite independently of the duties of the Chair toward the Rikshospital and the University.

At the time of our visit Professor Kreyberg was much occupied with the examination for degrees in medicine; the candidate is examined orally, in the presence of all the examiners, and of the whole body of students who thus gain instruction from the discussion of the questions asked. This procedure is quite different from our written examinations and reminds one of the disputations of the mediaeval universities.

The Cancer Registry of Norway, directed by Dr. Einar Pedersen, began in 1952 and is housed temporarily in the Norsk Hydro's Institute for Cancer Research, opened in 1954. We had an interesting talk with the Director of the Institute, Dr. Reidar Eker, and obtained some literature describing the work in progress there. About 8,000 notifications, which are compulsory, are received yearly. The methods of indexing seemed to be extremely efficient. Considerable use is made of cards of different colours, which gave some of the drawers of the card index cabinets the aspect of graphs showing the correlation of various factors, sex, town and country, etc. Dr. Pedersen is about to publish an account of the work of the first five years. Some matters to which he is giving especial attention are (a) a decrease in cancer of the stomach, (b) an increase, greater in males than in females, in leukaemia, (c) a high incidence of cancer of the thyroid in northern Norway where the intake of iodine

would not be defective and may possibly be excessive.

Professor Torgersen, who takes in the Friday *Manchester Guardian*, has in hand some studies of cancer of the stomach namely:—

- (1) a social and economic study of its distribution in Oslo;
- (2) an experimental search for carcinogenic factors, using the stomach of the rat, which is subjected to various combinations and sequences of (a) Vitamin A deficiency, (b) trauma, (c) feeding with heated fats, (d) administration of oestrogens and androgens. The chances of success are of course small, which is all the more reason for making as many trials as possible; so far there have been two suggestive results. This seems to me to be exactly the type of experiment which is most needed in cancer research. He is investigating also the effect of Vitamin A deficiency upon the urinary tract, combined with ligation of a ureter and has had a neoplastic result in one case.

Professor Torgersen plans to freeze-dry 15 ml. of blood from a large number of persons and examine it say 10 years later, e.g. for muco-polysaccharides, or by electrophoresis of proteins, in the light of their history in the meantime. Annual radiography of the thorax is compulsory and the subjects, who are traceable, might provide material.

Professor Kreyberg very kindly arranged that I should give an address, with the help of 22 lantern slides, to some members of Den Norske Patalogforening in the lecture room of the fine building of the Oslo Medical Society. The talk, which was followed by a dinner and a party, dealt with things which we do not know about cancer, referring to various possible carcinogenic factors, town and country life, atmospheric pollution, cancer of the stomach and cervix, cholesterol, co-carcinogenesis, carcinoma-in-situ, and the distribution of cancer over various organs.

#### ATMOSPHERIC POLLUTION

During 1955 samples of suspended matter were collected in the ordinary way, by drawing a measured volume of air during 24 hours through filter paper, at the Rikshospital in Oslo, at Bergen, and at two small towns, Halden and Notodden (Campbell and Kreyberg<sup>3</sup>), and these were analysed at the Fuel Research Station, Greenwich, for total smoke

content, and in the Department of Pathology at this Hospital for 3:4 benzpyrene and other hydrocarbons by Dr. J. M. Campbell, and for arsenic by myself. The figures for Oslo are of the same order as those for Copenhagen (Campbell and Clemmesen<sup>4</sup>, Table I). The concentration of benzpyrene in the suspended matter is similar to that found in large English towns, while the amount per unit volume of air is, in summer, similar to that in a Welsh village (Llangefni, Stocks and Campbell<sup>5</sup>), and in the two small Norwegian towns is lower still. The concentration of benzpyrene shows the usual seasonal trends with a maximum in winter and a minimum in summer.

TABLE I. EXAMPLES OF ATMOSPHERIC POLLUTION.

	Smoke mg/100m <sup>3</sup>	3:4 Benzpyrene $\mu\text{g}/100\text{m}^3$	Arsenic (As <sub>2</sub> O <sub>3</sub> ) 7.0 - 9.4
Sheffield—January 1950	—	7.8	—
February 1948	44 - 173	6 - 33	—
Salford—November to March	—	15 - 30	—
Leicester—Winter	30	—	—
Summer	13	—	—
Mean	21.5	—	—
Mean of ( London, Becton	—	7.1	13.2
Year ( Bristol	—	1.3	3.7
Llangefni, Anglesey—Winter	4.9	0.7	—
Oslo—whole year	1.3 - 5.7	2.5	1.9 - 3.1
Copenhagen—Winter	—	—	—
(Mean of four Stations)	4.9	1.5	1.8
Iceland:	—	—	—
Reykjavik—whole year	0.9 - 1.5	0.23	nil - 0.7
Akureyri—Winter	0.8	—	nil - 1.7
Summer	0.5	0.05	—

It is always interesting to compare such laboratory findings with the impression that one gets on the spot, and in Copenhagen in 1955 we found, in a comparison of four different stations, that this correspondence was remarkably close (Kennaway<sup>6</sup>).

Norway's great industrial asset is electricity from water power which helps to eliminate the combustion of fuel for domestic and manufacturing purposes. From the balcony of Professor Kreyberg's department on the 10th floor one gets a fine view over Oslo (population 440,000). We saw only two smoky industrial chimneys, and a good deal of smoke from a cement works some way down the fiord, but all was of a very pale character. As at Helsinki, one of the chief sources of smoke is steamers in the harbour.

At Bergen, on the west coast, Norway's second largest city (population 112,000), the study of atmospheric pollution is facilitated by the funicular railway to Fløyen, 1,040 feet, from which one can see almost the whole place and a great area of sea, fiords, islands and mountains also. At the time of our visit, on a Sunday morning, there seemed to be no visible smoke at all except that produced by the steamer coming in from Newcastle.

In Norway, as in Iceland, most dwelling houses have a single chimney only in the middle of the roof, a contrast indeed to what one sees in the older parts of London, where two conjoined houses may have a dozen chimney-pots.

#### NANSEN AND "FARTHEST NORTH"

After my talk on Cancer to the Pathological Society I asked for permission to say a few words more, while admitting that nothing is more trying to an audience than a speaker who, having once stopped, begins again. However, I said that this was the first time that I had addressed a Norwegian audience, but I wanted to say something about the reverse process, namely the first time that I was one of an audience for a Norwegian. In 1897 Nansen came to lecture at my native city of Exeter on the "Fram" expedition. He was then at the height of his immense physical and mental powers and had accomplished two great feats of exploration, the earlier one being the first crossing of

Greenland, a hazardous adventure indeed for no one knew what he would encounter. In the 60 years since that day I have not heard a more fascinating lecture, nor seen a finer man.

Nansen's book "Farthest North", in two large volumes, is now hard to obtain, and is much too long; an abbreviated edition would be very welcome. The second volume tells of the almost incredible feat of Nansen and Johannsen who, after leaving the "Fram", lived for 15 months, including of course the long night of an arctic winter, mostly on the floating ice. To carry stores sufficient for this time, even with the help of their dogs, who, except the last one, ate one another, would have been quite impossible. They lived chiefly upon seals, bears and walrus; the first had to be stalked, while the aggressive behaviour of the two others offered some easy shots. Two incidents in this journey are unforgettable.

They landed on a floe to take bearings, mooring their two kayaks lashed together, their sole hope of survival, to the ice; and while looking around saw that the mooring had failed and the kayaks were drifting away on a strong current. Nansen, with little hope of success, swam after them, in his heavy clothing, and overtaking them, was almost too exhausted and cold to clamber aboard, not an easy feat at any time. One cannot read the story of these ghastly minutes without feeling sick all over.

At length they reached a considerable area of land, actually Franz Joseph Land, not knowing where they were, and, hearing a dog bark, knew that after 15 months they were within reach of other men.

#### THE FRAM AND THE KON-TIKI

Not far away from this Museum are housed two of the most famous ships in the world, Nansen's "Fram" and Heyerdahl's "Kon-Tiki." No two ships could be more utterly different in construction, yet both were designed to be entrusted wholly to the guidance of ocean currents. And perhaps their most remarkable feature is, that both reached their journey's end safely. The Fram lies there as immobile as ever she was in the ice, but one can see the massive strength of her timbers to which Nansen trusted in the face of all the prophets of disaster.

#### VIKING SHIPS

Three Viking ships of the period A.D. 800

to 1000, with their contents, are displayed in a Museum, the Universitetets Oldsaksamling; the most conspicuous feature of the ships is the miraculous skill with which the planks are curved and fitted together at the high prow and stem. But the Museum serves another purpose also; children of State School age (7 - 15) are brought to it in swarms and provide an anthropological and social survey of Norway. One sees, among many different types, long-legged fair boys and girls who are obviously going to be tall. All the children look clean; at any rate as far as visible parts are concerned, and well-fed, and nearly all look healthy and a large proportion are distinctly good-looking; at the time of our visit they were lightly and suitably clothed although the hot weather had begun only a few days earlier. In Norway, as in Iceland, there are various human types, ranging from tall, fair, and blue-eyed to short and dark, the latter thought to descend from captives brought back by the ancestors of the former, who ravaged the coasts of Western Europe in raids of which the records, in the Heimskringla Saga, become monotonous.

The Norwegians of A.D. 800 were as capable as are religious people at the present day of convincing themselves that there is a "Next World" in which they would be able to enjoy all that they most wished, and in Norway very practical steps were taken to ensure that the supplies arrived at the right time, at any rate in the case of V.I.P.'s. Fifteen horses, four dogs and an ox were slaughtered for the young queen buried in the Oseberg ship, and an elderly arthritic woman lay near her who may or may not have died naturally at a suitable time; there was also a vast collection of useful objects ranging from scissors and apples to a four-wheeled cart. One could have no more perfect demonstration of Faith in Immortality.

#### NORWEGIAN FOOD

Every traveller in Norway must admit that he is impressed by the excellence of the food. The Scandinavian nations have developed what is perhaps the most satisfactory of all methods of supplying food, the Smorgasbord, a table bearing various kinds of meat, fish, cheese, vegetables, fruit and bread with eggs, salads and milk, from which, with close attention, a generous selection is made, often more than once, while goblets of milk are

filled and refilled.\* This procedure surely achieves, both quantitatively and qualitatively, the social ideal of "the Greatest Happiness to the Greatest Number". The statement is made that rats on a synthetic diet, if provided with solutions of all the chief vitamins, consume appropriate amounts of each one; perhaps the cogitations and hesitations which one observes around the Smorgasbord are the occasion for some such mysterious arithmetical process.

One wonders whether the creation of the Smorgasbord arose as a revolt from the extreme monotony in former times of the winter diet of which there are many indications in the Icelandic Sagas and vivid pictures of more recent date in the novels "Independent People" and "Salka Valka", of the Icelandic Nobel Prizeman Halldor Laxness. Bread was by no means the most abundant food in the North and the unending dried cod took its place to a large extent.

Mushrooms appear often in Norwegian dishes. Professor Kreyberg had found a fungus growing which he had never met with before, but knew to be edible, and with perfect confidence in his botanical taxonomy, we ate a dish of them.

#### HAYMAKING AND CATTLE

Haymaking is an absolutely vital industry for Norway, and for all other countries such as Iceland and Finland where pasture is covered with snow for a large part of the year. The grass upon many of the small and steep places from which hay is collected is cut by a scythe very much shorter in the blade than ours. The field opposite our hotel at Bulken was cut by a two-horse mower; then a man with an iron spike makes holes in the ground a few feet apart along a series of lines across the field while another man places a stake in each hole and stamps the earth down around it. A wire from a spool is wound round each post in succession about eight inches from the ground, and women with pitchforks then collect the grass very deftly into portions which will hang neatly upon the wire; when it is thus covered, a second wire is placed in position above it, and so on until the row of stakes bears about half a dozen wires, and the whole is covered with grass. Thus a series

\* Data collected by W.H.O. show a range of average consumption of milk, in Kg. per head per annum, ranging from 4 in Japan to 296 in Iceland.

of fence-like structures is produced standing at intervals over the whole field. Any hay remaining upon the ground is gleaned with rakes. There have been frequent showers, which is unfortunate. Readers of the Icelandic Saga of Thorgunna will remember an occasion when such showers at haytime consisted, not of water, but of blood, a dreadful portent indeed.

In some areas the hay consists largely of flowering plants other than grasses, which give to the high pastures a wonderful variety of beautiful colours. These flowers of Norway do indeed "paint the meadows with delight".

The sheep which we saw seemed to be all of one breed; the lambs are allowed to retain their tails. Lambs which are sent up with their mothers in early summer to the best mountain pastures can be slaughtered when they return in the autumn with a yield of 60 or 70 lb. of meat which can be kept in cold storage. Some amount of this meat is smoked in the form of sides; the smoke of juniper or alder wood gives the best flavour.

The lambs are born in the spring while the mothers are still in the sheds and the ground snow-covered, hence in their short lives they make no inroad upon the precious store of hay. They are shorn once and yield of course a sheepskin as well.

The cattle that we saw were either of the beautiful Telemark breed, with long horns, and white back-stripe, forehead, and belly, or the red-coated Rödökolle; they produce a specially attractive creamy butter which, in hotels at any rate, is supplied lavishly at all meals. On the mountain farms one sees the Norwegian horses, strong, plump and well-treated. In the partially wooded mountain pastures a horse, cow or ewe bears a bell which suggests the question, in how many countries was this method of tracing cattle devised independently, and when?

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## A CASE OF IDIOPATHIC SUB-ACUTE NECROSIS OF THE LIVER \*

by R. C. COOK

*"The King of Babylon . . . made his knives bright,  
He consulted with images, he looked in the liver."*

*Ezekiel, Chapt. 21, Verse 21.*

### INTRODUCTION

THE LIVER has such a variety of functions that it is not surprising that widely diverse biochemical insults upset the metabolism of its cells. Many things have been implicated as primary causes of parenchymal disease, ranging from virus infections, pneumococcal septicaemia and Entamoeba infestations, to the toxic actions of drugs and industrial chemicals, and to antigenic factors in Banti's disease (hepatic necrosis associated with splenomegaly and anaemia). Despite the multiplicity of the primary causes, the clinicopathological picture has in many instances similar features; while in contrast, the same primary cause may produce markedly different pictures in two individuals, though in many instances the exact aetiology is obscure, as in the present case. The paradox is to some extent explained in that, firstly, the nutrition of the patient, the existence of previous liver damage, and even ill-defined hereditary factors determine the course of the disease in the individual; and secondly, there being no specialisation of different parenchymal cells for different metabolic functions, however specific the toxic action of the primary cause, the whole metabolism of the individual cell will be disrupted. So there are a number of variable factors interacting to determine the course of an individual case.

In the present case of M.F. the aetiology is unknown, and her first attack of jaundice was at the age of 12 years. When seen by the author she was 16, and had been admitted complaining of a recent episode of melaena and of ascites.

### CASE HISTORY

In 1946, at the age of 6 years, a patent ductus arteriosus was ligated, and M.F. has

\* An abstract of the winning essay for the 1957 Bentley Prize.

had no further cardiac symptoms or signs, other than a systolic bruit maximal over the first and second left interspaces.

In February 1952, when 11 years old, she had a tonsillectomy which was followed by some post-operative haemorrhage, and two weeks later M.F. was noticed to be jaundiced. She had neither pain, nausea nor vomiting. Her urine was dark, and her stools sometimes pale, and the cutaneous jaundice lasted with variations in intensity for the next two months and she was still in the same condition on admission to St. Bartholomew's Hospital in June, 1952. On examination then she was described as having "slight hepatomegaly and more obvious splenomegaly". Her liver function tests were found to be grossly abnormal. A liver biopsy was contemplated, but not performed because of a persistently low prothrombin index (48-56% of the normal mean) despite intensive vitamin K therapy.

For fourteen weeks she was treated with a high protein, low fat, high carbohydrate diet, with amino acid and vitamin supplements, but remained jaundiced with no improvements in her liver function tests. She was sent home to continue dietetic treatment, and to be reinvestigated six weeks later.

At the end of October 1952 she was readmitted for further investigation, and a course of Aureomycin. Her physical signs were unchanged, that is she was still jaundiced with hepatomegaly and splenomegaly. Her liver function tests showed no significant improvement. There was no evidence of a raised portal pressure. She continued her diet, including 80 G. of protein, and was given Aureomycin 250 mgs. b.d., which produced a marked subjective improvement, and was free from toxic side effects throughout a two months' course.

At home, being followed up as an out-patient, her jaundice faded and she showed

some improvement in her liver function tests, though the liver and spleen remained palpable. She returned to school (for part time only at first) but was not allowed to play games.

Just over a year later in March 1954, at the age of 14, M.F. had an upper respiratory infection. She had general malaise, anorexia with nausea and vomiting. Her eyes were described as swollen and puffy, and her urine was dark, but also contained much albumin. Five to six days after the onset of this, she noticed some abdominal distension, and was later admitted to her local hospital with right sided abdominal pain, ascites, fever and a leucocytosis—the white count being 29,000 cells per cu. mm. On paracentesis abdominis 4½ pints of yellow fluid were drawn off. It contained pus cells but was sterile on culture and guinea-pig inoculation. The ascites reaccumulated and some peripheral oedema appeared also.

At the end of April she was transferred to St. Bartholomew's Hospital, where she was found to have moderate abdominal distension with leakage of ascitic fluid from the site of paracentesis. The area of liver dullness was normal, the spleen was enlarged two finger breadths below the costal margin, and there was no sacral or ankle oedema. Her temperature at first subsided but then rose and remained high. The urine still contained albumin and was infected with B.coli. This infection was cleared by fourteen days' treatment with Oxytetracycline, when the fever subsided also. The ascitic fluid was slightly turbid and almost colourless, it contained a small number of lymphocytes and red cells. No organisms were found on Gram or Ziehl Neelsen films, and it was again sterile on culture and inoculation. The total protein was given as only 0.16% and on electrophoresis no albumin was detected. After this she was only occasionally febrile but the ascites persisted and her urine was not free of albumin, red cells and hyaline casts until July. She was kept on a salt-free, high protein, high carbohydrate diet with vitamin supplements, and given penicillin and oxytetracycline.

The diagnosis of this episode was acute nephritis, with a secondary urinary infection, the ascites being due to the very low level of plasma albumin following the prolonged and heavy albuminuria. There was no evidence of a raised portal blood pressure at this time.

For the next two years she showed a steady

improvement, and continued normal schooling, playing some games.

At the beginning of October 1956, when aged 16 years, M.F. had two days off school because of a cold. After a few days she again noticed some abdominal swelling, and ten days after the original "cold", vomited about half a cupful of dark blood and passed dark sticky stools for two days. She was tired and listless and the abdominal swelling increased. On admission during the next week she was no longer nauseated, had not vomited again and her stools appeared normal, but tests for occult blood were positive for some weeks. She was not clinically jaundiced. She had no urinary symptoms. At this time she could be described as of a slight build and weighed approximately 110 lbs. after her ascites had subsided. Her periods had not yet started. She was mentally alert and intelligent, though naturally handicapped by her loss of schooling.

On examination she appeared anaemic (her haemoglobin was found to be 46%). Though of a dark complexion, there was clinically no jaundice in the skin or sclera. Her abdomen was very distended with a girth of 90 cms. (35½ inches) at the umbilicus. There were fairly prominent veins on the front of the trunk with the blood flowing towards the chest. The spleen could be felt by ballottement, but not the liver. The extent of the liver dullness was impossible to determine at this stage because the diaphragm was so elevated by ascites—there being in fact, shifting dullness and a fluid thrill. There was a faint palmar and plantar flush, and a single spider naevus on the left hand. There was no peripheral oedema. The liver function tests showed active liver damage, and the serum bilirubin was raised to 2.5 mg per 100 ml. When there was no evidence of further haemorrhage, a barium swallow showed prominent oesophageal varices.

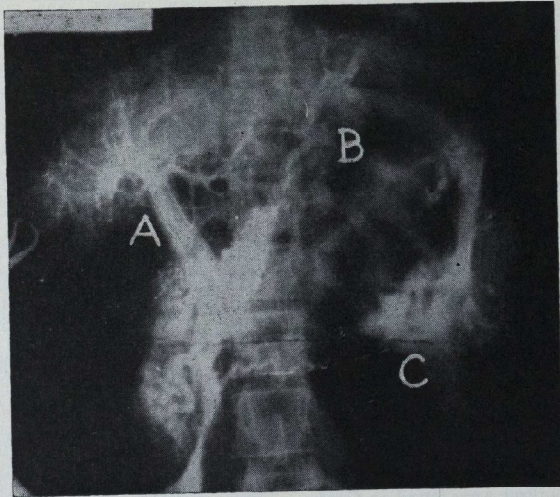
She was transfused with three pints of blood at the beginning of November which raised her haemoglobin to 74%.

With rest and a low salt diet the ascites showed little change until she was given Tabs. Diamox 250 mg. daily for two days, with Mersalyl 2 c.c. on the third day. This produced a marked diuresis and the ascites was much improved within the first week. On a high protein diet and vitamin supplements her liver function tests showed a slight improvement, and it was decided that if they could be raised to a sufficient degree a porta-

caval anastomosis should be performed, in view of the dangerous oesophageal varices and the risk of another major haemorrhage.

The operation was planned for early in the new year, but unfortunately what little peak of liver function there was, came a few weeks before, and her plasma proteins having climbed to 6.4 mg.% (albumin 3.7, globulin 2.7 mg.%) fell slightly to 5.5 mg.% (albumin 3.2, globulin 2.3 mg.%). Thymol and zinc sulphate turbidities were both higher in January than late December, but serum pseudocholinesterase had risen from 22 to 29 units and her serum bilirubin had fallen to

appeared normal. The spleen was large but of normal appearance. A portal venogram confirmed that there was an apparently normal portal vein, but a minute liver and large numbers of tortuous varicose vessels in the region of the pancreas and running upwards towards the oesophagus. The portal venous pressure at the level of the anterior abdominal wall was 335 mm. water (normal range 50-210 mm., mean 100 mm. water), and the portal flow was 3 cm./sec. (normal mean 9.7 cm./sec.). An end to side anastomosis of the portal vein to the vena cava was made (stoma=16 mm.). There was no immediate



A—"Normal portal vein"; B—"Tortuous varicose vessels . . . running upwards towards the oesophagus"; C—Opacity under the capsule of the spleen after an attempted splenic venogram.

1.3 mg.%, the lowest since admission—but still higher than an "out-patient" value of 0.8 mg.% at the beginning of 1956.

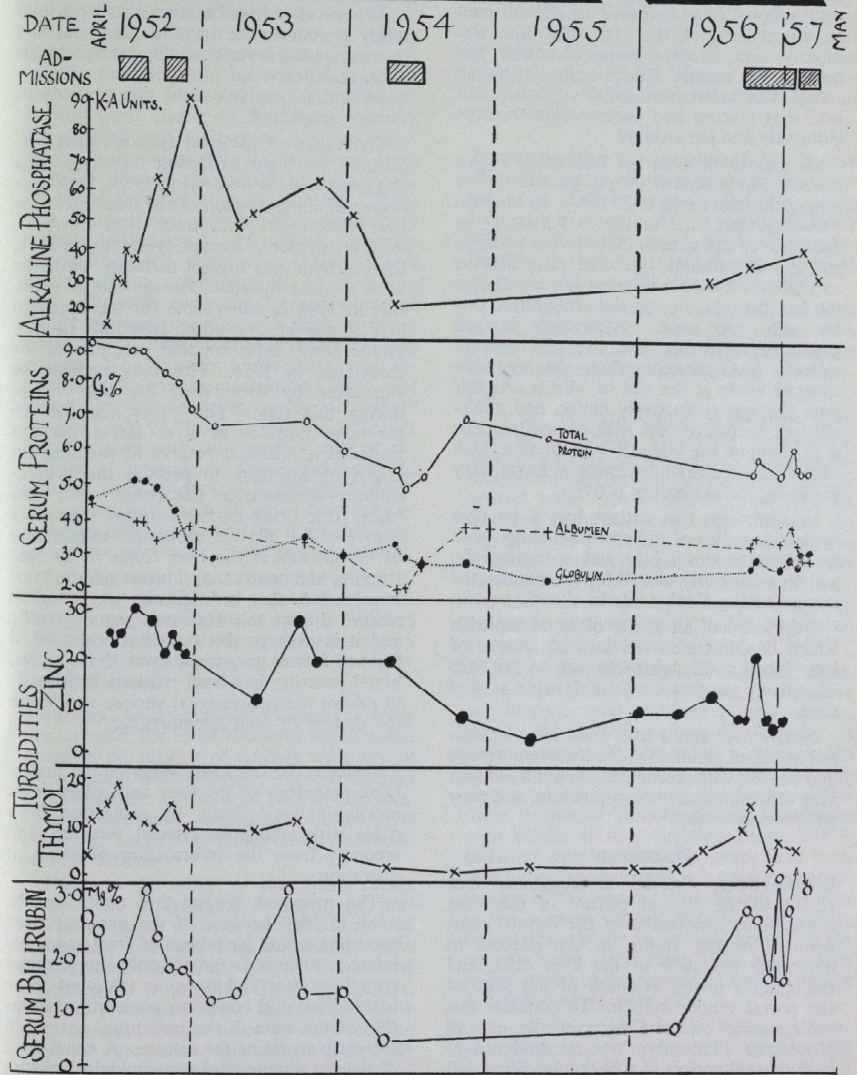
Operation was performed by Mr. A. H. Hunt on January 18th, 1957. As far as the medical aspects of her case are concerned this is of particular interest in revealing the actual state of the liver and the portal venous pressure.

There was no ascites on opening the peritoneum. The liver was very small (about 8 inches by 5 inches by 5 inches), had a brownish yellow nodular surface and no part

significant change in the portal pressure (fall to 320 mm.). The speed of flow increased to 7 cm./sec.

Five pints of blood were given during the operation and M.F.'s condition was very satisfactory afterwards. There was some slight abdominal distension for a week, and she was slightly jaundiced, her serum bilirubin rising to 3.9 mg.%, but falling three weeks after the operation to 1.2 mg.%. When taken off sedative drugs she was mentally alert and showed no signs of hepatic failure.

# LIVER FUNCTION TESTS



M.F. was discharged from hospital on February 9th, three weeks after operation, in a very satisfactory condition. The following day she felt very tired after her journey to Tunbridge Wells and became "sleepy and very yellow", and returned to this hospital on the evening of the 11th when she was drowsy and deeply jaundiced. She was treated for hepatic failure with impending coma, with a diet containing no protein, but with oral glucose and parenterovite, sodium glutamate and tetracycline.

She recovered from her listlessness within a week, but remained deeply jaundiced, her serum bilirubin rising to 29 mg.% by the 14th February, and only falling to 9.5 mg.% by the 23rd of the month. The serum proteins fell and the albumin/globulin ratio became and remained inverted during March, despite the fact that she was on the protein-free diet for only one week. Afterwards it was gradually increased, and she was able to tolerate 80 G protein when she was discharged home at the end of March. At this time she was subjectively better, and clinically not jaundiced and with no ascites. She is to continue her low salt, high protein, high carbohydrate diet while resting at home, very gradually increasing her activity.

In summary, this patient had a painless hepatic jaundice of unknown aetiology, with an initial hepatomegaly and splenomegaly, and was obviously unwell for six months, the disease taking a sub-acute to chronic course.

Next she had an attack of acute nephritis which demonstrated the loss of reserve of liver function, though there was no evidence of actively progressive liver damage at that time.

Nearly four and a half years after her initial attack of jaundice she had a haemorrhage and ascites, with splenomegaly, but a reduced area of liver dullness on percussion, and poor liver function tests.

#### DISCUSSION

**Investigations.** Special investigations that added to the clinical picture in this case consisted of estimations of the various components of the serum in an attempt to determine the state of the liver cells, and radiographs giving evidence of the state of the portal venous system. To consider this radiographic evidence first, at the end of November 1952 there was no evidence of oesophageal varices in a barium swallow, but

they were very prominent in October 1956 after the haemorrhage, and they were the presumed site of haemorrhage. The same condition was demonstrated by the venogram at the time of operation.

The so-called liver function tests were used firstly to confirm the diagnosis, and secondly to estimate the severity of the damage to the liver, and hence aid in assessment of prognosis and in evaluation of the methods of therapy employed.

The values of the liver function tests performed<sup>6,7,10</sup> are explicable in terms of a sub-acute hepatic necrosis in 1952. Some fair degree of compensation of the function of the liver cells took place from 1953 onwards. With recurrence of hepatic symptoms in 1956, the bilirubin and thymol turbidity show the most marked changes. The episode of nephritis in 1954 is remarkable for the apparent lack of any hepatic upset, especially in view of the minor infection that precipitated the recurrence in 1956. This may perhaps be explicable by considering her age change during this time. The hyperplasia of the surviving nodules of liver tissue perhaps provided a sufficient reserve of function for a girl of fourteen, to prevent the hepatocellular dysfunction associated with any fever, from being manifest in any way other than the low plasma albumin. Impairment of the growth of the liver tissue in its constricting and contracting fibrous stroma must have still further reduced the physiological reserve during the next two years' growth, and it is perhaps this fact that bodes so ill for her future prognosis, even if the portal blood pressure has been reduced sufficiently to relieve the oesophageal varices and lessen the danger of fatal haemorrhage.

**Pathology.** In this case, ideas of the underlying pathology of the liver and spleen must inevitably come firstly by projection from cases with analogous clinical pictures, and secondly from the information obtained at operation.

The proposed biopsy that could not be done in 1952 because of the patient's poor condition would have been of great academic interest, since it is largely only the terminal pathology that is known in many of these cases. This end condition gives little indication of the state in the individual patient in the early stages of the disease. A conception of the developing clinico-pathological picture

is required more than descriptions of isolated moments in this progressive disease.

At M.F.'s operation, the liver was found to be shrunken and cirrhotic. Its appearance closely matched Laennec's classic description: "The liver was reduced to one-third of its original size . . . ; its external surface lightly mammillated and wrinkled showed a greyish-yellow tint. . . ." A portion was removed and sectioned and stained with haematoxylin and eosin. It showed a part of the capsule and a segment of liver tissue. The capsule was slightly thickened, and some fibrosis affected the portal tracts and extended slightly into the parenchyma. There was a good deal of chronic inflammatory cellular infiltration in the fibrous tissue, in which distended veins were visible. There was no evidence of hyperplasia of the biliary tree. The cells were closely packed and of foamy appearance, due to a high glycogen content, but there was no evidence of fatty change. The lobular architecture was abnormal in the specimen sectioned. The actual report on the specimen spoke of "slight fibrosis", and an "early Laennec's cirrhosis". But the part sent was in fact one of the nodules of hyperplastic tissue, and presented a much more favourable histological picture than might have been expected from a more representative piece of tissue from this liver, which was, macroscopically, grossly cirrhotic.

Pathologically, then, it would seem that this is an example of sub-acute hepatic necrosis as originally described by Muir in 1908,<sup>9</sup> and related to the clinical picture in a survey of idiopathic cases in St. Bartholomew's Hospital.<sup>3</sup>

**Aetiology.** In this particular case, as in many similar ones, the exact aetiology is unknown. There is no history of contact with any of the common liver poisons. There is nothing to substantiate any idea of a virus infection. Dietary deficiency can almost certainly be ruled out. There is no family history of blood or liver disease.

There is the story of the tonsillectomy followed by a secondary haemorrhage, presumably due to a streptococcal infection of the fauces. It is tempting to postulate some form of sensitisation and allergic response as suggested for acute (Ellis Type I) nephritis, and for rheumatic fever in response to a streptococcal infection a few weeks before the onset of symptoms. There is however no corroborative evidence for such a guess.

**The Diagnosis.** This rests largely on the history, clinical picture and course of the disease, while other investigations have confirmed this and excluded other possibilities.<sup>11</sup> The initial illness of nearly six months hepato-cellular jaundice without an obvious acute episode is characteristic of many cases of sub-acute necrosis of the liver.<sup>3</sup> As in many such cases the disease has shown a period of remission before another episode of liver failure.

**Treatment.** The management of M.F.'s case illustrates many of the features of the treatment of liver disease. Basically such treatment is almost entirely symptomatic or supportive therapy until the liver has recovered to such an extent that it can again maintain a reasonable degree of health.

Until the post-operative episode of liver failure, M.F. was kept on a high protein diet, with vitamin and amino acid supplements during her periods in hospital, and as an out-patient.

On her return to hospital in February 1957, with severe failure and early neurological signs of coma, the protein was removed entirely from the diet and she was given glucose in fruit juices, and a little fat, until after six days her symptoms were controlled and she was given 25G. protein per diem, which was gradually increased until after three weeks she was taking 60 G. and tolerating it well. While on the protein-free diet she was given no amino acid supplements, but was given glutamic acid, and tetracycline.<sup>1, 3, 4, 5, 10, 12</sup>

One of the bulwarks of the general treatment of liver diseases is bed rest. In an acute hepatitis it is relatively easy to insist on this, and to diminish the call on the liver for its various metabolic functions. However in subacute and chronic cases such as the present one, it is obviously necessary to allow some degree of activity despite continuing poor results of liver function tests. M.F.'s activities over the last five years have been very light compared with her contemporaries, though in the summer of 1956 she was able to live a more normal life than previously. Presumably the strain and excitement of the journey home in February 1957, were major contributants to the episode of hepatic failure that followed so soon after.

On admission in October 1956 symptomatic treatment was directed against the anaemia (Hb=46%), the ascites and the

raised portal pressure that was ultimately responsible for the anaemia. Within six weeks, with successive transfusions and ferrous gluconate (gr. 10 b.d.), her haemoglobin returned to a more satisfactory figure.

Her ascites was treated by bed rest and a high protein diet that was "salt-free"—i.e. contained less than 0.5 G. (22mEq.) per day. The ascites continued to increase slightly after her admission in 1956 until she was given biweekly Mersalyl (2 cc.). She was also given Diamox which Sherlock<sup>10</sup> maintains is ineffective in this condition and which is said to precipitate neurological complications. There was no evidence of this in M.F.'s case.

Paracentesis was not considered in 1956 because it would have considerably depleted the body's pool of protein. It was performed in 1954 to eliminate the possibility of a tuberculous peritonitis.

M.F.'s treatment is, in some senses, paradoxical, since on the one hand a high protein diet was required to stimulate hepatic regeneration, and the synthesis of plasma proteins to prevent the accumulation of ascites. On the other hand, such a diet may considerably raise the blood ammonium levels if the liver function is poor, and so precipitate coma, and during the episode of failure in February, when she was distinctly drowsy, protein was withheld, but returned to the diet as soon as possible.

**The Prognosis** in liver disease is notoriously hard to forecast with any certainty, and the liver seems to have unexpected powers of regeneration and recovery.

The degree of liver damage, especially as shown by the plasma albumin level is considered a useful basis for estimating the future course of the disease. Levels below 3.4 G.% are said to carry a grave prognosis<sup>9, 10</sup>, and the level of jaundice is deeper and more constant in the terminal stages<sup>2</sup>, though Sherlock<sup>10</sup> maintains that there is no direct correlation between the serum bilirubin, and the histological picture and the prognosis. The appearance of complications such as haemorrhage, ascites and coma are again bad signs.

M.F. has on this basis a poor prognosis, but it is remarkable how well she has come through each of these complications, and though optimism is quite out of place, it would be unwarranted to say that the liver

might not show further regeneration with many years of relatively efficient functioning.

#### CONCLUSION

In the present state of knowledge about liver diseases, the future management of this case consists essentially of continuing conservative treatment in an attempt to maintain liver function at its maximum possible level, and there is nothing that can be done that will directly improve the state of the liver. It is really a matter of preventing anything from causing further damage to the liver or taxing it beyond its abilities.

It is hard to see any further line of investigation that would in any way provide information that would lead to improvement in this only partially satisfactory treatment. Only partially satisfactory because all that one can hope to do is anticipate complications and take suitable steps to counteract them—the underlying disease is still present and a cure is beyond present horizons. At best the patient can be taught to live with his disability—a disability that does not just hinder some simple aspect of his life that can be fairly readily compensated, but it is a disability of his fundamental metabolism that has far-reaching effects in almost every system, limits life in almost every aspect and inevitably shortens it.

In such a case as this one needs something that would control, prevent or even reverse the fibrotic changes in the liver, so that the parenchyma could regenerate more freely. But what is initially required is an understanding of the aetiology of such cases, so that while complete cure is impossible, preventative measures can be instituted where appropriate.

But more important from the point of view of cure than the primary aetiological factors (which are known in many instances of sub-acute hepatic necrosis) is the early pathogenesis of these cases. Why should an acute hepatitis show an apparently complete spontaneous cure in most instances, but continue into an irreversible sub-acute phase in others? Again, in many cases, as in M.F.'s there is no known acute phase, the disease is of insidious onset and should perhaps be regarded as "sub-acute" from its inception.

The liver may be properly regarded as a great centre of metabolism. Its disturbances are reflected in almost every aspect of the

body's function. It is perhaps the diversity and complexity of the vital functions that occur in the histologically "simple" liver cell that makes the situation so complex from the point of view of its pathogenesis, and in its treatment and in the future, one hopes, its virtual, and finally, actual cure.

#### Acknowledgments

I should like to thank Dr. K. O. Black and Mr. A. H. Hunt for permission to report on this case.

## EXAMINATION RESULTS

### UNIVERSITY OF LONDON

#### Special Second Examination, July 1957

Ashby, P. M.	Holloway, A. M.	Robson, J. R.
Bartlett, J. J. D.	Kingsley, D. P. E.	Smith, C. R.
Benediktz, J. E. G.	Evison, P. R. H.	Martinez, G. S.
Bratton, L. W.	Gillespie, H. M.	Morrison, J. D.
Brown, M. D.	Harrison, R. I.	Parker, J. B. R.
Darmady, J. M.	Hatch, J. D.	Priscott, R. B.
Davies, R. R.		

#### Special First Examination, June 1957

Barrington, D. E.	Green, G. S.	Knight, E.	Ross, A. P. J.
Crawhall, J. C.	Jackson, U. I.	Miller, R. G.	Sharp, G. T.
Gardos, G.	Kingsley, P. J.	Randle, G. H.	Smyth, N. W.

The following General Certificate of Education Candidates have qualified for exemption from the

#### First Medical:

Bergel, R. C.	Patrick, P. L.	Stevens, J. E.	Tomlinson, R. J.
Gugenheim, P. S.	Stanley, R. B.	Terry, A.	

#### B.Sc. Special Examination, 1957

Besser, G. M.	First Class Honours	
Beardwell, C. G.	Second Class Honours	(Upper Division)
Noble, M. I. M.	Second Class Honours	(Upper Division)
Ballantine, B. N.	Second Class Honours	(Lower Division)
Chapman, J.	Second Class Honours	(Lower Division)
Childe, M. W.	Second Class Honours	(Lower Division)

### CONJOINT BOARD

#### Final Examination, July 1957

<i>Pathology</i>	Hall, F. G.	Stuart, I. M.
McKerrow, M. M.		
<i>Medicine</i>	Batterham, E. J.	Vyle, E. A.
Godrich, J. E.	McKerrow, M. M.	Bower, H. P. H.
Hackett, M. E. J.		
Alade, R. B.		
<i>Surgery</i>		
Woolf, A. J. N.		
<i>Midwifery</i>		
Godrich, J. E.	Vyle, E. A.	Hackett, M. E. J.
Alade, R. B.	Mather, B. S.	Hall, F. G.
Lewis, J. H.		

The following student has completed the examination for the Diplomas M.R.C.S., L.R.C.P.  
Batterham, E. J.

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## EIGHT MEN IN A CRATE

by R. GOLDSMITH

OUR JOB as the Advance Party of the Trans-Antarctic Expedition was to get to the southernmost tip of the Weddell Sea; once there, to land our stores and establish a base. With the base established, our scientific duties covering meteorology, survey and physiology were to be carried out; also, the final research into vehicle-behaviour and a land reconnaissance of the first part of the route to the pole was to be attempted.

In carrying out these tasks we had continually to fight the defences with which the continent is guarded. The first objective was achieved with the help of the stout little ship "Theron" and her Canadian-Norwegian captain, Harold Maro. He, his officers and crew fought the ice and won. He is a tough sealer and his years of experience and his skill, handed down from his father, in handling a ship in ice stood us in good stead. For five weeks though, in spite of all the digging and blasting, the ship was locked fast in the ice. Here in the ice, with everyone set on the same purpose, a team was built out of the nineteen individuals on board. There were eight of the Advance Party and eleven so-called observers, among whom three were from New Zealand getting their first experience of the Antarctic. We learnt how inclement the ice could be. We learnt that all man's efforts were puny compared with the vast forces that the ice of the Weddell Sea had at its command. Our hopes and fears, tacit and expressed, centred on the same object: would we be able to break free of the ice before it was too late to go south and find our site? The very short Antarctic summer, with its twenty-four hours of sunlight, was running out when we came free and sighted the towering, brilliant white cliffs of the Caird Coast. The tension that had been so evident on shipboard was now considerably eased as we sailed 700 miles south along the ice coast. It seemed as if everyone had had a weight lifted off his mind, and we were now gathering strength for the next round. Southwards we sailed. Then we could go no further south—we had reached Vahsel Bay. Last visited in 1911 by Dr. Filchner in

the "Deutschland", we were only the third ship to penetrate so far south. Here at Vahsel Bay there is some exposed rock, the only rock to be seen on the eastern shore of the Weddell Sea. We turned west and sought a landing place. Excitement ran high as, forty miles from the bay, we came alongside the sea ice and Bob Millar, a New Zealand surveyor, was the first to jump ashore. A quick reconnaissance showed a difficult but feasible way up the drifted-up ice-cliff to the top of the shelf and a suitable site some two miles from the ship. The experiences of an American expedition this year showed us how lucky we were to have found such an excellent landing place in exactly the position planned months before on the maps in London. Landing places around here are scarce, and it is probable that there are not more than three between Vahsel Bay and the end of the Filchner shelf some 300 miles to the west!

But the Antarctic had not yet given up, it had more cards to play. Blizzard and extreme cold were now our enemies. Each night the sea froze; the pack, never far off shore, moved in ominously when the wind blew from the north. A blizzard on the 2nd February, three days after our arrival, forced the ship to leave the ice edge. Our stores on the sea ice were swamped in icy sea water. Five men, unable to return to the ship in the appalling visibility, spent the night huddled in a shelter of crates, eating frozen ham and tomatoes, sardines, sugar and margarine for breakfast! This looked almost like a replica of the unlucky Filchner expedition—forty-five years of development and accumulated knowledge could not conquer the defences of nature. Fortunately, the wind relented, the ship returned, the tired five were brought on board to rest and the stores were saved from the fast freezing slush. Unloading became more frenzied but less efficient—stores were thrown off and taken half a mile to the base of the ice-cliff and there deposited in no very great order. On the eighth day, February 7th, the wind again brought in the pack. The new ice, compressed by the advancing pack, turned to a sticky porridge: the ship had

to leave.

So, with 300 tons of stores to move, the eight of us waved goodbye to our home. It is difficult to describe the feelings I had. This sort of situation occurs so rarely in life; it is, in the words of the cinema, a "natural". Perhaps the first feeling was one of awed fear. Here were my companions and I, standing on one of the world's most inhospitable shores, with no shelter and nowhere to go. This was a world where you could not go round to the local shop to buy what you had forgotten. Now the months of planning and buying were to show their fruit; all that was not there now we would have to do without. We were ashore with our stores and now it was up to us and us alone. Even the dogs, spanned out in two long lines, seemed awed and kept quiet as the ship sailed away. Everyone was deep in his own thoughts for a few moments, but soon, with the realisation of our vast job, we started up to our desolate base site. A year later I heard what a comforting sight it was for the watchers on the ship as they saw the Weasel making its way up the slope. Their sudden departure was a difficult decision, not made without great misgivings.

That night we pitched our tents and many of us had the novel experience of sleeping on snow and struggling into sleeping bags. It would take a whole book to describe how we lived from then on. How, in the next ten days, we transported 100 tons of stores to the base site; how we decided to begin on our hut before getting the rest of the stores up; how we re-erected the crate in which the Sno-cat had come, and how we lived in it. Then, on the 20th March, the most ferocious weapon of the south—blizzard—dealt us our worst blow. We were progressing slowly but well, though with the temperature falling to  $-20^{\circ}\text{F}$  and the wind blowing constantly work outside was becoming increasingly difficult. Ralph Lenton, our carpenter, was supervising the building work with meticulous care so that everything was put together perfectly in his way, and the skeleton of the hut was almost complete when our great blizzard came. It started one afternoon, giving no warning of its ferocity or length. It blew for six days at gale force, the temperature dropping to  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ). Throughout this time we remained indoors in our crate, sleeping at night in tents.

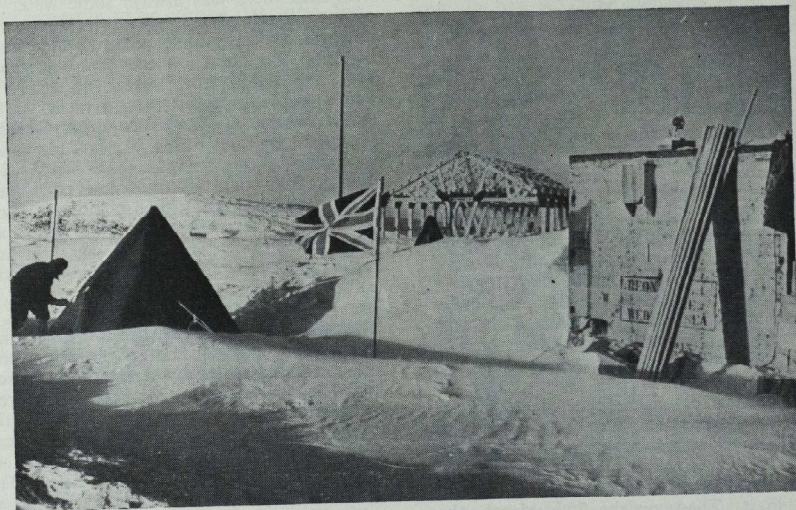
The crate, a well-made packing crate

similar to those in which cars are exported, was our daytime shelter. It was 20ft. long, 8ft. wide and 9ft. high. In it we cooked, ate and had our being. It became the wireless room, workshop, 'met' office, surgery, physiological lab, recreation room, kitchen, dining room and bedroom, severally and together. One end was the kitchen—a bench with shelves above. Three primuses acted as the kitchen stove. Under the bench were more stores. To the left was the water tank, a dustbin with a paraffin heater underneath. This was kept stoked with snow blocks and with luck there was always some water for cooking, drinking or washing up. There was, however, no water to spare for regular washing, nor was there, in the crowded space, with the temperature rarely above  $35^{\circ}\text{F}$ , much temptation to attempt to wash. In the middle we had a 9ft. table and two benches supported on food boxes. A shelf along one wall was all the private space in the hut though from time to time new nails were driven into the walls so that more and more of one's private belongings could be found storage space. At the far end was the workshop—another bench, usually crowded with oddments of one sort or another, more or less frozen to the bench. The wireless, a twenty-four volt vehicle wireless, also stood at this end, protected from the alternating showers and freezing by a waterproof covering. Nevertheless, ice stalagmites often grew on it and one had to knock the ice off the earphones before putting them on. (Somewhat similar to knocking weevils out of ships' biscuits in the sailing ship days.) The walls were quilted with fibre glass, but in spite of this frost formed rapidly on them. This frost had one advantage, for its light-reflecting surface added considerably to the rather dull illumination. I foresee some imaginative paint manufacturer simulating this type of surface, to be called "Antarctic Crystal". The light came from two small perspex windows and, in the first balmy days, from the door. Both these sources became gradually obscured, firstly as the snow drifts piled up against the crate, finally covering it to the roof, and secondly as the seasons progressed so that on April 14th the sun set for the last time for the winter, the twilight giving way to twenty-four hours darkness. In these conditions we lived for nine months, the ceiling of the crate becoming more and more festooned with clothes hung up there ostensibly to dry, though after

weeks up there they seemed as damp as ever. The ceiling too became frost-covered, and when the outside temperature rose above zero the ceiling inside would begin to melt and drip. What a wonderful sight it was to see the eight of us sitting at our meals, hoods up, trying to dodge the drips; umbrellas were not, unfortunately, among our equipment.

In this hut we weathered the great blizzard during which the door was finally covered. In fact, all our attempts to keep it clear failed; even digging it out every half hour proved useless, and eventually we cut a

exposure: our best efforts were of no avail to save her. It requires severe conditions to injure a Husky born and bred in similar conditions in Greenland. The skeleton of the hut had caused in its lee a huge drift, 20ft. high, 50ft. wide and 60ft. long, burying beneath it all the prefabricated walls for the hut. The combination of wind and high tide had caused the sea ice to break up, and with it all our coal, ninety per cent of our paraffin and petrol, the balloon, the workshop hut sections, a tractor, balloon chemicals, and an assortment of engineering stores. When Ken



*The shelter of the hut is complete. The crate is in the right foreground and one of the sleeping tents on the left. Note the large drifts to the left (north) of the skeletal hut and crate, the latter engulfing a tent.*

small hatch through to a canvas lean-to behind the crate where we kept our current food supply. In the evenings we would troop to our tents to sleep. This was the performance of the day. Everyone would be climbing over one another looking for extra clothing for the journey, for though it had always been carefully hung up it was never to be found. Finally, fully clad, looking like Klansmen, we were ready for the hazardous journey to our sleeping-tents.

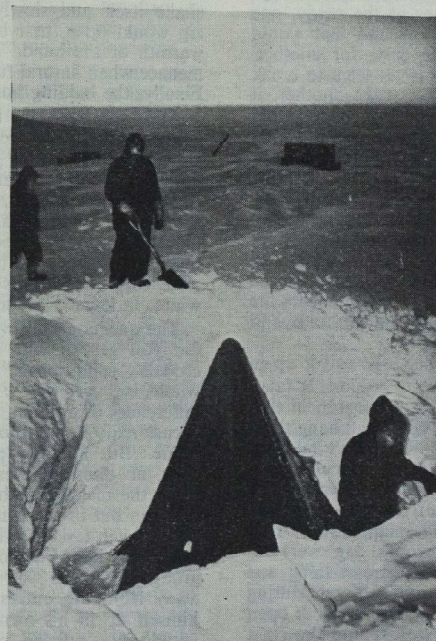
The blizzard blew itself out on the seventh day, leaving our little world quite changed. Among the dogs we had one casualty from

Blaiklock, our leader, came back with this news we could not credit it, but as we took up his suggestion to talk it over, over a cup of tea, we realised it was true.

At first a curious elation was the dominant outward emotion. Here was a challenge that we had to face together. But we realised that we would have a cold and rather cheerless winter. For myself, I was afraid, imagining the horrors of an Antarctic winter with no coal, foolhardy enough in England but unheard of here, with no shelter and no comfort. I feared that our scientific programme would have to be severely curtailed and much

of our time would be wasted. Fortunately, my worst fears were not realised. Next day depression was much more apparent and we wandered around the site not knowing where to start on the gigantic task of salvaging the buried stores. The drifts, hardening rapidly, seemed too formidable for eight to attack. It took a day to recover our equilibrium and get down to digging, which became our chief occupation for the rest of the year.

not blow down in 75 knot winds, nor tear. They gave us reasonable shelter at  $-63^{\circ}\text{F}$  ( $-53^{\circ}\text{C}$ ), but they were by no means comfortable. The great enemy was the damp. In the really cold weather the double-down sleeping bags would remain dry for about four days only, after which the damp, frozen in these temperatures, would make itself felt. After a month the limit had been reached. The bag, instead of being a nice light fluffy



*Digging out a buried tent after a blizzard. The man in the middle is wearing a sheepskin nose-band for face protection.*

This blizzard virtually made certain that we would spend the rest of the winter in our crate and tents. Upturned boats, store huts and stone caves have all been used for winter dwellings in the Antarctic. We were to use the interesting new combination of a packing case by day and tents by night. These tents, of a special polar type, pyramidal in shape and double-skinned, stood up well to the great strain to which they were put. They did

insulator, had become a stiff board-like thing with ice within the innermost layer. The performance of getting in and out of this is worthy of the music-hall. Imagine a dark evening, the wind whipping the drift high about your head. You get to your tent and you grope for the tapes that keep the sleeve-like entrance closed; having unfrozen them with the warmth from your hands you untie them and flop into the tent. What a relief

to be out of the wind! But the temperature in the tent is the same as that outside.  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ). Now you have the choice of lighting the lamp or the stove first. Both have their advocates, both their advantages, for with a light you can see and everything seems to be warmer; with a stove everything is warmer but you may knock something over on the way. So, on the whole, it is better to light the lamp first. Grope for the matches; if you are sensible you always keep three or four boxes at the ready, one might slip off and get lost and that would mean going back to the crate for another. Strike one and it breaks (they seem to break more easily in the cold); strike another, it breaks again; strike a third—a light. Hold it to the wick, and with patience and a little coaxing the lamp will light. On with your gloves quickly, for your hands are getting dangerously cold. Then, ‘meths’ into the primus, three matches to light it—that is, two and a half to warm it and half to light it. Be careful not to pick up the meths can with the bare hands, it is liable to burn. Soon the primus is roaring and in a few moments the tent is really warm. Then you can relax and restore the circulation.

Now to get into the bag. To roll it up in the morning, in true Scout fashion, is fatal. For it will, in the evening, be frozen in that position. Take off your boots and hang them in the top of the tent; you don't take off much else. Some, in fact, wore their boots. Gloves, balaclavas (the right and wrong way round to warm the nose), down trousers and jackets, were all popular night attire. Two blankets inside the sleeping bag were *de rigueur* at Shackleton. The smart thing was to shake the ice off them in the crate during the day. To get into the bag, break it open and get in, taking care to get into the right layer and not to ruck the blankets too much. Nothing worse than having to retrieve the blanket from the foot of the bag. Minor adjustment of blankets so as to cover your face without your actually suffocating takes about half an hour—the object is to do it more quickly than your cohabitant, so that he will have to blow out the light and put out the primus, both tasks involving disarrangements of the carefully arranged bag. Lastly, ease the zip up and you are ready to face the coldest night.

Next morning, the procedure is reversed—once again the first thing is to light the lamp and stove. No one likes doing that and you

pretend you are asleep in the hope that your partner's bladder will drive him out before yours does. I was usually unlucky but I did, therefore, have the advantage of seeing the emergence of the adult from the chrysalis. Ken, my partner, would stir a few minutes after the stove had been lit; first a small shake of the green blanket emerging from the top of the bag to remove the frost, then the whole bag, stiff and board-like, would sit up, crackling as it went. It would shake itself and slowly, very patiently, the zip would open, first being unfrozen by the warmth of the hand. Frozen zips can be a menace when natural functions call urgently! Finally, the balding imago would appear.

After some months the tents were thickly encrusted with ice, yet they remained fine shelters. All sorts of gadgets were tried to improve comfort; canvas stretched on a frame for a camp bed, an air space beneath, fibre glass on top, passage dug out in the middle, straw on the bed, blankets on top of the bag or under the bag. All these devices were tried, but it was still very cold and a winter in tents is not to be recommended.

The question that everyone asks is, “How did you get on with one another in these crowded conditions?” The answer, on the whole, is “very well”. Naturally, we had our differences of opinion, and naturally tempers occasionally flared, though not as often as at home. But no long-term quarrels, no rancour, no division, ever became apparent. I think the reason for this lay not so much in the men but in the conditions. We knew we had a tough task and that united us. We also knew that it was of no earthly use to bear a grudge for there was nowhere to go to get away from the others. No one could shut himself up in his own room and sulk—one could only sulk in public, which is most unsatisfactory, or in the icy privacy of the tent, most uncongenial. So it was that harmony reigned. We were as diverse a group as could be found anywhere. There was a diversity of background and education, of religious beliefs and ways of life, of age and experience, and yet under these conditions, and because of these conditions, we became a family. A family which stuck together during a very difficult winter. It was a family way of life that we led; we kept house and cooked, we built our shelter somewhat on the pioneer pattern. Of course, we were an all-male society; we missed the civilizing influence of women, though they figured quite

prominently in our conversation. Our direct contact with the outside world began three months after our arrival; from then on regular wireless contact kept us in touch with our families. Telegrams made the day whenever they arrived. Though it is difficult to say much in 20 words, the fact that a well-known signature often followed the often garbled messages was enough to give real pleasure. Soon all telegrams were shared so that all might have some of the warmth that they gave. Thus, our family even had its cousins and aunts about whom we could all gossip with a certain amount of knowledge.

Though the establishment of the base took very much longer than had been anticipated (in fact, when we were relieved the hut was still 30 per cent incomplete), and though our main occupation throughout the year was building the hut—which included tunnelling for our buried panels and digging out 150 tons of snow from the partially walled hut, blown there by a blizzard which came at a time when one main wall and half the roof were complete—we nevertheless completed a full scientific programme.

The first was meteorology. Full surface observations were carried out from March 1st onwards, though a twenty-four hour programme was not feasible until reasonable night accommodation could be found for the night observers. This was achieved on September 1st, though a picture of the night duty-man, huddled in his duffle coat and full outdoor equipment, in the ‘met’ office where the temperature hovered around  $20^{\circ}\text{F}$  ( $-7^{\circ}\text{C}$ ), bears evidence to the extremely uncomfortable conditions they had to put up with. Many new difficulties became apparent throughout the year in the mere technique of observations, and from these and from the observations themselves much will no doubt be learnt. Upper air investigations by means of radio-sonde balloons had to be abandoned owing to the loss of the balloon hut and the bulk of the balloon chemicals. A limited number of pilot balloon flights was however carried out during the summer. There were three ‘met’ men, and though they were teased unmercifully their task was not envious. Going out at three-hourly intervals in all weathers took great perseverance and not a little courage. One must experience a 40-knot wind at  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ), in the dark to know the hazards. It is not so much frostbite or exposure, but the mere standing up in the wind and finding your way to and from the

screen with everything obscured as in a fog. I know that they often experienced difficulty in navigating back to the crate, a mere 60 yards or so away.

A physiological programme had been devised, with the experience gained on the British North Greenland Expedition, by the Division of Human Physiology of the Medical Research Council in conjunction with Dr. Allen Rogers the physiologist with the main party. I was to carry out the first part of this. It speaks very highly for my seven companions that we managed to do as much as we did, for it did mean stripping to be weighed and to have our fat thickness measured. This may not sound too much to ask, but in the crowded conditions alluded to above, and the temperature not much above freezing, this was a somewhat irksome imposition and was, in fact, for most of us, the only occasion for a complete strip to replace worn out or too-dirty clothes. Nevertheless, continuous records were kept in an endeavour to measure by some means the acclimatization of man to the cold. Observations made on clothes worn at different stages through the year may well give some indication of this. Indoor climatic observations, apart from being somewhat startling, i.e. average sleeping temperature from August to December in the main hut was  $19^{\circ}\text{F}$  ( $-6^{\circ}\text{C}$ ), will give some idea of the efficiency of modern insulation and ventilation, and an accurate picture of the indoor environment in which we existed. A dental survey will perhaps give an answer to the question “Are the teeth affected by the cold?”. If so, how? Sleep records of the men were maintained throughout. The work is being continued and, under improved conditions, is being extended this year to cover energy balance observations. The conditions prevailing during the first year were hardly ideal for research. For the first eight months we were herded together in a crate; then for three months we lived in one end of a partially completed hut. In November I furnished the medical room, but as the temperature rarely rose above freezing it was of no great use.

Medical work as such took very little of my time, so that I became a tolerable cook, learning to prepare meals, bake bread and cake, for eight on three primuses. I learnt a good deal about hut construction and carpentry, but never became master of the saw which continued, in my hands, to go its own way. I learnt something of meteorology, the

hazards of Antarctic engineering and any wharfie would be proud of the way I carried crates whose very appearance would have frightened me at home.

We all remained remarkably healthy in spite of the unfavourable conditions under which we lived. I recorded no bacterial infections throughout the year. We did, however, suffer early in the winter from persistent sore throats, the origin of which might have been viral or due to the cold. When the relief ship arrived, having called previously at our neighbours, Halley Bay, 300 miles to the north, and spread the common cold there, we did not even catch cold. Though the opportunity for accidents with vehicles and during building were always present, we were remarkably free of them. I think there is little doubt that in the extreme cold one becomes less careful as it involves too much effort, but perhaps we were just lucky. Our accidents were confined to comparatively minor injuries, though a blast of oxygen from a cylinder into the eye might well have proved more serious than it was.

Of the special hazards of the cold, we saw little. Though their threat is always present, sensible behaviour and avoidance of risks should prevent their occurrence. If any of them do occur inquiry will nearly always show that avoidable risks were taken. We had one case of snow blindness due to someone on the ship not wearing goggles on an overcast day. Such days seem almost to be of more danger than bright clear ones. Minor frost-bite of cheeks, nose and chin were common and are in these temperatures unavoidable, but with constant vigil, everyone watching everyone else, more serious freezing of the face can be avoided. While on the ship we had a number of swims involuntarily in the sea, temperature around 28°F (-1°C), without ill effect.

Strains and sprains due to the unusually hard work were common but rapidly yielded to treatment. Teeth gave little trouble, though I did do a number of temporary stoppings. One case of acute gastritis caused me most worry, for putting the patient to bed in a tent at -30°F (-34°C) was putting him in hardly the right environment to get quick favourable results. Diet too proved a problem—but nature won out once more. Making my round to the tent where this patient lay, was a novel experience, a contrast to the usual ward round.

My twenty-four other patients, our huskies, gave me little trouble. A few bites to sew up, two cases of boils on the feet, two undiagnosed pregnancies, were the total of my veterinary practice. One, which made my reputation as 'vet', occurred only a few days after we left England. Having given it as my considered opinion that a certain bitch was not pregnant, she delivered herself of six fine puppies two days later. The huskies were excellent patients, though they removed most accessible stitches as soon as they were inserted. They took no offence and remained friendly and pet-like.

It was only towards the end of the year that I got the medical equipment indoors, and it is a triumph to the suppliers that the contents of the box marked "Do not freeze" stood up with little damage to -60°F (-31°C). Up to that time my surgery was a small sledging-box designed to contain the requirements for emergencies in the field.

A more immediately useful research was that of our engineer, Roy Homard, who was *ex officio* clown to the outfit; his studies of the technical faults of our motor transport enabled the main party to make suitable modifications. All his work was done in the open air, owing to the loss of our workshop hut. This is no mean achievement, for the mere taking off of a nut at minus twenty is a major undertaking. Not only cold, but drift, conspires to make life difficult. I shall never forget the picture of the Sno-cat's engine filled to the top with snow just after one of the cylinder heads had been removed. Snow was everywhere; the hydraulic system was full, as were all the cylinders: even the cab was full of snow. You need to have a great sense of humour to keep sane when that happens.

Finally, the programme included topographical survey. We fixed the base site accurately by means of numerous star sights. The extreme cold added a new difficulty, for the half chronometer that we used for these observations became distinctly unreliable if taken out into the cold, so that the time keeper had to remain indoors while the observer shouted from the roof of the crate. As spring turned to summer we began our programme of reconnaissance and survey. Our first trip was to Vahsel Bay, mapped roughly by the Filchner Expedition in 1912. On this journey we travelled with one team and two men: Ken Blaiklock as surveyor and I as number two. We managed to reach

the entrance of the bay, but owing to a vast glacier tongue failed to penetrate it. We mapped the coast, accurately fixing the position of the Moltke Nunatak, a rock outcrop—the only one for 200 miles—and found seals which we required urgently to feed the dogs, for we had lost our dog food on the tide. We collected these some three weeks later with a Weasel on the only mechanical journey we ever made. Our other journeys, over previously unexplored ice, penetrated in stages to nearly 200 miles south, where we reached a new range of mountains. These, the Theron range, rise almost sheer from the flat shelf to a height of 3,000 ft. above the ice (3,700 ft. approx. above sea level). We first sighted the mountains from 90 miles away; this was only possible because of the clear atmosphere and the high refraction.



The seal for dog food was frozen hard and was sawn up into rounds and then chopped into portions. Man on the left is wearing nylon-fur anorak. Light provided by a paraffin pressure lamp.

In their crags skua gulls and snowy petrels appeared to be nesting. We saw great flocks of these birds and found a number of dead skua chicks lying around the foot of the cliffs. The nearest food for them must have been well over 150 miles away! We took geological specimens. On a subsequent aerial visit we found coal and fossils, a discovery of immense geological significance and interest, for they prove once more that this region of desolate ice deserts was once a thriving semi-tropical forest area.

We were out on this our last and longest journey for twenty-one days, about the maximum length for an unsupported one team

effort. Most of the time we travelled at night because the sun during the day burnt our faces in spite of all we could do, and made the snow rather soft and sticky in spite of temperatures around 25°F. We spent Christmas 60 miles from Shackleton, but celebrated it with a magnificent dinner culminated by "medicinal" brandy. Even the dogs were given extra food, and one of them enjoyed the balloon which had decorated our tent.

Our year was nearly up, and in spite of some very bad luck and some foolish mistakes we had almost completed what we had set out to do.

Now, at Shackleton and at South Ice—the advance base at 82° south—scientific observations are continuing and preparations for the long journey over unknown country with

unknown hazards are well in hand. In a year's time we shall know the outcome. In the years to come we shall, bit by bit, get the results of the observations that have been carried out and man will know a little more about the globe on which he lives.

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## A VISIT TO THE UNIVERSITY COLLEGE OF THE WEST INDIES

by JOHN W. S. BLACKLOCK

DURING APRIL, at the request of the University of London, I went to University College, Jamaica, partly to take part as Visiting Professor in the routine work and the teaching and partly to examine in Pathology in the Final M.B., B.S. examination. Your editor asked me to write a short article on the College in order to foster good relations between an old foundation like Bart's and a very young one like that in the West Indies.

The University College of the West Indies was founded as a result of the recommendations of the Irvine Committee in 1944. This Committee was named after its Chairman, Sir James Irvine, Principal and Vice-Chancellor of St. Andrew's University. Their recommendations were accepted by the British Government and the Governments of the Colonies in the West Indies, including British Honduras. Thus University College, West Indies, came into being late in 1946. Her Royal Highness Princess Alice of Athlone, G.C.V.O., G.B.E., V.A., was installed as its first Chancellor in 1950. The University is one of the youngest in the British Commonwealth, and at present is going through many of the difficulties associated with youth, more particularly as with the coming of Federation in the Caribbean area this has raised problems of financing such a large educational undertaking—always a costly business to any government.

At present there are three Faculties in the College, Arts, Science and Medicine, though it is proposed, if funds become available, to have other Faculties such as Engineering. In addition there is a large Department of Extra-Mural Studies which organises extra-mural courses in the numerous West Indian territories each of which has its own committee for extra-mural studies. Lecturers are sent out from the College to take part in these courses in order to encourage a higher standard of education for both youth and for adults. This is no mean undertaking from a geographical consideration when one looks at a map of the Caribbean area. Another important project is the Institute of Social and

Economic Research where the social and economic problems which confront the area are studied by a team of expert research fellows.

The College and the Teaching Hospital are situated at Mona, about seven miles from Kingston, Jamaica. The site is almost 700 acres in extent and is situated at the foot of the Blue Mountains, which, rising to over 7,000 feet, form a most impressive background. In addition to the Teaching Hospital there are excellent buildings, housing the Senate House and the Registry, the Library and the various lecture theatres and laboratories, a large Students' Union and two Halls of Residence for men students and one for women. In addition there are villas and flats for the various members of the teaching staff. Thus the teachers and the student body live together in a happy communal existence.

The Teaching Hospital has about 300 beds devoted to medicine, surgery, obstetrics and gynaecology. This hospital, which is very modern, has been approved as a Teaching Hospital by the University of London and has Professors of Medicine, Surgery, Obstetrics and Pathology. At present there are about 90 students receiving clinical training and the amount of teaching material is very varied comprising, as one would expect, a fairly large number of tropical conditions, though when I was there I saw two cases of very acute rheumatic fever, one of which died, with a typical rheumatic carditis such as I used to see in Glasgow many years ago.

The athletic pursuits of the student body are well catered for as there are large playing fields for football, cricket, hockey, tennis and a swimming pool of Olympic size. It was most interesting watching the games of cricket which were played with a jovial enthusiasm, lacking that tenseness which is so characteristic of cricket played in England by men or by women. One would say that cricket teams training under such conditions will prove very formidable rivals for any English team. Unfortunately, the football season had passed

when I was there and I did not have the pleasure of seeing my favourite game. In the water the students are most expert and on a few occasions I actually saw students swimming the whole length of the swimming pool under water.

The College has been accepted by the London University into a scheme of Special Relationship and under this scheme, *inter alia*, Degree Examinations are conducted by examiners from the University of London in association with the College examiners. The results of any Degree Examinations are, however, finally determined by the London examiners. In the Faculty of Medicine, the Degree Examination in the various subjects are similar to those held in London as well as the standard of a Pass and for Honours. Examining these students in Pathology, one was naturally impressed with their greater knowledge of tropical pathology than that of students in Great Britain. Like the students at home, however, there were those who had obviously done a good deal of work and were assured of a Pass, those who had done a little work and were border-line and a few who had practically done none and were assured of a Fail. Indeed, examining them I formed the opinion that there was no difference between students in Jamaica, in Glasgow or Edinburgh, Dublin or London, Oxford or Cambridge—the only difference is in the examiners. There are always the few students who appear to enjoy the undergraduate life and neglect their studies so that the examiner has the pleasure of meeting them again. Indeed many of them are personalities and one enjoys meeting them more than once.

In the clinical subjects, students act as clerks and dressers in the wards and outpatient department, very much in the same way as students in a London Medical School. Laboratories are all extraordinarily well equipped with the latest American and Continental apparatus. When I enquired where they obtained the money and the facilities for the importation of such materials, I was informed that they were mostly supplied by various American Foundations. I found myself coveting some of this equipment for the Pathology Department at Bart's.

As elsewhere, student societies and clubs were legion, there being no less than about 30 when I was there. Some of these were of a most intellectual nature, such as the Physical Mathematical Society, the Modern Languages Society and, as in Bart's, the

Camera Club seemed to have much the same difficulties in finding a suitable place for a dark room.

Students are required to reside in the Halls of Residence during the first three years of their course, the annual charge for board, lodgings, games and medical attention being at present £130. This, however, is subject to fluctuation depending on the cost of living. There are three Halls of Residence, Chancellor Hall and Taylor Hall being for male students and Irvine Hall for women; each accommodates about 150 students. The students in the Halls were taken from various Faculties and from various places in the Caribbean area so that a free exchange of experiences in the various subjects which they are studying is possible and also, in view of the approach of Federation in the area, the students are able to discuss with each other and understand the problems of their respective islands. Each student had a study-bedroom but instead of windows, there were slatted doors, as with hurricanes no glass can stand up to the wind pressure and slats were found better. The students, however, told me that during hurricanes everything in the room became wet with the driving rain. There were also the usual other rooms found in any student residence: good dining rooms, small rooms for social functions and, in the case of the Halls for male students, excellent bars. Students who are resident elsewhere in the Caribbean area than Jamaica are provided with a free passage to and from their place of residence at the beginning and at the end of their courses. For students who desire to return home during vacation, reduced fares are available. One rather gathered that everything was being done to encourage education amongst the peoples of the Caribbean and there was no attempt to distinguish between black, brown or white. Indeed they all mixed freely and there has been much intermarriage between negro, white, Indian and Chinese, with a result that one often had difficulty in deciding just what they were.

While I was there the students at Chancellor Hall invited me to one of their end-of-term dances which started at 8 p.m. and finished with breakfast at 6 a.m. It was a colourful assembly as the dusky ladies are very dress-conscious and their frocks, which were of brighter colours and more frilly than those at home, had a kaleidoscopic effect. When these students danced, every muscle in

their bodies moved and it was a spectacle which would have delighted the heart of any anatomist to see "the anatomy of motion". Even at these dances there was no suggestion of a colour bar: black danced with white and white with brown. Part of the music was provided by the steel band of the Hall which played some calypsoes particularly for my benefit and tried to instruct me in the problems of percussion and sounds of these steel instruments. It was a thirsty business, however, dancing in the tropical heat and there was an abundance of liquid refreshments to suit all tastes, served in the open air in the courtyard under a tropical moon, with rather a vicious type of mosquito making merry on

## SPORTS DAY

THE SEVENTY-FOURTH Annual Sports were held at Chislehurst on Saturday, June 22.

After last year's debacle when rain had fallen incessantly throughout the afternoon, we were particularly anxious for a fine day and the organising committee had been keeping their fingers crossed for weeks. And this year all the portents seemed propitious. There had been no rain at Chislehurst for many weeks; the grass was dry and parched and thirsty for rain. Saturday morning was perfect. Clear skies and a fanning breeze. But then, at lunchtime, it began to cloud over. Thick grey clouds from the northwest, heavy with rain. At two o'clock it began to spatter . . . as it so turned out, that was all the rain we had, but the damage had been done for the lowering clouds must have dissuaded many from making the journey to Chislehurst. In retrospect, it seems that we had chosen the coldest and most cheerless afternoon in a glorious June. However, the treachery of the weather was soon forgotten in a full afternoon's racing.

The best performance of the afternoon was the record-breaking shot putt of J. Stevens which bettered the existing record by 8½ inches. Though no other records were broken, several fine performances were given during the course of the afternoon. In the Mile, C. P. Roberts outdistanced all

the more sensitive skins. The next morning I thoroughly appreciated the results of multiple histamine reactions.

In the end, I was left with the impression that this young College was a most virile community, interested in doing all they could for the Caribbean area and its people. They were all agreed that Federation was a good thing, but even in spite of this they were very proud of being Britons and had an intense loyalty to the Throne. With such a spirit in the youth the future of this area is undoubtedly assured, provided the politicians are disregarded and a few statesmen are available to guide the destinies of these people.

the rest of the field to win with the greatest of ease in 4 minutes 38.3 seconds. Roberts also won the High Jump and 880 yards and was again the outstanding performer of the afternoon this year. The 440 yards proved an exciting race with G. Halls just holding off a strong challenge by D. O'Sullivan to win by two strides in 52.9 seconds. D. O'Sullivan himself completed a double, winning the 100 yards and Hurdles. In the field events, the fine javelin throwing of J. A. Garrod was conspicuous.

The Visitors' and Children's races both received good support; no less than three heats having to be held for the egg and spoon races. In the Sack race, Miss J. Swallow gave further proof of her incontestable supremacy.

Despite a stirring victory by the Clinical C team in the 4 x 200 yards relay, the Clinical B team won the inter-year contest easily, and thus the coveted barrel of beer. Their victory was a triumph for four athletes—C. P. Roberts, J. A. Garrod, R. G. Thomson and C. Craggs who amassed almost all the winning total between them.

Following the last event, Cups and Prizes were presented in the pavilion by Mrs. W. D. Coltart. A new feature of the prize-giving this year was the presentation of a new President's Cup to the athlete who, in the

opinion of the President of the Sports and the Captain of Athletics, had set up the best performance of the afternoon. The cup was awarded to J. Stevens for his record-breaking shot putt.

The Captain of Athletics, Arthur Tabor, in a short speech thanked Mrs. Coltart for so graciously presenting the prizes and recorded his gratitude to Mr. and Mrs. White, to whom so large a measure of the success of each Sports Day is due.

B.D.G.H.

### Results—

**100 Yds.**—1, D. O'Sullivan; 2, G. Halls; 3, R. Fell. Time: 10.8 secs.

**220 Yds.**—1, G. Halls; 2, J. Hedley-Whyte; 3, D. Alder. Time: 24.1 secs.

**440 Yds.**—1, G. Halls; 2, D. O'Sullivan; 3, C. P. Roberts. Time: 52.9 secs.

**880 Yds.**—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 2 mins. 4.6 secs.

**1 Mile.**—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 4 mins. 38.3 secs.

**3 Miles.**—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 16 mins. 15 secs.

**120 Yds. Hurdles.**—1, D. O'Sullivan; 2, A. S. Tabor; 3, D. Alder. Time: 16.5 secs.

**High Jump.**—1, C. P. Roberts; 2, T. B. Duff; 3, J. A. Garrod. Height: 5 ft. 7½ ins.

**Long Jump.**—1, A. S. Tabor; 2, M. Noble; 3, P. Fasan. Distance: 19 ft. 9 ins.

**Javelin.**—1, J. A. Garrod; 2, J. Stevens; 3, E. Makin. Distance: 153 ft. 5 ins.

**Weight.**—1, J. Stevens; 2, C. Craggs; 3, E. Makin. Distance: 39 ft. 4½ ins. (New Record).

**120 Yds. Handicap.**—1, C. Craggs.

**Housemen's 100 Yds.**—1, Dr. W. H. Havard.

**Pole Vault.**—1, J. Sugden; 2, C. P. Roberts; 3, B. D. G. Hill. Height: 8 ft. 6 ins.

**Tug-of-War.**—Students beat Staff, 2-1.

**Inter-Year Relay.**—1, Clinical C; 2, Clinical B; 3, Clinical A.

## STUDENTS' UNION

### COUNCIL MEETING

A meeting of the Students' Union Council was held in the Small Abernethian Room at 1.15 p.m. on Wednesday, 21st August.

The following matters were discussed:

1. *Students' Union Guide.* A letter from the Dean was read saying that he would subscribe the sum of £25 towards the new handbook which the Students' Union was bringing out. The handbook was to contain specific information on the activities of the various clubs in the hospital. The letter asked that the word "Handbook" be left out of the title lest it be confused with the College Handbook. The name of "Students' Union Guide" was adopted.

2. *Prints for the Abernethian Room.* It was generally agreed that the prints in the Abernethian Room were insipid. A sub-committee consisting of

Messrs. White and Badley was set up to buy four suitable prints and also to look into the matter of getting original pictures painted by members of the Hospital to be hung in the Abernethian Room on loan.

3. *Students' Union Christmas Card.* The question of a Students' Union Christmas card was discussed. A sub-committee consisting of Messrs. Johnson and White was set up to look into the matter of producing such a card. The final choice would be made from a series of prints which would have been put forward previously for approval.

4. *Honorariums.* The Council approved the award of honorariums of £30 and £20 per annum respectively to the Editor and Assistant Editor of the Hospital JOURNAL. This was a resuscitation of a practice which was discontinued in 1953 when the JOURNAL was operating at a financial loss. It was pointed out at the Meeting that the Journal is now working in conditions of solvency.

## SPORTS NEWS

## VIEWPOINT

THE HIGHLIGHT of the previous month's activities has undoubtedly been, in theory at any rate, the Cricket Cup Final. However due to some whim of popular favour, or perhaps to poor publicity this event passed almost unnoticed. In spite of this, to have had two finalists in one year in two major sports and to have retained the Ladies' Hockey Cup is a sporting record of which the Hospital may be justly proud. The Cricket Cup was last won in 1948, and it is unfortunate that after a lapse of nine years this feat could not be repeated.

In a Hospital where almost every sport is represented in some way or other it is strange that there should be no opportunities for playing Rugby Fives. Enthusiasts undoubtedly exist, but at the moment the cost of building a court far exceeds the limited demand. The old court is used for the storage of oxygen cylinders, and will continue to be so used until some spirited body can persuade the authorities to provide alternative accommodation, or provide a new one. The latter possibility seems extremely remote.

## CRICKET

## Hospitals Cup Final

**St. Bartholomew's Hospital v. Guy's Hospital.**  
Played at St. Mary's Hospital ground, Teddington, on 29th, 30th and 31st July, 1957., and resulting in a win for Guy's Hospital by 8 wickets.

It was of course a disappointment to see the second Final of the year lost, but although convincingly defeated on paper, the hospital might well have held for a draw on the final afternoon.

Guy's won the toss and batted first on a wicket which although looking green, became progressively more easy as the game went on. They at once established a hold on the match which they were never to lose by putting on 118 for the first wicket, and it was this period before lunch on the first day that did much to seal the game. Catches went over the fieldsmen or dropped short, several run outs and confident appeals were not allowed, and the hospital luck seemed at rock bottom. Guy's then proceeded to consolidate their position with an excellent century by Dyde and although the hospital struck back to take some cheap wickets, were able to declare at 346-8 wickets.

Bart's looked as though they would last out the final hour of the day without losing a wicket, but Pagan was bowled around his legs during the last over to be replaced by Mitchell as a night

watchman. Thus at the end of the first day, with Bart's 39-1 in reply, the honours had gone very much to Guy's.

When play was resumed the following morning, Stark, Juniper and Whitworth fell before lunch, and it soon became clear that the value of an innings was to be assessed in minutes rather than runs. When Mitchell, who had miraculously survived for 2½ hours, left, wickets fell steadily and Bart's were all out for 148. Guy's then enforced the follow on, with 198 needed to make them bat again and a day and a half left for play. At the end of the day 140 had been scored for 3 wickets and Bart's were thus left with a chance.

On the final day Whitworth, who had batted with great determination, was caught out at 96 and thus missed a very well deserved century. His innings lasted 5 hours and 10 minutes and was of immeasurable value in keeping the game alive. Marks batted stubbornly for a valuable 44, but although the last wicket put on 23 runs the game was hopelessly tilted towards Guy's. Bart's were thus all out for 268, leaving Guy's only 71 to win in two hours. If only the hospital had been able to hold on a little longer in the second innings the match could so easily have been drawn. Guy's knocked off the necessary runs with ½ hour to spare Dyde ending the proceedings appropriately enough with a six. They had seemed the better balanced side and won on merit, but one may mention in retrospect that Bart's were without the services of some four or five of their more talented players.

## Results—

## 1st Innings.

Guy's: 346 for 8 declared (Dyde not out 104, Puddenham 68, Pagliers 66) (Whitworth 4 for 112).

Bart's: 148 (Stark 25, Mitchell 25, Whitworth 25) (Dyde 6 for 40).

## 2nd Innings.

Guy's: 72 for 2 (Garrod 1 for 20, Stark 1 for 11).  
Bart's: 268 (Whitworth 96, Marks 44, Juniper 32) (Dyde 3 for 68).

## The Sussex Tour

The Annual Tour took place once again in Sussex from August 4th—9th, with the team based at Rottingdean. The weather was uniformly excellent except for the last two days, on one of which the Keymer and Hassocks game was abandoned. Activities centred around the Plough and the Pitch and Putt Course as usual, though some members created a startling and unprecedented feat of bathing every morning before breakfast.

From the point of view of the results, the tour was most successful; four games being won and one lost. Responsibility for the opening match must rest with the secretary who mustered the team two hours before play was due to begin, and after a prolonged and social lunch Bart's were not given the opportunity to field and allow heads to clear. A new and enjoyable fixture was that against Ditchling, and a win over St. Andrew's,

Burgess Hill, for the first time, is also worth recording.

Once again we are indebted to so many long-suffering landladies in Rottingdean for our accommodation, and it is to be hoped that their patience will not desert them next year.

## Results—

4th August. v. **Hurstpierpoint.** Lost by 3 wickets. Barts 72.

Hurstpierpoint 73-7.

5th August. v. **St. Andrew's, Burgess Hill.** Won by 8 wickets.

St. Andrew's 163 (A Garrod 4-51).  
Barts 165-2 (H. B. Ross 86 not out, A Whitworth 63 not out).

6th August. v. **Rottingdean.** Won by 7 wickets. Rottingdean 116 (A. Whitworth 6-38).

Barts 119-3 (J. Stark 64 not out).

7th August. v. **Ditchling.** Won by 4 wickets. Ditchling 115 (A. Anderson 4-14).  
Barts 119-6 (A. Whitworth 36 not out).

8th August. v. **Barcombe.** Won on 1st innings by 60 runs.  
Barts 109 (A. Whitworth 54).  
Barcombe 49 (A. Garrod 6-16).

## SAILING

On July 13, the Secretary helmed the hospital boat in an inter-hospital race. The race was in the new 12 square metre sharpies and was sailed in a gusty fresh wind. Only three hospitals started, Bart's being 10 minutes late on the start. St. George's were soon overtaken after Branklet and our lead was rapidly increased as we went on

to round Potton. Unfortunately, there was a double-entendre in the set course and the hospital boat went on around Redward, while St. George's went round Branklet for the long tack home, and were then 25 yards ahead. The Bart's boat then overtook St. George's again, but later went aground and came in third finally.

## Result

1, Westminster; 2, St. George's; 3, St. Bartholomew's. Helmsman—R. M. Ridsdill-Smith; Crew—Miss W. Donaldson.

On July 27, the Secretary again represented the hospital with R. Simons and C. Birt crewing. The race started in a Force 2 wind that blew up soon after rounding Redward, and became a gusty Force 5-6 wind for about 15 minutes; all the sharpies racing were hard put to keep upright, particularly those of London and Bart's who had light crews. The wind slowly moderated over the rest of the course.

The race was never in the balance as the London got away soon after the start and could not be caught. Due mainly to the high winds, only three boats were racing.

## Result

1, The London; 2, St. Mary's; 3, St. Bartholomew's. Helmsman—R. M. Ridsmill-Smith; Crew—R. M. Simons, C. Birt.

This is the end of the Inter-hospital racing season and we have finished fairly near the top of the list. The thanks of the Club must go to those who went down to Burnham to sail in weather conditions which were particularly tricky and which seemed to prevail whenever we have to race. We hope to see them again next season.

## BOOK REVIEWS

## SPORTS INJURIES — THEIR PREVENTION AND TREATMENT by Donald F. Featherstone. Foreword by Sir Arthur Porritt. pp 195. 35s.

This book will be of interest to anyone concerned with those violent forms of exercise which produce injuries, but it is not written for Medical Students except perhaps in their capacity as athletes, and in no sense of the word is it a Text Book.

The Author is a qualified Physiotherapist and has had a great deal of special experience in his employment by the Southampton Football Club and Hampshire County Cricket Club: he has been in daily, almost hourly, contact with injured players, and the book is an interesting account of his views and experiences. As a result of his experience with athletes of all sorts the author is convinced that a different approach and a greater sense of urgency are required adequately to cope with the recent injuries of everyday life. To cater for the need he advocates the high pressure systems of treatment which are outlined in this volume. One almost gets the impression that the author believes that rate and quality of recovery depend more on treatment than on the nature of the injury itself, and, indeed, this is a view held by many, if not most, athletes. Mr. Featherstone, often draws attention to the need for accurate

diagnosis of the lesion before treatment is prescribed, but, of course, accurate diagnosis is not the province of the Physiotherapist or the Trainer, and it is a common experience that wastage of athletic time is more often the result of wrong diagnosis than of delay in instituting treatment. Chapter III, which deals with examination and diagnosis, could well have been omitted, and the hints on diagnosis which appear in the various sections are not of great clinical value.

When he discusses techniques of treatment, Mr. Featherstone is on much firmer ground—and here his enthusiasm shines out from every page: he understands athletes and their needs, they like him, he speaks the same sports language as they do, and to them a friendly but knowledgeable approach counts for more than higher medical qualifications.

W. D. COLTART.

## TEXTBOOK OF MEDICINE edited by Sir John Conybeare and W. N. Mann, 12th ed. E. &amp; S. Livingstone Ltd. pp 859. 42s.

We welcome, after a lapse of three years, another edition of this popular and informative textbook. Many of the sections are written by the editors and by other members of the staff of Guy's Hospital, but the contributors include numerous eminent physicians from other hospitals, not including our own.

There are many improvements on the eleventh edition. A large proportion of the articles has been completely rewritten, and new ones added. The main change is a new section on Diseases of the Nervous System by Dr. Denis Brinton which has replaced that by Sir Francis Walslie. The new articles are mainly on Diseases of the Skin and of Metabolism.

The book contains 39 illustrations, mainly electrocardiograms, and 32 X-ray plates. There are, unfortunately, no photographs.

At the risk of being unfairly selective, one may mention the section on Respiratory Diseases as being exceptionally lucid compared with other textbooks, while that on the Cardiovascular System is confusing in places.

When fact borders on dogma, there is on the whole surprisingly little difference from the opinions to be heard at Bart's. However, those who have done the Infectious Fevers course (whether residential or not), may be surprised to note the absence of any mention of the serum anti-streptolysin O titre in the diagnosis of rheumatic fever; and in the account of the Paul-Bunnell reaction the exciting behaviour of the heterophile antibodies with ox red cells and guinea pig kidney is left entirely to the reader's imagination.

Having used this book regularly for some weeks, your reviewer has no hesitation in recommending it warmly to other students.

J.S.P.

**POTT'S PARAPLEGIA** by D. Ll. Griffiths. H. J. Seddon and R. Roaf. Oxford University Press. pp xiv+129, with 48 figures and 32 tables. 50s.

In 1779 Percival Pott published his "Remarks on that kind of palsy of the lower limbs which is frequently found to accompany a curvature of the spine and is supposed to be caused by it." Paraplegia caused by tuberculous disease of the spine is now called Pott's paraplegia, and tuberculosis of the spine is now called Pott's disease. In the advances that have taken place in the understanding and treatment of Pott's paraplegia, other Bart's men also have played a remarkably leading part. The conservative treatment is epitomised by rest. Of this, Hilton of Guy's was the pioneer and Thomas of Liverpool the high priest, but the scientific development was due to Howard Marsh of Bart's and the Alexandra Hospital and to Gauvain of Bart's and Alton, no less than to Robert Jones of Liverpool. The phase of expectancy culminated in the classic publications of R. Weeden-Butler of St. Thomas's and H. J. Seddon of Bart's and the Royal National Orthopaedic Hospital (1935). Their work marked an advance in our knowledge of the pathology of the disease and in its conservative treatment, and gave an assessment of the French revival of what was really Pott's own therapeutic contribution of a century and a half before, namely decompression of the cord by emptying the abscess, but with Listerian refinement. The modern phase, facilitated by the antibiotics, has been the development of bigger and better methods of doing this, with also removal of avascular material and of all mechanical obstructions. The pioneer has been Norman Capener (1954), of Bart's and Exeter, with

his operation of lateral rhachotomy, which he first performed in 1933 with the object of dealing with the actual cause of the cord compression directly. A very similar operation has since been developed by Seddon, by Lloyd Griffiths of Manchester, by Norman Dott and G. L. Anderson of Edinburgh, and by Robert Roaf with the special opportunities he had in India where the disease is common. The present book by some of these workers pays particular attention on this last operation, known as antero-lateral decompression, of which there are observations on fifty consecutive cases.

This work is comprehensive, extremely well-written and illustrated, and entirely up-to-date. It gives the present picture of a disease that the diminution of tuberculosis has not yet eliminated from Western countries and that is still common in Africa and Asia.

H.J.B.

**DE MOTU CORDIS** by William Harvey. Translated from the original Latin by Kenneth J. Franklin. Blackwell Scientific Publications, Oxford. 17s. 6d.

It is not easy for a translator to achieve a rendering which is agreeable to read and yet remains accurate to the original text, but Professor Franklin has succeeded. And it is pleasing to find the clarity of Harvey's thought matched by the direct style of his English.

The book itself is delightfully set out. The Latin, however, is printed after the English translation and had the texts been printed in parallel, comparisons would have been facilitated for those of us whose Latin has become a little rusty. Moreover, in the present form the illustration pertinent to the English text on page 84 is only to be found opposite the Latin text on page 186, and this is a little confusing.

But these are small criticisms in a book that presents one of the fundamental discoveries in physiology in a clear style and in an attractive form. It is, moreover, a book which should appeal to the general reader, for *De Motu Cordis* is not just another scientific treatise but the earliest example of the application of the scientific method to a physiological problem.

A. B. M. McM.

**ANATOMY FOR NURSES** by D. V. Davies, E.U.P. Ltd. 20s.

The amount of theoretical knowledge needed by a nurse has always been a matter of controversy. It is fairly easy to decide where the boundaries lie in medicine and surgery—nurses want to know what a patient with a certain disease complains of, what treatment may be ordered, how she can relieve his discomforts, and whether he is likely to get better. Writers of textbooks on such subjects will not have great difficulty in deciding the scope of their work.

The writer of an anatomy book is less fortunate. A study of anatomy and physiology is basic to learning about disease, carrying out treatments effectively and safely, or helping in the theatre, but how extensive this knowledge should be is highly debatable. If he simplifies his material unduly, reviewers will eagerly point out the omissions; if his work is full and detailed he will be told it is too difficult for nurses.

Professor Davies has decided to write a full book, as might have been expected from such an eminent anatomist. It consists of 364 pages, and physiology is not included. The type is attractive and the price most reasonable for such a production, by present day standards. The style is a pleasure, all the greater because nursing textbooks are not always as distinguished in manner as in matter. It is lucid and freely moving and not encumbered with useless names. The chapter on joints might be especially commended from this aspect; it is a subject often cluttered by terms *never met* except in textbooks.

The chapter on the anatomy of babies is an unusual and interesting addition, and space has been found for allusions to practical application of anatomy. Professor Davies knows, for instance, that the outer aspect of the thigh may be a safe site for intramuscular injections, but it is also the most painful.

The line illustrations are plentiful, and in many cases of a kind that a student nurse could reproduce in her examinations. Not all are easy to understand, e.g. Nos. 68, 207, 279.

As to its suitability for student nurses, many could learn from it with profit and pleasure. Perhaps the nurses who will find it most valuable, however, are those teaching either in wards or classroom; graduates who feel they can profitably increase the modicum of knowledge they gained in their three pre-clinical months; and those taking examinations like the Diploma of Nursing. It will be interesting to see the companion volume on physiology.

W. E. HECTOR.

**TUBERCULOSIS NURSING** by Jessie G. Eyre. H. K. Lewis & Co. Ltd. 25s.

Thirty years ago pulmonary tuberculosis was a common disease of young people, with a high mortality and a terrifying reputation. Those who contracted it had to expect at the best long periods in sanatoria in the country divorced from the community, leading a highly unnatural life in the peculiar atmosphere that enclosed staff and patients together.

Today there has been a spectacular fall in mortality, although there is little change, as the Foreword correctly states, in the number of patients attending clinics (including our own). An atmosphere of hope and activity pervades the subject, initiated primarily by the surgeon and maintained by the introduction of antibiotics. This book reflects the modern attitude to tuberculosis as a disease that can be attacked on many fronts. There are chapters on incidence, immunity, the prevention of spread, chemotherapy and the practical problems associated with it, and rehabilitation and after care. Collapse therapy, the importance of which has declined so markedly, is covered briefly but adequately. Resection received due consideration as a form of therapy.

Tuberculosis is a disease greatly dreaded by young nurses, and the section on staff health recognises this. There are few other diseases in which the interactions and reactions of staff and patients are more important.

The format of this book is of the usual high standard of the publishers, and the price reasonable for a book which may claim to cover its subject completely from the student nurse's aspect.

W. E. HECTOR.

## Trouble in the Hypothalamus

by PODALIRIUS

"Oh, dear, I feel so sleepy," said the hypothalamic cell. "It must be all this pyruvate. What's it doing here?"

"No wonder you're sleepy," said his friend the leucocyte, who had come to have a chat. "Everyone feels the same—you're just unduly sensitive. And it's not only pyruvate, it's pyruvic aldehyde too—and that's even worse."

"Yes, I know, I know," said the hypothalamic cell, who was inclined to be a little testy. "What I want someone to tell me is, what's it doing here?"

"Well, you see," said the leucocyte, "it all starts with glycogen, and then that turns into glucose, which turns into glucose-1-phosphate, which—"

"Yes, yes, I know, I know," said the hypothalamic cell again—rather rudely, for the poor leucocyte was doing his best. "Then it goes through the whole ragamadillo to pyruvate, but after that the pyruvate disappears. Or should do. Why doesn't it?"

The leucocyte was very patient, though he realised that these highly specialised cells overrated their own intelligence and importance. "It's usually oxidised; but that needs co-carboxylase."

"Well?" The hypothalamic cell was really very drowsy.

"Don't you see (you silly old neurone) that thiamine is needed for co-carboxylase; and the boss just hasn't been taking enough? Since he had that operation, his appetite hasn't picked up." But by now the hypothalamic cell was snoring.

"Oh dear," said the leucocyte, "now he's asleep, the boss's appetite will get worse than ever."

"Oh, what a wonderful morning!" carolled the hypothalamic cell. "I feel I could beat up a Betz cell! But why do I feel so good?"

"It's because the pyruvate's gone," said the leucocyte.

"Gone? Where to?"

"Oxidised! Somebody told the boss to start taking Bemax, and now he's fine."

"Bemax? What's that?"

Really, these neurones! And they think they know so much.

"Bemax," said the leucocyte, "is stabilized wheat-germ. It contains lots of thiamine, and that's how all the pyruvate got oxidised. And it contains all the other important B vitamins. It's the richest natural vitamin-protein-mineral supplement. The boss just sprinkles it on his food."

"Jolly good. I hope he keeps it up."

"So do I."

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## BOOKS RECEIVED

*Inclusion in this column does not preclude review at a later date.*

**AIDS TO MATERIA MEDICA AND THERAPEUTICS** by J. W. Hadgraft, 5th Edition. Baillière, Tindall & Cox, pp. vii+259, 10/6.

**AIDS TO OPHTHALMOLOGY** by P. McG. Moffatt, XIth Edition. Baillière, Tindall & Cox, pp. vii+282, 10/6.

**AIDS TO PATHOLOGY** by John O. Oliver, XIth Edition. Baillière, Tindall & Cox, pp. viii+347, 10/6.

**AN INTRODUCTION TO ELECTROCARDIOGRAPHY** by L. Schamroth, Blackwell Scientific Publications, Oxford, pp. 60, 12/6.

**A POCKET OBSTETRICS** by A. C. H. Bell, IVth Edition, J. & A. Churchill, pp. viii+156, 10/6.

**EMERGENCIES IN GENERAL PRACTICE.** Specially commissioned articles from the British Medical Journal. Butler & Tanner Ltd., Frome and London, pp. 470, 25/-.

**SPORTS INJURIES** by Donald Featherstone, John Wright & Sons, Ltd., 35/-.

**SPOT DIAGNOSIS** compiled by the Editors of the British Journal of Clinical Practice, Vol. III, Harvey & Blythe Ltd., pp. 141, 10/6.

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# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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No. 10

## EDITORIAL

IN SOME of the following pages of this issue, contemporaries and the newly-qualified may find Dr. Penry Rowland's "*Flashbacks to the 1890's*" anachronistic in substance. The second affirmed object of the *Journal* being "to promote and extend the feeling of *esprit de corps* among students, past and present, in their work, amusements, and matters of interest to them in daily life . . . to give non-active members some idea of the means by which the name of this great Royal Hospital is being maintained, and so, by example, to rouse them into activity"; this gives the lie to their way of thinking. By means of his disconnected jottings and amusing anecdotes drawn from the gas-light, horse-and-buggy era, Dr. Rowland has managed to demonstrate to many of us living in a supposedly more colourful age the fallacy of labelling the Victorian period as "drab" or naturally, "Victorian".

One is given a clear insight of the atmosphere at Bart's during the latter part of the last century. The sound of hooves resounding in the Square, the sight of hansoms drawing up with their bearded and top-hatted passengers, the smell of carbolic pungent in the theatres and wards—all these sensations are conveyed to the reader without the exercise of too much imagination. Our older and non-active readers may derive some pleasure or displeasure from "*Flashbacks*". Certain anecdotes may be remembered with bell-like clarity by some or with aversion by others because unkind reference might have been made of erstwhile colleagues.

The *Journal* feels that by publishing "*Flashbacks*", it will be fulfilling not only its second affirmed object but also the

important task of providing active members with some idea of the means by which the name of this great Royal Hospital was being maintained. The article might well be considered a historical treatise!

In the August *Journal*, we speculated on the "nature of the machinations of the fifth and sixth floors" of the Surgery Block. The exact nature of at least one such machination is now known. With his "*Some Thoughts on the Present Treatment of Metastatic Breast Cancer*," Mr. G. J. Hadfield has opened the door to the inner sanctum. We would appreciate the co-operation of other dwellers of the fifth and sixth floors and those of the Pathology Building.

The new Surgical Block in Little Britain is rapidly approaching completion. One hopes that the reduction of capital expenditures on building, transport and other essential services occasioned by the increased Bank Rate will have little or no effect on the celerity with which the building is completed or on its final quality. For a closer look at the finished building, our readers are invited to refer to the article written by Mr. W. A. Guttridge of the firm of architects responsible for the design of the building.

With the advent of yet another Rugger season, our mascot "Percy" will be very much in everyone's mind. In our May edition, we asked the forbearance of our readers, promising shortly to "produce an authoritative history" of our "taciturn ambassador of goodwill". Readers of Mr. E. A. J. Alment's biography in this issue will agree that their patience has not been in vain.

We would like to reiterate Mr. Alment's wish that some body of students with a sense of responsibility and service to Bart's will come forward to give this icon of ours a body- and face-lift and to restore it to its deserved place of high esteem and glory. Would our pre-clinical colleagues please take heed? Perhaps yet another top-hatted gentleman will perch himself on top of the rebuilt form of this traditional idol "in all its saturnine, achondroplastic, onychogryphotic glory" when it is borne triumphantly back to Smithfield with the Hospitals' Cup.

\* \* \*

#### "A New Guide"

The Students' Union is printing a "Students' Union Guide" which will be presented to new students upon their arrival at Bart's. Specific information on the activities of the various clubs in the hospital is provided—this should prove helpful to the newcomer. The desultory visitor or browsing reader will know that in the Library is to be found a copy of the 1923 "Students' Union Year Book" after which the new "Guide" is patterned in part. A limp-covered red pamphlet of about the same size as the College Handbook, the 1923 Year Book contains an alphabetical list of all Bart's men, their addresses and a directory with names arranged under localities. Also included in it are miscellaneous advertisements which defrayed part of printing costs, and an alphabetical list of students at Bart's at that time.

On glancing through the list of students of that day, one comes across many familiar names—H. B. Stallard, J. C. Hogg and N. A. Jory being but a few examples. We believe that a new Year Book containing individual photographs of students in their respective batches will prove invaluable to many, particularly to those interested in physiognomy. At some later date, the physiognomist may be able to confirm with self-satisfaction his own prophecies that young Bloggs did in fact attain consultant status.

\* \* \*

#### Rahere Music Society

The Rahere Music Society sang an Evening in St. Paul's Cathedral on Monday, August 26th. The William Smith setting of

the responses was sung and the anthem was taken from Bach's 150 Cantata and was sung in German. The Choir sang well on the whole though they found difficulty in breaking with the Parish Church style of singing in the Magnificat. Richard Sinton the conductor is to be congratulated on welding a mass of mainly inexperienced individuals into a united choir at such short notice.

\* \* \*

#### Revival

Seemingly inspired by the recent successes of the B.R.Ms, certain members of the Student Body have taken steps to revive the moribund Bart's Motor Club. Up till about three years ago, this club had an extremely healthy membership which boasted of a wide variety of machines, from the sportive dash of a brace of old Lagondas to the aristocratic suavity of a Red Label Bentley. With the departure of these gentlemen from the gates of their Alma Mater, the Motor Club went into abeyance as did all those frequently delightful visits to the more secluded hostelries in the Home Counties which were carried out on the excuse of 'rallying'.

The movement afoot to resuscitate the activities of the Motor Club laudable though it may be, invites further comment. In the course of their development, young men and even medical students are known to identify themselves with various occupations—the rôles of engine-driver, postman or Stirling Moss are well-known ones. In such places as the Refectory or the Abernethian Room, it is altogether too common an experience for one to be an unwilling audience in a charivari of an assertive and often inaccurate nature during which compression ratios, performance figures and road-holding characteristics are rattled off by "knowledgeable" gentlemen.

Zeal and genuine interest are healthy signs in any undertaking or hobby but the caveat is entered here that they should not be confused with fanaticism.

Although the prospective members who have put down their names for the Motor Club seem to be more in need of real motors than of a club in which to put them, it is hoped that more positive support will come with the passage of time. Perhaps members of the Staff and even the pre-clinical years will provide the required "driving force".

#### Rugby Football

With the approach of the new 1957-58 season, many stiff bodies can be seen limbering up both at Chislehurst and at Basketball in Charterhouse Square. After last year's highly successful runs in the Hospitals' Cup and in the Middlesex Seven-a-sides, it is hoped that the coming season will be approached with a new spirit of keenness and enthusiasm by all the present members of the Club and by new members coming to the Hospital in October.

It was indeed a great pity to see such stalwarts as John Tallack, David Roche and Mickey Davies hang up their boots at the end of last season and we shall have to play particularly well in the forwards to make up for the loss of that very experienced and strong second row of Tallack and Roche. We have also been unfortunate to have lost Howard Thomas, the ubiquitous and intelligent wing forward who played such an important part in our Cup successes.

The new captain, R. M. Phillips, who has just returned from his third overseas rugby tour this year during which he played for Llanelly in the International Youth Festival, in Moscow, will need the support and co-operation of both old and new members if he is to continue the good work of his predecessors. The strength of the fixture list has gradually been increased and this season shows the welcome return of the Metropolitan Police after a lapse of two seasons. We are, however, sorry to lose Paignton at the end of the Cornish Tour. The deletion of this match was due to their inability to pay the guarantee they have offered us in past years. However, two new fixtures have been arranged at the end of the season—one against Treorchy, with whom we had such a good game last season and another against Tredegar.

In the Hospitals' Cup, we have been drawn against St. Thomas's, followed by our Cup-final opponents of last year, the London Hospital. The 1st round Cup Tie is on Tuesday, January 14th and it is to be hoped that the 1st XV will again receive the same encouragement and wonderful support it received during its Cup run last year.

Members of the Club are kindly requested by the Secretary to tick off their names as soon as lists of teams appear, as this will be of great assistance to him in the smooth running of four or five teams.

#### NOTICE

The Boat Club Dinner will be held on Wednesday, November 27, after the United Hospitals Winter Regatta.

#### ANNOUNCEMENTS

##### Engagement

KIELTY—SPENCER.—The engagement is announced between Dr. Michael Gerard Kielty and Patricia Mary Spencer, S.R.N., S.C.M.

##### Marriage

DAWSON-RACKHAM.—On St. Bartholomew's Day, John Bernard Dawson to Gillian Mary Rackham.

##### Births

CHONG.—On October 5th, at Bart's, to Junie and Kenneth Chong, a daughter (Lavinia Karen).

CLIFFORD.—On August 4, at Imtanza, Malta, to Jean (née Murray) and Major W. E. Clifford, a daughter.

GRAHAM.—On August 1, to Christine, wife of Dr. Malcolm Graham, a daughter.

GRANDAGE.—On August 10, to Sybil, wife of Dr. Christopher Grandage, a son.

HAIGH.—On August 13, to Sanda and Dr. Adrian Haigh, a son (Andrew Adrian), a brother for Joanna and Amanda.

HARLAND.—On August 9, to Norah and David Harland, a daughter (Jane Elizabeth Norah).

HOLLAND.—On August 11, to Jean, wife of Dr. H. W. Holland, a daughter.

LONSDALE.—On July 22, to Adele, wife of Dr. D. Lonsdale, a daughter (Susan Margaret), a sister for David and Michael.

MIDDLETON.—On August 22, to Jeanne and Dr. George Middleton, a son.

ROUALLE.—On July 22, to Molly, wife of Dr. Henri Roualle, a son (Michael).

SMITH.—On August 13, to Barbara and Dr. W. H. Roderick Smith, a daughter (Phillippa Louise Roderick).

RANDALL.—On August 3, at the Women's Hospital, New York City, U.S.A., to Dr. and Mrs. J. Randall, a daughter (Suzanne Cristine).

**Deaths**

COZENS.—On August 17, Frederick Cyril Cozens, aged 65. Qualified 1921.

DRURY.—On August 10, in Nairobi, Kenya, Graham Dru Drury. Qualified 1924.

EDWARDS.—On July 26, John Alwyn Edwards, aged 56. Qualified 1927.

GORDON.—On July 24, Francis Jarvis Gordon, aged 76. Qualified 1909.

RECORDON.—On August 23, Esmond Gareth Recordon, aged 53. Qualified 1928.

\* \* \*

**OBITUARY****Esmond Gareth Recordon**

The death of Esmond Gareth Recordon at the early age of 53 is a tragedy for his family, his friends and the profession which he has served so faithfully. After graduating at Cambridge he entered St. Bartholomew's Hospital and later became House-surgeon to the Eye department. On leaving Bart's he was appointed to the Resident Staff at Moorfields Eye Hospital where intense and valuable training as an eye surgeon equipped him to gain an appointment to the Honorary Staff of Addenbrooke's, Cambridge. The serenity of Cambridge with its manifold cultural pursuits suited him well for he loved music, literature and art.

Before the war he served in the R.A.M.C. Territorial Army and went to France with the General Hospital recruited in Cambridge. After the military evacuation of France he returned to the United Kingdom. There followed the misfortune of ill health which prevented him from further service abroad.

Esmond Recordon will be remembered for the warmth of his friendship, for his loyalty and the genuine interest he showed so constantly in his friends, colleagues and patients. Among his many admirable human qualities stand out his infinite patience and gentleness in thought and deed. Trained more as a physician than a surgeon he brought to his specialty a wide and philosophic approach. His surgical technique was

marked by conservatism and infinite care, and his contributions to the literature were of clinical and practical value.

Our sympathy is for his widow and two sons in their tragic loss.

H. B. STALLARD.

**CALENDAR**

Thur. Oct. 3	Abernethian Society Meeting. Speaker: Prof. Sir James Paterson Ross. The Great Hall at 4.45 p.m.
Sat. " 5	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Anaesthetist: Mr. R. A. Bowen. Hockey: 1st XI Trials. Soccer: v. Old Parkonians (A).
Wed. " 9	Golf: Autumn Meeting, Girling Ball Cup (High Moor Park). Soccer: Trials. Hockey: Trials.
Thur. " 10	Soccer: Cambridge Tour.
Sat. " 12	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Anaesthetist: Mr. R. W. Ballantine. Hockey: v. City of London College (H).
Wed. " 16	Hockey: v. Imperial College (H).
Sat. " 19	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Anaesthetist: Mr. C. E. Langton Hewer. Hockey: v. R.N.C. Greenwich (A). Soccer: v. Westminster Hospital (H).
Wed. " 23	Hockey: U.H.H.C. v. Essex 'A' (H). Soccer: v. St. Mary's Hospital L (A).
Thur. " 24	Abernethian Society Meeting. Speaker: Mr. Malcolm Donaldson, Physiology Theatre, Charterhouse, at 5.45 p.m.
Sat. " 26	Golf: Annual General Meeting. Medical and Surgical Professional Units on duty. Anaesthetist: Mr. G. H. Ellis. Hockey: v. Tulse Hill Wanderers (H). Soccer: v. Caledonians (H).
Sun. " 27	U.H.H.C. v. Surrey 'A' (H).
Wed. " 30	Soccer: v. Normandy Company Sandhurst (H).
Thu. " 31	Hockey: Cambridge Tour.
Sat. Nov. 2	Dr. G. Bourne and Mr. J. B. Hume on duty. Anaesthetist: Mr. F. T. Evans. Soccer: v. Swiss Mercantile College (H).
Wed. " 6	Hockey: v. Kingston Grammar School (A). Soccer: v. London Hospital L (H).

**LETTERS TO THE EDITOR****PARSLEY FOR PROSTATE**

Sir,—Enclosed is an interesting recipe\* upon which some of your readers may wish to comment. The original was given to my grandfather by his former nurse. She was certainly at one time a wife, and old, but my relative knows—from first-hand experience—of about forty aging gentlemen, in whom 'the pitcher be broken at the fountain' (*Ecclesiastes XII. 6*), who have benefited from the use of this parsley remedy.

What, one wonders, is the therapeutic action of parsley? Pearl barley is known to be a slight emollient, but has it perhaps some specific effect on the prostate gland?

It is not claimed that this treatment can cause the atrophy of an already enlarged prostate, but

*\*Take a good handful of parsley, wash it well, put a pint of cold water in a saucepan, add the parsley, put on the lid and boil for half an hour or more at discretion. The saucepan must be sound, without any flaw in the enamel. Strain well once or twice.*

**Dose**—A wine-glass nice and warm every hour until relief comes. This involves, at first, continued making.

*Drink plenty of milk and barley-water—made with pearl barley—but towards evening drop it so as to quieten the action of the stomach. Bovril and fresh beef tea until solids can be taken. Keep off sugar and all sweets, stimulants, fruits, and be very sparing of salt.*

that, if taken when the first symptoms appear, the condition will become no worse.

Parsley may be grown at any time of the year, I know, but can anyone offer advice as to which stimulants I should avoid?

Yours sincerely,

DAVID S. WRIGHT.

Abernethian Room.

**CAMBRIDGE — BART'S CLUB**

Sir,—More than eighty years ago, in 1876, the Cambridge Graduates' Club of St. Bartholomew's Hospital was formed "with a view to establish an annual supper in the winter session in order that those members of the University already at the Hospital might have an opportunity of making the acquaintance of the new-comers." Ever since, except for war-time interruptions, the Club has annually held a gathering for the purpose.

On Friday, 25th October, the Club will hold a Sherry Party in the Library from 6 to 8 p.m., at which Sir Henry Dale, O.M., will preside. We would be grateful if any Bart's Cambridge graduate in this country who may not have received an invitation will let us know as soon as possible.

Yours sincerely,

H. J. BURROWS,

R. A. SHOOLER,

NERYS DAVIES,

*Honorary Secretaries.***RECENT ADDITIONS TO THE LIBRARY**

ABRAHAMS, Sir Adolphe. *The human machine, 1956.*

AMOS, J. A. S. *Observations on acute diarrhoea of warm climates, 1957.*

ANDERSON, W. A. D. *Synopsis of pathology, 4th ed., 1957.*

BETT, W. R. *Guide to the literature of William Harvey, 1957.*

BRITISH JOURNAL OF CLINICAL PRACTICE. *Spot diagnosis, Vol. 3, 1957.*

BURN, I. H. *Principles of therapeutics, 1957.*

CHAUVOIS, L. *William Harvey, 1957.*

DAVIS, D. R. *Introduction to psycho-pathology, 1957.*

DORLAND'S *Illustrated medical dictionary, 23rd ed., 1957.*

FIELD, E. J. and HARRISON, R. J. *Anatomical terms: their origin, 1957.*

GEIGY, LTD. *Scientific tables, 1956.*

GRAY, T. Cecil. *Reflections on circulatory control, 1957.*

HEWER, C. Langton, and LEE, J. A. *Recent advances in anaesthesia and analgesia, 8th ed., 1957.*

JOHNSON, D. McI. and DODDS, N. *The plea for the silent, 1957.*

LE QUESNE, L. P. *Fluid balance in surgical practice, 2nd ed., 1957.*

MCGREGOR, A. Lee. *Synopsis of regional anatomy, 1957.*

MASON, A. Stuart. *Introduction to clinical endocrinology, 1957.*

M. R. C. Report 295. *Leukaemia and aplastic anaemia, 1957.*

NEWMAN, C. *The evolution of medical education in the nineteenth century, 1957.*

Ogilvie, A. G. and NEWELL, D. J. *Chronic bronchitis in Newcastle-upon-Tyne, 1957.*

OLIVER, J. O. *Aids to pathology, 11th ed., 1957.*

PAGET, C. J. and PAGET, James. *Sketch of the natural history of Yarmouth, 1834.*

RICKHAM, P. R. *Metabolic response to neonatal surgery, 1957.*

ROSEN, G. *The history of miners' disease, 1943.*

ROSS, Sir Ronald. *Four photographs of.*

TREVES, Sir F. *Surgical and applied anatomy, 13th ed., 1957.*

WALKER, Kenneth. *Patients and doctors, 1957.*

YOUNG, J. Z. *Life of mammals, 1957.*

## THINKING ABOUT THE FUTURE

*A notice of a proposed survey of the aims and ambitions of Bart's medical students*

IS THE FOLLOWING scene quite unfamiliar to you? The stage is set at a flagging party, you twirl your cider cup hopelessly—suddenly, a gambit opens from your right. . . .

*Limp female:* Do you work in the city, Mr. Speakhard?

*You:* No, actually, I don't.

*L.F.:* Tell me then what do you do?

*You:* Oh well, I'm a doct. . . . I mean, a medical student.

*L.F.:* But how exciting (yawns)—what hospital are you at?

*You:* Bart's, actually—you know, the one near the meat market.

*L.F.:* Have you done your midder yet?

*You:* No.

*L.F.:* When you qualify, are you going to specialise, or something?

*You:* Yes, I'm going to be a trichologist. I've already arranged a resident job in a monastery on one of the Scilly Isles.

*L.F.:* Really? (Drifts away.)

You are a fortunate man if the answer is "No". You may be more honest than the worthy Speakhard, or perhaps have a more ingenious counter-gambit. But it is a certain bet that you know your lines off by heart. It's a play which is having a very long run.

Next month, in a questionnaire sponsored by the *Journal*, you are going to be asked this infuriating question and many others.

But unlike the limp female of party fame, we really want to know the answer. The object is to build up a picture of the ambitions of medical students at various stages of their careers. The results of the survey are to be published in the *Journal*, together, we hope, with a picture of what old Bart's men at the moment are doing, so that dreams can be compared with reality.

Another line to be followed is that of emigration. There was a great interest among our readers in the series of articles we published recently by doctors from abroad. Is it the National Health Service, the economic situation, the Registrar bulge, or a resurgence of pioneering spirit that is directing people's eyes over the seas? To this question, as to some of the others, you may not be able to give a definite answer. But in this survey it is ambitions and ideas that we are looking for. The facts will come later.

Questionnaires have become associated in people's minds with intimate questions about their private lives. But this is to be no Kinsey Report. However interesting and even entertaining the private activities of medical students may be, we are content to leave them as one of the great unknowns of social history.

We can give yet another word of reassurance. The completed questionnaire forms will remain completely anonymous. They will be passed unopened to people outside the Hospital for analysis, and the published results will be entirely statistical.

We therefore feel justified in asking you to give careful thought to, and be honest about your answers. If so, the information we obtain should be of great interest, most of all to those who answer the questions. It is, so far as we know, the first investigation of its kind to be conducted. Its success depends largely on you.

## SUICIDE WITH A CROCHET HOOK

by TREVOR H. HOWELL

IN A HOSPITAL for the aged sick, there may be found two groups of patients. One of these has been reluctant to leave home and is anxious to return there at the earliest opportunity. The other dreads discharge and wants to stay in hospital as long as possible. The reaction of one of these groups on the other may sometimes have unexpected consequences.

A few years ago, I had two members of each of these groups occupying adjacent beds in one of my wards. The first was an old woman with an arteriosclerotic ulcer on her leg. She lived alone and disliked any kind of interference with her affairs, so that the visits of a district nurse were not welcomed. Her doctor referred her to me because the ulcer had become septic and he feared that gangrene might ensue. We admitted her and the leg improved greatly under treatment. But just as it was healing nicely, the patient insisted upon discharging herself. Two months later, her doctor sent her up to the out-patient clinic with the ulcer septic once more. We again admitted her, and again she discharged herself as soon as it started to heal. Eventually, I was asked to see the patient on a domiciliary consultation. She was evidently a very house-proud woman, for her home was spick and span. But her leg had been sadly neglected and was now so inflamed that amputation might have to be considered. I persuaded her to come into hospital yet again for treatment; and determined that once admitted, we would keep her in bed until either the ulcer healed or the leg had been amputated.

The patient in the next bed belonged to the other group of old people. She suffered from advanced rheumatoid arthritis and was more or less crippled. We had admitted her from the local workhouse (or Public Assistance Institution, as it is now called), because I hoped to rehabilitate her successfully. At first she was grateful for the treatment. But, after a time, she realised that other patients

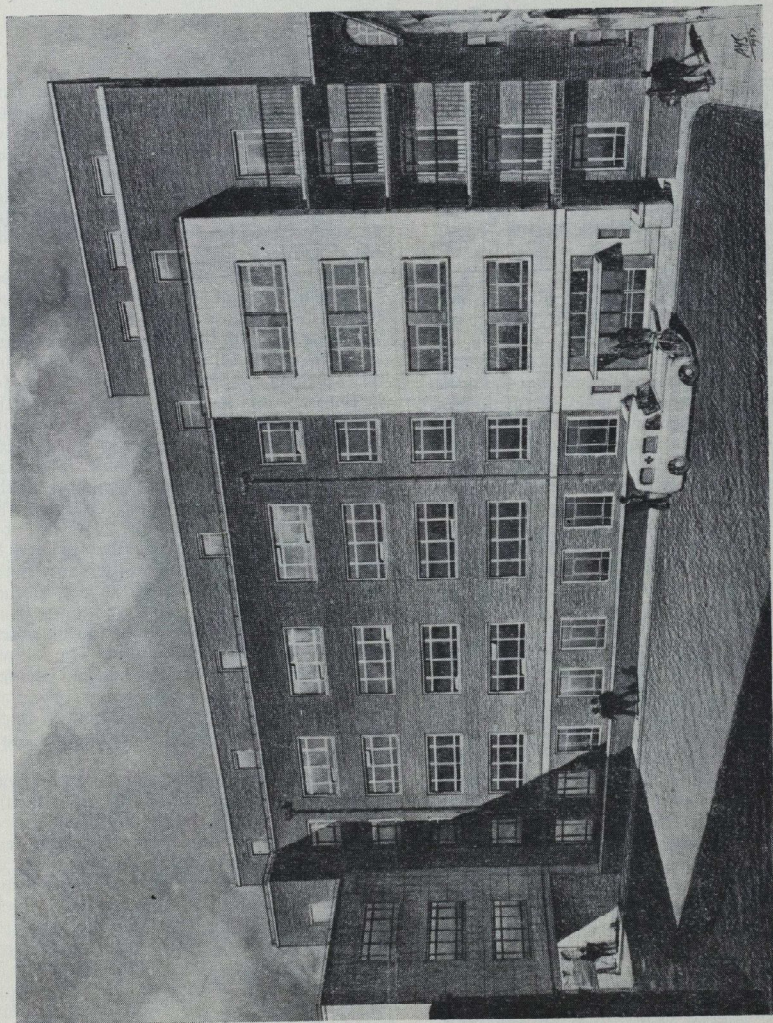
with her complaint were discharged from hospital as soon as they had improved enough to look after themselves. This did not suit her at all. She tried her best to find new complaints and additional pains. This, of course, only resulted in extra treatment and more attention from doctors, nurses and physiotherapists who urged her onwards. She hated having to help herself and the idea of regular remedial exercises was anathema. Eventually she had an idea. The patient next to her (the woman who had the ulcerated leg) was kept firmly in bed. If only she could get an ulcer herself, all this trouble about getting up, learning to walk and preparing for discharge would stop. So, at night, when the ward was quiet, she scratched her leg with her crochet hook until there was quite a deep sore. As a result, the house physician allowed her to be excused attendance at the hated remedial exercise class. Gratiified, she went on with the scratching. The leg now became inflamed and physiotherapy had to stop. Unfortunately, an observant night nurse saw her creep under the bed clothes with the crochet hook, and took it away from her. By morning, the knee of the ulcerated leg was hot, swollen and painful. The following day she had a pain in her side and became very short of breath. The house physician put a needle into her chest and drew off thick pus—but she was too ill to care what happened to her now.

I carried out a post mortem because I was interested in the condition of her arthritic joints. Her carpal bones were all fused together on each side. There was much destruction of the soft tissues and ligaments in the right shoulder, which had caused the upward subluxation of the humerus which we had seen during life. The hips showed only a moderate degree of arthritic change. Other joints were little affected by rheumatoid disease. In fact, there was no reason why she could not ultimately have become fairly active and independent as the result of treatment. What had interfered with our programme was an infected ulcer of the leg, septic phlebitis, septic arthritis of one knee, empyema and septic pericarditis, which were due to a self-inflicted wound.

**Dr. Trevor Henry Howell.**

Dr. Howell, M.R.C.P., Ed., is lecturer in the Problems of Old Age at Bart's. He is the author of many papers and books on Geriatrics.





*An artist's impression of the new Surgical In-Patients' Block in Little Britain.*

## THE NEW SURGICAL IN-PATIENTS' BLOCK IN LITTLE BRITAIN

by W. A. GUTTRIDGE

In 1950 the Hospital commissioned my firm to design a new Surgical Block to contain about 120 beds with associated Operating Theatre Suite, X-Ray Department and other ancillaries. The site consisted of an area of about half an acre adjacent to the Church of St. Bartholomew the Great, and was covered with bomb-damaged properties and some noisome workshops carrying on trades associated with Smithfield Market, such as sausage-skin manufacture. The north-east side of the site was bounded by the remaining wing of the Church Cloisters and it was obvious that the site coincided with the old Cloister Garth. Therefore the principle was adopted of opening up the Garth and planning the building along its south-western and south-eastern boundaries, hence the L-shaped plan which gives the building its popular name of 'L-shaped Block'.

The height of the building was limited by daylighting angles in the surrounding streets and also the desire not to overwhelm the adjacent ancient Church. Further complications were the limitations of the total floor area to five times the site area, the requirement of a new connection under the building between Little Britain and Bartholomew Close, and the rebuilding of 57, West Smithfield in a similar character to what previously existed on that site.

All these facts are given to enable the reader to appreciate that the external form of the building (known as the 'envelope' to architects) was decided by the Town Planning conditions rather than by the Hospital's internal requirements. In short, the architects were presented with a predetermined shape into which the accommodation had to be fitted; a condition which I may say usually applies to City buildings!

**The Internal Planning Generally.** A factor which had a fundamental effect on the internal lay-out was the necessity to provide for a possible future wing on the north-east

side of Bartholomew Close to give four ward units thus eventually making the building a Z-shaped block. It is mainly for this reason that the main entrance, lifts and staircase are placed at the end of one of the wings of the building and not in the centre of the block.

The final allocation of the floors is as follows:—

Basement: Boiler House and Plant Rooms, Lecture Theatre to seat 180.

Ground Floor: X-Ray Department, Administration.

First Floor: Ophthalmic Ward Unit and associated Operating Theatre suite.

Second Floor: E.N.T. Ward Unit.

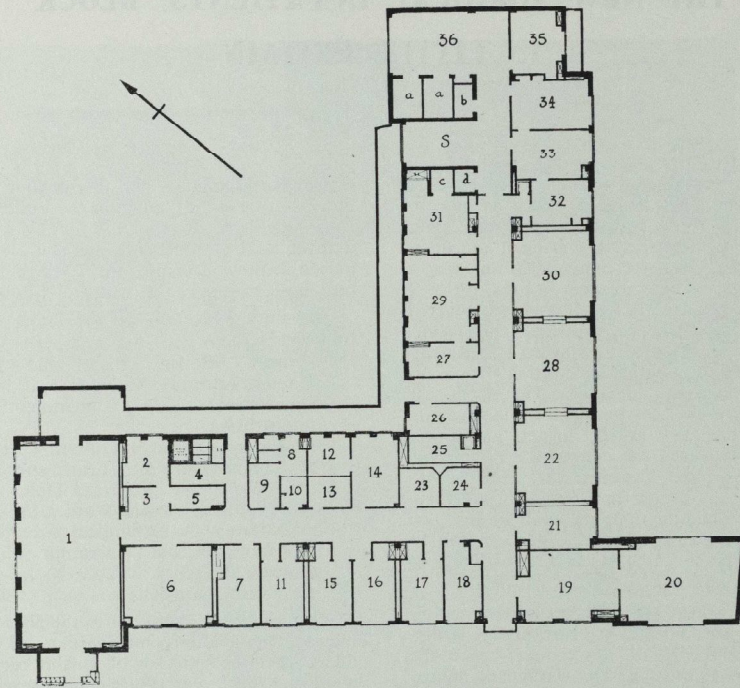
Third Floor: Thoracic Ward Unit.

Fourth Floor: Neurosurgical Ward Unit.

Fifth Floor: Twin Operating Theatre Suite with special Skull X-ray Unit attached, Main Kitchen.

A considerable alteration to the Basement plan was made after commencement of work due to a later Ministry of Health requirement that the Boiler House should serve not only the new building but the whole of the existing Hospital. This called for drastic revision of the basement plan and some extension outwards below ground level to enlarge the boiler house as much as possible, but it was fortunately found practicable to retain the large Lecture Theatre.

From the Basement a tunnel runs under Little Britain to connect the new building to the existing Hospital. This tunnel will run behind the East Wing and will connect the Children's Block, East Wing and Nurses' Home with the Medical Block, which is already connected by underground passages with the West Wing and Central Kitchen, Dispensary and Out-Patients' Block. Thus it will at last be possible to eliminate the transportation of patients, food and stores in the open from block to block. The tunnel will, of course, also be available for personnel, who will no doubt find it useful in inclement weather. It will serve as the route



### Second Floor Plan

Ear, Nose and Throat Departments

- |                              |                                |
|------------------------------|--------------------------------|
| 1. 10-Bed Ward               | 21. Flower Room and Laboratory |
| 2. Sterilising Duty Room     | 22. 4-Bed Ward                 |
| 3. Nurses' Station           | 23. Bathroom                   |
| 4. Dirty Linen               | 24. Bathroom                   |
| 5. Medicines Recess          | 25. Clean Linen                |
| 6. 4-Bed Ward                | 26. Men Patients' Lavatory     |
| 7. Sluice Room               | 27. Sterilising Room           |
| 8. Staff Lavatory            | 28. 4-Bed Ward                 |
| 9. Lockers                   | 29. Demonstration Room         |
| 10. H.M.C.                   | 30. 4-Bed Ward                 |
| 11. 1-Bed Ward               | 31. Ward Kitchen               |
| 12. Bathroom                 | 32. Subsidiary Sluice Room     |
| 13. Patients' Clothes        | 33. Doctors' Room              |
| 14. Women Patients' Lavatory | 34. Registrars' Room           |
| 15. 1-Bed Ward               | 35. Sisters' Room              |
| 16. 1-Bed Ward               | 36. Lift Hall                  |
| 17. 1-Bed Ward               | a. Passenger and Bed Lifts     |
| 18. General Store Room       | b. Passenger Lift              |
| 19. Day Room                 | c. Goods Lift                  |
| 20. Loggia                   | d. Rubbish Lift                |
|                              | S. Stairs                      |

for steam mains from the new Boiler House to the distribution points known as Calorifier Rooms in the existing buildings.

The Ground Floor contains a diagnostic X-ray unit having three radiography rooms, but information is not yet available on the precise type of equipment to be used. Its other principal features are an attractive suite of two bedrooms with bathrooms for patients' relatives who have to spend the night at the Hospital, and a large central Patients' Library for the whole Hospital.

The upper floors are best described under their uses.

**The Ward Units, 1st-4th Floors.** The most important requirement in highly specialised ward units is that the unit should accommodate both sexes, and that a high degree of flexibility in the numbers of each sex to be accommodated should be achieved. This is done by providing smaller wards together with the appropriate lavatory accommodation. The final sizes decided upon for the units in this block were one 10-bed ward, four 4-bed wards and four single-bed wards. In each unit three W.C.'s, three washing cubicles and one special bathroom are provided for women, and two W.C.'s and two wash-basins for men with two unallocated bathrooms. Thus it will be seen that while the 10-bed ward must obviously be used for one sex, the remaining 20 beds in smaller rooms allow for considerable variation in the numbers of each sex accommodated. If the preponderance of men in a unit becomes very great, the allocation of the lavatories can be switched. This plan is known rather inelegantly as the bi-sexual ward unit.

A further advantage of the 4-bed ward is its 'semi-privacy' for the patient and for this reason it is almost universally used in the United States and widely used on the Continent. It obviously creates nursing problems and in the L-shaped block a compromise has been made by glazing the wall between the wards and the corridor so that easy supervision is possible, but curtains are necessarily provided for private occasions.

The ward kitchen is at the entrance to the unit and has a special food lift large enough to take a food trolley serving it direct from the main kitchen on the top floor.

Also near the entrance to the unit is the traditional Sisters' Sitting Room which is a special requirement of St. Bartholomew's Hospital. Then come the treatment units planned individually on each floor to the

requirements of the Heads of Departments, but attached to them is a fully equipped sterilizing room which can also serve the wards.

In accordance with modern practice two sluice rooms are provided, one at each end of the unit in order to minimise the carrying of bed-pans, etc. It is assumed that a high proportion of patients will be ambulant, hence the very adequate lavatory accommodation described above, which is generously planned to facilitate the use of 'sani-chairs'.

Another innovation is the Nurses' Station near the entrance to the 10-bed ward, which is a central reporting point for the Ward Unit where telephones and call system control are sited as well as patients' records. Adjacent to the Nurses' Station are the Ward Duty Room including one of the sets of sterilizing equipment and a recess for the storage and preparation of medicine doses, syringes and so on.

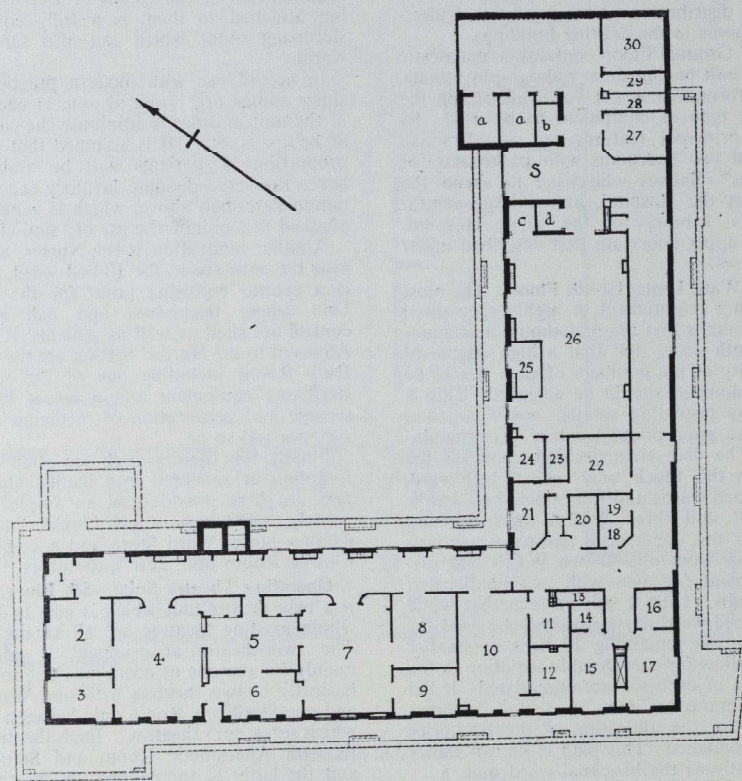
Finally four items which are often either forgotten or squeezed into inadequate corners are here provided on an ample scale, namely Staff Lavatory and Cloaks, Patients' Clothes Store, Ward Store and a combined Flower Room and Test Laboratory.

**Operating Theatre Suite—5th Floor.** This is a twin-theatre unit which is new to Bart's whose existing theatres are all single units. The twin-theatre arrangement is adopted mainly for reasons of economy as it consists basically of two theatres with one Wash-up and one Sterilizing Room only between them which serve both theatres. Each theatre has its own Anaesthetic Room and Scrub-up, and the latter is approached via the theatre in contrast to those of your existing theatres where elaborate circulation arrangements are made to avoid that happening. The original plan had small corridors allowing access to the Scrub-ups from the main corridor, but these were cut out because of the shortage of floor space.

A special skull X-ray room, complete with wet viewing room and dark room, is provided adjacent to one of the theatres for use during neurosurgical operations and direct access to it is provided from one of the theatres.

The usual changing and ancillary rooms are provided, not the least important of which is a well equipped tea pantry!

The operation suite will be fully air-conditioned and a new complication is introduced by the necessity to reduce the air



**Fifth Floor Plan**  
Theatres and Kitchen

1. Store Room
2. Anaesthetic Room
3. Scrub-Up
4. Operating Theatre
5. Sterilising Room
6. Wash-Up
7. Operating Theatre
8. Anaesthetic Room
9. Scrub-Up
10. X-ray Room
11. Wet-Viewing Room
12. Dark Room
13. Cupboard
14. Lavatory
15. Students' Changing Room
16. Lavatory
17. Surgeons' Changing Room
18. Store Room

19. Pantry
20. Clean Drums
21. Sisters' Room
22. Nurses' Changing Room
23. Dry Store
24. Larder
25. Office
26. Main Kitchen
27. Kitchen Staff Room
28. Toilets
29. Toilets
30. Theatre Orderlies
- a. Passenger and Rod Lifts
- b. Passenger Lift
- c. Goods Lift
- d. Rubbish Lift
- S. Stairs

temperature around the patient to a low level during hypothermia. This creates considerable air circulation problems which are still being studied and will probably only be solved empirically, if, indeed, they are not insoluble. An interesting by-product of air-conditioning is the need to keep the volume of the theatre suite to a minimum to minimise both capital and maintenance costs. Consequently the height of the ceiling is brought down to 10 feet which is considerably lower than in your existing theatres. The writer has seen new theatres in the United States and Scandinavia as low as 7 ft. 6 ins. with a small dome over the table to accommodate the theatre light.

**The Main Kitchen — 5th Floor.** This calls for little comment except to point out that it is designed to cook prepared food only. It is proposed that all preparation of food, e.g., peeling potatoes, cutting meat, filleting fish and so on shall be done in the Central Kitchen. This obviously minimises the size of the kitchen as well as economising in equipment and staff, while still giving the patient the advantage of meals freshly cooked on the premises.

**Mechanical Services.** As already stated the building contains a boiler house to serve the entire Hospital and has four tubeless steam boilers which supply steam to Calorifier Rooms at various strategic points where it is used to heat the water for space heating and domestic use. Space heating is by means of embedded low temperature water coils embedded in ceilings, usually known as "Panel Heating," and is similar to that in the King George V Block.

Full air-conditioning is provided in the Operating Theatre suites, and simple plenum ventilation in the X-ray Unit on the Ground Floor and internal rooms which must have mechanical ventilation. The wards themselves rely on natural ventilation as is usual in this country.

A piped vacuum cleaning installation is provided with a central collection point in the basement. The cleaner is simply plugged to a suction point in the corridor and the noise of electric vacuum cleaners is avoided as well as the possibility of fine dust particles spraying into the rooms.

Anaesthetic gases are piped from the central unit in the existing Surgical Block to the Operating Suites and oxygen points are provided to every four beds.

Two high-speed bed lifts are provided

with collective control, which means that when the landing button is pressed the first lift to reach that landing stops for the caller. This eliminates the annoyance of waiting at a lift landing and seeing one lift flash past after calling the other lift. There is also a high speed lift for personnel.

There are two hoists for clean and dirty material. The clean hoist delivers direct to the main operating suite from a drum-sterilizing plant and theatre workroom in the basement. The dirty hoist serves each floor and is sited near the treatment units for easy disposal of soiled dressings, etc.

**Internal Finishes.** Floor finishes fall into four main categories, battleship linoleum in corridors, lift halls and X-ray rooms, hardwood block in wards and offices, terrazzo in treatment and operating theatre suites and buff quarry tiles in lavatories and main kitchen.

Wall finishes are in Keenes cement with glazed tiles in lavatories, treatment rooms, service rooms, main kitchen and operating suites, excepting the theatres themselves which will have terrazzo walls.

Ceilings are plastered in soft plaster to a special specification because of the ceiling panel heating.

In wards and corridors a frieze of acoustic tiles is produced to cut down air-borne noise.

**External Finishes.** The external facing of the building is a hand-made, sand-faced russet brown brick, but two principal features are faced in Portland Stone; these are the main entrance bay, and the bay over the roadway connecting Little Britain and Bartholomew Close.

These traditional materials are selected because the building is designed to last indefinitely and not for an amortization period or period of comparatively short lease, as are so many office and flat blocks. The curtain walling or cladding used on many new City building has several drawbacks apart from doubtful length of life and these have been set out in recent circulars by the Building Research Station. They include water penetration, cracking due to thermal movement and "Aeolian-harp" effects due to joints admitting air at high velocity during gales! These factors, added to the fact that large glass areas are not required in an acute sick hospital, ruled out the use of these techniques. In short, the building is designed for function first and last and I hope that in use it may justify that aim.

## PERCY—AN ICONOLOGY

by E. A. J. ALMENT

DURING THE PAST eighteen months various references to Percy have been made in Editorial columns of this JOURNAL. There seems a risk that the precise antecedents of this Bart's mascot may be passing into oblivion. Hence the following facts of his early life have been collected and recorded.

Percy was created by the building firm of Dove Brothers, long associated with the Hospital, as their contribution to the St. Bartholomew's Fair held in the Square in July, 1939. He was designed by an artist named Barney Seale and was constructed of laminated soft timber. Over eight feet high, ten feet in girth, with hands and feet thirty inches long, this woebegone monster was introduced to the Fair as "The Germ of Depression". Standing outside the Steward's Office, he suffered 3-inch iron nails to be hammered into his abdomen at 3d. a time. If the nail could be driven right home in three blows a prize of one shilling was the reward. Such was the quality of Percy's parietes that this feat was almost impossible. (A rumour was subsequently put about that a concrete core lay beneath 2½ inches of timber, but there is no truth whatever in this).

After this martyrdom in the cause of the Hospital the Germ was stationed behind the West Wing where the Depression he had presaged overtook him with the rest of us that same autumn. One other foray he enjoyed just before his eclipse. Very early one morning certain members of the House decided to show him the view from the roof of the Surgical Block. With enormous difficulty he was introduced into the lift on the ground floor. The gates were closed, the fifth floor button pressed, and the lift descended to the basement with a bang. The escorting party managed to get him out of the lift again, up the stairs and back to the place where he was to stand gazing across at the clinical lecture theatre for the next six

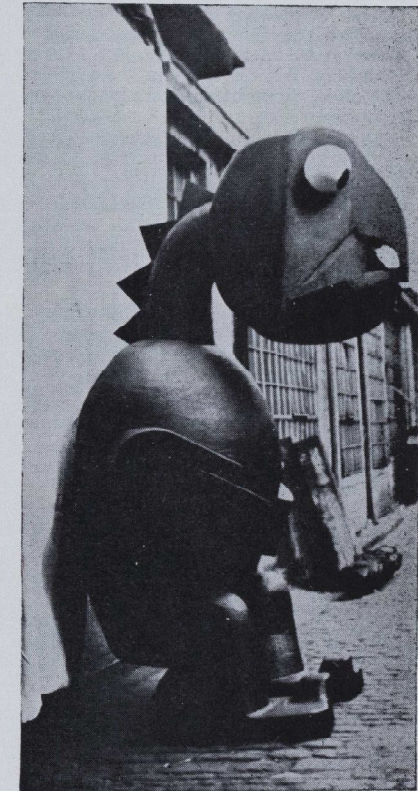
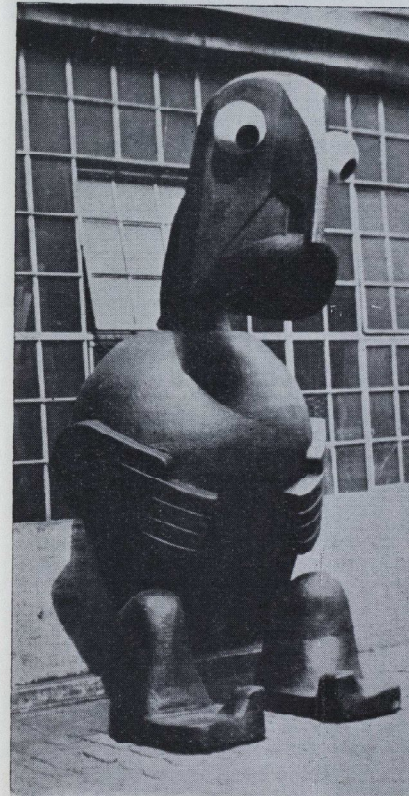
years.

The year 1945 found the creature still intact and unchanged apart from the patina that camouflages all the neglected treasures of Bart's. By now it was nameless, referred to simply as "the monster". But on VJ night, 1945, when the war ended, the dumb forgotten effigy rose to sudden fame. As thousands of Londoners poured through the empty evening streets, drawn by the strange exhilaration of relief and gratitude to the home of their King, Percy was lifted on to a trolley and escorted westwards up the Strand. His great white eyes goggling with excitement, he swept across Trafalgar Square in the gathering dusk and on to Piccadilly for a quick tour of the Circus. Passing some road works en route, Percy continued his progress with a red lantern swinging from his patrician nose. Slowly he edged along the Mall until he was amongst the crowds at the palace gates. There he stood for his finest hour, etched black against the floodlit building, great tears of pride rolling unseen down his war-stained cheeks, and bearing on his head a gentleman of this Hospital in a tall hat who directed and conducted the singing of the crowds. An unforgettable sight. As the evening and the songs wore on, Percy was moved along by pygmy constables and brought safely home.

His career as a tribal god had begun. He was transferred to Charterhouse and the next few years saw him presiding over many battles in his honour. Yet one notable insult he suffered within the City itself. Already allowed to pay his tribute to royalty, he tried to attend the procession of a Lord Mayor. But civic dignity proved too austere for such student pranks and he became the centre of a considerable struggle in the vicinity of Ludgate Circus, from which he emerged in a damaged condition. Since then Percy has gone into a decline. After losing his head, his feet became disarticulated and he now exists as various parts. The head is most

often used as a portable talisman of the whole, and as such it has travelled widely between the City, the Borough, and Whitechapel. Even the massive trunk was recently borrowed for alien rites across the river and

tored and honourably retired. He might even be sent to fulfil a greater destiny at the headquarters of UNO where his black, exophthalmic, prognathous presence, in all its saturnine, achondroplastic, onychogy-



*Percy . . . . his black, exophthalmic, prognathous presence . . . .*

the recovery of these items was fully described in the March issue of this JOURNAL.

It seems a pity that the present custodians are content with these relics of their traditional idol. Perhaps he could be fully res-

photoc glory would preside at their councils as a haunting concept of Post-Irradiation Man.

(The photographs are reproduced by kind permission of Colonel Dove.)

## FLASHBACKS TO THE 1890'S

by PENRY W. ROWLAND

THE HONORARY Staff at St. Bartholomew's Hospital towards the end of the nineteenth century, exhibited all the experienced dignity of the late Victorian age. The pace was set by the high-stepping pairs in their broughams, the standard by the cockaded top hats of their coachmen.

During the ward rounds and at surgical consultations the unruffled calm was occasionally broken. Unfortunately, it is not easy to recover the atmosphere of quiet assurance, the kind avuncular attitude to the students, the graciousness of the dealings with sisters and nurses and the friendly interest in the often grubby Victorian patients.

Physicians were beginning to yield pride of place before the daring of surgeons—a tendency hastened by the South African War and still more by the two World Wars.

Besides these tragic opportunities, antiseptics, beginning with the crudeness of the carbolic spray and followed necessarily by the rigours of asepsis, made the going easier for surgeons and safer for their patients.

The physicians, on the other hand, had to traverse the long darkness which preceded the antibiotic dawn and the showers of polysyllabic drugs which continue to fall on the medical and surgical sides alike.

It was indeed quite time that the whole medical profession accelerated its lumbering progress, and this century has seen the 'general advance'.

There were reasons for radical medical revision in hospital and nursing regime in the recurring shocks, e.g. when judge and jury in the typhus age shared in the death penalty with the condemned in the stagnant air of the crowded court—the lesson was only half learned. Again, when the physicians sent to South Africa reported of the tragedies of typhoid in overfilled wards; and again in the appalling death-rate amongst the children to whom our young troops had carried Rubeola. The lack of inherited and acquired immunity was not the only factor, for the patients compelled to lie on mattresses in the hospital grounds recovered quickly and had few

complications, but the Army Medical Authorities did not broaden their methods, and hospital boards at home had no experience of the personal disaster.

This is illustrated by the facts of the Influenza epidemic in 1918, when the weary soldiers were packed almost bed to bed here, in England, and the mortality was pitiful—and shared by the nurses and ward staffs.

Still the old deadly phrases are repeated in these well informed times, "Keep him warm, avoid draughts, keep the windows closed, put on more blankets, keep the fires up all night"—the lessons are slowly learned.

A few flash-backs to give glimpses of the men who led the profession during the last years of Queen Victoria's reign might help one to visualize the changes which were taking place sixty years ago.

The precedence given to the medical side of the profession is threatened by the pathologists, who are in the front line of advance.

It is said that in some countries armchair diagnosis is becoming popular and personal contact with the patient more and more rare—Television, when the display is of report after report from Pathologists, Radiologists and Chemist is much less human and enjoyable than the old personal relationship.

\* \* \*

Tom Smith was surgeon to the P of W who had hurt his knee, the patella being torn across. The old surgeon put on a back splint and bandaged it neatly into place. News of the treatment got around, and when Lockwood was asked in general terms about the bandage treatment of fractured patella he condemned it thoroughly.

Tom Smith was vexed, but a few weeks later had a useful "guinea pig" in the form of an old lady. This old dear had had a Sunday chatter-party with three neighbours and on their departure placed her delicate old porcelain on a tray to take downstairs to wash and put into safety.

As she ventured on the first stair she

stumbled, and in the effort to steady herself sat down violently, with the tray undisturbed across her knees, helpless. She is said to have sat there for two hours. She was admitted to hospital under Sir Thomas Smith.

While he was confirming the diagnosis of fractured patellae he said to his house surgeon, "Send across and tell young Lockwood I want his opinion on a case". He came, rubbing his hands, well pleased with the honour.

"Good morning, Lockwood! I hear you have been criticizing my treatment of an old patient of mine who is a V.I.P. I know his constitution through and through and chose appropriate treatment. Now this old lady has broken both kneecaps. I will treat the worse side as I treated my recent patient, and you can do whatever you like with the other side. We will meet again in a month to see the results. Agreed?"

"Yes Sir".

After Lockwood's departure Tom Smith called for a wooden back-splint and a couple of bandages, and applied them.

Lockwood made preparations for two days later. Finger chips were taken from all taking part, and the skin over the patient's knee. The perspiring surgeon wired the patella with his usual exactness.

A month later the two surgeons and their "tails" met at the bedside. Splints and dressings were removed and the old dear got up trembling and walked past three beds. Then she gracefully thanked both surgeons, who were pleased with the results, and shook hands. Even the ranks of rival firms "could scarce forbear to cheer".

When Tom Smith at last accepted his Knighthood from Queen Victoria a pleased crowd turned up at Surgical Consultations and cheered him as he entered the semi-circle. He put up his hand for silence and said, "Gentlemen, I can't help knowing what all this noise is about. Her Gracious Majesty has been pleased to honour our beloved Hospital, and I happened to be in the position to have the honour of accepting it at her hands". Suddenly he turned to the crowd again and said, "Boys, in spite of this occasion I want you always to think of me as Tom Smith".

He had his greatness "thrust upon him".

A short time afterward in another hospital the senior member of the staff was knighted. The house surgeon with a piece of perishable chalk carefully marked 'Sir J.' on the staff

board and glided into the shadow just in time to see the new knight stop, insert a monocle, puff out his chest and emit a longdrawn "Aaaah". He had achieved greatness.

A fortnight before, this surgeon had stalked into the theatre where the makers had arranged for an expert to demonstrate the use of the new cystoscope. A few minutes later he came forward to inspect the bladder. After a minute or two he said, "As I expected, I see nothing beyond a little cystitis, but it is a bit cloudy". "You will see more clearly, Sir, when I have connected it up with the battery!"

To complete the triptych one suggests that Sir James Paget was "born great".

\* \* \*

Howard Marsh had a special interest in joints and showed a patient whose knee joint he had immobilized, but who had been persuaded to have her knee "manipulated". Apparently the treatment had caused an acute recrudescence of the disease and Mr. Marsh's ire. There were many such tragedies of treatment before X-rays put a brake on those crude and often untrained enthusiasts.

\* \* \*

On the pathological side the hospital was fortunate to have Professor Klein, a very modest man with a fine investigating mind. It is said that as a boy in Vienna he was fascinated when observing the process of 'manufacturing' Pate de Fois Gras. Indian corn was rammed down the forcibly extended gullets of geese with a bamboo rod until the limit was reached—twice daily! The metamorphosis of corn into fat intrigued him and enticed him to his future career.

As he passed along his class with their eyes close to their microscopes a student asked, "Professor, why do cats' eyes shine in the dark?"

"Not in the dark, my boy, not in the dark! . . . I don't know. I will try to find out".

The following week, transverse sections of the fundi of cats' eyes were distributed and careful diagrams were beautifully chalked on the blackboard to show the mucus cell layer.

One pictured distraught owners of cats in his home area calling vainly for 'Tibby' that week.

James Berry was performing an early thyroidectomy, and amongst the students watching was one from "the States". A neat performance, efficiently carried out. A student turns to the visitor and says, "That was a nice piece of work, pretty fast, too".

"You call that fast. Why, we've an operator in Cincinnati who could do it in half the time".

"A case of hyperthyroidism, I suppose", says the student.

"No! No! Simple Tumor".

"I meant the Surgeon, not the patient—tachycardia, tremors, sweating and all that". Operations are only rarely the better for speed. At the Evelima Hospital one Saturday, a year-old patient was admitted twelve hours after the onset of an intussusception. The surgeon on duty was Tubby; a phone query revealed the fact that he had left and was calling in 20 minutes in a hansom to pick up one of the housemen and take him to the Rugby Final. The patient was prepared, on the table and anaesthetized when the cab clattered up.

"Sorry, I'm off for the Final".

"So I understand, and you are taking my colleague, but I must ask you to operate on an emergency first! Everything is ready and it won't take you five minutes". And it didn't. Confirmation by palpation, incision, return by manipulation.

"Right! Carry on, anaesthetist! You may sew up! Goodbye!"

Three hours later the Houseman hears the surgeon return, and calls out "Who won, Sir?"

"Wales! A goal and two tries".

"Good! By the way, the patient is all right, Sir!"

And that blessed infant went down with Varicella a week later!

\* \* \*

Tom Smith and Willett and Langton had examined a rectal case in Consultations and Walsham was quietly examining when his whole hand disappeared. Tom Smith whispered to his H.S. "After your chief, my boy, we must not let him go!" When the patient had been wheeled out Walsham was asked for his opinion in his turn, and calmly said "The growth is operable. I find the mucous membrane quite healthy above it". Tom Smith walked up to him, apologized handsomely and then turned to the rows of

students and apologized to them also for his "ungentlemanly" whisper.

\* \* \*

A butcher was rushed in from Smithfield with a badly cut arm, cut he said, by a hard-frozen leg of a New Zealand lamb. The artery was soon found and tied and stitches were about to be inserted when the patient refused to be treated by anyone but 'Butcher Walsham's son'. He drove down from the West End and did the stitching himself with his unflinching neatness.

Walsham prepared some of the intricate anatomical dissections that used to be in the Museum.

\* \* \*

On operating day Bruce Clark was informed that a few American doctors were going to watch him operate. He was vexed and had a talk with his H.S. in the Square. Half an hour later he was introduced to the doctors and entertainingly distracted them while he washed up. Quietly the anaesthetised patient was wheeled in and the H.S. put the towels in place, the limbs in lithotomy position, and inserted the "staff". Then he quietly said "Ready, Sir".

Bruce Clarke still holding the visitors in conversation walked a few steps to the table, his bulky H.S. closed in behind him. Continuing his narrative the Surgeon picks up the placed scalpel, runs it along the staff, inserts his finger and entices out a goodly calculus, still carrying on his talk. The H.S. plugged the wound, nodded to the porters who wheeled the patient into the anaesthetic room where two or three vessels were tied, and the dressing applied.

One of the visitors calls out to the Surgeon who is beginning to wash his hands, "Say doc! Are you going to operate on that man?"

Bruce Clarke turns to the Theatre Nurse, "Will you please hand me the specimen bowl, sister" and demonstrates the main points of the calculus.

No allusion was made to the operation, and there is an unusual dearth of wisecracks for several minutes!

\* \* \*

An inquisitive student notices Greybeards

making their way in small groups to the old Anatomical Theatre. He shyly follows them when he is overtaken by a striding forceful man, cloaked and with his arms clutching unknown objects. "Is this where the meeting of the Anatomical Society is to be held?"

"Yes Sir, I'll show you".

"And what, may I ask, are you doing here?"

"I'm just inquisitive Sir".

"Come in with me, then, I have something to show them," and side by side they sat five or six rows from the floor of the arena.

Sir James Paget had just began his speech. His stance, his dignity, his voice and elocution, combined to form delightful background for his oratory. After a dull five minutes of mumbling among the experts there was a brief pause. The stranger turned to the student and said "Watch! I am going to try to wake them up". He stumped down the steep gangway and from the shelter of his cloak delivered four skulls which he placed upon the table. He then gave a graphic history of each. They had all been trephined with flint implements 'to let out evil spirits'.

The demonstrator was Professor Haddon of New Guinea—an anthropologist of great repute. The somewhat somnolent audience 'sat up and took notice' and Sir James Paget welcomed the speaker and praised handsomely his ethnological reports from New Guinea.

Many years later the writer ventured up the Baltic on a Finnish boat containing Danes, Swedes, Russians and Finns hastening home. At Copenhagen four men joined the boat. They had been attending a conference on ethnology in Denmark, which had come to an abrupt conclusion. One of them was an old professor who joined the little group of British as he wished to polish up his English. When he told of his long residence in New Guinea he was asked if he knew Professor Haddon.

"Yes, I knew him well. He was my nearest neighbour in New Guinea and a good friend. We two met every Christmas after several days of difficult journeyings through forests and over mountains".

"And how did you like the New Guinea head hunters, Sir?"

"They were my very dear friends. I lived with them for years".

He was Professor Gunnar of the Helsinki University. He opened the Turku museum for us at 7 a.m., turning the caretaker out of bed to do so. The professor and his family suffered grievously during the war which began that week.

\* \* \*

Early in the Boer War, before the City Imperial Volunteers went out after a service in St. Bartholomew's the Great, Dr. Heringham's H.P. was used as an outsize guinea pig for an experimental dose of antityphoid serum. He had a very striking reaction to an enormous dosage and was looked at by several of the senior staff.

\* \* \*

Professor Koch of Germany was invited to address a "hand picked" crowd at Queen's Hall. A student passing by thought the meeting would be of prime interest so he walked up the steps with the invited guests. Having no ticket he was firmly refused admission but found that the delegates were coming from the Albert Hall and hastened across and enquired, "Have any delegates failed to turn up?"

"Well, we have just had a telegram to say that a Russian delegate cannot get here. Here is his ticket. Baron Rumanwiski".

"Thank you. That will do well" and back he hurries to the meeting.

"I thought we made it plain that only delegates were admitted".

The Baron's card is handed to the keeper of the door, who said, "I don't think you look the part, young man".

"Oh, that is because I've left my sable coat at the Albert Hall". He entered and was challenged by Horton Smith Hartley, the organiser. "How did you get in?"

"I'm Baron Rumanwiski, Sir, for this occasion only!"

The packed hall gave an unmistakable impression of frank unbelief. It must be confessed that the press was pretty well united in scoffing at the great discovery, and one paper produced a cartoon showing a row of dead bed patients as the professor walked down the ward carrying an enormous syringe.

A House Surgeon, T. P. Legg, from Yorkshire, dictated a note to his South Country dresser in Out-Patients. "An incision was made and a little cream coloured puss escaped".

Of a book—Edward and Ballance—word was passed round that Ballance supplied the letterpress and Edwards supplied the balance.

A new patient calls to her neighbour, "I say, missus. They've written 'C. of E.' on the board over my bed. Can you tell me what it means?" "Oh yes, I was puzzled at first, but I found out that it means 'Case of Emergency'; but I had my op, and they haven't crossed it out yet!"

## ABERNETHIAN SOCIETY

### ELECTIONS

At a meeting of the Society, the following Officers and Committee were elected for Michaelmas 1957.

*President* : C. G. Stevenson.  
*Secretary* : J. Hedley Whyte  
*Treasurer* : J. D. Parkes  
*Committee* :  
Miss J. Angell James  
J. T. Silverstone  
J. S. Price  
D. J. Tooby

### PROGRAMME

Thursday, October 3. Inaugural talk  
"From Trade Guild to Royal College"  
Prof. Sir James Paterson Ross, K.C.V.O.,  
M.S., P.R.C.S., F.A.C.S.  
The Great Hall at 4.45 p.m.

Thursday, October 24  
"Medical Education and Cancer"  
Mr. Malcolm Donaldson, M.B., B.Ch.,  
F.R.C.S., F.R.C.O.G.  
Physiology Theatre, Charterhouse, at  
5.45 p.m.

Thursday, November 7  
"Our Victorian Architecture"  
Mr. John Betjeman  
This talk will be illustrated by a 'magic lantern' show.

The whole of England's press was watching the final days of Gladstone. In the daily bulletin it was said "The doctor says the patient is suffering from 'change stroke breathing' and that this is looked upon as a serious symptom". This was reported to Sir Dyce Duckworth, who crinkled his eyes with the prospect of telling his friend Cheyne-Stokes. He turns to one of his clerks and asks him what he knows of Cheyne-Stokes. He stammers out "Dr Cheyne was a Guy's man and Stokes a professor at Dublin, I think". "Something else to tell my friend, he will be pleased". A back row student whispers to his neighbour "A case of Schizophrenia?" "I don't know what that means but I think 'Doublin' is the key word here!"

Physiology Theatre, Charterhouse, at  
5.45 p.m.

Thursday, November 14  
Last day of nomination of Officers for the next Session of the Society.

Tuesday, November 19  
"The New Organization of the  
Royal Army Medical Corps"  
Lieut.-Gen. Sir Alexander Drummond,  
K.B.E., C.B., Q.H.S., F.R.C.S., D.L.O.,  
Director-General Army Medical  
Services.

Physiology Theatre, Charterhouse, at  
5.45 p.m.

Election of Officers for the Lent 1958 Session of the Society will take place at this meeting.

Tuesday, December 3  
Show of films of medical and general interest. Titles to be announced.  
Physiology Theatre, Charterhouse, at  
5.45 p.m.

Thursday, January 9  
"Some Medical Aspects of the  
Rites of Indian Fakirs"  
Dr. John Hunt, D.M., M.R.C.P.  
This talk will be accompanied by exhibits.  
Physiology Theatre, Charterhouse, at  
5.45 p.m.  
Visitors are welcome at the Society's meetings.

## SOME THOUGHTS ON THE PRESENT TREATMENT OF METASTATIC BREAST CANCER

by G. J. HADFIELD

IN A FIELD like clinical cancer research where fresh observations are constantly being made, the assertions of yesterday often become discarded to-day. Hard and fast rules and plans are therefore impossible. We would preface these remarks by saying that what we are about to describe to you is an outline of the present plan of work carried out in this hospital on patients with metastatic breast cancer by the Surgical and Medical Units and the Department of Neurosurgery. It could perhaps be called a scientific enquiry with the reservation that the methods employed must benefit and give relief to the patient as their primary object. If, however, by these methods we can learn more about the growth and control of metastatic breast cancer in the patient, then we have not only obtained relief for one case but have also been able to obtain valuable data which might otherwise have been lost.

Hormone treatment of metastatic breast cancer may be either Additive or Ablative. Such alterations to the environment of a hormone sensitive tumour may cause either an increase or decrease in the rate of growth. Our main interest has been in the field of hormone deprivation and at the moment particularly to study the efficacy of surgical hypophysectomy, and to ascertain the criteria on which selection for this operation can be assessed.

The phases that a patient with metastases goes through may be summarised as follows:

- i. Pre-operative evaluation and decision as to course of treatment.
- ii. Surgical hypophysectomy.
- iii. Post-operative evaluation.
- iv. Out-patient follow-up.

From this you can appreciate that the project is a team effort.

The patient is first admitted to the general medical or surgical wards for a preliminary evaluation. A complete history is taken and a thorough physical examination fol-

lowed by special tests and X-rays is done. All dates are not only related to the patient's actual age in years but also to the patient's menopausal age whether natural or surgical. Relation of tumour growth and the appearance of metastases to this time is of considerable prognostic importance.

The sites and type of all metastases are carefully noted. Cases with gross disease who are already moribund are not considered suitable for treatment by surgical deprivation. The sensitivity to hormone changes varies considerably with the site of metastases. In our experience good results have been obtained with local skin recurrences, metastases to lymph glands, bones, the other breast, and discrete islands of growth in the lungs. Secondary deposits in the liver, brain, peritoneal cavity and pleural sac and widespread disease of the lung parenchyma are rarely materially influenced by hormone deprivation and so we do not think that at present hypophysectomy is indicated in these circumstances.

Careful evaluation of the patient's general condition is important, for the very old or the very sick an operation of this sort would seem inadvisable.

The results from other types of surgical deprivation are of the greatest importance. Cases that have obtained relief from either a naturally occurring menopause or a surgical castration will often respond favourably to hypophysectomy. The same is true for cases that have obtained remission from adrenalectomy and have reverted to exacerbation of the growth and symptoms. Failure however to respond to castration with or without adrenalectomy in no way precludes a case from hypophysectomy. Perhaps this can best be explained by showing how the rationale for hypophysectomy has become built up.

The concept of simple oestrogen dependence is now thought not to be the complete

story for the following reasons.

Firstly, regressions induced by removal of oestrogen sources, such as adrenals and ovaries, can be followed by exacerbation of the disease, in the absence of any significant quantity of oestrogen demonstrable in the urine or on vaginal smear. Hypophysectomy in these cases will often cause regression.

Secondly, Pearson of Memorial Center, New York<sup>1</sup> showed that a breast cancer in regression following hypophysectomy could be activated by administration growth hormone preparations.

Thirdly, it has been shown by Scowen and Hadfield<sup>2</sup> that other factors present in the urine of the normal pre-menopausal woman and removed by hypophysectomy can stimulate breast growth. These substances are non-oestrogenic. Much effort has recently been expended in attempts to find the exact identity of this pituitary factor. At present we think it safest to call it simply and rather non-committally the *Pituitary Mammotrophic Principle*<sup>3</sup>.

Lastly, further evidence is provided by studying the natural history of the disease in relation to the menopause<sup>4</sup>. A comparison of the lengths of remission obtained by the naturally occurring menopause and surgical castration is striking. The former can induce remission for periods of 1-4 years, compared with the latter where the average duration of remission is of 3-12 months. To what then is the difference due? We believe that apart from withdrawal of ovarian function at the time of menopause there are at the same time parallel pituitary changes. Thus the patient temporarily loses the ovarian oestrogen and pituitary mammotrophic stimulus. With the simple castration only, the so called "castration effect" is much shorter than in the natural menopause.

Estimation of the patient's oestrogen level can be done in one of two ways, either by examination of vaginal smears or by a complex chemical extraction method on a 24-hour sample of the patient's urine. Parallel studies show the first and simple method to be reliable<sup>5</sup>. The second method although more accurate, is in fact a research tool.

Normal menstruating women on admission for evaluation are assumed to have a high oestrogen level and no estimations are done on them. This is really only to save time and trouble because a complete month of serial readings on the urine would be required to

give a true picture of the patient's oestrogen level.

In the post-menopausal or castrated case a series of five 24-hour specimens of urine (one reading being obtained from each specimen) gives a good idea of the oestrogen level pre- and post-operatively. The post-operative specimens are usually collected 10-14 days after the operation so as to avoid false readings which occur due to temporary elevation of oestrogen levels forming part of the general adaptation syndrome in the post-operative period.

Further samples are collected at home in the 24 hours immediately prior to an out-patient visit by the patient. By this means the patient's oestrogen studies and clinical picture can be correlated. The availability of polythene winchesters and funnels removes many of the problems and inconveniences of home collection of specimens.

Recently a further project has been started to study the fluctuations in the mammotrophic factor with hypophysectomy. For this a further 24-hour specimen of urine is collected. From this the non-oestrogenic residue which contains the mammotrophic factor is extracted. Its quantity and presence is gauged by noting its effect of stimulating the simplest possible breast structure, that of the male hypophysectomised weanling mouse. Hypophysectomy in the patient abolishes the presence of this factor, but its pre-operative level varies. The quantity of this for any given case may help to forecast the efficacy of hypophysectomy.

The levels of calcium in the blood and urine give an idea of the rate of bone destruction in osteolytic metastases and comparison of serial observations gives an idea of the course of the disease in bone.

To gauge clinical results it is essential for us to know whether the pituitary gland has been totally removed. One of the most sensitive indicators of this is a change in thyroid function. Total pituitary removal will give a complete cessation of thyroid function requiring supportive therapy. It can be clearly shown by pre- and post-operative studies on serum protein-bound iodine.

Ketosteroid estimations are being performed routinely with all cases but their correlation with the progress of the disease, if any, is difficult to interpret.

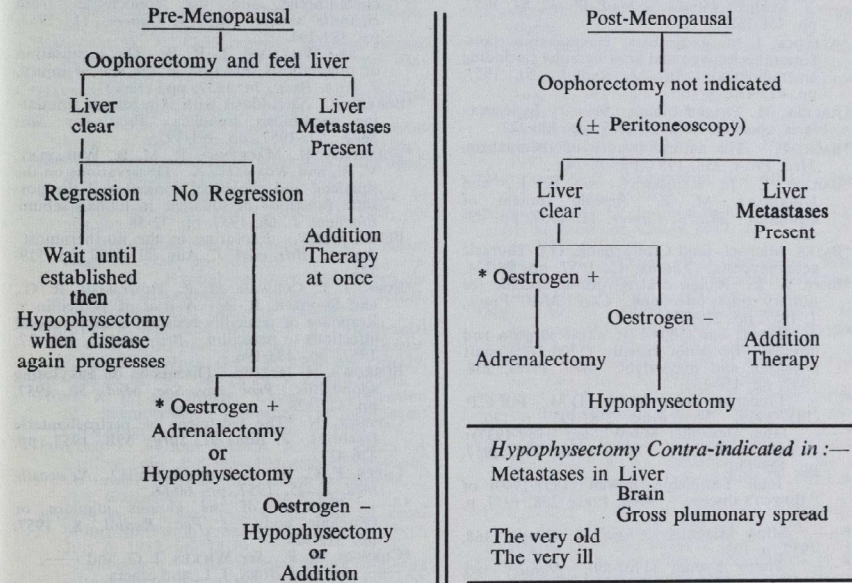
Changes in the size of ulcers or skin lesions is recorded by colour photography on 35 mm. slides. This we think is superior to

the written word or simple measurement with a ruler alone, although these are included as well.

It seems certain that simple oestrogen sensitivity is not the only hormone factor in

In conclusion we would like to summarise our general views on the treatment of the patient with metastatic breast cancer. This we think can best be done by the following diagram:

#### Scheme for Hormone Treatment in Metastatic Breast Cancer



\* In the present series these are also being subjected to hypophysectomy.

maintaining breast cancer. It may be that it is a combination of this and the pituitary factor but further studies are needed before we can say this.

To carry out a project of this sort it is essential to have a team as no one can be a specialist in every part of the work. Each month a meeting is called and the clinicians and chemists meet to discuss their work, presenting their own sides of the story and trying to correlate them into one complete picture. In this way new cases are evaluated and old ones followed up.

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\* Reprints received and herewith gratefully acknowledged.  
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## SPORTS NEWS

### VIEWPOINT

Another club is to be launched at Bart's, this time for the benefit of those fortunate enough to own cars or some form of mechanised transport. The Motor Club sets out to provide organized activities in the form of rallies, treasure hunts, etc., and as such will provide for the specialized wants of those for whom this sport appeals.

During the past season, one member of the Rugby Club must have set a record for playing rugby in various countries. He now joins the select few who have played behind the Iron Curtain and returned intact. The other matches were played in Italy, Roumania and France. Altogether quite an imposing record, and one which any player in the Rugby Union, let alone a student, would be happy to equal.

Many secretaries are at the moment anxiously looking to the October Clinical intake to replace those of previous years who have now qualified. It is thus impossible to assess the strengths of the various clubs at this stage, though the Rugby Club seem at the moment to be most in need.

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\*Reprints received and herewith gratefully acknowledged. Please address this material to the Librarian.

### CRICKET

#### RESULTS OF 1957 SEASON

Played 26 Won 11 Drawn 8 Lost 7

#### 1st XI v. Henfield.

Played at Henfield on 17th August, 1957 and won by 4 wickets.

This match was a welcome resumption of an old fixture and resulted in an excellent social occasion. The Hospital fielded first, assisted by some former Bart's players and dismissed Henfield for 83. The necessary runs were scored for the loss of 6 wickets, although at one stage the score was 31 for 5.

Henfield 83 (P. Harrison 4-11, A. Garrod 3-19).

Bart's 84 for 6 wickets (A. Whitworth, not out 33) (P. Drinkwater 22).

#### 1st XI v. Bromley.

Played at Bromley on 18th August, 1957. Match drawn.

Unfortunately heavy rain postponed the start of this match, the final fixture of the season. The Hospital batted first on a slow and damp wicket and batted consistently to score 153 for 8 wickets. J. Nichols made a welcome re-appearance for the team and batted attractively for 47. Some brave blows by the tail improved the score, and Bromley were thus left to score 153 in 2 hours. They opened confidently, but the fall of some quick wickets put them behind the clock and at close of play had made 106 for 9 wickets. Garrod and Nichols both bowled very well on an unhelpful wicket, and Garrod ended the season appropriately enough with a wicket off the last ball of the match.

Bart's 153 for 8 declared (J. B. Nichols 47, R. J. Mitchell 28, D. Richards, not out, 26).

Bromley 106 for 9 (D. L. Rigby 60, A. Garrod 6-54, J. Nichols 3-33).

## BOOK REVIEWS

**TECHNIQUE OF FLUID BALANCE** by Geoffrey H. Tovey, M.D. Oliver & Boyd, Edinburgh. pp. 90. 12s. 6d.

There have been a number of books on the management of salt and water metabolism. This monograph is shorter than most and for this reason alone can be recommended to the busy student. The price is 12s. 6d. The main difference between this book and those which have appeared before is an attempt to be less dependent on laboratory results. Not everywhere are there facilities to give the practising physician reliable results of chemical estimations quickly and Dr. Tovey aims to guide the reader in drawing practical conclusions from the interpretation of the patient's history and clinical state only. There are numerous useful tables.

The Specimen Fluid Balance Charts are excellent and well deserve copying. The book is very fully indexed—some 200 items for a book of 90 pages. This should result in its being used not only as a textbook but also as a practical manual on the ward.

In a future edition which will undoubtedly be demanded it may be advisable to make clear that a Fantus test should preferably be done on a 24-hour specimen of urine, and that the haematocrit as well as the haemoglobin level is a useful measure of haemoconcentration, particularly in hypochromic anaemia.

On page 24, the last two sentences on the parental treatment with potassium salts will make sense if they are reversed. On page 69, the reader might think that citrate (the sodium salt rather than the potassium salt) is given to produce diuresis during sulphonamide treatment, whereas in fact the purpose of giving citrate is to maintain the urine at an alkaline pH.

The description of the treatment of tubular necrosis might well be reconsidered. The author discusses the "diuretic phase" of acute tubular necrosis as if it were part of the natural course of the condition. However, a diuretic phase should never arise if his excellent advice is followed on avoiding overhydration during the oliguric stage. Peanut oil as a source of calories is now being superseded by glucose as the sole provider of energy with vitamins added. Omission of peanut oil reduces the tendency to vomit. Nevertheless when this occurs the vomit should be returned through the intestinal tube as pointed out on page 75 where in the next edition it might be mentioned that this requires a previous filtering through muslin. The necessity of adding heparin to the intravenous hypertonic glucose administered through a polythene tube is not emphasized. Presumably this is so because the author recommends elsewhere (page 88) heparin in all intravenous infusions, advice which most authorities would consider as going too far.

H. LEHMANN

**TEXTBOOK OF HUMAN ANATOMY.** By J. D. Boyd, Sir Wilfred E. Le Gros Clark, W. J. Hamilton, J. M. Yoffey, Sir Solly Zuckerman and the late A. B. Appleton. Edited by W. J. Hamilton. London, MacMillan & Co. Ltd. 1956. 1,022 pages; 797 figures; price £5.

The appearance of a new major textbook of anatomy in the English language is clearly a matter of interest for students and teachers alike. The preface begins with a rhetorical question—Is there need for yet another textbook of anatomy? The authors believe the answer to be in the affirmative, and advance three main reasons: first, that progressive expansion of the medical curriculum makes it essential to reduce the amount of factual knowledge which the medical student need acquire; second, that a need exists for closer correlation between structure and function; and, third, that the medical student should be introduced to the wider biological implications of his anatomical studies. Without doubt, most teachers of anatomy will recognise the laudability of all these precepts, and have indeed given effect to their recognition by the changes which have marked the teaching of their subject, particularly during the last ten years. Far less topographical detail is now required of the student, and more teaching emphasis is placed on general biological principles and on the functional implications of structure. Yet, it is true to say that these changes in the climate of teaching have not yet been reflected fully in current major textbooks. The new work now incorporates such changes in approach, and the results are rather diverse.

On the credit side, the book has many commendable features. In dealing with the respiratory system Professor Yoffey includes a good account of the speech mechanism—long overdue in textbooks of anatomy. The segmental anatomy of the bronchial tree is extremely well described and figured. The section on ductless glands makes clear and interesting reading, and it is the more regrettable therefore, that topographical detail has been pared therein to so low a minimum. The central nervous system is excellently described by Sir Wilfred Le Gros Clark, and the whole of this section is enhanced by reference to human clinical disorders.

It is disappointing, even remembering that this is a first edition, that so many errors mar both diagrams and text. The description of the anal musculature, for example, is one now generally recognised as incorrect; the accounts of the lymphatic drainage of the breast given in two sections of the book differ radically from each other; the insertion of the trapezius muscle is both wrongly described and incorrectly depicted; figures 86 and 718 show the superficial inguinal ring in a position which bears no relation to actuality, and the text description is also misleading. It is particularly unfortunate that the

# SWING IS SWING IS SWING

BABY DODDS, the great jazz drummer, once cut through a lot of controversy by saying: "Blues is blues". And there is a legend that a lady asked the late Fats Waller what was meant by "swing", and he replied: "Madam, if you have to ask what it is, you ain't got it."

This answer has something of the flavour of giving to those that have, and taking away from those that have not—a flavour that smacks of unfairness. But cynics would have us believe that we live in an unfair world. Nutritionists may be cynics, or they may merely be accepting undeniable fact, when they tell us that thiamine deficiency causes a striking loss of appetite. This, of course, leads to a worse thiamine deficiency, and so on ad nauseam infinitum—nauseam often literally, in this case, for nausea and other gastro-intestinal symptoms may follow the lack of other vitamins associated with thiamine.

But surely, you may say, nobody in our Welfare State goes short of thiamine? It is true that such alarming diseases as beri-beri are rare, but minor deficiencies are not. Old people living alone, food faddists, patients with debilitating illness—all may lack that all-round sufficiency of diet which is essential to well-being. This type of person needs the fillip that Bemax can give so well. Bemax, being stabilized wheat-germ, contains lots of thiamine and other nutrients: it is the richest natural vitamin-protein-mineral supplement. You just sprinkle it on your food; for children there is the chocolate-flavoured kind.

Issued in the interests of better nutrition by  
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eremaster muscle is described as drawing the testicle, "into the superficial inguinal ring," in view of the criticisms recently levelled at anatomists on this very issue, by a London surgeon. It would appear that he had, after all perhaps, some ground for complaint! It would be tedious and unnecessary to list all the mistakes in the book; one can hope that they will be corrected in a subsequent edition.

The least commendable section of the book is that dealing with the locomotor apparatus. Here, surely, one would expect abundant evidence of that integration of structure and function so rightly lauded by the authors, but this hope alas, proves unfounded. It is only fair to add that many of the defects exhibited in this section are probably due to the untimely death of its principal author.

Inevitably, the altered emphasis in approach has, because of the limitations of space, resulted in the exclusion of a great deal of topographical detail. It may be that this is the greatest defect of the new textbook. Reduction of detail is already accomplished, both in teaching and in the several anatomical synopses available to the student for revision: the wisdom of attempting a comparable reduction within the covers of a large textbook, however, is more debatable. Apart from the natural differences of opinion concerning what constitutes irrelevant topographical detail, the student obviously requires, for both preclinical and clinical use, an authoritative reference book the content of which must be sufficiently ample to meet his varied needs. It is pertinent to ask whether he will or can afford two major treatises on anatomy, or whether, possessing them, he will be able to find the time and the opportunity to make effective use of two such books. The undoubted advantages of the new textbook may well be outweighed by such considerations.

MICHAEL J. BLUNT.

## BOOKS RECEIVED

*Inclusion in this column does not preclude review at a later date*

**A SYNOPSIS OF OTORHINOLARYNGOLOGY** by J. F. Simpson, I. G. Robin, J. C. Ballantyne; John Wright & Sons Ltd., Bristol, pp. 455, 42/-.

**SURGERY, PRINCIPLES AND PRACTISE** by Allen, Harkins, Moyer, Rhoads, with 26 contributors, Pitman Medical Publishing Co. Ltd., pp. xxii + 1495, £5 10s.

**ANATOMIES OF PAIN** by K. D. Keele, Blackwell Scientific Publications, Oxford, pp. x + 206, 27/6d.

**CLINICAL PATHOLOGY DATA** by C. J. Dickinson, Blackwell Scientific Publications, Oxford, pp. xvii + 91, 20/-.

**AIDS TO OSTEOLOGY** by Nils L. Eckhoff and J. Joseph. 11th Edition. Baillière, Tindall & Cox, pp. 193, 10/6d.

**EVERYDAY PAEDIATRICS** by B. Gans and L. I. Norman, Faber & Faber, pp. 216, 12/6d.

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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## EDITORIAL

THAT INSTINCTS exist in the various forms of life is indisputable, and in the human the instinct to pair up and to mate presents one large facet of life which often confronts us as men of medical science. In the anomalous forms of homosexuality and perversion medical opinion is often sought by courts of law. In the extreme forms of rapacity and sexual mania again medical evidence can produce conviction. The *Journal* is not concerning itself with either of these two abnormalities—readers will find the Wolfenden Report more informative. Rather are we immediately concerned with the sequence of events which result after a couple, normal and healthy, have decided to pair up.

Friends, relatives and total strangers have to be informed of their reckless decision and what better method can be found than The Announcement in the more 'U' newspapers. The amenity has far-reaching effects and is of good value; everything seems to be so in these days of the inflated Pound. Soon after, congratulatory letters pour in by the shoal from close friends and casual acquaintances alike. Even total strangers can scarcely wait to wring the hands of the newly betrothed.

Alas, this blissful state of '*la vie en rose*' can remain at best a temporary illusion for other prying eyes have also read the news. The hapless couple is overwhelmed by a deluge of correspondence (with prepaid business reply envelopes enclosed) from firms purporting to specialise in future financial

security or familial well-being. These often have the contrary effect of deflating the hopes of those with toes poised gingerly on the aisle. Enter realization that married life is not a bed of roses. The honeymoon seems to have ended even before it has begun.

They marry nevertheless. Brave souls. The starry-eyed look soon tarnishes before the corroding effect produced by the pace of modern life. Man and wife go out to work and a nominal household is kept. House-keeping turns out to be devoid of any glamour or resemblance to Mrs. Dale's. They plod on with their miserable existence with bickerings over whose turn it is to wash the dishes, over unsettled bills, frivolities and extravagances, the new hat. In such conditions of adversity and unpleasantness, Nature often comes to the rescue with a soothing salve. An Ascheim-Zondek confirms their suspicions. Should they have paid more heed to the disgusting pamphlets from those "Surgical Appliances" manufacturers who had read about their engagement?

It is too late. The family arrives. Yet another announcement and yet another bumper mailbag. The specialists in future financial security return fresh to the attack, determined to have the dotted line signed by the new father. Thinking about the future and all that. Other bodies of people also join in the fray, advising against the practices carried out on the "poor defenceless child" who is said to have already all the defences required. Such practices as active immuniza-

tion are all "fraught with danger." Vital statistics of postvaccinal-encephalitis and other complications following active immunization are impressively provided. The "Surgical Appliances" also return in force. Under the guise of aids to "Family Planning" their products are again brazenly touted, providing reading matter of sorts for the mother during her post-natal fortnight. The ignoble aim seems to be the prevention of overpopulation of these British isles, an

### "Asian 'flu'"

*Our correspondent writes:*

As far back as nine months ago, Asian 'flu became a much-dreaded household word. With wide publicity having been given to this scourge by the national press, an outbreak of larger proportions possibly to rival that of the 1918 epidemic had also been presaged by many.

The disease has come to Bart's where, assuming endemic form, it has threatened to throw out of gear the whole machinery for the smooth functioning of a large hospital. It has been thought that the virus was introduced to the hospital by children admitted routinely, an idea alien to some. The question of culpability must remain at best an academic one and it is not proposed to pinpoint the culprits in these lines. Suffice it to say however, the nurses were the first to go down. Cases reporting to Dr. Coulson in Sick Rooms began with a slow trickle which soon increased in snowball fashion so that the beds in the Sick Rooms in the Nurses' Home, in the Surgery Ward and in Charterhouse Square were filled to overflowing.

Thanks to Mr. Beatty, emergency bed accommodation was provided when Harley ward was given up for the nursing of nurses. As usual, the enterprising nature of Bart's men was much in evidence. A gallant, who had best remain anonymous, offered his services to the Health Officer in the burdensome task of clerking scores of nurses; his gallantry was regrettably declined for reasons unknown. A more naïve student commented upon the puzzling phenomenon of such large numbers of young women admitted for "gynaecological reasons."

When the inmates of Charterhouse Square

effect produced more efficiently by organized emigration.

Such intrusions on one's privacy have been accepted as part and parcel of the intimate nature of procreation, wrongly so, but the fault lies entirely with us. They could have been prevented if the couple had not married or if The Announcement had not been made but then to take a mate and to be curious are also traits of the human as they are of the lower forms of life.

also fell before the scythe of the virus they displaced the nurses from Harley ward. Kenton ward was kindly given up by Dr. A. W. Franklin for the accommodation of these displaced persons. The transfer took place one dark autumnal evening and such was the efficiency of Bart's nursing that within 25 minutes all the patients had been comfortably settled, their TPR charts completed—a masterpiece of organization enough to delight the heart of any matron.

In most of the cases, swinging temperatures have not been uncommon, with temperatures falling from 104°F to 96°F within 24 hours and rising slightly again. Symptomatically, those afflicted have suffered with only such petty nuisances as headaches, sinusitis, general debility and lethargy. The average duration of "warding" has been about three days. Several of the male patients in the gynaecological ward of Harley did not seem at all nonplussed but quite at home, apparently none the worse for their incapacity in a female ward, noisily preoccupied with their own peculiar but effective form of self-cure. The game of "Battleships" was their response to the earnest counsel "Physician, Heal Thyself."

The fact that routine admissions to the Hospital have been curtailed only by some extent and that no complete stoppage of admissions has been found necessary as has been the case at one other teaching hospital in London must bear eloquent testimonial to the more robust constitution of Bart's nurses.

### Back Home at Last

Since last June, deposed from his warren by builders who had descended to carry out renovations, Mr. Garwood was forced to

carry out his manifold duties above ground. Gentlemen at Bart's were "de-convenenced." For want of a cloakroom white coats, clean and dirty, were dumped unceremoniously in such diverse places as the Abernethian Rooms and the Library—a sight which would have caused many an old Bart's man to lament the passing of a more orderly and dignified era.

On October 22, a mysterious notice board propped against the oak doors leading down to the Cloakroom proclaimed a "Grand Re-opening." "The March of the Toreadors" and a finale of "that old favourite 'Back Home At Last'" were to be played.

The great day dawned but expectations were not fulfilled. The return of Bart's men underground was uneventful and disappointingly unobtrusive. This was short-lived. Adapted to an existence above ground some rabbits rebelled against this return to subterranean life. A few of the 300 steel lockers were turned about and the cocks of the flushing urinals pulled out with gleeful malice.

The exhortation, 'Whatsoever thy hand findeth to do, do it with thy might', to be seen above the door leading down to the Cloakroom must have been followed by those planning the re-decoration for no half measures were taken. Hot air blowers, thermostats, air extractors over each cubicle, fluorescent strip lighting, a non-slip asphalt composition floor, cupboards for club equipment are some of the improvements incorporated for which a period of 18 weeks' waiting does not seem unjustifiably long.

\* \* \*

### The Boat Club

In October the Boat Club struggled from its summer chrysalis to find winter bearing down rapidly. All thoughts are of course focussed on the United Hospitals Regatta, which this year is to be held on Wednesday, 27th November, before, we hope, the full rigours of winter descend. It is pleasant to be able to report that the Club is flourishing, as a visit to Chiswick on any Wednesday or Saturday will reveal. Now is the time of year when enthusiastic beginners churn the waters of the static tank and coaches feverishly wave their arms and stifle evil words, wondering whether their protégés will ever master the basic arts. Determination will inevitably win through and an eight

formed from these worthy gentlemen will race a similar crew from Guy's. Incidentally, this race has been held in various forms since 1848 and is undoubtedly the oldest form of inter-Hospital racing.

Four IVs and a Junior VIII will be competing in the United Hospitals Regatta together with two scullers and a double sculler. The most experienced oar representing the Hospital will be C. C. H. Dale, whose presence in the rugger IV may bring frowns to the brows of our opponents but will do much to reinstate the old tradition that this was Bart's race.

One of the mysteries of Bart's rowing is the recent absence of Oxford gentlemen. Indeed, any Bart's oarsman might be forgiven should he suspect that Oxford rowing is a myth nurtured by a small band of Dons who each year employ nine athletic men to pace Cambridge from Putney to Mortlake, or that the impressive arrays of lines and crosses which periodically appear in the better newspapers are purely the products of an imaginative mind working deep in the bowels of Blackfriars Lane. We can only wish that the matter will soon be remedied.

On the day of the Fresher's Tea Mr. Thornton produced from the library a splendid flag. This had come into his possession during the War, when it had been left to the Club in the will of an old member. The cover bears the inscription 1848 and this may prove to be the original flag of the Club, which was founded in 1844. It is hoped that at a later date someone with the energy and ability will investigate this matter further and publish his findings.

The perennial question of a rowing tank at Charterhouse Square has been revived this year. Our Captain has returned from "The States" with some novel ideas and is at present in consultation with a fluid dynamics expert with a view to producing an efficient but simple design. Such an arrangement would lead to a marked advance in the standard and fitness of our crews and now that the future development of the Medical School is more clearly defined it is hoped that a permanent site will be found.

The Club welcomes all its members newly arrived from schools and other places and couples with a plea for punctuality a sincere wish that their rowing days at Bart's will provide them with much pleasure and many happy memories and experiences, to be vastly exaggerated in times to come.

**Glass and Wine**

Some fifty members of the Student Body drawn from the various clubs and societies of the Hospital had the pleasure of receiving hospitality from Dr. and the Hon. Mrs. E. R. Cullinan who were At Home on October 24. In an elegant drawing room Mine Host made everyone feel at home. Against one wall stood a handsome cabinet bearing the cream of Dr. Cullinan's varied collection of priceless antique glass. Rapt looks were shown by several of those present as Dr. Cullinan expounded on the individual histories of his collection.

Riesling was served chilled to the correct temperature, not overly cold to numb the palate nor overly warm to detract from its bouquet. No glasses were twiddled hopefully for they were filled as soon as they were emptied. To Dr. and the Hon. Mrs. Cullinan must go the thanks of those fortunate enough to have been invited for a convivially delightful evening.

\* \* \*

**University of Cambridge**

M.D.—C. B. Prowse.

Dr. A. N. Griffith has been elected to the E. G. Fearnside Scholarship for 1957.

Dr. M. M. Bull, University Lecturer in Anatomy, has been elected to an official Fellowship at Queen's College.

**Royal College of Obstetricians and Gynaecologists**

Prof. Andrew Moynihan Claye has been appointed President of the College.

**University of London**

D.Sc. (Physiology)—D. A. McDonald.

**Junior Scholarships (Chemistry, Physics and and Biology)**

Awarded jointly to G. Gardos, R. G. Miller, E. Knight.

**Change of Address**

Dr. K. G. Mellish-Oxley—to High Winds, Barking Tye, Nr. Needham Market, Suffolk.

**Cambridge Graduates Club**

The Cambridge Graduates Club of St. Bartholomew's Hospital, in its 82nd year, held its eighth sherry party on 25th October, 1957. Influenza failed to prevent a goodly muster in the Library.

Sir Henry Dale, President of the Club, welcomed the newcomers, referring to the privileges and obligations of the Cambridge-Bart's man. He mentioned the exuberant bore who recalled patronizingly that Bart's had treated the sick poor for 800 years in the very same place, and the rebuke from a less privileged mortal—"and in the very same way."

Much of the success of this activity of the Club depends upon voluntary effort, particularly by the Ladies; Miss Nerys Davies, their secretarial representative, is to be congratulated upon the feminine contribution to a very pleasant occasion.

\* \* \*

**The Journal**

Mr. C. J. Carr has resigned from the post of Manager. The Assistant Manager, Mr. M. I. D. Cawley, has been elected in his place.

Mr. John Chapman has been elected new Assistant Manager.

**NOTICES****Assistant Editor**

The post of Assistant Editor will be vacant soon. Applications must reach the Editor by November 30th.

\* \* \*

**Amateur Dramatic Society**

On Monday and Tuesday the 25th and 26th of November, the Dramatic Society will present "Count Your Blessings", a comedy by Ronald Jeans.

Tickets are available on and after 5th November, 1957 from:—The Business Manager, Dramatic Society, St. Bart's Hospital, London, E.C.1.

The Society looks forward to good support from everyone.

**Lecture on General Practice**

In the series of lectures on General Practice, Dr. G. F. Abercrombie will lecture on "The Family Doctor and his Patients" in the Clinical Lecture Theatre on Friday, December 6.

\* \* \*

**XIVth Decennial Club**

The second Annual Meeting of the Fourteenth Decennial Club is being held this year on Friday, December 13th at 6.30 p.m. in the White Hart (opposite the Giltspur Gate of the Hospital).

Anyone who entered Bart's between 1945 and 1955 and who is now qualified is eligible to be a member of the Club.

The secretaries have sent an invitation to the meeting to as many members as possible; there are however still some whose addresses we do not have so would those who wish to attend this meeting or be notified of future ones please get in touch with J. A. Parrish, Department of Pathology, St. Bartholomew's Hospital.

**ANNOUNCEMENTS****Engagements**

ADAMS—WILKIE. The engagement is announced between John Charles Linley Adams and Sheila Margaret Wilkie.

PATTERSON—STOKES.—The engagement is announced between Mark Jonathon Lister Patterson and Jane Stokes.

STEVENS—OWEN. The engagement is announced between John H. Stevens and Noreen C. Owen.

**Marriages**

LAMMIMAN—GRAHAM. On September 7th, Dr. David A. Lammiman to Sheila M. Graham.

LOWE SCOTT. On September 7th, Francis MacPherson Lowe to Juliet Frances Scott.

NICHOLSON—LAURIE. On September 28th, John Rumney Nicholson to Ruth Turner Laurie.

**Births**

ARCHER. On September 1st, to Jean, wife of Dr. Robert Archer, a daughter (Catherine) sister to Diana and Juliet.

BORRELLI.—On September 14th, to June and Victor Borrelli, a second son.

DADSWELL.—On September 20th to Margaret and Dr. John Dadswell, a son.

GILKS.—On September 19th, to June, wife of Dr. Michael Gilks, a daughter (Tessa Margaret).

HILL.—On October 11th, to Margaret, wife of Dr. John MacLeavy Hill, a son.

HOOPER.—On August 28th, to Rosemary, wife of Dr. E. R. S. Hooper, a daughter.

KUNKLER.—On September 20th, to Pamela, wife of Dr. Peter Kunkler, a son (Paul Anthony), a brother for Malcolm and Ian.

LAVY.—On September 6th, to Patricia and Gordon Lavy, a brother for Fiona (Christopher Brian Dyce).

MASTERMAN.—On October 8th, to Mary, wife of Mr. E. B. Z. Masterman, a daughter.

PORTEOUS.—On September 15th at St. Bartholomew's Hospital, to Margaret, wife of Dr. Colin Porteous, a son (John Graham), brother to Rosemary and Helen.

SCOTT.—On September 19th, to Rosemary and Surg.-Lt. H. G. Scott, R.N., a son, brother to Christopher (Jonathan Humphrey).

WYNNE-JONES.—On October 6th, to Barbara, wife of Dr. Philip Wynne-Jones, a daughter (Amanda).

**Deaths**

BOWLEY.—On September 12th, Maria Bridget, widow of Sir Anthony Alfred Bowley, Bt., K.C.B., K.C.M.G., K.C.V.O., F.R.C.S.

COOKE.—On September 16th, Clement Cooke, aged 64. Qualified 1915.

DAVIES.—On September 28th, S. Trevor Davies, aged 75. Qualified 1908.

GRELLIER.—On September 10th, Bernard Grellier, aged 70. Qualified 1913.

PARSONS.—On October 7th, Sir John Parsons, aged 89. Qualified 1892.

STRUTHERS.—On October 13th, Ronald Anderson Struthers. Qualified 1949.

TODD.—On September 23rd, Charles Todd, aged 88. Qualified 1894.

WILSON.—On October 7th, Ambrose Cyril Wilson. Qualified 1908.

## LETTER TO THE EDITOR

## MONEY FOR COLOUR

Sir,—Assuming a steady clinical student population of 250, the College will now have, by virtue of the inflationary level of the Caution Money levied for the new lockers, a permanent loan from the students of £250. I have it on good authority that with judicious (and quite safe) investment, this could give a gross yield of as much as £20 per annum. I am sure such a sum could be put to good use, if only to have the cloakroom painted a more agreeable colour.

Yours sincerely,  
A. M. BIRT.

Abernethian Room.

## CALENDAR

Sat. .. 16 Dr. R. Bodley Scott and Mr. R. S. Corbett on duty.  
Anaesthetist: Mr. R. W. Ballantine.  
Hockey: v. Hampstead 2nd XI (H).

## STAMMERING

by R. B. HARCOURT

AS SPEECH is one of the most highly integrated forms of neuronc activity, it is to be expected that imperfections in it should be of relatively frequent occurrence. Of these imperfections, stammering is by far the most common, and is estimated to have an incidence of one per cent in the general population.

There are two broad categories into which this phenomenon may be divided. A stammer may first appear in adolescent or adult life in relation to some emotional problem, or alternatively, it may date back to early childhood. The former is the much more uncommon type, and is a form of speech disorder which is easily imitable by voluntary effort, and is in effect an hysterical symptom of purely psychic origin. The Adlerian interpretation of the psychopathology of stammer-

Soccer: v. Old Reptonians (II).  
Rugger Club Dance.  
Tues. .. 19 Abernethian Society Meeting.  
Speaker: Lieut.-Gen. Sir Alexander Drummond, K. B. E., C.B., Q.H.S., F.R.C.S., D.L.O., Director-General Army Medical Services. Physiology Theatre, Charterhouse, at 5.45 p.m.  
Wed. .. 20 Soccer: v. Guy's Hospital (Cup 2nd Round) (H).  
Sat. .. 23 Dr. E. R. Cullinan and Mr. J. P. Hosford on duty.  
Anaesthetist: Mr. C. E. Langton Hewer.  
Hockey: v. Old Cranleighans (II).  
Soccer: v. Westminster Hospital L (A).  
Sat. .. 30 Medical and Surgical Professorial Units on duty.  
Anaesthetist: Mr. G. H. Ellis.  
Hockey: U.C.H. (A).  
Soccer: v. Middlesex Hospital L (H).  
Tues. Dec. 3 Abernethian Society Film Show. Physiology Theatre, Charterhouse, at 5.45 p.m.  
Wed. .. 4 Soccer: v. St. George's Hospital L (H).  
Sat. .. 7 Soccer: v. U.C.H. (A).  
Sat. .. 14 Soccer: v. Westminster Hospital Sports and Social Club (A).

ing maintains that the patient, suffering from feelings of insecurity and inferiority, is able to dominate his associates and to draw attention to himself by an impediment of speech which requires close attention from the listener. This type of stammerer may not feel embarrassed by his disability, but finds in it an excuse for not attaining the position of distinction in society which he inwardly desires.

The second type of stammer, and the more common one, is only partly a psychiatric problem, having an important physiological component. It is not susceptible to close imitation, and can often attain considerable complication in the form of clonic and tonic spasms of the muscles concerned in speech production. The physiological basis lies in an instability of the neuromuscular organisa-

tion. There is interruption and poor co-ordination at some level between the speech centre in the motor cortex and the muscles concerned in speech production. Evidence for this underlying physiological origin lies in a family history of stammering, which is fairly often elicited; in the correlation between stammering and left-handedness; in the evidence that stammering may follow encephalitis lethargica, and that stammerers may show some backwardness in other fields of motor co-ordination. The correlation between stammering and left-handedness in the patient and his relatives has given rise to the theory that the stammer is caused by a transient rivalry between the two hemispheres for cerebral dominance, producing incomplete dominance of the leading hemisphere, with crossed laterality and impairment of speech production.

There is, however, at the same time an important psychiatric component to the clinical picture. Minor organic faults or disturbances of dominance are, as a rule compensated for, and overcome during the normal process of growth and development. But if at any time unfavourable emotional tensions develop, due either to over-anxious and perfectionist parents, a bullying brother or a domineering teacher, impairment of certainty and control may lead to a stammer. Acute factors, such as a sudden fright have been held responsible, but it is much more likely that the factors concerned are anxiety and the general pressure of the life-situation. The importance of anxiety as a disposing factor in the production of a stammer is difficult to assess, as it appears that all types of personality are affected in all strata of society, independent of class, environment, physique, race, language or nationality. There is, however, a differential sex incidence, with a rough 4:1 ratio of boys to girls affected. This has not yet been satisfactorily explained, although the fact that girls acquire speech earlier, and make use of it more easily and purposefully than boys, may be of significance.

It is in this aspect of the basis of the impediment that it is difficult to differentiate clearly between the two types of stammerer already mentioned: it may be true that in a certain number of cases the same factors influence the child in its production of stammer as influence the adult in the production of his hysterical type of symptom. It

has been stated by some authorities that stammering can originate around infantile conflicts even as early as the suckling phase.

However, whatever the cause of the stammer, the patient is undoubtedly unfavourably influenced by his symptom. He becomes insecure in his relationships with his parents and fellow children, and is driven into isolation by his speech consciousness. His parents are apt to feel that the child can overcome the impediment by an act of will, and failure of the child to achieve this increases his tension, which makes his speech still worse. The knowledge that the stammer is more pronounced in certain situations increases the child's frustration. Thus, frustration and tension in child and parents may lead to a habit formation and a stammering pattern. When the patient is seen by a psychiatrist, the underlying cause may well not be apparent, and the anxiety picture is more likely to be the result than the cause of the impediment.

Treatment of stammer varies with its apparent cause. In the type of stammer first described, where the impediment would seem to be a symptom of an hysterical type, change in the patient's environment combined with, or substituted by, psychotherapy on Adlerian lines is the most favourable approach. *Treatment of stammer in the child should be begun early, but is often delayed because of the mistaken belief of the parents and family doctor that the child will grow out of the impediment.* Treatment should be directed towards the child's parents and teachers as well as towards the child himself—their distress and anxiety, their perfectionism and their inclination to coercion will all have to be combated, so that a change in the child's emotional atmosphere may be brought about.

Psychotherapy then aims towards enabling the child to relax and use his speech apparatus freely and unconcernedly whatever his audience—while speech therapy attempts re-education of speech, using a mixture of suggestion and some mechanical trick of articulation.

The prognosis of stammer of an early origin of the physiological type is good, and there may be a spontaneous disappearance in the course of later adolescence, but it must be remembered that a previous stammering pattern may be re-aroused at some subsequent time under conditions of emotional stress.

## THE RÔLE OF PHYSIOTHERAPY IN THE TREATMENT OF ASTHMA

by TRUEDA WAREHAM

AS AN ADJUNCT to medical treatment. Physiotherapy is of real value in nearly every case of habitual asthma. The treatment has two main aims; firstly, to teach the patient a regime to adopt during attacks and secondly, to improve his whole respiratory mechanism by teaching habitual relaxation, correcting breathing patterns, mobilizing the thorax, helping to get rid of excess mucous secretions and thus gaining a greater exercise tolerance. It is a fairly complex treatment which demands a great deal of hard work and concentration on the part of both patient and therapist.

The approach to the patient is most important. While having sympathy and tact, the physiotherapist must be forceful and determined with the personality to convince the patient that he can help himself. The physiotherapist also has to make the patient persevere with the endless practice necessary for adequate control. Nearly all asthmatics are intelligent and only too eager to help themselves once shewn the way. Every part of the treatment must be simply and carefully explained so that the patients will understand the reason for each activity.

### RELAXATION

The patient holds himself habitually tense and even mild cases find it difficult to relax even when lying down fully supported.

Complete relaxation is taught lying on one side, slightly turned forward (Fig. 1). He must first learn to relax the hands, then he learns to relax the arms, shoulder girdle and thorax and finally his whole body, face, trunk and legs. He then practices this relaxation in conjunction with correct breathing and the things are always thereafter combined so that an automatic pattern of relaxed breathing is built up which will, in time, become habitual.

Next, relaxation is taught in the sitting position with the head resting on the supported hands and forearms on a table (Fig. 2). Many patients find this the most helpful position during an attack—it prevents tension of the shoulder girdle and aids diaphragmatic breathing. It is obviously not always possible to lie down when an attack threatens and this position can be assumed under almost any circumstances.

The patient is instructed to practise these two positions again and again. Finally he is taught how to relax when sitting back in a chair, when standing and walking. Until all this has been achieved, he will not acquire the habit of voluntary relaxation and until he does this, he will not gain any really useful degree of control of his attacks.

### BREATHING

Correct breathing is another new habit only to be acquired by careful instruction and repeated practice. In asthmatic subjects, three outstanding faults will always be found—1. The breathing is mainly upper thoracic and expansion of the basal areas is very limited; 2. Expiration, instead of being a relaxed phase, is forced; 3. Normal rhythm is absent. These three points are explained and corrected separately and the asthmatic gradually learns basal expansion with relaxed expiration in corrected rhythm.

Before going further, terminology must be explained. In order to make sure that the patient learns the control of all parts of his thorax in breathing, one has to familiarise him with the following terms—'Upper thoracic breathing,' which he does too much, 'Middle thoracic,' 'Lower thoracic' and 'Diaphragmatic,' in which there is an accompanying rise and fall of the upper abdomen. Obviously, lower thoracic expansion is largely produced by the diaphragm but it is

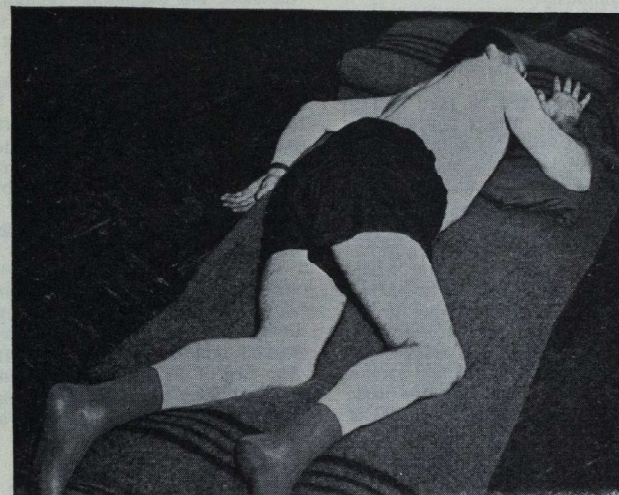


Fig. 1. The patient is taught to relax completely by lying on one side and turning slightly forward.

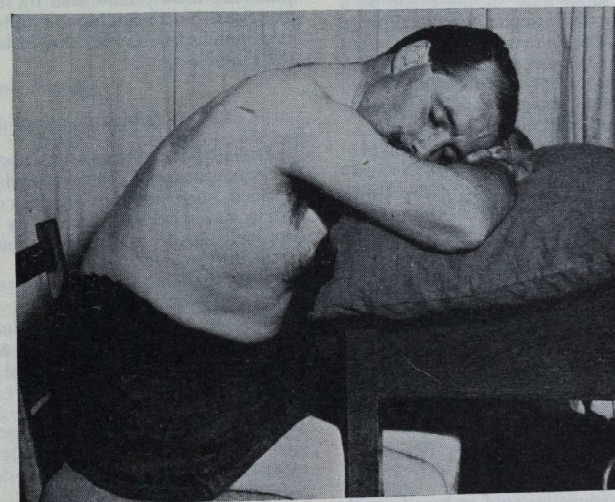


Fig. 2. The relaxed sitting position to be taken during an asthmatic attack.

easier to keep to the clear cut divisions for the sake of simplicity.

#### TRAINING OF LOWER THORACIC AND DIAPHRAGMATIC BREATHING

If the patient is asked to take a deep breath, he will do this with a typical upper thoracic movement using his accessory pectoral and neck muscles to gain maximum expansion. If asked to expand his basal areas, practically no movement occurs. This basal expansion can only be learned through proprioception. The patient must learn to feel his lower ribs and only then can he regain the power of expanding them. The physiotherapist applies very firm pressure to the lower ribs and the patient tries to breathe in and push his ribs outwards against this pressure. Resistance is applied first against the antero-lateral aspects of the ribs, then with the hands behind, against the angles of the ribs.

Diaphragmatic breathing is taught with finger-tip pressure on the costal angle or with a hand laid lightly on the upper abdomen. As soon as these exercises are partly mastered, the patient must learn to do them while consciously relaxing his accessory neck muscles. Expiration must be taught correctly again at the same time—it must not be a forced effort but an essentially relaxed phase of breathing. The patient must not blow out his breath but sigh as he breathes out; with the physiotherapist applying firm pressure to aid full expiration, the patient will appreciate the sensation of collapse of the thorax.

It will be many weeks before full expansion can be obtained as the costal joints are stiff and have to be gradually mobilised. The thoracic cage is usually fixed in an inspiratory position in the asthmatic and it cannot sink in during expiration. With perseverance, however, muscular control and mobility are regained. This breathing is taught in both positions of relaxation and later, while the patient is sitting and standing.

Finally, a webbing strap may be used and the patient is taught to use this to provide resistance to his thoracic movements.

#### RESPIRATORY RHYTHM

Nearly all asthmatics tend to breathe with a long inspiratory and a short expiratory phase. This form of breathing becomes

grossly exaggerated during an attack. From the start, this anomalous breathing must be corrected by breathing to the counting of numbers, with the physiotherapist counting in monotonous rhythmically—'In, two, Out, two, three'—matching the total speed of the patient's respiration. This must be repeated so often that it becomes habitual. Later, patients are taught how to breathe in time to walking, especially when hurrying—two steps to breathe in, three to breathe out. Presently, they will find this method of counting-breathing particularly helpful while negotiating stairs.

As with all this re-education, the patient must be made to make it part of his everyday's activities and not just to regard it as a thing to be practised at his physiotherapy session alone or when he is quietly at home. The degree of success is dependent upon how much he practises daily—whether he is sitting in a train or bus, walking about, or at any other occupation.

#### THORACIC MOBILITY

As has been stated previously, the stiffness of the thorax is a very severe physical disability which has to be overcome. The costal joints are mainly mobilised by the breathing exercises, but in addition, simple and localised mobilising exercise should be taught for the thoracic spines.

#### EXERCISE TOLERANCE

Provided that the heart is normal, a progressive scheme of general exercise should be decided upon and the patient's activities at home discussed so that he is encouraged gradually to do more. He is encouraged to walk further, to climb stairs, and in the younger patient, to run, jump and to take part in various forms of sport. The young adults are often horrified at the mere suggestion of tennis or swimming, and yet they can even play squash and find themselves the better for it.

These activities will, and should, be strong enough to cause mild breathlessness. The asthmatic is then shown how to overcome this by lying or sitting down in the correct position and relaxing consciously while doing diaphragmatic and lower thoracic breathing and maintaining a correct rhythm. Later, he will be able to overcome

his breathlessness by just sitting relaxed with his back against a chair.

#### SPUTUM

When excess mucous secretions are present, these can be got rid of much more quickly with chest percussion. The patient lies on a tipped bed or couch and rolls from one side to the other, relaxing and breathing correctly while percussion is given.

As will be discussed later, when sputum must be got rid of before going to bed (especially in the cases of those patients who get attacks in the middle of the night), a member of the family should be instructed on how to do this for the patient about an hour before he retires.

It should be noted that these patients often cough up very little sputum at the time of percussion but they continue to do so about 20-30 minutes after the treatment.

#### TRIGGERS

Of the factors which will trigger off an attack, three important ones can be helped by physiotherapy. These three factors are—tension and anxiety, a productive cough, and simple breathlessness. When the patient can learn to use physical measures to combat an attack, he will to a remarkable degree become less dependent on drugs.

#### Tension and Anxiety

With the normal individual, to be in a state of anxiety is usually an uncomfortable and wearing state. The asthmatic, however, responds by becoming physically tense. One can see it in the clenched hands, facial expression and shrugged shoulder girdle. If the asthmatic continues in this state for any length of time, there appears to be a gradual and associated build-up of bronchospasm which culminates in an attack. These patients are often aware of how much their states of mind affect them. They must learn to acknowledge and recognise the state of tension and to combat it vigorously so that, having taken whatever drug as has been prescribed to them, they can then concentrate on reinforcing its effect by relaxation and controlled respiration. With encouragement and repetition, the patient will find that his attacks can be mitigated more and more successfully and often a mild attack can be aborted by these methods alone.

#### Productive Cough

It is not uncommon for one to come across a patient who has learned to control his relaxation and breathing and to find him suddenly getting severe attacks in the early hours of the morning. Almost invariably it will be found that he has recently had a cold or cough and this is often the worst time for the asthmatic who has the added misfortune of reckoning with an attack of acute bronchitis.

The mechanism of this appears to be simple and may well be as follows—the patient goes to bed with a considerable amount of mucous secretions in his lungs: he lies asleep for some hours in the one position, e.g. on his left side. The secretions thus tend to gravitate and collect in the lateral areas of his left lung. In the early hours of the morning, he turns over to his other side. The accumulated secretions now have a tendency, assisted by gravity and the cilia, to move towards the mid-line. Some twenty minutes later, when he is again soundly asleep, the mucus reaches a main bronchial division and the cough reflex is stimulated. The patient has the frightening experience of waking up choking and gasping for breath. Naturally before he is fully awake, he is well into an attack.

These patients should have percussion and modified postural drainage twice a day, once by the physiotherapist with his other treatments and again in the evening by a member of his family. The effect is often spectacular and the relief and gratitude of the patient is great. Once the patient realizes that the situation can be controlled, he will have greater faith in his own efforts.

#### Breathlessness on Exertion

The normal person becomes breathless if he over-exerts himself. He accepts this as normal and forgets about it soon after. On the other hand, some asthmatics in similar circumstances, because their limited respiratory excursion cannot be much increased, experience greater discomfort. They become tense as well as breathless. An attack is thus precipitated. This state of affairs is most common in the older emphysematous patient, but even with this added disability most patients can be helped and also made to realise that they must recognise breathlessness on exertion as a normal reaction.



They must be taught to combat it by relaxing and breathing diaphragmatically, thus preventing it from progressing to an attack.

#### POSTURE

With the years, the asthmatic develops the typical hunched stooping posture. Effort should be made to correct this. In the child it should be prevented, in the young adult, corrected and in the middle aged, improved slightly. It is doubtful if anything can be done in the older patient.

#### THE ASTHMATIC ATTACK

Patients are encouraged where possible, to come up to the Department when they get an attack so that their relaxation in both postures of sitting and lying may be done under supervision, and maximum benefit may be gained by them. When a patient in status asthmaticus, who has had no previous instruction is admitted to a ward, the Physician orders physiotherapy as part of the general regime of treatment. Co-operation of the patient is gradually obtained; sessions being short and frequent with emphasis being placed on relaxation and breathing. The patient will be afraid of lying down during his attack. He is propped up with pillows in such a high position that his elbows are unsupported. His fear of lying down will be gradually overcome by encouragement and persuasion. Intermediate positions produced by lying back against fewer pillows are totally unsatisfactory for the teaching of relaxed breathing. After a day or two, treatment is intensified, with more exercises being taught day by day.

As can be seen from the preceding summary, there are many things which have to

be learned about the patient before he can derive maximum benefit from his exercise. Unless he is willing to work hard, the results will not be good. It is to be stressed that only a physiotherapist with a forceful personality can be really successful with such patients.

#### CHILDREN

The fundamental principles of treatment are the same. Greater activity and games are encouraged. Relaxation is taught on the floor with the child sitting on his heels and with his head on his forearms which are resting on a pillow. This position is found to be most comfortable and it is surprising to see how easy it is for them to do diaphragmatic breathing in this position when they can manage it in no other.

The parents must be instructed on the regime to be adopted. They are told that when the child gets breathless, he takes up this position or the one in which the child lies on one side. The mother should then calmly and gently remind the child of his breathing. (It is a well known fact that few children get attacks when they go to boarding school—anxiety on the part of parents must have some sort of detrimental effect on these children). The parents should be encouraged to be matter-of-fact in their outlook and also to be quite firm in having their children perform their daily exercises.

Physiotherapy as practised at this hospital and at most if not all hospitals in this country, forms only part of the total treatment of asthma by medical means—it is, however, a useful adjunct to the treatment of what used to be a hopelessly crippling disease.

## SO TO SPEAK

#### Theory of Relativity

DR. D—— E: "Of course this business of dementia is relative: if Einstein had complained of difficulty with his integral calculus that would be dementia, but if I said I had trouble with it that would be boasting."

## A COMMENT ON THE PRESENT RHESUS BLOOD GROUP TERMINOLOGY

by H. LEHMANN and H. F. BREWER

THE FACT that blood groups are inherited is one of the fundamental assumptions of paternity tests. Our inherited characters are reproduced in succeeding generations by the action of genes. These are arranged in chains—chromosomes. Their order in the chromosomes is definite and sequential so that each gene has its specific locus. After fertilization the new individual has a duplicate set of chromosomes, one derived from each parent, and as a result of this, the individual may show two different characters for the same locus on the chromosome. For instance, a person may have the blood groups A and B because one chromosome carries the gene responsible for blood group A and the other corresponding locus is occupied by the gene for blood group B. Such an individual is "heterozygous" for the genes responsible for blood groups A and B. An individual would be "homozygous" if the loci were occupied by the same gene whether it be A or B. Different genes such as those for blood groups A, B or for that matter O, which occupy the same locus are "alleles." Their products or blood group substances A, B and O are "allelomorphs," and the three blood groups A, B, O form one blood group system.

Genes of other blood group systems occupy loci on other chromosomes. Sometimes there are two or three loci on one chromosome which are occupied by genes forming one system. In the MNSs system, two loci on each chromosome are involved; one being occupied by the alleles M and N, and the other by the alleles S and s. Recently the system has been extended and includes loci for the blood groups Henshaw<sup>+</sup> and Henshaw<sup>-</sup>, Hunter<sup>+</sup> and Hunter<sup>-</sup> etc.

Before the germ cell matures, the chromosomes split across and recombine, so that the mature germ cell which after the "reduction division" carries only single unpaired

chromosomes, will nevertheless transmit properties of both grandparents to the new individual ("cross-over").

The loci for some gene systems are so close that the split across will rarely separate them and they are usually inherited together. Sometimes, however, such gene combinations may become separated and not be passed on as a unit. A rare combination will be formed which might give rise to the fallacious thought that a completely new trait has appeared, being previously absent in either parent.

There can be few students reading the general medical press—quite apart from those following the specialist journals—who are unaware that there are at least two distinct nomenclatures in use in the Rhesus blood group system. The Rhesus antigens were discovered one after the other. At first Landsteiner and Wiener<sup>1</sup> discovered Rh<sup>+</sup> and Rh<sup>-</sup> (or Rh and rh). Later Rh<sup>+</sup> became Rh<sub>1</sub>, Rh<sub>2</sub> and Rh<sub>0</sub>, and Rh<sup>-</sup> (or rh) was divided into rh', rh'' and rh. Anti-bodies which agglutinated "rhesus positive" cells were called anti-Rh and others which agglutinated "rhesus negative" cells were called collectively anti-Hr.

This type of nomenclature has been associated with the concept of the single Rhesus gene. Though this gene was highly complex and could be responsible for a variety of antigens, these were not to be products of separate genes, but different facets of one single factor.

In 1943 Fisher studied the distribution and the inheritance of four Rhesus antigens described at that time as Rh<sub>0</sub>, Rh', Rh'' and Hr'. Race<sup>3</sup> has described how Fisher demonstrated that two of these were "antithetical." Rh' and Hr' were inherited as if the genes responsible for their presence were alleles. They were called C and c respectively. One locus on the Rhesus chromo-

some was the C locus and could be occupied either by the C gene or by the c gene but not by both; C and c were allelomorphs. The other two antigens (Rh<sub>0</sub> and Rh<sup>+</sup>) were not antithetical and their inheritance bore no relation to those of the C type; they were called D and E. This nomenclature was developed to imply that there was no single Rhesus gene but that there was one Rhesus chromosome with three neighbouring loci. Each locus could only be occupied by one gene, the C locus by C or c, the D locus by D or by a hypothetical d, and the E locus by E or by a hypothetical e. Wiener postulates a single Rhesus gene with multiple alleles at a single locus, whereas Fisher and Race suggest that there is a chain with three distinct loci liable to "cross over."

Soon after e had been postulated by Fisher and Race, Mourant<sup>4</sup> discovered anti-e, and the rare blood groups R<sup>z</sup> and r<sup>z</sup> were found to fit in the Fisher-Race pattern giving the reactions expected for CDE and Cde respectively. At one time it was thought that anti-d had also been found, but this was not confirmed subsequently. Another serum (anti-f) seems to indicate the possible existence of a fourth locus F. Table I compares the notations for the various Rhesus chromosomes.

TABLE I.—Differences in notation for some Rhesus chromosomes.

Fisher's Annotation	Wiener's Annotation
CDE	R <sup>z</sup>
cDE	R <sup>a</sup>
CdE	r <sup>y</sup>
cdE	r <sup>z</sup>
CDe	R <sup>1</sup>
cDe	R <sup>0</sup>
Cde	r <sup>1</sup>
cde	

Much emphasis has been laid by Wiener on the fact that anti-d has never been shown to exist. However no one doubts the existence of a blood group O gene although no antibody specific for the product of this gene has yet been discovered. There are antigens whose presence is related to blood group O. Though anti-H and "anti-O" do not act specifically on the O blood group they will preferentially agglutinate O cells. Perhaps anti-f is similarly related to d.

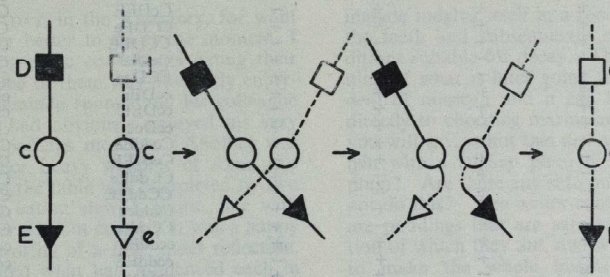
There is no need to assume a great variety of blood group substances. For the ABO blood groups evidence has come forward to

show that there may exist one ABO matrix on to which the A or B blood group antigen is grafted. Morgan and Watkins<sup>9</sup> found that in artificial mixtures of A and B, anti-A would precipitate only A, but when added to AB material both A and B were precipitated. Anti-B serum would precipitate only B substance from a mixture of A and B material but both A and B activities were carried down from an AB substance. One has to visualise a common ABO substance and the effect of an A or B gene would be a slight alteration in the chemical composition of this common matrix. Whether the genes for blood groups A and B will necessarily act on all the "matrix molecules" of the AB heterozygote has recently been doubted. Goudie<sup>6</sup> found in AB individuals both AB cells and B cells without an A antigen. In the case of the normal adult and sickle-cell haemoglobins Ingram<sup>7</sup> has shown that the gene for sickling is responsible for one single change in one of some 25 peptide chains into which he was able to separate the globin molecule. Each chain consists of approximately ten amino-acids. The only difference between the two haemoglobins is that in one of these chains one amino-acid is either glutamic acid (haemoglobin A) or valine (haemoglobin S). The genes responsible for these two allelomorphs are acting on the same matrix but they produce two distinct haemoglobins in the heterozygote. For the Rhesus blood groups the abnormal amount of D antigen in -D-/-D- cells (Wiener's R<sup>0s</sup>) may suggest a common matrix. These cells which contain only D and no antigens of the C or E type are particularly rich in D antigen so much so that they are unique in their ability to be agglutinated in saline by incomplete anti-D. It seems that a limited amount of Rhesus substance is available for specific elaboration by such genes as are present.

The most important difference between the Rhesus chromosome of Fisher and Race, and that of Wiener is that the first allows a "cross over." When the germ cells mature and the chromosomes unfurl and are divided into two halves the Rhesus chromosomes would cross and separate between the Rhesus loci. On their recombination new combinations of genes would arise. Such a cross over would explain how certain rare Rhesus blood groups could have been formed. These unusual combinations would be rare because the CDE loci (arranged DCE) are close

neighbours and would usually be inherited all together.

Thus the rare blood group cDE (Wiener's r<sup>z</sup>) could arise from cDE and cde as described in the figure:—



The formation of the rare chromosome cDE by "cross-over" of the two chromosomes cDE and cde. The linear arrangement of the loci is thought to be DCEF. This illustration is based on Fig. 14 in Race and Sanger's "Blood Groups in Man"<sup>8a</sup> and on Fig. 9 of an article by Lehmann<sup>9</sup>.

Wiener on the other hand would suggest a change of the single gene by mutation. No evidence of crossing over between D and C or between C and E has yet come forward, and when it should be found, it would still be possible to argue that only one gene was involved. Geneticists have in recent years postulated an arrangement of "pseudo-alleles" which although situated at one locus allow a cross over, though presumably if crossing over is possible there must be a linear arrangement even for pseudo-alleles although this would of course be very close. Thus the criticisms of the Fisher-Race chromosome concerns merely "the highly academic and interesting point whether the three allelomorphic sites of Fisher are to be placed within or without the boundary of one gene."<sup>8b</sup>

The MN chromosome has aroused much less controversy and there has been more readiness to adopt the conception of a chromosome along which there are loci for the genes for blood groups MN, Ss, Henshaw<sup>+</sup> and Henshaw<sup>-</sup>, Hunter<sup>+</sup> and Hunter<sup>-</sup>, and the presumed allelomorphs Miltenberger and Verweist. The Verweist gene is accompanied by those for Ns, and the slightly different Miltenberger gene is associated with the genes responsible for MS<sup>10</sup>. There is some anthropological evidence of crossing over in this system. Whereas Henshaw<sup>+</sup> is associated with NS in West

Africa<sup>11</sup>, in South Africa it is associated with MS<sup>12</sup>.

There can be no doubt—whatever the theoretical associations—that the CDE nomenclature is much more easily under-

stood than Wiener's Rh notation. Thus for cattle and chicken<sup>13, 14</sup> a nomenclature of the Fisher-Race type was adopted although the workers assumed that they were dealing with multiple alleles of the kind Wiener postulated for the Rhesus system.

One difficulty which arises from the Fisher-Race notation is concerned with the description of the "probable genotype." Each individual has two Rhesus chromosomes and without a family study the probable genotype has to be assumed on the basis of the over-all frequency of the different chromosomes in a population. Cells reacting with anti-C, anti-c, anti-D, and anti-e, but not with anti-E are therefore most likely to represent the genotype CDe/cDe, if the subject is an Englishman. If the blood is that of a West Indian immigrant it is much more probable that the genotype is CDE/cDe. Another possibility though not very probable would be the genotype Cde/cDe. Dr. Mourant<sup>15</sup> has developed a notation which simply indicates which antigens have been shown to be present (Table II.). Mourant's notation in this case would be CcDee, and the arrangement of the loci is left open. This is a safe and accurate description, and it might perhaps be much better to use this notation as a routine, and to supplement the information it conveys with that of probable genotypes only when this is specially asked for. In such cases, which would be exceptional rather

TABLE II.—Mourant's Phenotype Notation.

Reactions with Antisera					Mourant's Phenotype Notation	Commonest Genotype (in European Populations)
Anti-C	Anti-D	Anti-E	Anti-c	Anti-e		
+	+	+	+	+	CcDEe	CDe/cDE
+	+	+	+	-	CcDEE	CDE/cDE
+	+	+	-	+	CCDEc	CDE/CDe
+	+	+	-	-	CCDEE	CDE/CDE
+	+	-	+	+	CcDee	CDe/cde
+	+	-	+	-	CCDee	CDe/CDe
-	+	+	+	+	ccDEe	cDE/cde
-	+	+	+	-	ccDEE	cDE/cDE
-	+	+	+	+	ccDee	Cde/cde
+	-	+	+	+	CcddEe	Cde/cdE
+	-	+	+	-	CcddEE	CdE/cdE
+	-	+	-	+	CCddEe	CdE/Cde
+	-	+	-	-	CCddEE	CdE/CdE
+	-	-	+	+	Ccddee	Cde/Cde
+	-	-	+	+	ccddEe	cDE/cde
-	-	+	+	-	ccddEE	cDE/cdE
-	-	-	+	+	ccddee	cde/cde

than the rule, all possible genotypes should be stated in order of probability: CDe/cde; CDe/cDe; Cde/cDe. Another difficulty is that the sequence CDE does not correspond with the now assumed order DCE. It is difficult to understand the genetical considerations of crossover and of deletion unless one realises that the CDE system is thought of as DCE. For instance the rare Rhesus blood group -D- where it is assumed that a deletion of the C and E loci has occurred is easily understood if one thinks of it as D-, whereas a deletion of loci at either side of one locus is almost unthinkable. The change of the CDE notation into a DCE notation would greatly help in making Fisher's and Race's ideas more clearly understood and would incidentally put first that antigen, viz., D—which is also clinically of primary importance. The report on the cells reacting with anti-C, anti-c, anti-D, and anti-e but not with anti-E would then read: Phenotype DCcee with genotypes in order of probability (in an Englishman) DCE/dce; DCE/Dce; dCe/Dce.

If a DCE rather than a CDE notation and Mourant's arrangement of the description of the Rhesus phenotype were more widely adopted, Boyd's<sup>16</sup> recent conclusion would become even more valid than it is already: "For practical purposes there is no difference between Wiener's series of alleles and the closely or completely

linked loci postulated by the British. The same findings may be predicted from both theories, and both are based on facts. The swing to the British notation is rather to be traced to the advantages that it has a notation, and for teaching and medicolegal purposes." Such an unbiased opinion of an experienced practitioner and teacher of serology admirably sums up a situation which might well confuse the uninitiated.

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## PUDDINGS

by R. L. W. CLEAVE

THE OTHER DAY, in the Refectory, for want of something better to do at the moment, I was watching some consultants eating their puddings. One of them was obviously enjoying his marmalade sponge and his colleague on the left had obviously enjoyed his very much too—perhaps more so. Another was making rather heavy weather of some rice pudding and the table was completed by two others both eating stewed plums, one with and the other without custard. It was a happy scene and worthy of a little quiet reflection. One wondered what had influenced each in his choice, and whether he would have the same tomorrow. One unconsciously classified them into marmalade sponge eaters, rice pudding eaters and stewed plum eaters. The custard was rather a problem; one dwelt on the possible explanations. One compared the various sponge eaters throughout the room, both the senior and the junior. One did the same with the rice pudding eaters and the eaters of stewed plums. One tried to relate the type of person to the type of pudding he was eating. In some cases there did seem to be a remote relationship. By this time the puddings were finished. Coffee and cigarettes were ending the meal. Once again there was much variety and altogether it was a delightful study in free will.

The thought of free will diverted my train of thought on to the morality of their various choices. Was it right to choose marmalade sponge when there were stewed plums available, or was it really just a matter of preference after all? Some puddings, so we are told, are better for us than others and this rather makes an issue of pudding choosing. Over the matter of puddings most people would brush aside the issue; nevertheless the choosing of puddings is but one choice in a life-time of choices; choices not only between food but also between habits and patterns of life. Day by day, unconsciously we make choices that cumulatively exert a definite effect. It is therefore worthwhile to consider them for one moment before they return again to the realm of reflex action.

To go back for one last moment to these puddings. Imagine a piece of sugary mar-

malade lodging itself in a food trap amongst the teeth and subsequently setting up conditions suitable for decay. This is the beginning of what is later going to cause a great deal of misery; and it can be traced back directly to choosing marmalade sponge. But, you will say, is not this just as likely to happen with a sugary piece of rice or stewed plum? Are there any safe puddings that will not do this? The writer contends that there are puddings that are safe and a consideration of which they are, and why, enables one to make the whole business of pudding choosing easy. It throws all such choices as these together and gives one reasonable grounds for differentiating between them. It necessitates, however, a lengthy digression into those processes that have directed the path taken during evolution.

The fundamental objection to all these puddings is that they are not natural; we are not adapted to them, otherwise we would never get caries from them.

The words natural (and unnatural) and adaptation are often used with different meaning. It is the moment by moment fulfilment of the laws of matter and energy that gives rise to the concept of "Nature". It does not imply purpose or a governing force. It is merely a convenient word with which to describe the activity that goes on around us. No part of Nature therefore can be unnatural. For the purpose of making the argument clear it will be necessary to strictly limit the meaning of "natural" and I must make use of an analogy.

The lifts in College Hall are designed to carry up to 12 people. Under such a stress they will fulfil their function—that of lifting. It is natural for them to do so; they are adapted to doing it. Equally, among living organisms a natural stress is a stress to which the organism in question is adapted. This does not apply to stresses only but to all the factors upon which the existence of the organism depends. The function of a lift is obvious, but the function of a living organism is less easy to define. For animals at least one is forced to say that their function is to reproduce and so keep their species alive.

Since this is 'their function', the only absolute test of adaptation is that of whether the particular type of organism in question is alive or not.

Zoologists would rightly question the statement that one type of organism is more adapted than another, unless one of them was extinct. But some stresses are not matters of life and death, and differing individual response in the face of the same stress in these cases would seem to suggest differing degrees of adaptation. This is using the word adaptation in a more limited sense i.e. as a measure of the response to a particular stress, and not to the stress of living as a whole. It is in this second sense that it will be used here.

The stresses to which living organisms are subjected fall into two categories; those imposed by the physical conditions of the environment and those imposed by the competition of other living organisms. The degree of adaptation to these stresses is largely a function of the length of time for which they have been operating, for time enables the process of elimination of the unfit to proceed towards completion. Where the competition is high slight inadequacies become of crucial importance; in fact, become matters of life and death. But this process of elimination of the unfit never does reach completion because of change both in the physical conditions of the environment and of change in the quality of the competition offered by other organisms. Nevertheless the degree to which adaptation of these two types of stress does occur is different in the two cases. This is because the physical stresses imposed by the environment remain relatively the same for long periods. Certainly vast geological upheavals do produce widespread extreme changes but between these catastrophes there are often periods of relative constancy extending into many millions of years. There are severe changes that occur locally during these periods but by and large these stresses remain the same. These long periods in the presence of severe competition will produce a very high degree of adaptation towards these physical stresses. [This was the time when physiology was in the making]. But this never has a chance to happen with regard to the stresses imposed by competition from other living organisms. This competition usually exists in the form of a host-parasite equilibrium. Mutations constantly threaten the status quo and no type of organism can

ever develop complete and permanent immunity from potentially pathogenic organisms. This may be because a temporary and unavoidable change in the external physical conditions lowers its resistance, or because the potential pathogen develops some new and virulent property against which the host organism has (as yet) developed no resistance. So although the process of adaptation to the physical stresses of the environment is a continuous one, that of adaptation to the stresses imposed by competitive organisms never is; it never has the chance of proceeding far. For this reason an African may go out into the tropical sun, and a European into the European sun, without any ill effects, but neither can expect any similarly certain immunity if there are competing organisms around, whether these be snakes, wolves or bacteria.

By means of the discoveries that have resulted from man's greater intelligence it has been possible to swing this equilibrium between himself and his parasites far in his own individual favour. Ever since the discovery of death, individuality has been an obsession. Religion preserves it after death, and medicine before and naturally both have flourished. Now that this competition from other organisms is being increasingly well met it is to be expected that nearly everyone will enjoy almost uninterrupted perfect health from the cradle to the grave. The only stresses to which man has no complete or permanent immunity have been removed. The only ones that remain, apart from wars and accidents etc., are those imposed by the physical conditions of his environment, and adaptation to these has already had millions of years to take place. There will always be a certain proportion of disease and death resulting from what one might call imperfect reproductions, as typified by neoplastic disease in the new-born. Most of these will appear during infancy but some may make their appearance later. A certain proportion will be perfect reproductions but of poor heredity. This group is typified by such abnormalities as cleft palates etc.—it fades off imperceptibly into those otherwise described as normal. Apart from these (say) 15%, and excluding wars and accidents etc., the remainder should live their normal life span, whatever this may be, in the complete absence of non-infectious disease. There should be none at all, no caries, no obesity, no coronary thrombosis or cerebral

haemorrhages, no cancers etc., nothing. I know this is an over-simplification and an exaggeration but the bald principle holds good. Of course people are going to have to die of something, and if infectious disease is prevented, they will have to die from a non-infectious disease, but the acid point is that these deaths from such diseases as mentioned above will not occur until the end of the normal life span of the individual concerned.

Numerous qualifications leap to my mind as they will to yours but such digressions would divert attention from the main thread of the argument. The fundamental and inescapable point is that people are suffering during the best years of their lives from diseases which were ironed out of the race millions of years ago when competition made even small things matters of life and death. Why are the arches of people with flat feet falling when for millions of years they never have? Has a cat ever had flat feet? Once, when the foot was being evolved some cats had arches that may have collapsed. But this sort of error is an elementary and mechanical one. It falls into the same category as the error of eating too much, drinking too much, or breathing too much. Animals in their natural state, in which adaptation to the physical stresses of their environment is still very high, just do not suffer from these things. They may have once but they do not now. If an animal is transferred from its natural state to a domesticated one this no longer holds. If a dog is fat, his mistress is usually fat too. The answer is easy to see—for they invariably share the chocolate biscuits at tea time. But the dog in the natural state, or the fox if you like, does not get fat. It may well have a parasitic infestation of one sort or another which the sophisticated dog does not have, but it will be free of the non-infectious disease that usually accompanies such sophistication. The state of affairs in man's case is much the same, only worse. We do not, in civilised communities, have the parasitic infestations that plagued primitive man. Our intelligence has eradicated these, but far from eradicating disease as a whole, we have rather exchanged our diseases, and we now suffer from things which even primitive peoples have eliminated.

The explanation of this anomaly is that the physical conditions of our environment are no longer constant, but the changes are

self-inflicted. For example, if mankind has eaten raw food for millions and millions of years and then starts to cook it; he subjects himself to an entirely new stress. Since the stress is a new one there is no guarantee that it will be met without failure by everyone. It may be, but it may not. Another example is that of clothing. These two changes took place many thousands of years ago and some degree of adaptation has taken place. They are certainly irreversible changes and nothing can be done to prevent the ill-effects appearing. But even after all these thousands of years these ill-effects do still appear. Thus cooking food has softened it and killed it. The long-term effect of eating soft foods has deprived the jaws of much of the mechanical stress that is responsible for their normal development. For all that anti-Lemarkists may say, this has had the effect of diminishing the size of the mandible. The teeth, in man, no longer fit the jaw. It is a remarkable state of affairs. This result is absolutely irreversible and the overcrowding of the teeth has created food traps such that even raw foods may set up conditions suitable for decay, let alone highly civilised refined ones. A raw apple in a perfect jaw has never resulted in decay (or not for millions of years). If one looks at a cow's skull in a field (uncommon) it may be seen that the non-biting edges are encrusted with debris, but the teeth are perfect. Of course they are. During the millions of years when the cow's teeth and grass were being reconciled to each other all such errors were eradicated. A cooked apple affords no such guarantee of immunity from caries any more than stewed grass would for a cow. If one's life depended on one's not getting caries it is almost certain that everyone would prefer to eat raw food and trust to their jaws being sufficiently unchanged. It would be reckless to introduce another uncertainty and cook the food.

If anyone is not decided about the importance of following out the inferences from this argument, a short walk round the wards, 99 per cent full of non-infectious disease at all ages, would be instructive and probably sufficient. These are the long-term effects of unconscious choices; and they are significant.

So much then for the theory. In practical terms what does it amount to? Many of these changes that we have inflicted on ourselves are irreversible, and in other cases it is not economically feasible to revert to the

initial state. One must endeavour to make the best of both worlds and compromise. This is at least taking a calculated risk instead of a blind one. The three things that will most influence our physical health is the air we breathe, the water we drink and the food we eat. Fresh air is better than London air and London air than cigarette smoke. Water is better than whiskey or gin. Food should be lightly cooked and unconcentrated. How can one's appetite cope with such concentrated foods as sugar and starch in their refined states? Where possible the change imposed in the stress in question should be reduced to a minimum. Consider how much better off is the man who has his fish steamed rather than fried. It just so happens that frying produces more dilute carcinogens and dyspepsigens than steaming. It might take a lifetime's research to establish this, but a compromise view gets the answer first. The temperature is lower with steam, therefore use steam, Q.E.D. This applies to brown bread vis à vis white. For all that eminent nutritionalists may say brown bread is better for one than white; one has had longer to become adapted to it, and it is less concentrated, two adequate reasons.

It is all a matter of commonsense and judgment. One does not have to know the nerve supply to one's eyelids to be able to

open one's eyes and see the light.

For one's mental health the same rule holds, but is harder to apply. A primitive approach to sex is best but unconventional. As was said at the beginning, one is enabled to throw all such decisions into a group together and have a reasonable basis for choosing—a basis very likely to be right.

Personal belief in a theory has never proved of much use in establishing it, and there have been numerous people with obsessions about nutrition. This particular one, however, does rest on the whole accepted mechanism of evolution and not on any individual idea or experiment. For this reason it should carry extra weight. The same argument could be produced in a hundred years' time for it is not founded on any prevailing fashion in medicine or on any recent discovery. It has a broader foundation as is borne out by the fact that the whole proposition has been put forward without mentioning a disease except to illustrate a type. Provided an hypothesis is not demonstrably untenable, before it is discarded, another more reasonable one should be found. The onus is really on the Consultants to justify their choice of marmalade sponge when stewed plums were available (without custard). Of course, were raw apples to appear as an alternative, it would be very gratifying; but raw cooks would show bad grace.

## STUDENT ENTRY

October, 1957

### PRE-CLINICAL

Adnitt, P. I., *Chesterfield Grammar School*.  
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 Austin, A. J., *Cranleigh School, Surrey*.  
 Balfour, A. J., *Lancing College*.  
 Barber, S. E., *St. Catharine's School, Bramley*.  
 Bascombe, M. J., *Bournemouth School*.  
 Beard, R. M., *Dulwich College*.  
 Beecham, H. A., *Achimota School*.  
 Blake-James, R. B., *Ampleforth College, Yorkshire*.

Bloom, R. A., *Cyfarthfa Castle Grammar School*.  
 Bolton, J. C., *St. Joseph's College, Curepipe, Mauritius*.  
 Bousfield, J. D., *Cardiff High School*.  
 Brodribb, A. S., *St. Mary's School, St. Leonards-on-Sea*.  
 Burbridge, N. J., *Eastbourne College*.  
 Butler, P. W. P., *Douai School, Woolhampton*.  
 Buzady, T., *University of Pecs*.  
 Colin-Jones, D. G., *Brighton College*.  
 Collins, P., *Tapton House Grammar School, Chesterfield*.

Cotton, S. G., *Christ's Hospital, Hertford*.  
 Cupitt, A., *The Ladies College, Cheltenham*.  
 Dacie, J. E., *St. Paul's Girls' School*.  
 Davies, R. K., *Newport High School for Boys*.  
 Defrates, M. J., *Charterhouse, Surrey*.  
 Deys, C. M., *St. Paul's Girls' School*.  
 Doney, B. J., *Torquay Boys' Grammar School*.  
 Ducker, P. S., *Westonbirt School, Tetbury*.  
 Dudley, N. E., *Bedford School*.  
 Dupre, P. C., *Repton School*.  
 Edwards, H., *Queen Elizabeth Grammar School, Carmarthen*.  
 En-Nimri, S. A., *American University of Beirut*.  
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 Fonseka, Y., *Queen's College, Taunton*.  
 Gleadle, R. I., *Merchant Taylors' School, Northwood*.  
 Glover, D. N. C., *Wellington College, Berkshire*.  
 Groves, R. J., *Beckenham and Penge Grammar School*.  
 Hadley, D. A., *Royal Masonic School, Herts*.  
 Haig, G., *Chigwell School, Essex*.  
 Harcup, T. J. O., *Gravesend Grammar School*.  
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 Harries, M. L., *Llandoverly College, Carmarthen-shire*.  
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 Howell, F. A., *Streatham Hill and Clapham High School*.  
 Hutchinson, D. B. A., *Bradfield College*.  
 Ind, J. E., *Christ's Hospital*.  
 Innes, G. R., *Ewell County Technical College*.  
 Janosi, M., *University of Budapest*.  
 Jennings, M. C., *Epsom College, Surrey*.  
 Johnson, M. S., *Westcliff High School for Girls*.  
 Joy, P. J., *Merchant Taylors' School, Northwood*.  
 Kajtar, T., *University of Budapest*.  
 Keri Nagy, J., *General Mechanical Secondary School, Budapest*.  
 Kuur, J. B. G., *Clayesmore School, Dorset*.  
 Ladd, G. H. Y., *Cardiff High School for Boys*.  
 Lageard, V. M. E., *Watford Girls' Grammar School, Herts*.  
 Latham, D., *Epsom College, Surrey*.  
 Lewis, M. G., *St. George's School, Watford*.  
 Lotfi, D., *Alborze Secondary School, Teheran*.  
 McGrath, K. W. G. C., *Beaumont College, Berkshire*.  
 Marsh, A. R., *Dronfield Henry Fanshawe School, Nr. Sheffield*.  
 Marsh, R. T., *Acton Technical College*.  
 Martin, R., *Laymer Upper School*.  
 Merry, R. T. G., *Rossall School, Fleetwood*.  
 Nash, A. V., *Sydenham High School*.  
 Nash, T. M. E., *Dulwich College*.  
 Nemeth, I. E., *Budapest University*.  
 Newstead, F. B., *Ely High School for Girls, Cambs*.  
 Newton, J. R., *Uppingham School, Rutland*.  
 Nouri, D. Khadjeh, *Clayesmore School, Dorset*.  
 Owen, D. G., *Cathays High School for Boys, Cardiff*.  
 Pain, V. M., *High School for Girls, Tottenham*.  
 Perry, P. M., *St. Iltyd's College, Cardiff*.  
 Petri, L. A., *Pannonhalmi Ginnazium, Hungary*.  
 Phaura, T. A. J., *Finchley Catholic Grammar School*.  
 Phillips, J. D., *Tonbridge School, Kent*.  
 Poore, P. D., *Brentwood School, Essex*.

Pope, F. B., *Colgate University, Hamilton, New York*.  
 Powles, R. L., *Eltham College*.  
 Ratcliffe, R. M. H., *Malvern Girls' College, Worcestershire*.  
 Riddle, P. N., *Merchant Taylors' School, Northwood*.  
 Robertson, M. E., *Ancaster House, Bexhill*.  
 Robinson, L., *Grey Coat Hospital, S.W.1*.  
 Rolfe, M., *Cranleigh School, Surrey*.  
 Rushman, G. B., *Northampton Grammar School*.  
 Sandhu, M. S., *Duke of Gloucester School, Nairobi*.  
 Savege, P. B., *Highgate School*.  
 Scriven, P. C., *King Edward VI School, Stafford*.  
 Shearer, R. J., *Wellington College, Berkshire*.  
 Stuart, J. G., *Carlisle Technical College*.  
 Tam, Y. D., *Wah Yan College, Kowloon, Hong Kong*.  
 Thomas, A. K., *Newport High School for Boys, Mon.*  
 Thorpe, J. T., *Loughborough College*.  
 Turner, G. M., *Sydenham High School*.  
 Vartan, A. E., *St. Felix School, Southwold*.  
 Walton, J. O., *Sir William Turner's School, Redcar*.  
 Wan Ping, I. H., *St. Paul's School, Kensington*.  
 Watkin, B. C., *Tiffins School, Kingston-on-Thames*.  
 Whyatt, N. D., *Exeter School*.  
 Williams, M., *Ystalyfera Grammar School*.  
 Winter, J. M., *Tonbridge School, Kent*.  
 Zeegen, R., *Battersea Grammar School*.

### CLINICAL

Bamford, J. K., *Gonville and Caius College, Cambridge*.  
 Clow, E., *Sidney Sussex College, Cambridge*.  
 Dean, R. S., *Clare College, Cambridge*.  
 Deraniyagala, R. S., *Trinity College, Cambridge*.  
 Durston, J. H. J., *Selwyn College, Cambridge*.  
 Fisher, J. R. H., *Queens' College, Cambridge*.  
 Garnham, J. R., *Queens' College, Cambridge*.  
 Gibson, D. F., *Magdalene College, Cambridge*.  
 Gordon, A. J., *Gonville and Caius College, Cambridge*.  
 Gray, D. J. P., *St. John's College, Cambridge*.  
 Griffiths, C. J., *Peterhouse, Cambridge*.  
 Hamilton, J. W., *Clare College, Cambridge*.  
 Holland, J. H., *Downing College, Cambridge*.  
 Lane, D. J., *Christ Church, Oxford*.  
 Lehmann, N. J. P., *Selwyn College, Cambridge*.  
 McFarlane, A., *Emmanuel College, Cambridge*.  
 Middleton, B. R., *Trinity Hall, Cambridge*.  
 Millward, J., *Keble College, Oxford*.  
 Pennington, J. H., *Christ's College, Cambridge*.  
 Recordon, J. P., *St. John's College, Cambridge*.  
 Ross, R. K., *Mackenzie, St. John's College, Cambridge*.  
 Scobie, J. D., *King's College, Cambridge*.  
 Seaton, A. T., *Trinity College, Cambridge*.  
 Sibson, D. E., *Queens' College, Cambridge*.  
 Thomas, M. G. W., *Queens' College, Cambridge*.  
 Williams, C., *Lincoln College, Oxford*.

## EXAMINATION RESULTS

### UNIVERSITY OF OXFORD

#### 2nd B.M. Examination, Long Vacation, 1957

General Pathology and Bacteriology  
Greaves, C. W. K. H. Woolrych, M. E.  
Forensic Medicine and Public Health  
O'Sullivan, D.

Special and Clinical Pathology  
Barnes, J. M. Burfoot, M. F. O'Sullivan, D.

### UNIVERSITY OF LONDON

#### General 2nd Examination for Medical Degrees, 1957

Davies, R. P. Geach, A. R. Watkins, A. V.  
King, D. E. L. Thomas, L. R.

### CONJOINT BOARD

#### Final Examination, October, 1957

<b>Pathology</b>		
Chalstrey, L. J.	Bench, J. T.	Farren, P.
Fenn, P. J.	Farrow, L. J.	Matthews, T. S.
<b>Medicine</b>		
Woolf, A. J. N.	Wright, G. R. K.	Chalstrey, L. J.
<b>Surgery</b>		
Wright, G. R. K.	Chalstrey, L. J.	McKerrow, M. M.
Bower, H. P. H.	Hackett, M. E. J.	Vyle, E. A.
Alade, R. B.		
<b>Midwifery</b>		
Woolf, A. J. N.	Chalstrey, L. J.	McKerrow, M. M.
Bower, H. P. H.		

The following candidates have successfully completed the examinations for the diplomas M.R.C.S., L.R.C.P.:-

Chalstrey, L. J.	Woolf, A. J. N.	McKerrow, M. M.
Bower, H. P. H.	Hackett, M. E. J.	Vyle, E. A.
Alade, R. B.		

## SPORTS NEWS

### VIEWPOINT

AFTER a recent meeting of the Students' Union the Fives Club now enjoys official status. Their position is however rather precarious as the Fives Court is threatened with conversion into an oxygen store. The Courts at Charterhouse were destroyed during the war, and can only be rebuilt at great expense, and the Club is thus in the unique position of having a Court owned by the Hospital and threatened with closure. Apparently there is little alternative to the demolition of the present Fives Court, but the Club must be congratulated on having re-instated themselves, although under sentence.

In the winter cup competitions the Rugby Club, Hockey Club and Football Club have been drawn against St. Thomas', St. Thomas'

and Guy's Hospital respectively. If the Rugby Club overcomes this hurdle they face the London Hospital once again in the second round. The semi-final for whoever wins this should not, on paper, be difficult, but it would be rash to prophesy anything at this stage of the season.

The Rugby Club have arranged Saturday evening dances at Charterhouse "depending on the support given to the first ones." So it is up to those who wish these social events to continue to give the earlier ones their fullest support.

### SOCCER

St. Bartholomew's Hospital v. Old Parkonians.  
Away, October 5th. Lost 2-5.

The Hospital Soccer season opened at Gants Hill Recreation Ground, with the 1st XI match against

Old Parkonians, the Old Boys of Ilford County High School. It was a warm sunny afternoon, more suited to cricket than football. The ground was very hard, and a light bouncing ball gave trouble to St. Bart's defence. Within 10 minutes Bart's were 2 goals down, and never fully recovered, though they played with commendable enthusiasm. T. Johnson scored from a 20 yard left foot drive, and D. Prosser from a fiercely hit penalty kick. Half-time came with the score 2-3, and the final score was 2-5. Two of the Old Parkonians goals appeared off-side, and the game was much closer than the score suggests.

Bart's included 4 new players. F. Amponsah played well in defence. P. Savege and J. Kuur were forceful wingers but were well marked. B. T. Marsh, a strong forward with a good shot, showed promise.

Among the old hands, Juniper and Prosser were solid, as usual, in defence, and Pilkington was the scheming wing-half who sprayed out a series of billiard-table passes from a deep midfield position to well placed colleagues.

Team: J. D. Mercer; F. Amponsah, D. I. Prosser; R. Pilkington, C. P. Juniper (Capt.), P. Watkinson; P. Savege, A. Andan, T. Johnson, B. T. Marsh, J. Kuur.

### CAMBRIDGE TOUR.

It was rather in the nature of an experiment that a tour was held so early in the season. Cambridge colleges welcome visiting teams more especially during October as they are trying out freshers and can call upon seniors who later in the year might be in more illustrious circles.

Unfortunately the experiment was rather less successful than had been anticipated. Owing to the unavailability of our freshers, the calls of "midder," and "flu, we set out on the 10th with no more than three forwards and no less than five full backs!

By a series of permutations and combinations various defenders appeared in equally various positions in the forward line. Inevitably this imposed something of a handicap on the team as a whole, for in each match as soon as the opposition discovered the position, the tide turned against us.

Socially the tour proved as great a success as ever. Our opponents were very hospitable and many friends were visited. Coffee at the "Copper Kettle" was a regular morning item on the agenda, primarily to induce consciousness in certain members and secondly to decide the afternoon's team.

No injuries were received on the field although the services of one player who had better remain anonymous were nearly lost on Thursday evening. The patient complained of "cramps or a contracture" of both feet lasting several hours. A careful history was taken and it was found that he had just returned from watching "The Prince and the Showgirl" featuring Marilyn Monroe!

Bart's v. Trinity. October 11th. Lost 3-2.

For the first quarter of an hour Bart's looked as if they would win fairly easily—and so they should have done. The Trinity defence was lying very square and a long through ball (on the ground) down the middle always produced a dangerous move but for some reason or other Bart's did not use this tactic often enough.

Bart's opened the scoring through a good left wing movement originating from Prosser who moved the ball to Noble. Noble took the ball to the Corner flag and centred low in front of the goal for Iregbulem to tap it in.

Play became scrappy. The forwards persisted in standing still, waiting for the ball rather than moving into the open spaces.

The backs were passing badly—putting the ball behind the forwards rather than in front.

Having discussed the rather obvious solution of the through ball at half time, one expected a revival from Bart's. However it was Trinity who came into the game and equalised within 5 minutes.

At last, a long ball down the middle! Iregbulem outstripped the centre half and with the goalkeeper at his mercy made no mistake.

Trinity then pressed even harder and the inside right equalised. 10 minutes later they went ahead and Bart's seemed finished! With a last desperate effort they produced a left wing movement and Noble went through but was brought down in the penalty area. Prosser sliced the spot kick and the goalkeeper saved easily. The final whistle was blown two minutes later.

Team: J. D. Mercer; F. Amponsah, D. I. Prosser; R. C. Kennedy, C. P. Juniper (Capt.), L. Carnochan; R. G. L. Smith, L. Iregbulem, T. O. Johnson, R. Pilkington, M. I. M. Noble.

Jesus College v. Bart's. October 12th. Lost 2-1.

The final game of the tour was played on a fine warm afternoon. From the kick-off Jesus went into the attack and forced a corner on the right which was well cleared by Prosser. Jesus returned to the attack and a hard shot by their centre-half was well held under the bar by Mercer. From his clearance Bart's went over to the offensive for the first time. Watkinson came up with the forwards but from a good position shot wide of the right post. The Bart's insides began to get a grip on the game and it was no surprise when Johnson scored an excellent goal in the righthand top corner following a dribble by Iregbulem. This was to be Bart's only moment of glory in this match. Jesus quickly regained the initiative and levelled the score just before the interval following a period of hesitation by the defence.

The second half opened with Jesus constantly attacking and the Bart's defence did well to clear several corners. The defence played as well as could be expected under the constant pressure of the Jesus attacks, and were only relieved for short periods by unconstructive forays by the Bart's forwards which too often ended in a pass to the other side. However, the defenders among whom Juniper and Prosser were always prominent held out until Mercer failed to cover a shot by the Jesus inside-right, which gave his side victory.

The Bart's touring side did not include a winger and the insides have not yet found their form so that the defence had a great deal of the burden on their shoulders. Their steadiness and covering under pressure have gradually improved and will form a good nucleus when the XI takes shape.

Team: J. D. Mercer; R. C. Kennedy, D. I. Prosser; M. I. M. Noble, C. P. Juniper (Capt.), P. Watkinson; F. Amponsah, I. Carnochan, L. Iregbulem, R. Pilkington, T. O. Johnson.

## RUGBY FOOTBALL

**1st XV v. U.S. Chatham** at Chatham. September 28th. Won 8-0.

The 1st XV opened their season at Chatham with a convincing win against United Services, Chatham. The Hospital had only three of last season's Cup Final pack playing, but all but two of the backs were available. Playing in the side for the first time for two years was M. Whitehouse and new to 1st XV football was C. Dale in the second row.

Play began with Bart's facing a fresh breeze. After 15 minutes' play during which the Services missed two shots at penalty goals, Bart's opened the scoring from a line-out on the Services try line. From this line-out, Whitehouse dived over for an unconverted try. Five minutes later, the Bart's forwards broke away from a line-out just inside their own half and after a short dribble, Whitehouse picked up and ran 15 yards before drawing the Services' full-back and passing to L. R. Thomas who had a 30-yard run to the line. This try was converted with an excellent kick by G. J. Halls. The rest of the first half was fairly even with the Bart's pack dominating the loose but their backs not being able to penetrate a tight Chatham defence.

The second half opened with Bart's determined to keep their lead which several times looked as if it might be increased by powerful runs on the wing by R. M. Phillips and A. B. M. McMaster. After 15 minutes, the Chatham left wing broke away with the forwards in support but efficient Bart's covering kept them out. With the Bart's forwards gaining an upper hand in the loose scrums and line-outs, their backs threw everything into attack but could not increase their score either by the forwards linking up with the three-quarters, or by short passing movements amongst the forwards. As the final whistle blew, Badley, at full back, who had inspired confidence with his fielding and kicking, just missed dropping a goal.

The outstanding feature of the game was undoubtedly L. R. Thomas' leadership of the pack which, once it had found its feet, always had the measure of their opponents. In the backs, R. R. Davies had a good game at fly-half but there was a lack of penetration in the centre which will have to be rectified if the Hospital is to make full use of its strength on the wings.

**Team:** B. W. D. Badley; R. M. Phillips (Capt.), J. C. Neely, G. J. Halls, A. B. M. McMaster; R. R. Davies, B. Richards; J. L. C. Dobson, C. J. Carr, B. Lofis, L. R. Thomas, C. C. H. Dale, R. P. Davies, W. P. Boladz, M. Whitehouse.

**1st XV v. Trojans** at Southampton. October 5th. Won 6-3.

The 1st XV playing in their second away match of the season gained a narrow win over the Trojans by 6 points to 3. With last year's captain Mackenzie still unavailable and with Moynagh at open-side wing forward, the forwards established a slight superiority in the set scrums and loose mauls but did not win the line-outs as often as in the game against United Services, Chatham. In the backs there was still a tendency to run across the field which gave wingers Phillips and McMaster little room to get past their opposite numbers.

Playing into the sun, Bart's began scrappily and after twenty minutes' play the Trojans opened the scoring with an unconverted try by their right centre three-quarter, who completed a good passing movement begun in their own half. From this time, Bart's began to play more constructive football with Carr looking well and Richards throwing out a good service from the base of the scrum. Five minutes before half-time Halls intercepted a stray pass amongst the Trojans' back division and ran through for a try which he failed to convert.

Fifteen minutes after the interval, the battle between two moderately light packs became more heated, Whitehouse scored the winning try, dribbling the ball over the line after the Trojans had heeled from a set scrum five yards from their own line. For the remainder of the game there were frequent interruptions for minor injuries and five minutes from the end the Trojans narrowly missed two fairly simple shots at penalty goals.

For the Hospital, Thomas again led the pack with vigour and he was well supported by Whitehouse and Boladz. Phillips tried hard to infuse thrust into the back division which seemed lacking in the centre, although McMaster and Davis were prominent in the attack.

On the same day the three other Hospital teams won their matches which was felt to be a good start to the season: with the formation of a fifth team the Hospital should do well this winter.

**Team:** B. W. D. Badley, R. M. Phillips (Capt.), J. C. Neely, G. J. Halls, A. B. M. McMaster; R. R. Davies, B. Richards; J. L. C. Dobson, C. J. Carr, B. Lofis; L. R. Thomas, C. C. H. Dale; P. D. Moynagh, W. P. Boladz, M. Whitehouse.

**1st XV v. Woodford.** October 12th. Won 8-6.

The 1st XV maintained their winning record by beating Woodford in an entertaining game on a sunny afternoon at Chislehurst. Although the side showed eight changes from last week, in the main, to influenza, it was a convincing win, especially forward where we were glad to see last year's Captain, Mackenzie, playing for the first time this season. Playing their first game for the Hospital were newcomers Hamilton and Pennington in the front row of the scrum.

Against the run of the play, Woodford opened the scoring with an unconverted try in the corner by their full-back after he had fielded an ill-directed kick for touch by the Bart's defence. From this point onwards the Hospital pack took command of the set scrummages and some admirable hooking by Hamilton ensured a plentiful supply of the ball for the Bart's three-quarters. However, it was not until five minutes before half-time that the Bart's attack succeeded in eluding a very competent and effective Woodford defence. The Woodford fly-half put in a well-placed diagonal kick to his left wing but it was the Bart's captain and right wing Phillips who caught the ball travelling at top speed and in a flash was past his opposite number. Outstripping the covering forwards, he came up to the full-back. Feinting to run inwards, he passed the full-back on the outside to cross in the corner and touch down behind the posts to score one of the best tries seen at Chislehurst for some time. J. Stevens converted.

After the interval, Woodford regained the lead with a second unconverted try in the corner after five minutes' play. Thereafter, the Bart's pack took control of the loose and set scrummages with the forwards being well led by Hamilton, but it was not until ten minutes from the close that Bart's clinched the game with an excellent 40-yard penalty by Stevens.

Towards the end of the game, Phillips was seen to be limping following a tackle and our worst fears were realised later when it was found he had torn a ligament in his knee-joint. This was truly a tragic injury for him to suffer so early in the season and it seems most unlikely that he will play again before Christmas after he had demonstrated once again his superb footballing ability and pace whilst giving us a glimpse of the form which has made him probably the wing three-quarter in London club rugby.

On the brighter side, it was again pleasing to see that all four Hospital sides won for the second week in succession, which was all the more satisfying since there was a total of eighteen team and positional changes in the 1st and "A" XV's alone.

**Team:** M. Britz; R. M. Phillips, I. Stevens, J. Neely, A. B. M. McMaster; R. R. Davies, B. Richards; B. Lofis, J. Hamilton, J. Pennington; C. C. H. Dale, W. P. Boladz; J. C. Mackenzie, R. Jones, P. D. Moynagh.

## BOOK REVIEWS

**SIDELIGHTS ON THE HISTORY OF MEDICINE.** Edited by Sir Zachary Cope, London, Butterworth & Co. 45s. (35s. to Fellows of the Royal Society of Medicine).

Published to celebrate the Jubilee of the Royal Society of Medicine, this book contains a selection of the papers which have been presented to the Section of the History of Medicine during the past forty years. The twenty-three papers included are reprinted almost without alteration from the *Proceedings* of the Society, where they are readily available in most medical libraries. Although it is advantageous to have these articles in one volume, it is suggested that the price is excessive for reprinted material. Surely the Society could have found sufficient talent among its historically minded members to produce for this occasion a volume of original essays?

Several Bart's men are recognised among the contributors, including A. J. E. Cave on "Ancient Egypt and the Origin of Anatomical Science"; K. J. Franklin on "The Work of Richard Lower"; and the late G. E. Gask and Sir D'Arcy Power. In addition to their contributions, the following may be found of particular value: Charles Singer on "Medical Science in the Dark Ages"; H. W. Robinson on "Robert Hooke"; Douglas Guthrie on "The Patient: a Neglected Factor in the History of Medicine"; Sir Zachary Cope on "Surgical Lectures of 150 Years ago"; George Edwards on "Philip Syng Physick"; and E. Ashworth Underwood on "Wilhelm Röntgen". But perhaps it is unfair to mention individual items, except as samples, when all the papers have

## Trouble in the Hypothalamus

by *PODALIRIUS*

"Oh, dear, I feel so sleepy," said the hypothalamic cell. "It must be all this pyruvate. What's it doing here?"

"No wonder you're sleepy," said his friend the leucocyte, who had come to have a chat. "Everyone feels the same—you're just unduly sensitive. And it's not only pyruvate, it's pyruvic aldehyde too—and that's even worse."

"Yes, I know, I know," said the hypothalamic cell, who was inclined to be a little testy. "What I want someone to tell me is, what's it doing here?"

"Well, you see," said the leucocyte, "it all starts with glycogen, and then that turns into glucose, which turns into glucose-1-phosphate, which—"

"Yes, yes, I know, I know," said the hypothalamic cell again—rather rudely, for the poor leucocyte was doing his best. "Then it goes through the whole ragamadolio to pyruvate, but after that the pyruvate disappears. Or should do. Why doesn't it?"

The leucocyte was very patient, though he realised that these highly specialised cells overrated their own intelligence and importance. "It's usually oxidised; but that needs co-carboxylase."

"Well?" The hypothalamic cell was really very drowsy.

"Don't you see (you silly old neurone) that thiamine is needed for co-carboxylase; and the boss just hasn't been taking enough? Since he had that operation, his appetite hasn't picked up." But by now the hypothalamic cell was snoring.

"Oh dear," said the leucocyte, "now he's asleep, the boss's appetite will get worse than ever."

\* \* \*

"Oh, what a wonderful morning!" carolled the hypothalamic cell. "I feel I could beat up a Bets cell! But why do I feel so good?"

"It's because the pyruvate's gone," said the leucocyte.

"Gone? Where to?"

"Oxidised! Somebody told the boss to start taking Bemax, and now he's fine."

"Bemax? What's that?"

Really, these neurones! And they think they know so much.

"Bemax," said the leucocyte, "is stabilized wheat-germ. It contains lots of thiamine, and that's how all the pyruvate got oxidised. And it contains all the other important B vitamins. It's the richest natural vitamin-protein-mineral supplement. The boss just sprinkles it on his food."

"Jolly good. I hope he keeps it up."

"So do I."

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obviously been selected for their respective merits.

In the first Chapter, written by the late Sir St. Clair Thomson in 1933, and entitled "The Present Need for the Study of the History of Medicine," he mentions a decline of interest in the subject since the nineteenth century. It still escapes official recognition in this country, although many amateur historians are actively engaged in its pursuit. The Section of the History of Medicine of the Royal Society of Medicine fosters this interest, and some of its outstanding contributions are reproduced in this volume. Unfortunately the index is wholly inadequate.

JOHN L. THORNTON.

**SURGERY: PRINCIPLES & PRACTICE** by Allen, Harkins, Moyer & Rhoads, Pitman Medical Publishing Co., Ltd., pp. 1,495, 623 illustrations, £5 10s.

This is a fascinating book which claims to give a total picture of the surgery taught and practised in America. It is edited by professors of surgery from Chicago, Washington and Pennsylvania. It is a curious mixture of basic surgical principles and advanced experimental surgery. Much of the text is good technically for the undergraduate, and provides stimulating reading for the experienced surgeon whose duty it is to train his juniors. It is an excellent book for house officers who intend to pursue a surgical career. Throughout the book reference is made to well known operations which are largely of historic interest. For instance in the section describing operative procedures on the stomach there is a comprehensive pictorial display of the various methods of resection, but only a few lines on gastrectomy. A considerable amount of space is taken up by statistics and useful bibliographies. It suffers, as do most books which have many contributors, from inconsistency, particularly in the legend for illustrations. Why it should be necessary to refer (fig. 32) to a photograph as being that of the abdominal wall of "a 50-year-old white male" and yet omit any reference to colour in most of the other illustrations is difficult to understand. The drawings are superb and many of them gain by simplicity instead of following the modern tendency towards beautiful artistic presentation which succeeds in showing the artist's ability but very little else. The time taken to produce a book of this size must necessarily leave a gap between completion of text and publication, and it is to the author's credit that there are references in the text to publications as late as 1956.

Curiously there is nothing about throat, nose and ear. The type and layout is excellent, but the index is very incomplete and has been constructed mechanically without reference to the requirements of the reader. In my search for information on the maxilla all I could find was antrumectomy, but this referred to the pyloric antrum! The book weighs 7½ lbs. (3515 G.) without dust cover—the approximate weight of a British (white) neonate, without luggage. In contrast to the many text books on surgery now available I would say that it is one of the very best and if teachers, examiners and fellowship candidates contemplate an investment I would recommend it with confidence.

D. F. E. N.

**ARTIFICIAL INSEMINATION IN THE HUMAN** by Dr. A. M. C. M. Schellen, M.D. Elsevier Publishing Co. pp. 420.

This is the most comprehensive analysis of the subject to date, and will undoubtedly become a standard reference work for the gynaecologist. Dr. Schellen has made an exhaustive survey of the history of artificial insemination, followed by an account of the many techniques and their results. But the major part of his book is devoted to the sociological, legal and moral aspect of methods by which 100,000 pregnancies so far in the U.S.A., and 6,000 annually in Great Britain are derived from donor semen, and countless other husband inseminations mechanically assisted, often for considerable fees for both practitioner and donor.

The immense sociological problem is exemplified by the process of donor selection, the varying standards of anonymity, and the risks of consanguinity arising in small communities where a few professional donors are employed.

Dr. Schellen details the legal attitude to donor insemination in the United States and the principal European countries. Clearly the advance of medical science has caught jurisprudence unprepared. In England the practitioner is still open to the risk of actions against him for conspiracy, or even adultery since the law has so far not rescinded Lord Dunedin's declaration that donor insemination is adulterous.

The attitude of the Churches to the subject is also presented in detail, and here the author has found almost universal condemnation of donor methods, and restricted acceptance of insemination from the husband.

In this epilogue Dr. Schellen finds himself quite objectively on the side of the angels.

E. A. J. ALMENT.

**AN INTRODUCTION TO ELECTROCARDIOGRAPHY** by L. Schamroth, Blackwell Scientific Publications, Oxford. Pp. 58. 12s. 6d.

This work deals with the commoner electrocardiographic abnormalities and their underlying principles. It is intended for the newcomer to the subject, and the theoretical aspects are commendably kept brief and simple. The different types of abnormal tracing are clearly described and illustrated, with conventional explanations of their formation. The author justifiably concentrates on the chest leads and the unipolar limb leads.

It is particularly important, in this type of book, to avoid giving misleading impressions; and in this the author has not entirely succeeded. For example, his statement that "the diagnosis of infarction must be based on raised S-T segments" disregards the transience of this change, which may well be absent from tracings taken a few hours after the occurrence. It is further suggested that the inverted T wave of infarction necessarily becomes upright with recovery. The exercise test for angina is shown as apparently depending on changes in V<sub>3</sub>, AVL and AVR, whereas most physicians would rely on V<sub>5</sub> and V<sub>6</sub>. In the chapter on arrhythmias, no indication is given of the leads used for illustration.

With correction of these inaccuracies, however, the book should serve to provide a working knowledge of electrocardiographic interpretation.

D. WEITZMAN.

## BOOKS RECEIVED

*Inclusion in this column does not preclude review at a later date.*

**ANAESTHETICS FOR NURSES** by Eric Godwin, John Wright & Sons Ltd. Pp. 106. 9s. 6d.

**THE DIAGNOSIS AND TREATMENT OF INFECTIONS** by D. Garaint Janus, Blackwell Scientific Publications. Pp. 234. 30s.

**INTRODUCTION TO FUNCTIONAL ANATOMY** by D. Sinclair, Blackwell Scientific Publications. Pp. 426. 42s.

**BURNS** by Simon Sevitt, Butterworth & Co., London. Pp. 364. 37s. 6d.

**HANDBOOK OF HISTOPATHOLOGICAL TECHNIQUE** by C. F. A. Culling, Butterworth & Co., London. Pp. 446. 45s.

**HISTOLOGY** by Arthur W. Ham, 3rd Edition, Pitman Medical Publishing Co. Ltd. Pp. 894. 80s.

**CHEMICAL METHODS IN CLINICAL MEDICINE** by G. A. Harrison, J. & A. Churchill Ltd., 4th Edition. Pp. xi + 667. 65s.

**MEDICAL JURISPRUDENCE & TOXICOLOGY** by John Glaister, E. & S. Livingstone Ltd., 10th Edition. Pp. xi + 720. 47s. 6d.

**THE STUDENT LIFE.** The Philosophy of Sir William Osler, Edited by Richard E. Verney, E. & S. Livingstone Ltd. Pp. xii + 214. 15s.

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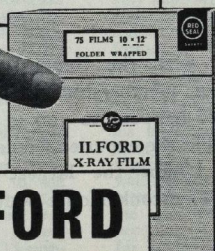
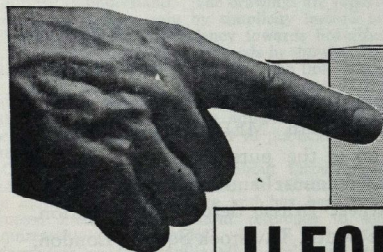
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# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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No. 12

## EDITORIAL

ASSAILED BY the litigious, labelled by those with a penchant for frivolous pronouncements, the Profession which used to enjoy the acme of esteem and respect has been through painfully traumatizing times of late. The dignity of the person who has taken the Hippocratic oath has suffered repeated insults. Nurses in their careers of dedication and self-sacrifice have also been without impunity from onslaught. We feel that the pettiness and narrowness of outlook and thought in such assailants should be allowed to wallow on their base levels. Not seeking any eulogies and recriminations on behalf of the Profession, we would point out that the doctor and the nurse are very often the people from whom hope and eventual cure are sought by the maligner who has fallen ill. And often he forgets about the perils of receiving treatment from such dangerous hands. Even the most vituperative of television personalities has been known to be capable of gratitude after being lifted from the depths of all fleshly sufferings. Precipitated into similar circumstances of woe, even magisterial bodies should be similarly grateful, given the requisite fibres of human feeling.

To our readers in general practice who form the greater part of our subscribers, the publication by the *Journal* of "A Casualty Department" by R.H. in this issue would appear antithetical to our expressed interests in them. We would reassure them that even if this appeared so, it was unintentional and a consequence that could not be avoided. In the face of increasing numbers of cases of litigations (exact figures can be easily obtained by reference to the "most recent survey").

one can do oneself little harm but bountiful good by practising self-evaluation or self-criticism. "Based on the slenderest of experience," the views of the writer of the article may not concur with those of many of our readers. On this highly controversial subject not without anathematical overtones we welcome the acumen of our readers.

As is fashionable in these days of sweeping ministerial powers and vital statistics, Committees have often been appointed by some servant of the State to enquire into the widest range of ills besetting us. In its "terms of reference," the Willink Report with its multitudinous figures and its "Findings on Supply of Doctors" has thought it compliant and propitious to advise a 10 per cent cut in medical school intake. To the layman with only a fleeting interest in what appears a minor aspect of his future well-being this curtailment may well form part of a general plan for economy and social standardization in the interests of the nation, significantly suggested at a time when reductions have been *de rigueur* in the armed forces and public services. "Highly speculative" as it was self-styled, the estimate of average annual requirements of doctors was made upon basically four reckonings — replacement of wastage by death and retirement, expansion, Armed Forces and "Export." As a result of the present age distribution of doctors, the Report also suggests that the intake may need to be increased again from about the year 1970 because the factor of wastage by death and retirement will have come into play more definitely. With the era of space travel ushered in by the Sputniks and "Little Lemon," the question of future supply of

doctors may well have to be drastically reviewed. In spite of push buttons and electronic brains to sort out vital data the final implementation of any definitive action, hostile or benevolent, must necessarily have human origins. Larger numbers of doctors may be required to delve into the physiological problems of space travel. An "Export Drive" of doctors trained in this country who have always had the reputation of quality and skill to other space-conscious countries coveting the best is not an impossibility. In such "terms of reference," one would urge the continued, if not the actual increased level of intake of medical students,

### Questionnaire

At the moment of going to Press, the Questionnaire on the aims and ambitions of Bart's students was nearing completion. It is the earnest hope of the *Journal* that in view of the hard and unselfish work which had gone into the compilation and completion of it—thanks being largely due to Messrs. E. A. J. Alment, G. R. Kinross Wright and J. S. Price—a 100 per cent. response from the Student Body will be forthcoming. It can not be over-emphasised that the personal nature of most of the questions must of necessity carry with it an absolute warranty of anonymity. The forms will be distributed to members of each "firm" by an appointed "stooge" and arrangements for complete secrecy have been made.

The questions have been phrased in a manner making for easy statistical analysis. Indeed, the final figures for a complete analysis will be computed by a commercial firm which specialises in statistical data. The *Journal* would ask that members of the Student Body gave up half an hour of their time for this serious enquiry.

### The Feminine Touch

Having to work and study in a predominantly masculine atmosphere, the women medical students at Bart's must find life not infrequently exasperating. For them refuge

rather than recommend any "restrictive practices" or other similarly descriptive Trade-Unionisms which have crept into modern usage. The Arms Race has been superseded by the Technologists' Race.

Should the findings of the Committee be accepted and acted upon, the student who has just started on his course of training could have, for a modest sum, a "highly speculative" view of what the future holds for him upon application to the publishers of the Report. Together with his Christmas over-indulgence, this should provide indigestible food for thought.

from things masculine could be found in their Cloakroom *at long last*. One of the daily newspapers which used to lie unread in their recondite haven (obviously written by males for the "peculiar mental processes" of males only) has been given up in favour of two women's weeklies. Fantasy, romance and paper love are to be had now after the shiny nose has been repaired. All those ladies bringing their own thermos flasks of coffee are kindly requested not to splash up the most exciting pages.

It has also been stated that apart from providing for feminine taste, the replacement of the mundane male daily by the two women's weeklies has also made the newspaper bill considerably cheaper.

### Ward Shows and Pot-pourri

The Christmas Ward Shows will be staged again this year by the Students of the various batches and by the House on Christmas and Boxing Days. The "pick" of the shows will again be the basis of a Pot-pourri at the Cripplegate Theatre, on December 27, 28, 30. All those who had connections of any sort with Bart's are cordially invited to the Ward Shows, and those desirous of coming to the Pot-pourri should contact "Bert" Cambridge, c/o Williamson Laboratory, St. Bartholomew's Hospital, E.C.1. for tickets, which are at 3/-, 4/-, 6/- and 7/6.

### Surgical Essay Prize

The Simpson Smith Surgical Essay Prize of 100 guineas for 1957 has been won by Mr. P. P. Riekhham.

### Society of Apothecaries

B. S. Mather has been granted the Diploma of the Society of Apothecaries in October, 1957.

## NOTICES

### Sports Editor

The post of Sports Editor is now vacant. Applications must reach the Editor by December 31.

\* \* \*

### Pot-Pourri

The times for the Pot-Pourri at the Cripplegate Theatre are 8.00 p.m. on Friday, December 27, 7.30 p.m. on Saturday, December 28, and 5.30 p.m. on Monday, December 30.

## ANNOUNCEMENTS

### Births

**BANKS.**—On October 7th, in Victoria, British Columbia, to Mary, wife of Dr. Peter J. Banks, a son (Nicholas John).  
**BAPTY.**—On October 25th, in the Belgian Congo, to Barbara, wife of Dr. Allan Bapty a daughter (Helen Frances).  
**CAVE.**—On June 24th to Pat and David Cave, a daughter (Alison Mary), sister for Peter.  
**HUNTSMAN.**—On October 18th, at Bart's, to Elaine, wife of Dr. Richard G. Huntsman, a daughter (Jennifer Clare).  
**KINSMAN.**—On October 23rd, to Margaret, wife of Dr. F. M. Kinsman.  
**LUCAS.**—On October 15th, to Fionnghuala, wife of Dr. Peter Lucas, a son.  
**ROBINS.**—On November 23, at Exeter, to Shirley and Robert Robins a son (Michael George), brother for Elizabeth.

### Deaths

**BODEN.**—On October 18th, Geoffrey Walter Boden, aged 51. Qual. 1937.  
**COLT.**—On October 26th, George Herbert Colt, aged 79. Qual. 1904.  
**HANCOCK.**—On October 25th, Frank Thompson Hancock, aged 76. Qual. 1908.

## CALENDAR

Sat. Dec. 14	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Anaesthetist: Mr. R. A. Bowen. Hockey: v. Westminster Bank (H). Soccer: v. Westminster Hospital Sports and Social Club (A). Rugger: v. Saracens (H).
Sat. „ 21	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Anaesthetist: Mr. R. W. Ballantine. Rugger: v. K.C.S. Old Boys (H).
Sat. „ 28	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Anaesthetist: Mr. C. E. Langton Hewer. Rugger: v. Stroud (H).
Sat. Jan. 4	Medical and Surgical Professorial Units on duty. Anaesthetist: Mr. G. H. Ellis. Hockey: v. London Hospital (A). Soccer: v. Old Chalmelians (H). Rugger: v. Old Rutlishians (A).
Sat. „ 11	Dr. G. Bourne and Mr. J. B. Hume on duty. Anaesthetist: Mr. F. T. Evans. Hockey: v. National Provincial Bank (H). Soccer: v. Old Chigwellians (H). Rugger: v. Taunton (A).
Wed. „ 15	Soccer: v. Charing Cross and Royal Dental Hospital 'A' XI (A). Rugger: v. London University.
Sat. „ 18	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Anaesthetist: Mr. R. A. Bowen. Hockey: v. Blueharts (H). Soccer: v. St. Thomas's Hospital (A). Rugger: v. Cheltenham (H).
Fri. „ 24	Soccer: v. Trinity College, Oxford (A).
Sat. „ 25	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Anaesthetist: Mr. R. W. Ballantine. Hockey: v. Goldsmiths' College (H). Rugger: v. Oxford Greyhounds (A). Soccer: v. Guy's Hospital I. (A).
Wed. „ 29	

The *Journal* sends the Season's greetings to its readers.

## LETTERS TO THE EDITOR

## "LONG" WEST

Sir,—I have only just read Dr. F. Parkes Weber's article in your July number.

I believe the dresser "Long" West is the same Dr. West who practised in Leicester until the Great War. He was a Bart's man, a very racy character and my mother's doctor.

She told me that he had been taken as the model for Sherlock Holmes by S.P. in his illustrations for the Strand Magazine. I wonder if Dr. Parkes Weber can see a likeness.

Dr. Watson is, of course, the most famous of Bart's men, and he first met Holmes in the pathological laboratories of the hospital. I hope a further connection with the hospital may now be established.

To end on a clinical and personal note, I can reveal that my mother had such a post partum haemorrhage after the birth of my elder brother that she lost her sight for three days. Even Dr. West was shaken, and he solemnly warned her not to have any more babies. So if Dr. West was the original for Sherlock Holmes I would apply for honorary membership of the Baker Street Irregulars.

Yours sincerely,

RUSSELL E. FREARS.

14, Park Terrace.  
The Park, Nottingham.

## PARSLEY FOR PROSTATE — 1

Sir,—David S. Wright's letter and recipe of parsley for the prostate prompts the question as to whether parsley is indeed good treatment for the prostate.

According to Mrs. C. F. Level in "Herbal Delights," the old name for the herb in question are Parsley Breakstone and Parsley Piercestone (and in other tongues, Perce-pierre, Steinbrech and Spaccapietra) which suggest, and this is borne out by ancient practice, that it was a remedy for dissolving stones, and not for bringing about atrophy of the prostate gland.

The herb can be taken as an infusion in sherry, pickled and eaten with cold meats, or more commonly in salads.

Yours sincerely,

R. G. DANIELS.

Royal Devon and Exeter Hospital,  
Exeter, Devon.

## PARSLEY FOR PROSTATE — 2

Sir,—The pharmacology of parsley was not included in my course. Perhaps some of the benefits claimed for it in the treatment of prostatism may be due to the associated advice to "drink plenty of milk and barley water," since the water contained in both would help to dilute less desirable fluids circulating in the blood-stream, which might induce prostatic congestion and so aggravate symptoms. The water might also help to relieve another prostatic congestant constipation.

With regard to which stimulants to avoid, Sir Girling Ball used to say "There are three things which a man with an enlarged prostate should avoid—alcohol, horse-riding, and the Empire Revue!" The Empire Revue is no more, but perhaps its film successors act as adequate locums!

With such care in régime, so many prolonged periods of remission of symptoms characteristically occur with a prostate which may all the time be slowly enlarging, that the employment of any positive agent may get the credit really due in part, if not largely, to the avoidance of the noxious agents above mentioned.

Yours sincerely,

ALEX. E. ROCHE.

71, Harley Street, W.1.

## SOUTH AFRICAN TOUR — 1

Sir,—It is unfortunate that Dr. Donaldson did not take closer heed of the moral of the anecdote concerning the Pope and his American visitor recounted in his article on a South African tour published in the *Journal* of August, 1957. Had he done so, he would have spared his more informed readers and his South African hosts considerable embarrassment. Not often has so much inaccuracy, half-truths, misinterpretations and plain nonsense appeared in so few pages, and it cannot pass unanswered.

Dr. Donaldson's suggestion that the Witwatersrand University Medical School at Johannesburg (easily identifiable from the text) might be separated from the University, is made without the slightest justification. No one in South Africa has ever contemplated such a step, and one cannot imagine the source of the idea.

After all the blaze of publicity in the Scientific Journals which the great incidence of primary carcinoma of the liver in the Bantu has received for

years, it is almost with a sense of unreality that one notes the omission of all reference to it. Oesophageal carcinoma may be very common in some areas of the country, and in an older age group, but over most of South Africa—or even Africa south of the Sahara—primary liver carcinoma dominates the picture in males and carcinoma of the cervix in females. It is also incorrect to suggest that lung cancer is less common than cancer of the upper air sinuses.

The story of a research worker arranging bicycle accidents in order to obtain samples of "native drink" would be laughable were it not such a reflection on one's colleagues and their research methods. It would have been more reasonable had he suggested that he was thirsty! Had Dr. Donaldson inquired, he would have learnt that the usual cause of oral anaesthesia produced by some brews is the addition of a little carbide which, presumably, appeals to the more sophisticated tastes of the urban Bantu.

One would have preferred to agree with the observation that our laws concerning quacks were more stringent than in the United Kingdom. There is no law to prevent a quack, or any unqualified person, from charging for his activities. He breaks the law—and, I imagine it is precisely the same in England—only if he holds himself out to be a registered medical practitioner.

Not content with the foregoing, however, Dr. Donaldson then permits himself, with all the experience and observation gained in his few weeks' travels, to indulge in a political discussion based on even more slender knowledge of the facts than was betrayed in his analysis of the cancer situation.

Little would be gained by a detailed analysis of all the statements made, but one cannot let pass the mischievous suggestion that the establishment of the Medical School at Stellenbosch University has as its aim the elimination of the great School at Cape Town. Not even the most bigoted critic of our present Government would put forward such an idea. His interpretation of the Government's policy towards the various coloured peoples of South Africa betrays only his utter ignorance of what is intended.

Perhaps the worst statement of all is that the Medical Association of South Africa did not permit a native doctor to attend his lectures to the profession in Johannesburg because of his colour. Writing on this point only as the Hon. Secretary of this branch of the Association, I can assure the *Journal* that no lecture or scientific meeting is closed to any colleague on the grounds of race, creed or colour, and Dr. Donaldson's suggestion to the contrary is as insulting to the Medical Association of South Africa as it is untrue. It might as well argue that because no Esquimaux were present at his meetings, the Medical Association banned the Esquimaux; and his allegation that a native was not allowed to work in the "clinic" of his Location is equally at variance with the facts. The Johannesburg City Council, which maintains these very good clinics, has advertised for years for native doctors to staff them, but has never received a single application. In the circumstances the Council can scarcely be blamed for staffing them with "white doctors" as its first duty is to provide a service.

Your correspondent is a staunch opponent of the

present Government, but the cause of opposition is not served by the publication of inaccurate and misinformed statements such as these. It produces widespread mischief, and results in embarrassment and difficulty for the fair minded, and places them in a situation where they are compelled, as honest and loyal citizens, to defend a Government many of whose policies and actions to them are anathema. The dissemination of nonsense such as we have seen in this report reflects on every South African, whatever his politics, just as does his smug reference to the effects of Father Huddleston's book. There were consciences here, and very lively ones too, long before Father Huddleston entered our midst.

One feels that political articles have no place in our *Journal*, and one hopes that Dr. Donaldson has set no precedent.

Yours sincerely,

JONATHAN GLUCKMAN.

1206 Medical Centre, Jeppe Street,  
Johannesburg, South Africa.

## SOUTH AFRICAN TOUR — 2

Sir,—I regret that Dr. Gluckman should have taken exception to my short report in your August, 1957, issue concerning my most enjoyable visit to South Africa. I do not think that my personal views can have caused any embarrassment to my kind hosts (who were not the South African Medical Society) because I stated quite clearly in my article that their organisation had nothing to do with politics and that "my own interest was purely a side line that had nothing to do with my hosts."

The first part of my report dealt very briefly with some of the various types of cancer I saw, but it did not pretend to be an exhaustive treatise on all cancer among the Bantus. Nevertheless, Dr. Gluckman accuses me of mis-statements and omissions. I am fully aware, as indeed are all doctors interested in cancer, of the prevalence of primary carcinoma of the liver in Bantus compared to that occurring among the white population. He denies that carcinoma of the oesophagus is more common among the Bantus than among the "Europeans." My impression was gained after meeting Dr. Burrell, and reading his article (*South African Medical Journal*, 31, April 27, 1957, pp. 401-409), in which it is stated that this type of malignant disease occurred in 72.3 per 100,000 among the Bantus, and only 10.8 among the "Europeans." My evidence about the question of greater frequency of malignant disease in the upper air passages among the Bantus compared with that among the Whites, and the reverse in cases of cancer of the lung, was obtained from an article by P. Keen, N. G. De Moor, M. P. Shapiro and L. Cohen of the non-European Hospital and Radiotherapy department of the Johannesburg General Hospital, which was published in the *British Journal of Cancer*, IX, p. 529, where the following figures appear concerning a series

of cases of malignant disease in the air passages—Malignant disease of nose and upper air sinuses, in Bantus 54 per cent., in "Europeans" 5 per cent.; Malignant disease of lung, in Bantus 17 per cent., in "Europeans" 67 per cent. I suggest that your correspondent really should read the cancer literature written by members of his own country before he criticises my statements. I admit that the story of the research worker who obtained "Native drink" in an unorthodox way was purely hearsay "tittle-tattle," but if the incident ever did occur I consider it was quite justified and very amusing. I did not intend to bring it up as a political racial issue.

I am sorry that I was misinformed about the laws concerning cancer "quacks," but I had hoped that South Africa was in advance of us in this respect.

Turning now to the second half of my article, I fear Dr. Gluckman did not appreciate the reason for telling the story about the Pope. I did NOT state that a native doctor was prevented by the South African Medical Society from attending my lectures; the doctor told me that he was not

allowed to come to my lectures although very anxious to do so, but he did not state what authority prevented him. For the same reason he was not allowed to enter my hotel and take a glass of sherry with me. Of course, it may all have been an excuse because he did not wish to mix with "White" people. I know nothing about the Clinics in Johannesburg, the incident I relate took place in another town. I would remind Dr. Gluckman what happened when a B.M.A. annual meeting was suggested to take place in South Africa some years ago.

Finally, I am delighted to hear that Dr. Gluckman and his friends had "very lively" consciences about the evils of Apartheid before Father Huddeson arrived in South Africa.

Yours sincerely,

MALCOLM DONALDSON.

337, Woodstock Road,  
Oxford.

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\* Reprints received and herewith gratefully acknowledged.  
Please address this material to the Librarian.

## THE CONTINUOUS SUMMER \*

by A. J. MARSHALL, D.Phil., D.Sc.

THE BREEDING seasons of temperate zone birds and other animals can be modulated to some extent by daylength fluctuations — increasing daylength in most, by decreasing light in others. By being somehow able to gauge daylength fluctuation of a magnitude too small to be appreciated by us, these temperate zone animals are able to start off their breeding processes ultimately to produce their young at the time of year at which reproduction is likely to be most successful, i.e., that the young in turn will survive and reproduce themselves.

But how do animals living on the equator — where there is a light-swing of only about two minutes a year — “time” their breeding seasons? That is, if they *do* have breeding seasons. Opinions have been divided on this point. For generations travellers’ tales had made out that equatorial birds — as apart from those animals that lived in the tropics somewhat above and below the equator — “bred all the year round.” In 1933-34, an Oxford expedition led by Baker (of which I was a very junior member) spent a whole year in Espiritu Santo, a Western Pacific island, to study the problem. It was found that, notwithstanding the remarkable equability of the climate there, the majority of the animals studied had breeding seasons as sharp as those of creatures living, say, in Sussex. But Santo is no less than 15 degrees off the equator — there is a light difference of well over an hour between the summer and winter (so to speak, because there is, of course, no winter) solstices. So that, really, the sharp breeding seasons of Santo might be explicable in terms of daylength changes — if the animals there had been able to evolve a mechanism sufficiently sensitive to appreciate them.

During the past two years I have twice gone out to equatorial Africa to study the same problem — but this time dead on the equator, where there is a light-swing of only about two minutes per year. It would be asking a lot of any animal to have evolved a response to a photo-fluctuation as small as

that. Therefore, if animals at Jinja (in Uganda) and at Nanyuki (in Kenya) had sharp breeding seasons, well, it was a safe bet that they were timed by factors other than photoperiodicity.

The first question: Do animals living precisely on the equator have sharp breeding seasons — like, for example, a robin or a toad in Hampshire? The answer is: Some do, and some do not. Let us take for our first examples some birds, a bat and fishes inhabiting the “top” end of Lake Victoria.

Around the shores of Lake Victoria flying insects are heavily abundant throughout the year. Obviously the bats have a never-failing supply of suitable food. The roofs of the European and Indian dwellings provide the bats with a far greater breeding space than the hollow trees and odd caverns they had to occupy before European settlement. In Uganda it is never unpleasantly dry, and never cold. This superabundance of food, and the absence of external inhibitors like cold and so on, allows them to reproduce all the year round — just like man. There is no breeding season.

This bat was the only mammal easily got in large numbers in Jinja, but there were fish and lake-birds in plenty. What would they tell us? The birds chosen were all voracious fish-eaters — birds that bred only on tiny wooded islets remotely down the Victoria Nyanza. There were two cormorants. One was the big pied fellow, and the other was a little black one with red eyes. The first fished the open waters, the second patrolled the reed-beds. The third bird was the spike-beaked, snake-necked Darter. We were tremendously helped by the extraordinary nesting conservatism of these birds. The whole vast North-western population of cormorants and darters nested only on four small islets. With such a small number of suitably tiny breeding islets, one would think that each pair of cormorants would be able to breed only once every several years — or that each nest site on islands would be used by several pairs in succession. Rather, in fact, as though a succession of pairs of swallows had to occupy a single eave throughout the English summer,

And this is just what happens. Each suitable islet is black with birds — sitting on their clumsy, dirty stick-nests with hundreds of pale green eggs and fluffy, ugly black young. And on rocky and woody promontories of the bigger islands nearby sat colonies, in an inactive phase as far as reproduction was concerned. As the young of one community flew, the adults of another would take over the empty section of the ambatch trees. Then they, too, would lay and hatch out their young. Meanwhile another segment of the colony would move out, and another would move in. A sort of Cox and Box arrangement prevailed — the islets seemed always to be used — but by different groups of breeding birds. It seemed that, like the bats, the lake birds (with a never-failing source of fish food) also bred all the year round. Then late in January, a most peculiar thing happened. The birds stopped breeding. They still used the islets as a roost — but never laid a single egg. The green foliage came back to the battered ambatch trees. Checks showed that there was no breeding on the lake-shores or on the larger isles. What was the explanation? Could it be that every pair in the north-western corner of the lake had exhausted its breeding potential? That did not make sense. Could they — on each island — have been scared by something? That made nonsense, too. Then, quite suddenly, after a three-months’ break, each island was again covered with nests, and for the rest of the year thousands of baby cormorants, darters (and a good many egrets) continued to be hatched.

The break made it absolutely necessary to keep the observations going for another year — so through 1955, 1956 and 1957 records of breeding activity were duly kept by a collaborator. This year precisely the same thing happened again. In January — the islets were black with nesting birds. In March and April — the islands were deserted except for a few roosting individuals. We think it possible — but we have not proved — that the cormorants have evolved a response that prevents them from breeding during the brief stormy period of the year during which their flimsy nests and young are most likely to be blown into the lake.

Fishes should not be troubled by storms nor, on the equator, by seasonal shortages of food. If equatorial bats can reproduce throughout the year, one might perhaps expect the same of fishes. And that is true of

some of them — *Tilapia* and *Haplochromis* of various species, for example. But there is another group of equatorial fishes that are more rigidly seasonal than any vertebrate here in England. These are the fishes that can only breed when it rains. This may sound incredible, and so I had better explain by specific reference to one of them — the specialised catfish *Clarias*.

*Clarias* can breed twice a year, but only under special conditions. These conditions are rainfall of a volume sufficient to flood heavily the streams that flow into the lake. If there is a sufficient head of water — but not unless — thousands of male and female *Clarias* fight their way against it, ascend the streams (dry, perhaps, a few days before) to the flooded areas beyond the papyrus swamps. Here the females lay. The parents now go back to the lake, leaving their eggs to hatch. Before the streams dry up the young are of a sufficient size to make their own journey towards deeper waters. Why, one might ask, do *Clarias* wait for dry streams to be flooded when they could apparently do as *Tilapia* does, i.e., breed all the year round down in the lake? Well, Greenwood and I think that they do so because they come originally from a stock that inhabited swift-running freshwater streams — that they are just retaining an age-old custom. Right through the animal kingdom we see how once Nature gets hold of a good thing, she tends to stick to it. And she can afford to in the case of *Clarias*. If the rains fail in November, they most assuredly will not fail in March. The lake-side streams will certainly fill at least once a year. Why, then, should the species change from its efficient mode of reproduction just because it is now lake-locked?

I was able to work also at Nanyuki on the slopes of Mount Kenya in an entirely different sort of country. I was still hugging the equator in order to avoid the influence of light fluctuations — but up there, at 7,000 feet, there was a much greater seasonal change in several ways. I couldn’t use fish up there. The open veldt was studded with granite outcrops that swarmed with brilliant red and blue Agama lizards.

Like the bats near Lake Victoria, the Agama lizards out on the veldt bred all the year round. However, with the peak of rainfall the reproduction rate stepped up and a remarkable adaptation to rapid breeding was found in the females. After the rains came, and the warm brown plains were covered

\* Originally the second of two talks on Breeding Seasons on the B.B.C. Third Programme.

with grass and insects, females would have shelled eggs in their oviducts, another cargo of yolked but as yet unfertilized eggs near the surface of their ovaries, and a third generation of very minute eggs beneath—all waiting to develop. So that, although we found some females pregnant during every month of the year, they retained also a device that would enable them rapidly to populate the good earth with young *Agamas* every time rain happened to fall. One supposed that, in the drier areas up to the north in Somaliland, these reptiles could breed only when the rain fell—and there particularly, this adaptation for quick reproduction would be very handy, so to speak, to the species.

So much then, for the equator. Some animals are able to reproduce all the year round—those that find the environment sufficiently fruitful to enable them to do so. Others do not; and can breed only after the rains produce conditions propitious for their special modes of reproduction, and for the survival of their young. The animals that had a breeding season can not “time” it by means of photoperiodicity—as can an English robin or rook. On the equator, as I said before, there is a difference of only about two minutes between the longest and shortest days.

What factor is the regulator in such equatorial animals? People often say simply “rainfall.” But is it rainfall? It might be the sudden, perhaps stimulating appearance of green grass that grows so quickly after the rains come. Or, perhaps, the almost equally sudden appearance of the masses of proteinous insect food that most birds need to provide amino-acids essential to the health and growth of their young.

I had wanted to attack this problem experimentally ever since I was an undergraduate, and the chance to do so came in Tanganyika with a friend, John Disney, who is an officer of the Department of Agriculture there. At Dodoma, about 6 degrees off the equator, the country is dry and drought-stricken for about eight months of the year, and Disney built four big cages into each of which he put about 200 *Diochs*. Now the *Dioch*—its generic name is *Quelea*—is a small, vivid weaver-finch and, although it weighs only about half-an-ounce, it is a major pest in the drier areas of Africa. The reason is simple: it occurs in vast flocks, each sometimes literally more than a million in number. It ranges widely over the country, ravaging the African's crops. Sometimes it has been respon-

sible for bad famines, because flocks of this tiny bird are sometimes so big as to darken the sky and to be mistaken for flocks of locusts.

Disney varied our cages as follows: in Cage 1 he left the surroundings pretty bare—just some water in troughs, dry seeds and leafless thorn-bushes—to more or less equal the dry surrounding countryside. Cage 2 he left bare also—but, fixed above the roof was a garden sprinkler that simulated the wet season for two hours a day during the dry season. Cage 3 was furnished with trays full of freshly-grown green grass and plenty of the long green grass used by the *Dioch* for nest-building. (It took an awful lot of organisation keeping a special plantation of this stuff growing during the dry season.) Cage 3, then, had in it conditions rather like those that always follow rain. But it had no sprinkler for rainfall, so to speak, and it had no insects. Cage 4 had a sprinkler producing two hours of rainfall every day, and in addition it had grass and lots of proteinous food—termites, fly larvae and the like. (These, too, took a great deal of collection and breeding in the dry season.)

There was plenty of evidence of an internal rhythm of reproduction in this weaver finch. Gradually the birds of all four cages started to come into breeding plumage. But only in the birds of Cage 3 did successful and repeated reproduction occur. That is, the one without rainfall, without proteinous insect food—but with masses of long green grass of the sort which grew *after* the rains came and which it actually always uses for nest building. There was evidence, in fact, that rainfall tended to inhibit reproduction.

After the eggs hatched we put insect larvae and termites into Cage 3 so that the young could be reared. It was a piece of luck for us that during the year of experiment the natural rains failed near Dodoma, and the only *Diochs* to breed in that wide area were those that were hatched under experimental conditions in our Cage 3.

Ecclesiastes said: “To everything there is a season.” To which the mid-20th century biologist can reply: “Not quite everything; and especially near the equator.”

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## FROM TRADE GUILD TO ROYAL COLLEGE\*

by SIR JAMES PATERSON ROSS, K.C.V.O., LL.D., M.S., P.R.C.S., F.R.A.C.S., F.A.C.S.

IF YOU look carefully at the inscription on the front of the Royal College of Surgeons of England—ÆDES COLLEGII CHIRURGURUM ANGLICI DIPLOMATE REGIO CORPORATI, A.D. MDCCC.—you will notice that the word “ANGLICI” differs slightly from the others. Formerly the word had been “LONDINIENSIS” and the present appearance of the inscription provides visible evidence of the change in the title of the College which occurred in 1843. “The Royal College of Surgeons of London” was established by a Royal Charter granted by George III in 1800, and it may be assumed that this is as far back as one needs to go to understand the origin of the College. This, however, is a near-sighted view, and we must delve deeply into the history of the City of London if we are to obtain a true picture of the ancestry of the College, and of the events and developments extending over several centuries which led to the establishment of the College on its present site.

Accurate details of the history of London in the Middle Ages are not easily obtained, but it is clear that in the 13th and 14th centuries there was a steady growth in the size and influence of a “middle-class” of craftsmen who formed craft or trade guilds which were the predecessors of the City Companies. The guilds were started to regularise the practice of the particular calling; to lay down rules for the appointment, training and discipline of apprentices; to safeguard the rights and privileges of members; and to perform certain religious duties. They obtained the right of using a particular livery.

Such a guild or confraternity of surgeons was formed by the military surgeons who served in the 100 Years War (1337-1444), but the earliest known charter concerning surgeons is that granted to the Barbers' Company by Edward IV in the year 1462. No doubt the Guild of Surgeons had little or no authority in the City because of its small membership—the records show that in 1491

there were eight, and in 1513 only twelve members—yet it is strange that the Barbers' Charter should deal almost exclusively with surgery, as though this craft were entirely in the hands of the Barbers. The charter states that the free men of the Mystery of Barbers (mystery is the same word as the French *métier*) had for long exercised “the Mystery or Art of Surgery, as well respecting wounds, bruises, hurts, and other infirmities of our liegemen, and healing and curing the same, as in letting blood, and drawing the teeth of our liegemen.” It further stated that through the ignorance, negligence and stupidity of the unskilled “very many and almost infinite evils” had befallen our liegemen; and so the Charter was granted for the purpose of remedying these evils, and charged the Company with the superintendence, scrutiny, correction and government of freemen of the City being Surgeons and exercising the Mystery of Barbers, and of all other foreign Surgeons practising in the City of London and its suburbs.

It may be asked how it ever came about that the practice of surgery was in the hands of the barbers. In the middle ages the clergy were the physicians, but as time went by the priests began to feel the competition of Jewish physicians and lay surgeons. The Jews were thwarted by their patients being excommunicated; but all the Church could do to the lay surgeons was to brand surgery as an inferior and derogatory calling, and to forbid priests to undertake any operation which involved the shedding of blood. Rather than allow the control of surgery to slip from them the priests selected their servants the barbers, who were known to be dexterous with sharp instruments, not only to shave their tonsures but also to be taught the surgical art under their direction. These pupils of the priests became Barber-Surgeons.

It has already been pointed out that the Surgeons, though men of a better class and with attainments of a much higher order than the barber-surgeons, were too few to gain any authority in the City, so they attempted to establish themselves by union with the Physicians. A conjoint College of Physicians and

\* The Inaugural Address delivered to the Abernethian Society on October 3, 1957.

Surgeons was formed in the City under the authority of the Mayor, but this arrangement proved unsatisfactory because the physicians, most of whom held University degrees, looked down upon the surgeons who were less well educated, yet were constantly striving to raise the standard of their craft and to inculcate high ideals in regard to responsibility towards their patients. As an example of this one may quote the regulations made about the middle of the 15th century, whereby four members of the Guild were elected Masters, whose duty it was to supervise the craft, to inspect apprentices, to punish mal-praxis, and to be available for consultation in cases of serious illness—in fact it was an offence for a surgeon to fail to call in the Master under such circumstances.

The Conjoint College did not last long, but the surgeons were unable to exist alone and therefore agreed to combine with the Barbers. A charter was granted by Henry VIII in 1540 to the Surgeons and Barber Surgeons, but it must be understood that the combined company consisted of Barbers, Barbers practising Surgery, and Surgeons. The Charter gave the Surgeons control over the Barbers practising Surgery, and by the rules of the Company surgeons were not allowed to practise shaving, and barber-surgeons were not allowed to do more than draw teeth. If any of the barbers became surgeons it was only after some years of apprenticeship, attendance at lectures and demonstrations, and obtaining the Bishop's licence.

We see in the establishment of these Guilds and Companies a sense of high responsibility and a desire to set up good standards of service to the public or, as in this case, to patients. This is borne out not only from the study of the rules and records of the Companies, but also from the writings of their prominent members. To read these records of the thoughts and ideals of men of a by-gone age helps to keep us humble; so often we may be inclined to think that because they knew less than we do, and their methods were more crude, that they must have been not only ignorant but brutish. In fact, we have not out-grown their faults, and we cannot improve upon their noble ideals; it was their fine character that has made their names survive.

The first Master of the Company of Barber Surgeons was Thomas Vicary, Sergeant Surgeon to King Henry VIII and a Governor of

St. Bartholomew's Hospital. It is sometimes stated that he was Surgeon to the Hospital, but although he played an outstanding part in the life of the Hospital for many years, and may have exercised supervision over the duties of the surgeons, as over much of the rest of the work of the Hospital, he was not appointed one of the four Surgeons to the Hospital at the time of its second foundation. Vicary wrote "*A Profitable Treatise of the Anatomie of Man's Body*," a book which had little merit as far as anatomy was concerned, since it was merely a translation of an ancient text, but is most valuable as an indication of what Vicary regarded as the attributes required in a man who would be a surgeon. "Four things most specially that every surgeon ought to have—

"The first, he ought to be learned and that he know his principles, not only in Chirurgerie, but also in Phisicke, that he may the better defende his Surgery; Also he ought to be seene in natural Philosophie, and in Grammer, that he speake congruities in Logike, that teacheth him to prove his proportions with good reason. In Rethorike, that teacheth him to speak scemely and cloquently; also in Theorike, that teacheth him to know things naturall, and not naturall, and things agaynst Nature. Also he must know the Anatomie, for al Authors write against those Surgions that worke in mans body not knowing the Anatomie, for they be likened to a blind man that cutteth in a vine tree, for he taketh more or lesse than he ought to doo. . . . it is as possible for a Surgion (not knowing the Anatomie) to work in man's body without error, as it is for a blind man to carve an image and make it perfyte.

"The second, he must be expert . . . he oughte to knowe and to see other men work and after to have use and exercise.

"The thirde, that he be ingenious or witty; for al things belonging to chirurgerie may not be written nor with letters set fourth.

"The fourth, that he must be wel manered, and that he have al these good conditions here following—that a Chirurgion must take heed to deceive no man, with his wayne promises, nor to make of a smal matter a great, because he woulde be accounted the more famous. . . . Likewise they shal give no counsayle except they be asked, and then say their advise by good deliberation, and that they be wel advised afore they speake, chefly in the presence of wise men. Likewise they

must be as privie and as secrete as any Confessor of al thingis that they shal cyther heare or see in the house of their patient. . . . And see they never prayse them selves for that redoundeth more to their shame and discredite than to their fame and worship; For a Cunning and skilfull Chirurgion neede never vaunt of his doings, for his works wyl ever get credite ynough. Likewise that they despise no other Chirurgion without a great cause: for it is mete that one Chirurgion should love another, as Christe loveth us al."

We begin now to understand what we mean when we say that the Royal College of Surgeons has inherited a great tradition, and why it is that we trace our origin back to the old Guilds.

Though the association with the Barbers gave the Surgeons more power in the City, it was otherwise to their disadvantage, especially in their relations with the Physicians, who regarded it as a sign of their inferiority and forbade surgeons to prescribe for their patients. Not till Abernethy's time did surgeons obtain this right. In spite of the special privileges which the Barbers allowed to their surgical brethren—for example, at meetings of the Court of the Company, after the general business was over the Barbers would withdraw and leave the Surgeons to discuss their own professional affairs in private—the union was on the whole an unhappy one and was dissolved in 1745, when the Surgeons were incorporated as a separate Company with their own Surgeons' Hall in Old Bailey. Here lectures were given in Anatomy and Surgery by Percivall Pott and later by his former pupil John Hunter, but as the century neared its close the affairs of the Company went from bad to worse. It was difficult to find lecturers and to obtain audiences for them; interest was lacking in the general well-being of the Company; and there were even complaints about the conduct of the examination of the Surgeon's mates for the Navy.

It is important to note the association of the Company with the Navy, for the Court not only examined candidates for the medical service but also acted as a tribunal to assess the claims made by Naval officers for compensation or pensions for wounds and "hurts." Among the treasures at the College of Surgeons there is the record of a claim made by Admiral Sir Horatio Nelson for his surgical treatment when he lost his arm. The

anchor on the College Coat of Arms bears witness to this link with the Royal Navy.

It seems strange that interest in Surgery should have flagged at a time when John Hunter was so busily introducing the method of experiment into the study of surgery and placing the subject on a sure scientific foundation. It seems clear that although a few men like Astley Cooper appreciated his leadership the majority heedlessly continued to follow the old-fashioned empirical practices, and the teaching of surgery at Surgeon's Hall languished and finally died when the Company was dissolved in 1795. Within five years, however, the Royal College of Surgeons came into being, charged by Royal Charter with "the promotion and encouragement of the Study and Practice of the Art and Science of Surgery." The building of the College in Lincoln's Inn Fields was designed to contain John Hunter's museum and a library; the greatly expanded museum and library are still among the principal concerns of the College today.

The original College buildings which were completed in 1813, soon proved inadequate to house the steadily increasing number of specimens which successive Curators, following the Hunterian tradition, were adding to the collection. The building was therefore enlarged in 1835, and again in 1855 and 1891, but the only departments represented were Anatomy and Pathology. In 1931 Sir George Buckston-Browne presented to the College a "Farm" adjoining Darwin's house at Downe in Kent, which consisted of a residence for research workers, farm buildings to house large as well as small animals, and a laboratory suite with an operating theatre. Excellent surgical experimental research was conducted at the Farm under the direction of Sir Arthur Keith, the first Master.

In 1937 a further extension was made to the College itself when, thanks to the generosity of the Bernhard Baron Trustees, another floor was added to the main building to accommodate a research department of Physiology. When war broke out in 1939 the activities of the College, which had been steadily increasing, were brought to a halt, and its treasures, the pictures, much of the library, and the most valuable of the Hunterian specimens were sent away for safe keeping in many parts of England and Wales. On the night of May 10-11, 1941, the College suffered very serious damage in an air raid.

and although the front of the building in Lincoln's Inn Fields was less severely affected all the museums on the Portugal Street side were completely gutted.

When building operations became possible after the war, the Council of the College decided that in order to provide for the expanding activities in the fields of post-graduate education and scientific research it would be useless to rebuild on the previous plan. Though the Hunterian Museum and the Library were still the chief concerns of the Council, accommodation had to be found not only for new museums but also for lecture rooms, demonstration rooms, and research laboratories in the departments of Anatomy, Physiology, Pathology and the newly-formed department of Pharmacology. Furthermore, the Faculty of Dental Surgery and the Faculty of Anaesthetists, both recently established, also required laboratory and office accommodation. These new departments, and the Nuffield College of Surgical Sciences, which is a residence for 80 students, accounts for the enormous building operations now proceeding on the south side of Lincoln's Inn Fields.

Although the scientific departments are not yet properly housed, members of their staffs are already engaged on many problems which have a direct bearing upon clinical surgery. In the Anatomy department the minute structure of nerve cells is being studied using an electron microscope supplied by the British Empire Cancer Campaign. In the Physiology department most interesting work is being done upon the physical and chemical factors which influence the healing of wounds, and valuable electromyographic studies are being carried out on the muscles of mastication in relation to orthodontics. The vasomotor control of the nasal mucosa is being investigated with a view to elucidating allergic reactions in the nose. The Biochemistry sub-department is engaged in research upon lipid metabolism. The workers in the department of Pathology are carrying out research into carcinoma of the lung, and also into disorders of collagen formation, and in the department of Pharmacology important research is being done to study regeneration in the autonomic nervous system, and the effects of ganglion-blocking agents. At the Buckstone-Browne Farm, work of fundamental importance has been done on skin grafting and on organ transplantation, and recently a team of re-

search workers has been making excellent progress with the extra-corporeal circulation.

One of the conditions on which the Hunterian Collection was delivered to the Company of Surgeons provided that "one course of Lectures, not less than twenty-four in number, on Comparative Anatomy and other subjects, illustrated by the preparations, shall be given every year by some Member of the Company." In spite of a promising start, as years went by history repeated itself and the difficulty over finding a suitable lecturer each year again led to the suspension of the lectures. Therefore application was made for permission to alter the conditions, and in 1894 the Lords of the Treasury agreed that each year one course of Lectures not less than twelve in number should be given by Fellows or Members of the College, and since that time applications for Hunterian Professorships have become steadily more numerous so that now there is intense competition for the twelve appointments and an astonishing amount of excellent material is offered by applicants, even by the unsuccessful ones.

There are many other named surgical Lectureships in addition to the Hunterian Professorships, and the College now has an organisation for arranging courses of lectures in surgery for post-graduate students at regular intervals throughout the year.

The College Departments of Anatomy, Physiology, Pathology and Pharmacology, also play their part in University education, as teaching departments in the Institute of Basic Medical Sciences of the British Post-graduate Medical Federation in the University of London. This intimate association with the University enhances the academic status of the departments, and provides some very welcome financial assistance. It will be understood, therefore, that the cost of the educational programme does not fall entirely upon the College and its Fellows.

A function which the College has inherited from the Court of the Barber Surgeons' Company and from Surgeons' Hall is to "test the fitness of persons" to practise Surgery. The Court of Examiners which is elected by the Council is entrusted with the maintenance of the high standard traditionally associated with diplomas granted by the College.

Let me repeat that the College was founded by Royal Charter and is justly proud of being a Royal College. It has been privileged and honoured by a close association with the

Royal Family, and the visit paid by Her Majesty Queen Mary to see the effects of the bombing in 1941 is gratefully remembered. Many members of the Royal Family, including Her Majesty The Queen and Prince Philip, Duke of Edinburgh, have graciously accepted the Honorary Fellowship, and the College was particularly favoured when The Queen

laid the Memorial Stone of the new buildings just before her Coronation.

Finally, it must be realised that since the Royal College of Surgeons attracts post-graduates in large numbers from overseas, it constitutes and will always continue to maintain a vital link between England and the Commonwealth.

## AN EARLY STETHOSCOPE

by JOHN R. BROWN and JOHN L. THORNTON

THE PURCHASE of an old stethoscope from the collection of the late Charles Noon, Surgeon to the Norfolk and Norwich Hospital, prompted an investigation into the history of the subject in order to date the instrument. Several early stethoscopes are contained in our Museum, and these have proved useful in fitting our instrument into the chronology of the subject.

René Théophile Hyacinthe Laënnec (1781-1826) invented the stethoscope in 1816, first

struments, materials employed, commercial prices, dates of modifications, priority, and even over which end of the instrument was applied to the chest. However, our present concern is to describe one stethoscope, and to compare it with two instruments of approximately the same period.

The first instrument used in this Hospital, about 1827, by Dr. Bond, afterwards Regius Professor of Physic at Cambridge, was a facsimile of one employed by Laënnec, and was

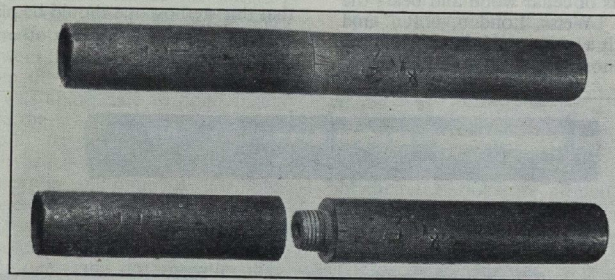


Fig. 1

using a sheet of rolled paper. He then produced a cylinder of either cedar or ebony 13 inches long and  $1\frac{1}{2}$  inches in diameter with a central bore  $\frac{3}{4}$  inch wide. Laënnec experimented with various substances, and there were innumerable modifications of the stethoscope. Unfortunately the history of the subject is rather obscure, and we hope later to produce a more complete study in an endeavour to clarify the matter. Authorities differ considerably regarding the sizes of in-

presented to the Museum by Sir George Burrows. He stated that he rescued it from being used by the nurses for stirring their washing, after it had been superseded in its original function by more elaborate instruments. This stethoscope (Fig. 1) is  $11\frac{1}{2}$  inches long,  $1\frac{1}{8}$  inches in diameter, with a  $5/16$  inch bore. It is in two sections with a screw joint, and with a deep funnel at one end,  $1\frac{1}{4}$  inches deep, probably intended to take a chest piece, now missing. It is made of oak.



A more elaborate instrument (Fig. 2) originally belonged to Patrick Black, who brought it from Paris about 1836. It is made of cedar wood and has a horn chest-piece and ornamentation. This stethoscope measures  $12\frac{1}{2}$  inches in length, with a diameter of  $1\frac{1}{4}$  inches and a bore of  $\frac{3}{8}$  inch. Further information on these and other stethoscopes in the

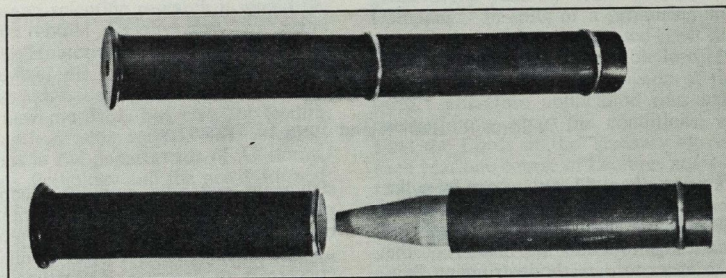


Fig. 2

Museum are contained in an article by T. H. G. Shore in this *Journal* (Vol. 36, 1928-9, pp. 161-163).

The stethoscope (Fig. 3) possessed by one of us (J.R.B.) is of cedar wood and bears the maker's mark "Weiss, London, G.R.," and is stamped with a crown. Unfortunately the makers could not provide any further infor-

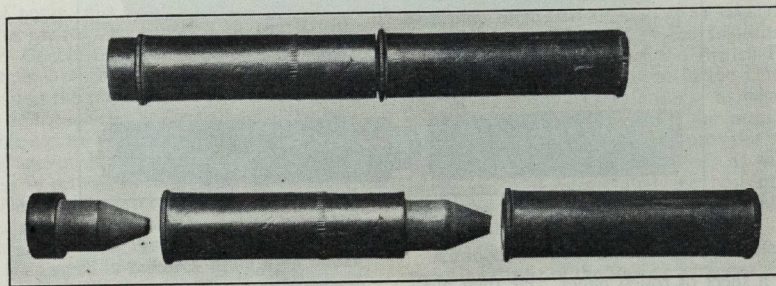


Fig. 3

mation regarding the instrument, which is  $12\frac{1}{4}$  inches long,  $1\frac{1}{2}$  inches in diameter, with a bore of  $\frac{3}{8}$  inch. It is not elaborate, but probably represents an early example of the article commercially produced in this country. Previously they had been imported from France, but possibly the supply could not meet the rising demand, although the French

article was imported for as little as 2 francs. It is in three sections, as illustrated, but one half could be used by plugging the endpiece into that with the cup depression, which is  $\frac{3}{8}$  inch in depth, and represents the earpiece.

This instrument dates from not later than 1830, as it is slightly more elaborate than the model first used in this Hospital in 1827, but

was manufactured during the reign of George IV, as evidenced by the fact that it is marked with the crown and the letters "G.R." George IV died in 1830, so that it is most probable that this stethoscope should be placed chronologically between the two other instruments described above.

#### Acknowledgment

We are indebted to Dr. M. E. Rowbottom of the Wellcome Historical Medical Museum for assistance with our preliminary inquiries, and to Mr. Norman K. Harrison, of our Department of Medical Photography, for the photographs.

## SUMMER CLINICAL SCHOOL IN COPENHAGEN

by M. I. D. CAWLEY

FOR THREE WEEKS in August of this year I attended the Summer Clinical School which is held annually at the Copenhagen County Hospital at Gentofte, a suburb of Copenhagen. The course is organised by the International Medical Co-operation Committee who also arrange a Summer Preclinical School at the University of Aarhus. It is conducted in English and is designed to give an impression of the practice and teaching of Medicine in Denmark, and in addition to give one an opportunity to observe social and cultural aspects of Denmark and the Danes. Approximately thirty-five students attended, and many British and Irish medical schools were represented. Women students constituted about one quarter of the party which also included several West Africans and a Dutchman.

On my arrival, just before midnight, I was taken by car to my "digs" by the three Danish medical students who had given up part of their vacation to help us. They put themselves at our service throughout our stay. With some other members of the party, I lived in a very comfortable house in Hellerup, a pleasant residential suburb. This was situated about twenty minutes' walk or a short 'bus ride from the hospital. The centre of Copenhagen was about half an hour distant by 'bus, while the sea was only a few yards down the road. At our lodgings we were provided with bed and breakfast. We had lunch at the hospital and dinner at the "Studentforeningen," the student club in Copenhagen. The food was typically Danish and good, but if one wished to sample the best Danish cuisine one could not do better than visit one of the many restaurants. Prices were variable, but in many cases quite reasonable. Delectable open sandwiches of innumerable interesting variety—the "Smørrebrød"—form the national dish of the Danes.

There was usually a programme organised for us on weekday mornings, beginning with ward rounds at which attendance was not 100 per cent, possibly due to the fact that they started at 9 a.m. These were followed by lectures or demonstrations at 10 a.m. and 11 a.m., many of which were in good English and were usually well attended. The ward rounds were held in general surgical, medical, or pae-

diatric wards. Each of us spent one half of the course attached to a medical and surgical firm respectively. The lectures were on a wide variety of subjects chosen according to the particular interests of the lecturers. The special departments and operating theatres were open to us if we wished to visit them.

Amtssygehus, the Copenhagen County Hospital, was opened in 1927 and has since been added to, both before and after the war. There are about 1,200 beds, most of these being in small wards of three or four beds. The writer understands that this arrangement is fairly general in Scandinavia. The building is relatively modern, as are many Danish hospitals, and is spacious and well equipped. Clinical students from the University of Copenhagen do some of their clinical course there. "Firms" are organised in a similar way to this country, the "Chief" being assisted by a registrar and houseman. Clerks and dressers also have duties corresponding to their English counterparts. On ward rounds the consultants are usually accompanied by a secretary who takes dictated notes of relevant findings and prescribed treatment. At times, however, the students may be required to perform this task. The medical course in Denmark takes at least seven years. The students may possibly cover a more detailed theoretical syllabus in this time, but it should be remembered that they have to go abroad to do a dissection course and in addition most of their textbooks are printed in English or American. There is also a nurses' training school at the hospital. It appeared that the nurses are somewhat less restricted by regulations than their counterparts in this country. One received the impression that laboratory investigations were more extensively resorted to than in England; for example, routine respiratory function tests were performed on nearly all "chest" cases. The laboratory facilities were excellent, a large new laboratory and blood bank having been opened in 1952. Among other interesting features of the clinical laboratory work were the estimation of serum sodium and potassium levels by spectroscopy, a practice which could be carried out quickly and easily, and the routine use of Eldon cards for blood grouping. The Eldon card is a piece of paste-

board about 10cms. x 8cms. in size, the upper half of which is covered with a cellophane film and divided into four separate panels. Each panel contains prepared dry serum reagents, viz., Anti-A, Anti-B, Anti-D (rhesus) and a control respectively, all obtained by allowing a drop of the appropriate serum to dry in each panel. The lower half of the card is for identification and results. A similar card is available for the further identification of Rh.-ve donors, i.e., for the establishment of presence or absence of the C, D and E factors. The blood cells to be tested, in suspension, are mixed with the dried serum on the card. The cards have a storage-life of at least two years at room temperature, and after use can be filed with the patient's notes as a permanent record. It is claimed that, assuming the technique of the test is followed exactly, reliable and accurate blood grouping can be performed at the bedside or in the laboratory in as little as three minutes.\*

A number of whole- and half-day excursions were also arranged for us. Dr. Bartels, the Consultant Physician who was largely responsible for organising the course, conducted us round a new hospital building at Glostrup. This was architecturally very modern and designed to be very efficient with regard to equipment and inter-relationship of different departments, but would require a staff of 900 for 800 beds. This seemed extravagant in terms of man-power. The operating theatres were dome-shaped, and designed acoustically so that any words of wisdom uttered at the circumference could be heard with maximum intensity at the centre where the operating table was situated.

We also visited the very new Steno Memorial Hospital and Nordisk Insulin Laboratorium where the protamine-insulin preparations were developed. This is a special unit for research into metabolic diseases with particular interest in diabetes mellitus. There are only just over twenty patients all carefully selected as guinea-pigs. The Copenhagen County Tuberculosis Dispensary and Hospital was also interesting and here the director gave us a survey of modern T.B. therapy and the efficacy of B.C.G. vaccination.

Our whole-day excursions were to Sweden and to North Zealand. We went to Malmo in Southern Sweden, one and a half hours by

\*Further literature on this subject can be obtained from the writer.

boat from Copenhagen, where we visited a most luxuriously equipped modern hospital and laboratory, opened a few months previously. We proceeded to the old University town of Lund and after an over-powering lunch we visited the University and the Cathedral. Our day was completed by a coach trip to places of interest in the surrounding countryside, including inspection of a new students' hostel compared to which even College Hall would appear archaic. Our tour of North Zealand included visits to Frederiksborg Castle with its beautiful chapel and vast art collections, and to Kronborg Castle at Helsingør (Elsinore), traditionally Prince Hamlet's Castle, with its maze of underground passages and dungeons.

Social and welfare services are highly advanced in Denmark and this was illustrated by a visit to the National Guidance Council for Unmarried Mothers. After a talk and discussion, one of the clients showed us over her flatlet in the building. Another afternoon spent at the Tuborg Brewery was reminiscent of Abernethian Society visits to Whitbread's.

The cost of living in Denmark is as high as that in England. There is a minimum bus, tram and train fare of about 6d., which is valid for any journey within the central part of Copenhagen, and there is an all-night tram service.

Copenhagen provides entertainment to suit all tastes and there are numerous shops, cinemas, theatres, museums, historical buildings, parks, and the Tivoli Gardens. There are sandy bathing beaches at Klampenborg and other places on the outskirts of the city. Sailing, on the Baltic, is very popular in the summer. Nyhavn is also worth a visit, preferably with one or more companions, and some establishments there are open all round the clock, whereas much of the rest of the city closes down about 1 a.m. The popular beverages, beer and aquavit (schnapps), can be obtained almost anywhere, although bar prices are not cheap. The Student Club provides informal dances and social evenings with a rather international flavour, in addition to cheap meals, lounges and recreational amenities and newspapers in practically every European language. While we were there the annual conference of the I.F.M.S.A. was also being held, and we joined them for a farewell supper-dance at a hotel in the country. The surrounding countryside was rather flat, but in many places beautiful by virtue of being heavily wooded.

We found the Danish people very friendly. The staff and students at the hospital in particular went to a great deal of trouble on our behalf. They gave us a lavish reception at Domus Medica, the headquarters of the Danish Medical Association, on our arrival, and another one at the hospital on our last day.

## A CASUALTY DEPARTMENT

by R.H.

PASSING ONE'S qualifying examinations is an experience remarkably similar to the alcoholic intoxication that is so commonly its sequel. In this rather dream-like state, one tends to perform acts which in the cold light of day seem incredible. It was in one of these moments of lucidity that I found myself two days after qualifying, starting a post as casualty officer and orthopaedic House Surgeon in an area famed for the danger of its roads and the multiplicity of accidents.

My arrival was notable for the affability of the welcome—complete strangers wrung my hand and said, "Wonderful to see you, at last I can have a week-end off"; and so it was that on my first week-end I was precipitated unsuspecting into the casualty department. Reassuring injunctions to call my seniors who only lived about 20 miles away did nothing to dispel my fears. I cannot remember much of the bizarre treatments that were dispensed for the ease of the patients, but I do remember the casualty sister's eyebrows, and when they went above a certain level I would have to think again. (Incidentally, why is it that soon after qualifying, when one is most in need of self-confidence, the medical insurance societies send bulletins concerning the fate of colleagues who seem to have acted with great resource and propriety in very trying circumstances and been sued for their pains?)

The casualty department in the hospital at which I was working occupies a unique position and its many functions are reflected in the differing views of various people.

Ideally the department acts as a filter for many patients presenting themselves—serious cases being admitted for treatment by the appropriate department, mild cases being treated on the spot or sent to their own doctors for further follow up.

Theoretically the casualty officer has skilled advice of every speciality available,

and on the whole the system works well. The local inhabitants regard it as a place where treatment can be obtained quickly (compared to their G.P.'s surgery) for minor ailments and domestic problems. Works Managers regard it as a way of passing the responsibility for accidents and thousands of bruises are x-rayed annually at the State's expense in order that private firms shall not deplete their capital by claims for compensation.

For anyone who may be interested, £20 covered the course, accommodation, meals, and all organised outings for three weeks. Travelling expenses and spending money obviously depend on one's own tastes and resources, but B.M.S.A. award a limited number of travel grants on application.

The general practitioner and the casualty department of the local hospital maintain an uneasy alliance tempered with unspoken mistrust on both sides, but in all fairness one can say that it is the G.P.'s misuse of the casualty department that causes the friction. This is, of course, secondary to the unwholesome system that the N.H.S. imposes on them.

A good general practitioner from the hospital's point of view does not send up cases with which he can deal himself; this depends on facilities and equipment available, but in these days of large group practices a wider range of procedures should be possible. Furthermore, patients very often arrive with a doctor's letter which, even allowing for crowded surgeries, in more gracious days would have been called bad manners. Too often it is "please see and treat." Perhaps this is better than the macabre "kindly dispose of this patient." Perhaps this is not strictly relevant, but good relations between the general practitioner and the consultants of the hospital appear to make for much greater efficiency. A consultant should trust the opinion of the G.P., who should be able to refer patients direct to the former in hospital instead of sending them to casualty.

It is unfortunate that the present system allows bad G.P.'s to empty their surgeries quickly and still draw their salaries; it allows unscrupulous G.P.'s to obtain for their patients quick reference to specialised de-

partments via casualty. Incidentally, one's colleagues in the hospital are convinced that the casualty officer is deliberately attempting to fill their beds with malingers.

At first I worked on the principle of scattering the patients as widely as possible over the hospital in order that they should not have a chance to grumble among themselves and undermine their morale. Thus they would be sent to the fracture clinic, x-ray department, dressings department, "minor-ops" theatre, and any other nooks that could be found. However, I abandoned this when a member of the hospital committee with a sprained ankle was found some hours later asleep in sister's sitting-room.

One of the fascinations of working in casualty is the complete variability of the complaints that may present themselves, and one soon learns not to judge by appearances—the chap writhing in agony on a stretcher may merely be anxious to have some time from work, whereas the restless drunk may have a broken leg.

The most troublesome problems are the drunks who become involved in fights and may or may not have head injuries. They are rarely co-operative, usually have to be restrained either from sparring with the doctor or making love to the nurses. It is not uncommon for them to want to discharge themselves, which is not really the easy way out one might think.

Other problem patients are the elderly—especially and increasingly—those who live alone, who fall or otherwise incapacitate themselves. Relatives are sent for, often with difficulty, and then a war of wills ensues between the casualty officer who knows that once these old folk are admitted it is a task of Herculean proportions to get them out, and the relatives who see a great chance of shifting their responsibility. It is a contest which if resolved either way, is not the real answer to a problem that is growing more serious. It is often very difficult to explain to people with families of their own that their aged parents, often bed-ridden, incontinent and incoherent, are not the responsibility of the hospital (unless their condition warrants it) even if they are that of the State; itself a doubtful supposition.

Other less tragic problems often present themselves not necessarily of a primarily medical nature. A young wife arrived one

night who had swallowed a bottle of her husband's hair oil in a gallant attempt to prevent him from drowning the litter of the family cat, a ruse which succeeded as far as I could tell while trying to ascertain whether the new secret ingredient to banish dandruff was in actual fact poisonous. There was another young lady with a severe laceration of her ankle, who on discreet questioning revealed that she had put it through the back window of a car while courting with her boy friend. She refused a tactful offer of an arranged visit to the Marriage Guidance Counsellor.

In many ways the present condition of the casualty department in the scheme of things exemplifies the many problems of the present Health Service. Many patients now regard the hospital as first port of call when they are in trouble, and often when asked why they do not consult their own doctor, say with some justification "Well, I knew that my doctor would send me here, so I thought I would save time." All this tends to make relations between hospital and practitioner strained. Some of the resident hospital staff regard the G.P. with patronage if not worse. This is naturally resented by a G.P., especially when he has done his best for a case and has to decide finally that hospital treatment is necessary. He rings up the hospital and is subjected to a cross-examination by someone young enough to be his son and qualified only a few months into the bargain. This problem has been advertised widely enough, but no ready solution seems available. The underlying factor may be that at the moment the Health Service does not encourage the G.P. to look after his patient; quite the reverse, in fact, for the more patients he has on his list the higher his salary but the less time to treat them. The result is that they crowd the casualty and out-patients' departments of the hospital, causing many headaches in administration and staffing.

These views are based on the slenderest of experience and may not reflect a true picture. Many other problems must be involved.

From a personal point of view, however, casualty work is an absorbing way of learning about patients, general practice and its problems, and the practical result of the Health Service—a fact that might not be readily appreciated while trying to pacify a drunk, suture his scalp and maintain a sepsis all at 2 o'clock in the morning.

## SPORTS NEWS

### VIEWPOINT

Three of the winter sports clubs, the Rugby, Hockey and Association football clubs, have completed their various tours to Cornwall and Cambridge. Activities are now centred on building up sides for the Cup matches, of which the first is the Hockey match against St. Thomas' Hospital. The Rugby Club appear satisfactorily to have filled the gaps left by the departure of some of last year's team, and their record to date, although not unduly impressive, compares very favourably with that of other London hospitals. It is to be hoped that the injuries at present affecting them will have mended sufficiently to enable them to field a fully representative side in January. The dates of the Hospital Cup have once again been put well forward so that adverse weather conditions might be less likely met.

### RUGGER

1st XV v. Rugby (Away). Won 14—9.

The 1st XV did well to beat a strong Rugby side by fourteen points to nine at Chislehurst, particularly when the services of R. M. Phillips and J. C. Mackenzie were not to be had. However, newcomer Bamford from Cambridge was making his first appearance in the three-quarter line, and he did much to infuse ideas into our rather defensive backs.

The Hospital kicked off with the wind behind them and for the first fifteen minutes kept up continuous pressure in the Rugby twenty-five. Shortly afterwards, Bart's took the lead with the first of two well-kicked penalty goals by Stevens, the second following ten minutes later. Although the Rugby pack were heavier man for man than the Hospital pack, it was a very even duel forward with Bart's packing low and tight in the set scrums and being quick to get their foot over in the loose mauls. Bamford had been prominent with several astute diagonal kicks which the Rugby full-back had been fortunate to field on the bounce, and at half-time the sides crossed over with Bart's still leading by 6 points to nil.

Shortly after the interval, Rugby reduced the arrears and finally equalised with two fine penalties by their scrum half. With the pace of the game becoming faster, Bart's took the lead again with a magnificent 50-yard penalty goal by Pennington. However, their lead was short-lived as Rugby scored an excellent unconverted try by getting a quick heel after a move had broken down fifteen yards from the Bart's line and their centre crossing over half-way out.

However, Bart's were not finished yet and, responding to the fiery leadership of Laurie Thomas, came back with a similar try after a move in which Bamford, Dobson and Moynagh had handled before it broke down 10 yards from the Rugby line. With a lightning heel from the ensuing loose maul, Bart's found an opening and, in a flash, Bamford crossed half-way out for Stevens to kick his third goal of the afternoon and to give Bart's their first win against Rugby for over five years and also their fourth win out of six matches so far this season.

It is hoped that the 1st XV will be lucky down in Cornwall, where they go early in November, as their brand of rugby is based on a reasonably dry ball and pitch, and it is a long time since they have gone down to Cornwall, having lost only one match, and that to the Cambridge University LX Club 3—0.

It was again most satisfactory to see that the four Hospital sides were again unbeaten, as it shows that at long last the training and coaching of previous years and especially this year are bringing better players to the Hospital and, consequently, better results.

Team: M. Britz; A. B. M. McMaster, J. Stevens, J. Bamford, J. C. D. Plant; R. R. Davies, B. Richards; J. L. C. Dobson, J. W. Hamilton, B. Lofts; L. R. Thomas (capt.); J. Pennington; P. D. Moynagh, W. P. Boladz, M. Whitehouse.

### CORNISH TOUR

With not ill-founded hopes, the 1st XV looked forward to a successful Cornish tour this year, but they reckoned without the tolls of injuries and also the weather. Thus the former prevented Phillips, Mackenzie, Whitehouse and Pennington from taking any active part in the tour, and the vile weather at Penzance spoilt any ideas Bart's might have had about open rugby.

The morning of the Penzance and Newlyn match was bright and sunny, but as seems customary, about two hours before the kick-off, heavy rain fell up till half-time to turn the pitch into a sea of mud and water, and open rugby out of the question. With Penzance fielding four of this year's Cornish side and several more from last year's county side together for the first time this season, Bart's kicked off with the rain and wind behind them. The forwards soon settled down and with some excellent hooking by Hamilton gave the backs a fair share of the ball and, but for poor finishing, must have scored on more than one occasion. However, there was no scoring before half-time as the play rarely left the area between the two twenty-fives. Play continued to be rather scrappy after the interval, although Britz at full-back was giving a classic exhibition in fielding and kicking an extremely wet and greasy ball. It seemed as if Bart's were resigning themselves to a draw when suddenly, ten minutes from the close, the Penzance scrum-half dropped a brilliant, if fortuitous, left-footed goal from 35 yards out. This was followed almost immediately

by a try when one of the Penzance second row crashed over from a line out, and which he then converted. Minutes later the home side just failed to add to their score when a shot at a penalty hit the upright, and so the game finished with Penzance winners by eight points to nil.

Bart's lost this match because they failed to adapt themselves to the kick and rush tactics required for such conditions and because their backs were invariably tackled on receiving the ball.

No account of our stay in Penzance would be complete without a word about the excellent hospitality shown us by the Penzance and Newlyn President, Mrs. Lawrie, and her fellow officials. Every year we go down to Cornwall and always have a most memorable and enjoyable stay in Penzance.

**Team:** M. Britz; G. I. Halls, J. Stevens, J. Bamford, A. B. M. McMaster; R. R. Davies, B. Richards; J. L. C. Dobson, J. Hamilton, B. Lofts; L. R. Thomas (capt.), C. C. H. Dale; R. P. Davies, W. P. Boladz, P. D. Moynagh.

On the following Monday our opponents were Devonport Services who, when at full strength, had lost only to Harlequins and Redruth this season. Their back division included Waddell, the international fly-half, and two centre three-quarters who have appeared for Devon and Yorkshire respectively. As if this was not enough, both their wing-forwards had had international trials. Bart's made three team and two positional changes, bringing in Charlton, B. O. Thomas and Neely in place of Richards, Lofts and Moynagh, moving Halls to wing-forward and Stevens on to the wing.

Within five minutes of the start, the Services were five points up when Waddell created a perfect opening, and for the same player to touch down near the posts. This early shock woke up the Bart's pack, who then proceeded to give the Services eight a rough time in the set scrums and line-outs. It was in the latter that Laurie Thomas performed exceptional feats of jumping, ensuring a reasonable supply of the ball for our backs. Hamilton gave another display of quick striking in the set scrums and, in the loose, the Hospital pack gave one of their fiercest and most vigorous displays seen this season. However, the Services backs were not easily contained, and it was from a three-quarter move started from behind their own line that Waddell scored to give the Services an eight-point lead at half-time.

Shortly after the interval, Waddell scored his third try of the afternoon, which was converted, and the Services' lead was further increased when they kicked a fine 35-yard penalty. It was noticeable at this stage that our backs, although tackling well, could rarely penetrate a tight Services defence, although Rees Davies and Charlton often initiated dangerous looking moves for them to be broken up by resolute tackling.

In conclusion, the main lessons learnt from the tour must surely be that we must have more penetration midfield if we are to hold our own against first-class sides, and that the pack as a whole must cover much more in defence. However, it was most pleasing to see a robust and enthusiastic Bart's pack at this stage of the season, and it is to be hoped that they will not reserve such performances for Cup matches only.

## SAILING

Colours have been awarded to the following gentlemen: Michael Bunnemeyer, Colin Burt, David Welch.

## FIVES

The newly-formed Fives Club won its first match of the season on Saturday, October 5th, when they beat the Clove Club, in a close game, by 2 points.

A strong Bart's first pair beat both Clove Club pairs easily. The second pair lost both games, but managed to obtain enough points to produce an exciting finish, when the Clove Club needed only 6 points in the final game to win. They only, however, managed to get 3, thus losing the match by 2 points.

Scores:—

Bart's 1st v. Clove 1st—Won	15—4, 15—4
Bart's 2nd v. Clove 1st—Lost	2—15, 5—15
Bart's 2nd v. Clove 1st—Lost	7—15, 5—15
Bart's 1st v. Clove 2nd—Won	15—6, 15—3

Total: 79—77

The Fives Club has a fixture list of about 6 matches so far this season. Any players who wish to try for the team should contact the Secretary, M. T. Haslam.

## SQUASH

That the Club lacks first-class skill was evident from the trial which produced several keen players but none of outstanding ability.

The first team began the season with a convincing victory over Old Paulines which was followed by a very close defeat at the hands of the Westminster Hospital on their court, which, on the evening, fulfilled amply its reputation for tropical temperatures.

The new fixture with the Jesters proved very enjoyable and instructive despite the fact that we lost 0—5. There was much to learn from this, in most cases, all too short glimpse of really first-class squash.

The second team, under the captaincy of J. Sugden, is again strong, and has had two commendable victories over U.C.H. and the Trade Indemnity Company.

## SOCCER

**Bart's v. Westminster Sports Club (Home).** October 19. Won 2—0.

Bart's returned from their Cambridge tour fitter and more accustomed to playing with each other. For the season's first match at Chislehurst, three new pre-clinical players were brought into the side—P. Savege and J. Knuur at the wings, and M. Williams at left half-back.

The pitch was in perfect condition, fully supporting the claim of those who say that Chislehurst is one of the finest grounds in the London area. Indeed, all was ready for a fine game, and

so this turned out to be. The play was fast and open, and it was surprising that there was no score at half-time. Bart's had struck a post, and hit the cross-bar, and would surely have had a comfortable lead but for an acrobatic performance from the Westminster Club goalkeeper.

Bart's were encouraged by words of advice from their coach at the interval and, in due course, the goals came, both scored by Gould. He has been the Hospital's leading goal-scorer for several seasons now, and once again he is sweeping aside his years, and examination worries, to show his colleagues how to score the goals. One came from a well-placed left-foot ground shot, and the other from a header when he had slipped his opposing centre-half to be unmarked in the middle.

Andan and Savage were a dangerous right wing and much of Bart's attacking came from this flank. When the final whistle sounded, Bart's were still attacking, and the cat-like Westminster goalkeeper was still leaping and clawing at the near-impossible with amazing versatility.

**Team:** J. D. Mercer; R. C. Kennedy, D. I. Prosser; P. Watkinson, C. P. Juniper, M. Williams; P. Savege, A. Andan, A. M. Gould, R. Pilkington, J. B. G. Knuur.

**League Match v. St. Mary's Hospital (Away).** October 23. Lost 1—6.

Bart's scored straight from the kick-off, Andan and Savage took the ball down the right wing and rolled it into the Mary's goal mouth. Gould was in close attendance, and with the Mary's defence in panic, the ball found itself in the back of their net. Scorer? An "own-goal!"

For the rest of the first half the game swung from end to end. Mary's scored twice, and Bart's went very close on several occasions. Andan and Savage inter-passed with accuracy and switched positions in bewildering fashion. Gould was roaming in midfield, and Mary's defence was having a busy time. The Bart's rearguard looked solid enough, and there were hopes that the half-time deficit of 1—2 would be wiped out.

But the final twenty minutes of the game were disastrous. Mary's scored four times, mainly from long range pot-shots which found the target. The final score does not reflect the closeness of the match.

**Team:** D. Kingsley; R. C. Kennedy, D. I. Prosser; R. G. L. Smith, C. P. Juniper, M. Williams; P. Savege, A. Andan, A. M. Gould, R. Pilkington, M. Noble.

**Bart's v. Caledonians (Home).** October 26. Won 2—1.

Pilkington does not often score goals. He makes openings for others and only rarely does he feature among the list of scorers. Today, however, was the exception. The score stood at one goal each, and Pilkington set out on a corkscrew dribble from deep in his own half. With the ball at his boot laces he weaved his way into the Caledonian penalty area and flashed a drive into the roof of the net, which even Trautmann would not have seen.

Our Scottish visitors are always welcome at Chislehurst. They play a good sporting game and

even applaud us for our good moves. They all carry genuine Scottish names, and the spectator cannot fail to be amused when they call to each other for the ball. They began well with a goal in the swirling wind after five minutes, but Bart's struck back, and Juniper levelled the scores direct from a corner-kick. Juniper does not have the chance to score many goals, because as centre-half his height and strength bar the way to rival forwards. But the introduction of G. Haig, a centre-half who has just started at Charterhouse, enabled Juniper to move to wing half-back, and to go upfield in support of his forwards. Haig played very well, as also did Williams and Marsh. Bart's attacked strongly but, after Pilkington's goal, did not score again. The Caledonians broke out of defence from time to time, and on one occasion swung across a centre on to the top of Bart's cross-bar. This was the nearest they came to gaining a draw, and Bart's were worthy winners.

**Team:** J. D. Mercer; R. C. Kennedy, D. I. Prosser; C. P. Juniper, G. Haig, M. Williams; P. Savege, A. Andan, B. T. Marsh, R. Pilkington, D. Kingsley.

**Bart's v. Normandy Company, Sandhurst (Home).** October 30. Won 3—2.

It is a pleasure to welcome Dr. Wills back to Bart's football. His sureness and strong tackling in defence were very apparent. T. Phaurc at right-half, I. Carnochan at left-half, and J. G. Stuart on the right wing all joined the team for the first time in a match at Chislehurst, and each played his part well. P. Watkinson moved to centre-forward and marshalled his line to good effect.

Normandy Company opened the scoring after five minutes with a good goal by their centre-forward, following an attack on the right wing. Bart's were slow in mastering the heavy ground conditions and greasy ball. A second-half hat-trick by left-winger Iregbulem won the match, although the visitors pressed strongly in the final ten minutes and reduced their deficit to 2—3. The Bart's defence withstood further attacks and victory was well deserved.

**Team:** D. Kingsley; Dr. E. D. Wills, D. I. Prosser; T. A. J. Phaurc, G. Haig, I. Carnochan; J. G. Stuart, M. Williams, P. Watkinson, T. O. Johnson, L. Iregbulem.

**Bart's v. Trinity Hall, Cambridge (Home).** November 9. Won 6—0.

Trinity Hall sacrificed the grandeur of Poppy Day in Cambridge to come to Chislehurst and meet Bart's at soccer. They found the Hospital side in a lively mood, and the battering they took must have made them wonder whether they would have had a quieter afternoon back in Cambridge.

The whole of the Bart's team played better than at any time previously this season. Mercer in goal made two good saves, and Kennedy at right back was outstanding. The experiment of playing Noble at left back with Prosser moving to half-back was a success, and completely shut out the Trinity Hall right flank. Haig played strongly at centre-half and Watkinson at right-half found time to go up into attack with his forwards, in effect making a

six-man forward line.

Gould (3), Iregbulem (2) and Kuur scored the goals. Kuur and Andan on the wings were very aggressive and fast, never giving the visitors' defence time to recover. Johnson at inside-right supplied good passes to his forwards and frequently came back to help the defence when danger threatened.

The team has improved rapidly in the last month and hopes are high for a good run in the cup. The number of good reserves available makes team selection a difficult matter. Indeed, the whole situation has changed abruptly from recent years, when it was a matter of some difficulty even to raise a team, and injury or illness of one or two players was a major disaster. Better days have arrived.

Since the issue of last month's magazine, the Students' Union have approved the award of Honours to A. Whitworth, captain of St. Bart's A.F.C. last year, and ex-Cambridge blue.

## WOMEN'S HOCKEY

The Women's Hockey Club began the season with the team trials on October 5th, 1957, at Chislehurst. The players attending the trials included several newcomers whom we were very pleased to welcome. On October 12th a number of members attended the United Hospitals trials. The following were selected to play for the U.H. team: I. Tomkins, J. Tufft, J. Hartley, J. Chambers (capt.), J. Swallow.

Due to two cancellations the first match of the season did not take place until October 19th when we played Royal Free Hospital in the 1st round of the University of London Inter-Collegiate knock-out tournament. This match resulted in a

win for Royal Free by 2-1. During this match we realised that teamwork was lacking, especially among the forward line.

On October 26th we played King's College and lost 3-2. This was a very good game, and the standard of play showed signs of definite improvement, especially in the second half, when the forward line began to work together.

## CAMBRIDGE TOUR

This year the annual tour was spent in Cambridge over the week-end November 8-11th, during which four matches had been arranged. The first match was against a team selected from Magdalene Rugby XV which resulted in a 2-2 draw. This game was enjoyed by all and did not depend on brute force versus skill. Goals were scored by Elizabeth Knight and Jennifer Hartley. The defence rose gallantly to the occasion, with both backs clearing the ball hard and well. On Saturday we were to have played Homerton but this match was cancelled due to the counter attractions of Poppy Day. On Sunday we were dismayed to find that we were to play Queen's College 1st XI, the same team that our men had played the week before. However, we had a very good match and managed to hold the score down to 5-0 for Queen's, who were very good sports and excellent hosts for the rest of the tour. On Monday a very tired and weary team were outclassed by Cambridge University Women's XI and lost 7-0. We hope that we shall have gained experience by playing against such a team. The teams have been chosen from the following ladies:—

Isobel Tomkins, Jill Tufft, Gillian Barraclough, Jennifer Hall, Barbara Barnard, Jennifer Angell-James, Marne Robertson, Valerie Nash, Jean Arnold, Lorna McPhail, Jennifer Hartley (capt.), Sheila James, Elizabeth Knight, Janice Swallow.

## BOOK REVIEWS

**MEDICINE FOR NURSES** by W. Gordon Sears. VIIth Edition. Edward Arnold Ltd. 18s.

Perhaps the first point that has occurred to reviewers of Dr. Gordon Sears' book in all its editions has been that it is exceedingly good value for money. No other medical text book for nurses can rival it in the amount of information provided at the price.

The second point has been that former editions could not be unhesitatingly recommended as a guide to student nurses because of the author's conservative attitude to obsolescent methods. This edition, however, has been thoroughly revised and brought up to date from Chapter 1 onwards. It is as full as ever of facts clearly stated and well tabulated, and this has always been one of its main attractions for nurses. There are also sections relating to general subjects, such as those on causes of unconsciousness and of sudden death.

The criticism that can be made of this book is that proprietary names are very freely used for drugs, and that the nursing techniques mentioned are less modern than the medicine. For instance, the nurse is not likely to be asked to apply a belladonna plaster for cardiac pain, or to give a

turpentine enema to a patient with typhoid fever. There is also the fact (very curious to nurses) that doctors can describe a disease without mentioning its owner. The section on peptic ulcer gives no clue to the age, sex or temperament of the sufferer. However, so much is given to us in this textbook that it is perhaps ungracious to ask for more.

W. E. HECTOR.

**HOW TO USE A MEDICAL LIBRARY**: a guide for practitioners, research workers and students by Leslie T. Morton. London, Heinemann Medical Books, 1957. Pp. vii, 53. 7s. 6d.

Every person who makes use of a medical library should read this book. It may be suggested that it is the duty of librarians to provide information for readers and to find the books they require, but unfortunately it takes many years to train a medical librarian, and some readers must be served by those in training. Readers who make themselves acquainted with the layout of a library, the manner in which the books are arranged, and to appreciate the various bibliographical tools, etc., can enhance the value to themselves of any collection of books.

It is sometimes suggested that librarians spoon-feed medical men by providing all the material, as it were, on a plate, complete with bibliographies, abstracts, translations, chronologies, illustrations, etc., checking proofs, and (he it whispered) even writing papers for them. Much of this work must be done by librarians for busy consultants, but the student and intending research worker should learn how to search the literature of subjects in which he is interested. Accomplished methodically, this is an education in itself, and would result in better written books and papers, with appended bibliographies of impeccable references.

Mr. L. T. Morton, Information Officer to the *British Medical Journal*, has prepared an invaluable guide to medical libraries and literature in a concise yet comprehensive booklet that offers guidance in the use of the catalogue, the various schemes of classification, medical bibliographies, periodicals, abstracting services, etc., and provides a list of the principal medical libraries in Britain. This may appear frightening to the uninitiated, as does any large collection of books ranged in their thousands around the walls of a room. It is the duty of librarians to make available the information contained in those volumes, making full use of the necessary indexes and abstracts. But readers will be surprised how much they can help themselves by becoming acquainted with these tools. They can select material as they progress through the literature, following likely clues and rejecting false leads as can only the person who knows what he really wants. And how many readers tell librarians exactly what they require?

Medicine is comparatively rich in bibliographical tools, and this small book is an authoritative guide to the intricacies of the vast medical literature already extant, and pouring forth in an ever-increasing torrent. It will repay careful study by all venturing into print, or using medical libraries for any purpose whatsoever.

JOHN L. THORNTON.

**ESSENTIALS OF CHEMICAL PATHOLOGY** by D. N. Baron. Foreword by Sir Charles Dadds. London: The English Universities Press Ltd. (1957), 247pp., 25s.

This is a book which has been primarily written for students. It is not a bench book dealing with details of laboratory technique, though there is one appendix giving "normal values" of blood, urine and stool examinations and the quantities of blood, etc., required by the laboratory for testing, and another appendix which briefly summarises the procedures for the routine ward tests of urine and faeces. The book provides in fact what its title promises: the essentials of chemical pathology. Of some 200 pages of actual text the first half deals with general chemical pathology—water and electrolytes, acidosis and alkalosis, carbohydrates, proteins, lipids. The second part is devoted to specific systems—endocrine glands, bones, liver, kidney, alimentary tract, central-nervous system. For these 200 pages there is an index with well over 2,000 references and cross-references. This makes the book particularly valuable for quickly obtaining information about a special problem and extends its scope beyond the use by undergraduates to that by housemen and registrars on the ward or by doctors in general practice. The emphasis, however, is on the teaching of students,

## Trouble in the Hypothalamus

by PODALIRIUS

"Oh, dear, I feel so sleepy," said the hypothalamic cell. "It must be all this pyruvate. What's it doing here?"

"No wonder you're sleepy," said his friend the leucocyte, who had come to have a chat. "Everyone feels the same—you're just unduly sensitive. And it's not only pyruvate, it's pyruvic aldehyde too—and that's even worse."

"Yes, I know, I know," said the hypothalamic cell, who was inclined to be a little testy. "What I want someone to tell me is, what's it doing here?"

"Well, you see," said the leucocyte, "it all starts with glycogen, and then that turns into glucose, which turns into glucose-1-phosphate, which—"

"Yes, yes, I know, I know," said the hypothalamic cell again—rather rudely, for the poor leucocyte was doing his best. "Then it goes through the whole ragamadollo to pyruvate, but after that the pyruvate disappears. Or should do. Why doesn't it?"

The leucocyte was very patient, though he realised that these highly specialised cells overrated their own intelligence and importance. "It's usually oxidised; but that needs co-carboxylase."

"Well?" The hypothalamic cell was really very drowsy.

"Don't you see (you silly old neurone) that thiamine is needed for co-carboxylase; and the boss just hasn't been taking enough? Since he had that operation, his appetite hasn't picked up." But by now the hypothalamic cell was snoring.

"Oh dear," said the leucocyte, "now he's asleep, the boss's appetite will get worse than ever."

\*

"Oh, what a wonderful morning!" carolled the hypothalamic cell. "I feel I could beat up a Betz cell! But why do I feel so good?"

"It's because the pyruvate's gone," said the leucocyte.

"Gone? Where to?"

"Oxidised! Somebody told the boss to start taking Bemax, and now he's fine."

"Bemax? What's that?"

Really, these neurones! And they think they know so much.

"Bemax," said the leucocyte, "is stabilised wheat-germ. It contains lots of thiamine, and that's how all the pyruvate got oxidised. And it contains all the other important B vitamins. It's the richest natural vitamin-protein-mineral supplement. The boss just sprinkles it on his food."

"Jolly good. I hope he keeps it up."

"So do I."

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and there is one appendix with selected examination questions on chemical pathology.

It is a pity that in a work costing 25s. the borderline of “essentials” has been drawn so narrowly as to exclude iron metabolism and haemoglobin. A few misprints can be discovered—none of them seriously misleading. On page 133, for instance, “alkaline phosphate” should have been “alkaline phosphatase.” Although a list of titles of seven major text books is provided, the lack of references as a guide to further reading is a distinct disadvantage.

There are naturally some points of detail where not everyone would agree with the author. For example, it is said that the level of plasma-pseudocholinesterase is affected by extrahepatic factors, and that this is one of the reasons for not using it as a liver function test. Yet the same argument—equally applicable, if not more so—is not made against using as liver function tests the measurement of plasma transaminases or of bromsulphthalein retention. It is not mentioned that the latter test can give rise to allergic reaction, and is not always without danger. Is calcium really absorbed principally in the upper small intestine “where the medium is slightly acid”? This would restrict the area of absorption to a very small part of these intestines. There is, in fact, no reason to believe that alkaline pH prevents the absorption of calcium salts, as long as amino-acids or citrates are present. Amino-acids in particular combine with the sparingly soluble salts of divalent cations to form complexes which are soluble at alkaline pH.

Much of chemical pathology has been incorporated into undergraduate teaching only within the last twenty years. The author is a young chemical pathologist and, unlike most present-day writers of text books on that subject, he himself must have met as a student much of the matter he now teaches. This may in part be responsible for the excellent arrangement and the clarity of the various chapters. They show a real insight into the difficulties the medical student has to overcome and they link up with what he has learned in his pre-clinical days and what he now sees and hears at the bedside. The students of Dr. Baron must indeed be fortunate to be taught chemical pathology in such a way. This book will now enable undergraduates elsewhere to share their advantage.

H. LEHMANN.

## BOOKS RECEIVED

*Inclusion in this column does not preclude review at a later date.*

**GYNAECOLOGY: A HANDBOOK FOR NURSES** by Gladys H. Dodd. Faber & Faber, London. Pp. 178. 18/-.

**INTRODUCTION TO MEDICAL LABORATORY TECHNOLOGY** by F. J. Baker, R. E. Silverton, Eveline D. Luckcock. Butterworth & Co., London. Pp. 408. 35/-.

**AIDS TO MATERIA MEDICA FOR NURSES** by Amy E. A. Squibbs, Baillière, Tindall & Cox, Ltd. Pp. xvi + 246.

**PATIENTS AS PEOPLE** by A. E. Clark-Kennedy, Faber & Faber, London. Pp. 251. 15/-.