

GOLF CLUB

Bart's v. College of Estate Management. 14th February at Chislehurst Golf Club. Lost 1½-2½.

This was our first fixture of 1968. Playing at Chislehurst in cold wintry conditions, we fielded a side that was somewhat depleted. Despite this the matches were very close and the day ended enjoyably at the 19th.

The highlight of the day was without doubt Jake Macinnons hole-in-one at the 203-yard 8th. Unfortunately, the conditions of the day

prevented him from having the great pleasure of seeing the ball drop into the hole.

Results:

A. Hoppe, Won, 1 hole.
J. Macinnon, Lost, 3 and 2.
J. Sadler, Halved.
B. Tingey, Lost, 2 and 1.
A. Edwards, Lost, 2 and 1.

A. D. L. Hoppe

HOCKEY CLUB REPORT

Interest in the Hockey Club fixtures of the months December and January, was naturally focussed upon the team's progress in the two cup series: United Hospital's Cup and the University of London Cup. Successful progress in the latter developed as follows:—

U.L.U. Cup (Quarter Final)

Wednesday, 29th November, 1967. Friendly rehearsal v. Imperial College (away). Won 5—1.

A well co-ordinated Bart's (but not our strongest cup side) dominated 'I.C.' throughout the game, goals coming from S. Thomas, N. Houghton, R. Barclay, G. Benke and P. Curry.

This appeared a promising pointer since it was this team which was to oppose us in the quarter final of the U.L.U. Cup.

Wednesday, 13th December, 1967. Cup match v. Imperial College. Drawn 0—0.

No score even after 15 minutes extra time in failing light on our own ground.

Wednesday, 17th January, 1968. U.L.U. Cup Replay v. 'I.C.' Won 1—0 (away).

The afternoon held the tension of an International match at Twickenham echoed in the determination, secretly simmering in the minds of all players that victory would be theirs: in the presence of the personal support of President and Vice-President of the club and, even in the streamered toilet roll adorning the pitch (however, that was the secretary's personal cultural problem—Salmonella***).

Our deciding goal came from R. Barclay ruthlessly defeating their goalkeeper in a per-

sonal battle for the loose ball in the first half. This lead was not convincingly challenged in the second half. (Semi-final, March—support sincerely appreciated).

United Hospitals Cup (Replay) v. St. Mary's Hospital. 15th December, 1967. (Home). Lost 2—1.

Hopes of a double-cup dashed!

We wouldn't have minded, but if there's one Hospital we begrudge being "lucky", it's . . . Good goal from St. Thomas.

Other Matches:

v. Rochester and Gillingham, 1st December, 1967, at Crystal Palace. Won 2—1.

The style of our play is such that on this occasion the smooth, hard (ill-floodlit) surface favoured our performance. D. Edmondson 1, A. Barclay—short corner rebound 1.

v. National Provincial Bank, 2nd December, 1967. (Home). Won 3—2.

Goals: D. Edmondson 2, Short corner 1.

v. Tulse Hill Wanderers, 16th December, 1967. (Home). Won 2—1.

Goals: D. Edmondson 2, Short corner 1.

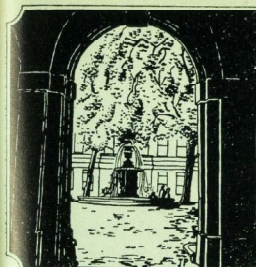
v. Britannic House, 6th January, 1968. Lost 4—3. Xmas rust???

Goals: R. Barclay, P. Curry, Short corner 1.

v. Belvedere H.C., 20th January, 1968. (Home). Lost 2—0.

An excellent game evoking hard play. Welcome victors.

P. V. L. Curry



Saint Bartholomew's Hospital

JOURNAL

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CONTENTS

1st May 1968

Editorial	158
News: Letters to the Editor	159
Announcements	163
Obituary	164
Abernethian Society	166
Great Hall Concert	167
Forum of the Students' Union	168
Hospital Prize Results	168
Charterhouse After Midnight	169
Smoker '68	170
Wetness in Girls by C. N. Hudson and J. E. A. Wickham	171
The Process of Senescence by M. J. Hollingsworth	178
Cost Conscious Therapy: 1. Non Barbiturate Hypnotics by J. R. Griffiths	183
Book Reviews	186
Old Papers by Bart's Men	188
Sports News	192

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REPORT ON THE ROYAL COMMISSION ON MEDICAL EDUCATION

As a basis for its forecasts for the required manpower increase and the pattern of general medical education, this document first sets out a picture of the likely future pattern of medical care in this country.

It points out the need for rearrangement and greater organisation of post-graduate training for all practitioners, whether they work in a hospital or not. This postgraduate training is to be based on an undergraduate education differing from the present one in several ways. The first M.B. course is to be abolished, and the undergraduate course is to be five years long. This is to be the responsibility of the respective universities, and it is recommended that they be allowed the greatest degree of flexibility possible within the limits of the requirements of the G.M.C. The present pre-registration year is to remain much as it is at present, and after that the specialised postgraduate training will begin.

It recommends that if the immediate problem of medical manpower is to be satisfactorily dealt with, the intake of the schools must be doubled by 1990. It lays out plans for how this may be done, firstly by increasing the number of places in the existing schools, and secondly by the creation of new schools.

Much space is devoted to the position of the medical schools in London. It is felt that if they are to continue to maintain their leading role in the field of medical education, changes must be made. It is suggested that it would be economically beneficial and also to the benefit of the students if the number of schools were reduced to six. This could be effected by a series of mergers. The six schools thus formed would each be related to a University Faculty of Medicine. It is also proposed that the undergraduate and postgraduate schools be brought geographically closer to each other as soon as possible.

It makes recommendations concerning the part-time consultants teaching in the London Schools, and discusses the possibility of facilities for private consultations within the hospitals.

Apart from considerations at home, the position of medical education for underdeveloped countries. Recommendations are made concerning the number of places available for students from these countries in British Medical Schools, and also the seconding of medical staff for teaching purposes to such countries as desire aid.

There has not been space here to even mention many of the recommendations made in the report, for example, *how* the undergraduate course is to be altered, and the organisation of hospital groups. It is a document of extreme interest to the whole medical profession.

Which of the recommendations will be implemented, when they will be implemented, by whom they will be implemented, and by whom they will be paid for is a matter for speculation.

* * *

Our discerning readers will have noticed that the Clinical Supplement did not appear in April. For various reasons it has been decided to discontinue it. In future any articles which in the past have been submitted for it and accepted will be published in the JOURNAL itself. Other matter which appeared in the Supplement, for example, the records of Old Papers by Bart's Men will be published in the JOURNAL at regular intervals.

NEWS

Letters to the Editor

Music and Medicine

Sir,—That my article "Music and Medicine" should have evoked such lively and lengthy response from Mr. Richard Thompson is praise indeed. I shall be grateful, however, if you will allow me, *inter alia*, to protest my innocence of his charge of "attempting the impossible task of rationalising subjective response."

Firstly, impossible or not, this is the goal, surely, of the twin sciences of psychology and psychiatry? Nothing in my article even suggested that I would wish or dare to trespass upon ground already so widely and ably covered. Secondly, Mr. Thompson would on reflection, I am sure, agree that the very term *impossible* (within of course our frame of reference: the search for truth) is semantically expressive of a contention that is at once for ever relative and strictly subjective. For example, people working, studying, or being treated at Barts in 1968 are witnessing at every turn and throughout the day the present acceptance of what was deemed to be impossible only a century ago. In fact our whole modern world is built on our achievement of the erstwhile "impossible". Thirdly, the *subjective* including subjective response, is either nothing at all or it is something: in short, *mind*, in any extra-cerebral sense, is either a myth or a functioning reality. If we admit that mind exists, and that it works, we may properly ask *what* it is and *how* it works. History in the sense of human experience predicts that we shall sooner or later find the answers. This I carefully refrained from attempting, but having posed the possibility left the quest to the experts.

Mr. Thompson's concession that I supplied an element of "scientific enquiry by peri-medical references" somewhat shook my

septuagenarian susceptibilities! Writing as a mere musician, *of course* my medical references were on the edge of things. Nevertheless, science being a catholic possession, one might have gone deeper into certain facts had one been writing a book and not a mere essay. In this same section Mr. Thompson levels some rather unkind criticism at the cartoonist, which I feel was undeserved. To lampoon in a mainly serious journal must be an exacting job, and I for one found the "Colonel Bogey" motif aptly absurd. Not less funny I feel was Mr. Thompson's unfortunate choice of epithets (*supercilious* etc.), especially in the context of the containing paragraph.

I now plead guilty to constructing my "theorising on time honoured lines". A theory is surely nothing more nor less than a policy of action based on such facts as are *so far established*, and one which will give place to a new theory as further facts are discovered? If in this process the established fact leads to a logical conclusion whether "gently" as Mr. Thompson has it, or forcefully is surely immaterial? How, too, can it be said of what is based on established fact that it "is difficult to refute where the topic is an imponderable?"

I am interested alike in both Ernest Ansermet and the differences between atonality and tonality. I am, however, perplexed by the fact that by far the greater part of what began as a (very welcome) criticism of what I had written was devoted to subjects specifically musical and aesthetic interest upon which I had not even embarked, and which, on his own admission, Mr. Thompson himself only partially understood.

Yours faithfully,

LEO TEMPLE.

IN GRATITUDE

Sir,—You may like to know that when in Stanmore Ward with a left side "bit of business". April-May, 1957. I gave myself mental memory exercises at all times, during my term of Physiotherapy treatment for walking, etc., in the ward (slippery floor, I recall).

I would recite everything I knew, the bawdy and the banal, from "The Revenge" to "The Pigtail of Li Fang Fu". Then I got to changing things about, and without rhyme, reason or scan, came up with this, in gratitude to Miss Gray, now Mrs. Gordon Hodgson, who I think, was primarily responsible for my being able to walk, and to get up and down steps to many more F.A. Cup Finals than I ever hoped to

see. As well as making life worth living in other respects. Now I add to my pension through my memory, nourished at Barts.

(In Gratitude; or The Bully)
(With thanks to the inspiration of Miss Gray of Physiotherapy in 1957, and to Thomas Gray, of the Elegy)

City bells proclaim a dawning day,
And soon, inevitably, will come Miss Gray;
Prompt, each day, to have her say,
And bully me to walk okay.

G.C.M.,
Bed 14, Stanmore,
May, 1957.

12th March.

TABLE MANNERS

Sir,—At lunch today, in a cheap but respectable establishment in Long Lane, Smithfield, my companion and I were subjected to a prolonged discussion—nay, a dissertation—on obstetrics and other matters medical and ethical, but definitely not conducive to a contented intake of vitamins.

Three young men entered and sat down. Immediately, the atmosphere took on an odour of the Delivery Ward as these three budding medicoes discussed the finer points of child-birth, aided by forceps and other medical contrivances, and utilising something called (if my memory serves me rightly) linear thrust, or some such. The application of forceps to the baby's head; the skill of the manipulator; the passage of the child into this world . . . and this crossed and re-crossed the table, becoming inextricably entangled with egg-sausages-chips-and-b-e-a-n-s-and-a-glass-of-water-and-biscuits-and-cheese. I did not notice whether the maiden lady (a regular habitue) was eating the same—but I'd wager a razor-blade to a sanitary towel that she, too, found the food tasting rather oddly with these unfamiliar condiments!

The topic veered round from gynaecological outcomes to abortion; to the new litigation covering the same; to the possibilities of setting up in business, aborting on a commercial scale; to the likelihood of charges rising or falling in consequence of the new law; and to the attitude of these "men of the world" to the legalised

termination of pregnancies. This latter was masterfully covered by one young man who made it known to all and sundry—and I'm not kidding: a man across the gangway frequently caught my eye with a resignedly amused expression—that *all* women, of whatever status, should be entitled to abort if they so wished.

From this diatribe we were led (by natural progression, I suppose) to a discussion on contraceptives. Fortunately, the maiden lady had by then left the table (I had not noticed this, being too embarrassed to look in her direction), so she did not hear the self-opinionated one airing his knowledge on The Pill which, apparently, his father issues to all females of sufficient years to be adjudged entitled to ask for it. In fact, he said, his father recommends it as being the safest contraceptive method.

At this point, my companion and I departed, having finished our meal with singularly little enjoyment. The three stooges were still there, pontificating on matters which—I think you will agree—are not only out of their depth at this stage in their careers, but—let's face it—at the meal-table are in DAMNED BAD TASTE.

Verb. sap? . . . Well, perhaps a few well-chosen verbs to the saplings, unless perchance you disagree with me.

Yours faithfully,

ANON.

To many friends, including some from Bart's . . .
Familiarly known as "The Gamage Arms"

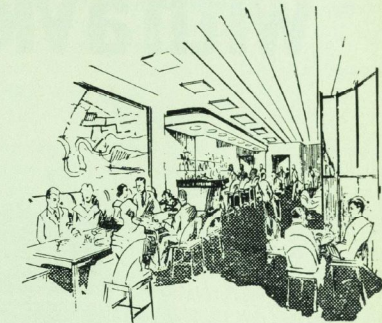
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OBITUARY

**Professor
Geoffrey Hadfield**
M.D., F.R.C.P., F.R.C.S.



Geoffrey Hadfield, an old Bart's man, and a previous Professor of Pathology at the Hospital for thirteen years, died on January 9th, 1968, at the age of 78.

He was born in Manchester but early in his childhood his parents moved to Plymouth, and he grew up in the West Country, becoming very attached to it. Long after his professional work took him away from that area he returned to the North Cornish coast regularly for family holidays, not only in the summer, and he retained many nostalgic memories of days there preceding the mass invasion.

He took his first M.B. from the Plymouth Technical College and entered Barts in 1905, qualifying in 1911. After house appointments at the Metropolitan Hospital and at Barts to Sir Wilmot Herringham, he proceeded to the M.D.(Lond.) in Medicine in 1913, obtaining the University Gold Medal at the early age of 24. He then became Medical Registrar and Assistant Pathologist at the Dreadnought Hospital, Greenwich. So commenced what was to be a unique career in the practice and teaching of Pathology, combined with research, which extended over 50 years and included in succession four Chairs in this specialty—at the London School of Medicine for Women, Royal Free Hospital (1928-33), at the University of Bristol (1933-34); at St. Bartholomew's Hospital Medical College (1935-48) and at the Royal College of Surgeons of England where he was Sir William Collins Professor of Pathology (1948-54) and Dean of the Institute of Basic Medical Sciences. His last official appointment was in 1954 as Director of Clinico-pathological Research at the Imperial Cancer Research Fund, and although resigning from there in 1959 he continued his research in the department of

physiology at the Royal College of Surgeons, particularly on the pathology of wound repair—a subject on the basic features of which he contributed much, finally retiring, due to declining health, in 1966.

During the first World War he served with the R.A.M.C. as a Specialist in Pathology in France, Gallipoli and Mesopotamia and from 1935-54 was Consulting Pathologist to the Army.

This brief resumé is sufficient to recall his outstanding career in Pathology and there is no doubt that in all his appointments he left an indelible mark of his personality on the morale of his staff and the build up and efficiency of his Department. As a colleague and contemporary has truly said "Hadfield never moved to another Chair without there being a general feeling of loss and regret in the one he was vacating". Many at Barts will vouch for this, when he left for the Royal College of Surgeons after thirteen years as Professor and Pathologist to the Hospital.

He was undoubtedly the architect and father of the modern systematic teaching curriculum in Pathology at Barts and the broad-sheets, prepared with much care, which he issued to students were models of clarity and conciseness. Not a few students carefully retained them long after qualification. Whilst with us he created the sub-department of Morbid Anatomy and Histology and its present day status is largely due to his early guidance. Morbid anatomists of the calibre of the late Professor Magnus, Professor Cunningham, Robb-Smith of Oxford, and Stansfeld today, all received their early training under him and were his proteges.

Hadfield's first senior post, when he decided to specialise in Pathology and before he became of professorial status, was Clinical Pathologist

to the Bristol General Hospital (1920-28). This was an appointment which influenced him significantly, since although he subsequently became a very eminent morbid anatomist and held four Chairs in this field, he always retained an interest in the clinical aspect. This is reflected in his being a founder member of the Association of Clinical Pathologists and its President in 1930-31. His approach to pathology was essentially that of a teacher who comprehended not merely the morbid histology and disturbed chemistry, but also the clinical outworkings of the pathological process. Few clinicians can have attended an autopsy conducted by him without obtaining a deeper insight into the origin and mode of production of the clinical findings—and, if they needed it, of the importance of pathology. When exposing and demonstrating mistakes in diagnosis in the postmortem room he never seemed to forget the difficulties under which the clinicians had been labouring. Not for him the god-like pronouncement of hind-sight. This attitude ensured to the full mutual confidence and collaboration between clinician and pathologist, to the benefit of all. For Hadfield, pathology was not confined to the study of morbid processes for their own sake but was the key to a further understanding of disease as a whole. His lectures in pathology in their breadth of outlook could well have been included almost unmodified in a course of instruction in clinical medicine.

His research projects comprised such widely separated subjects as the pathology of tumour formation, the histology of cardiac infections, and the pathology of cardiac infarction, the pathological findings in the brain in encephalitis lethargica, and the mechanism of wound repair. In conjunction with Professor L. P. Garrod he originated "Recent Advances in Pathology" which, under their co-authorship, ran into five editions.

Geoffrey Hadfield was dedicated to his work both as an absorbing interest and as a hobby. Of a retiring and modest nature he was not by first impressions easy to know, but when friendship was established his innate kindness was revealed and many a young pathologist

has benefitted from advice regarding his career, from encouragement in a research problem, and from the knowledge that he could discuss with his chief any professional matter with full understanding. Readily approachable with a query, he donated far more than a simple answer. His teaching, both lucid and enthusiastic, and ideal from the student's point of view, was enhanced by his skill as a draughtsman to emphasise salient features by a drawing or apt diagram. Possessed of a very retentive pictorial memory—invaluable in histology, his opinion on a difficult section was sought after as the ultimate court of appeal from many parts of this country, and indeed of the world. To have this—so willingly given—was final.

In his Department he was a good administrator and highly exacting in his standards. A bad or an inaccurate report was dismissed as being "not worth the paper it is written on", but his example, kindness and tact ensured the co-operation, loyalty and efficiency of medical and non-medical staff. His quiet force of character and choice of optimum timing usually procured what he wanted for his Department even in the face of apparent great difficulties. Those who were in touch with him during the last war will retain a vivid recollection of his power of improvisation, by which he continued to run a comprehensive pathological service as well as lectures and practical instruction for our students in the inadequate and primitive accommodation provided in a Sector non-teaching hospital.

As an ex-player, Hadfield was interested in the Hospital Rugby and whilst President of the Club for a number of years his talks on strategy to the first fifteen before important matches were a feature.

Those of us who were privileged to work with or under him will have a lasting memory of a great pathologist, a talented teacher, and a wise and true friend.

Throughout his career he was ably supported by his wife, who survives him. Their two sons and a daughter are all Fellows of the English Royal College of Surgeons. They have our sincere sympathy in their loss.

H.F.B.

The long appreciation of the late Professor Verney was interesting and well deserved but one point should be added: He was, for many years, a Fellow of Downing College to which he was greatly attached.

ABERNETHIAN SOCIETY

Mr. William Rees Mogg

"The Problems of the Modern Press"

In its role as the Philosophical Society of St. Bartholomew's Hospital, the Society invited the new Editor of *The Times* newspaper, to speak before it, and was honoured by his acceptance.

He chose as his subject "The Problems of the Modern Press"—commercial and economical rather than journalistic and proceeded to enlighten us on the sad plight of the newspaper industry.

Altogether British newspapers make a net loss. This bald statement set the tone for the rest of the speech. Mr. Mogg first considered each newspaper in turn, in ascending order of sales. The *Morning Star*—the smallest circulation makes a loss, and tries to balance this with heartrending appeals for cash—and perhaps in other ways . . . The next newspaper is the *Financial Times*, a profitable concern because of its monopoly of financial coverage. Then comes the *Guardian*, whose losses have been much talked of recently. These losses are balanced by the profit made on the *Manchester Evening News*, owned by the same Trust. Then *The Times*, which has nigh doubled its circulation since the recent takeover (to 400,000), now has its large losses balanced by the profits from the highly profitable *Sunday Times*. The *Daily Sketch* loses and has no organ to balance it. It is run on maximum economy lines even so. The *Daily Telegraph*, the only remaining family-owned daily, with a circulation of one and a half million, is very profitable indeed. These profits cover the losses of that ailing infant, the *Sunday Telegraph*, a brave, but as yet unsuccessful (financially!) venture.

The *Sun* was the bankrupt *Daily Herald*. It is a bad sign when newspapers change names, and they invariably do worse when they do so. The *Sun* is no exception. It appeals to the poorer income groups. These groups do not attract expensive and expansive advertising, as would a small, but high-income readership paper like the *Financial Times*. Thus the *Sun* does very badly for advertising revenue in contrast to the latter newspaper. The *Daily Mail*, with a circulation of two millions, loses money and nobody knows why. It is interesting to note that it belongs to the same company as the *Sketch*, underwritten by Lord Rothermere. It has a large, widespread circulation—so why? Perhaps because it falls between two stools trying to be now a quality paper and

then a popular one. The *Express* and the *Mirror*, with enormous circulations, attract much advertising and are both most profitable.

What would happen if market forces were applied to the daily press? Certainly there would be a reduction in numbers of newspapers. The *Mail* would be sold to the *Express*. The *Sketch* would close, and its circulation transfer to the *Mirror*, into which would be merged the *Sun*. It is also likely that the *Times*, *Telegraph* and *Guardian* would merge. Certainly the *Guardian* would have to cease dual publication.

This would certainly all come about without the altruistic unselfishness of the owners, who, instead of reaping profits, use these latter to balance the losses of unprofitable but vital papers. This system of pairing is the only thing keeping the British Press on its feet and preserving our relatively large freedom of choice.

In the United States, and here in the Provinces, the market forces have already closed all unprofitable papers. Glasgow is the only Provincial town with more than one daily paper. There are two, both of which lose heavily. How large a freedom of choice can we have, and how do we procure it? The cross subsidy method seems the only way.

In recent years there has been a tremendous loss of advertising revenue to Television, on which most firms now spend the bulk of their advertising appropriation. This has hit especially the popular papers aimed at the poorer classes. The quality newspapers advertised and continue to advertise more expensive and higher quality goods not suitable for T.V. advertisement.

In the 1840's the *Times* cost 7d. In today's currency this would be 6s. Thus it can be seen that the cost of quality newspapers has not risen but has gone down many times. This is explained by the dependence of newspapers on advertising revenue. It is a point worth noting that in general recession, there is continuity of sales of papers, but not of advertising which is drastically cut back. At this time, papers reaping substantial profit from sales—*Mirror*, *Express*, are at an advantage.

Great power for political ends is conferred by vast readership—if mergers occurred, twelve million would read the *Daily Mirror*. Thus a reduction in the numbers of newspapers, is certainly a threat to the freedom of the press.

On this sombre note, Mr. Mogg concluded what had been, in spite of its content, a most entertaining and instructive speech.

Dr. Lawther proposed a vote of thanks.

J. S. Davies.

THE GREAT HALL CONCERT

Following the success of a somewhat experimental chamber concert in the Great Hall six months ago, the Music Society continued its venture with a second similar concert on 12th March. The music ranged from madrigals composed around 1600 to a full-blooded 20th Century trio sonata, and in this respect the programme was more ambitious and varied than its predecessor, which tended to concentrate more on stock 18th Century repertoire.

In the recent past Barts has been lucky in having the Rahere Ensemble to provide a firm base for any programme of chamber music; indeed, there have even been exclusive "Rahere" recitals. But with the disbanding of this group and loss of its members, the Music Society has had to search among its ranks for other soloists and sift them into new groups.

The evening began with Mozart's Divertimento No. 8 in F, played by Heather Andrews (flute), Elizabeth Rogerson (clarinet), Roger Downes (oboe), Jeremy Rowe (horn), and Hugh Whitfield (bassoon). This lively work was confidently played, although it was noticeable that the group had not been playing together for long. There was some lack of co-ordination in parts of the music, especially in the slow movement, where accurate timing is more difficult and individual discrepancies more noticeable. The work was originally scored for two oboes, two horns, and two bassoons, and the lack of a second bass instrument was felt, especially in louder passages, where Hugh Whitfield had some difficulty in making himself heard. But these are minor points; given time the players show promise as a quintet when they have got more used to one another's playing.

The Cantata Singers are now well established in Barts. Under John Allen, they sang two madrigals by the 16th/17th Century English composer John Bennett. Originally a small group, they have now swollen to a healthy size; but have they become *too* large for madrigal singing? I felt that both madrigals were rather heavy handed and syrup-like. What the larger numbers gained in confident entries

they lost in crispness, a quality so vital to small scale part singing. This was particularly noticeable in the rising entries of "Weep O Mine Eyes". However, with the exception of some weakness in the basses, the tone was good, and it was a refreshing change to actually hear the alto part!

A popular diversion was the solo bassoon performance of Bach's Suite No. 1 in G major, originally written for the cello. To maintain, as Hugh Whitfield did, an almost note-perfect recital of a Bach suite is an achievement in itself, but add to that his lively sparkle and we have a really first-class performance. It was followed by a trio sonata of Gordon Jacob, the "modern" spot of the evening. As a work this sonata contains more virtuoso playing than good music to my way of thinking, and it is not surprising that even such musicians as David Baker (flute), Martin Gillett (violin), and John West (harpsichord) found some difficulty in keeping strictly together.

After the wine interval John West began the second half with a brilliant rendering of "Lambert's Clavichord" by Herbert Howells. Wine may warm the heart, but it is not the only reason why this was the longest-applauded performance of the evening. Although "obviously modern" (I am told), these short pieces have a joyous, almost Elizabethan quality.

"God's Time is Best". The great Bach himself provided us with music for the evening's climax—a cantata to incorporate most of the performers in a triumphant finale conducted by John Allen. This work was much more suited to the Cantata Singers than their earlier madrigals, and it also brought to the fore the only non-Barts performers in the form of our two soloists, Martin Lane (alto) and Richard Frewer (bass). Both amply proved to us that there are occasions when it is necessary to look for talent beyond the Hospital walls.

With two notable successes to their credit, the Music Society has, I hope, created a tradition of regular chamber concerts in the Great Hall.

MARTIN KNOTT

FORUM OF THE STUDENTS UNION

Efficient and good-natured porters who are able to cope both with the intimidating demands of the average boisterous student and with the intricacies of the locker room and laundry are as rare as a fine day and are remembered as vividly. To place Fred the Hospital Student Cloakroom attendant, who died last year, in his fitting place among the historical figures of the hospital, an oil painting has been commissioned. The artist, one Ernie by name, an Irish folk-singer well known to those seeking musical entertainment in the pubs of north London, has already completed the portrait in water-colours and is now reworking it in oils for posterity. The picture, which contains more than a simple portrait, should prove controversial. It will shortly be unveiled for inspection in the Hospital Abernethian Room.

HOSPITAL PRIZE RESULTS

Brackenbury Scholarship in Medicine awarded to J. Gawler.

Brackenbury Scholarship in Surgery awarded to J. Gawler.

Burrows Prize awarded to J. A. Russell.

Harvey Prize awarded to S. C. Davison.

Kirkes Scholarship and Gold Medal awarded to P. A. Jackson.

Matthews Duncan Medal and Prize. Prize awarded to R. S. Baumber. (Medal not awarded).

Our attention has been drawn to a misprint in the March edition of this journal. It should be made clear that the Union subscription forms but a part of the *Journal's* finances. It is largely self-supporting from advertising, annual and life subscriptions and from such enterprises as the sale of Christmas cards and sale of the *Journal* to hospital visitors, nurses and friends, and also receives generous specific grants from the Governors and the Medical College. The Financial Secretary of the Students' Union sits on the Publications Committee merely as an observer, thus maintaining the editorial independence of the *Journal*.

Reminder: Label or remove your possessions in the Locker Room at College Hall (and *only* your own possessions please). The remainder will be auctioned in the Summer Term.

Elisabeth Macdonald

Prize in Ophthalmology awarded to R. A. F. Whitelocke.

Roxburgh Prize awarded to G. D. Bell.

Skyner Prize awarded to J. A. Russell.

Sydney Scott Prize awarded to D. R. A. Finch.

Walsham Prize awarded to J. Gawler.

Weitzman Prize awarded to J. Gawler.

Willlett Medal awarded to Miss J. Bowen.

Charterhouse after midnight

POTTING . . .

Most people are unaware of the joys of house plants. These are plants that penetrate into the midst of your life. You cannot shut them out as you can that miserable selection that surrounds the swimming pool in your garden. The mood of the plant affects the whole home. A wilting one depresses the most exciting bedroom. A house plant is thus a challenge. It must be kept young and supple.

You can buy fly-eating ones. To feed these requires several hours on a Saturday afternoon against the window pane trying to slaughter gullible insects, only to discover that your pet prefers live ones.

You can get plants with serrated leaves and wily roots; these are supplied without the serrations, which only develop if you can keep the thing alive long enough.

Rubber plants are excellent company, particularly the large ones; the only thing is that they must never get cold. The result is one lives in a sub-tropical climate for most of the year. One day there is an electrical cut, the central heating fails, the plant dies, no rubber.

Then there are the hardy endemic British varieties. The only snag is that they will not

die. They will survive even the most severe drought. They will even colonise your compost heap when thrown with disgust out of the back door.

Re-potting is fun. One bright day when you are lazing with the newspaper a friend will call, look wistfully at your plant, and explain that she thinks it is too big for its pot. You will look up, naturally surprised. The thing looks healthy enough. Still, you'd better not risk it. An hour at the local supermarket produces a new pot, which turns out to be slightly smaller than the original one. A second attempt, and then you consider the main problem: how to get the plant out of its old pot without putting soil all over the carpet. This is especially good fun with the larger species. Next clean the carpet, and fill the bottom of the new pot with stones to supply good drainage. Naturally you have forgotten that the new receptacle will require additional compost to fill it, so another journey to the supermarket is required. Finally you settle back to admire your work, wondering if the whole thing is squint.

The next few weeks are tense. Will the beast survive the change? With any luck it won't.

Andrew Fletcher



Smoker '68



Gavin Haig with Kate Walker

Smoker '68, entitled 'Two nights in the Gazebo', was a great credit to its producer Peter Hill. The performance began with a 'Way In' sketch involving the whole cast, then diversified to exploit the talents of each person.

Gavin Haig achieved a brilliant exposé of international approach to table tennis. Kate Walker, that 'evil London girl', sang song after song in her melodious moody voice to the growing delight of an increasingly intoxicated audience, who never failed to chant her name during the intervals.

Other faces included Grant Radcliffe heavily disguised as a turkey; Chris Jarvis posing as John Bird; Roger Rolls and Brian Briggs, inviting memories of Ken Dodd, competing bravely in a smell contest; Richard Staughton ranging from west country accent to Afrikaan, under the guise of Barnard; George Dunn from King's Cross to York via Crewe; Dr. Andan reading poetry; and the van Zwanenberg twins colourful as ever. Mike Barham, Paul Fairclough, and Rod Barclay supplied the sound.

Note must be made of a film featuring Peter Hill and an Anglepoise lamp, directed by Roger Rolls, made on location at the Commonwealth Institute. The evening was hilarious, after all, the punch was made by Clive Grafton.

Andrew Fletcher

WETNESS IN GIRLS

C. N. Hudson, M.Chir., F.R.C.S., M.R.C.O.G.

J. E. A. Wickham, M.S., B.Sc., F.R.C.S.

Of the many faculties possessed by the adult human, that of urinary continence is probably not fully appreciated until it is deficient. Incontinence is accepted in the very young, and may have to be tolerated in the very old. Stress incontinence can be a very distressing complaint in adult females, and, in some parts of the world women who have suffered obstetrical injuries resulting in vesico-vaginal fistulae may become social outcasts.

In this country a similar fate may on occasion overtake a minority of unfortunate, incontinent young women whose underwear

may be permanently soiled and whose uriferous odour will often provoke jibes from school mates and the distaste of older colleagues. In earlier childhood considerable castigation and parental disapproval may be inflicted on the sufferer.

We report the cases of four young female patients whose history conformed to this pattern and in whom the presence of an ectopic ureter was finally diagnosed as the cause of their disability. The saga of emotional distress and the elusive nature of the diagnosis will, we hope, prove instructive.

Case No. 1: C.O'B., aged 15

This schoolgirl was referred with a complaint of incontinence which was worse by day. This was not mere dampness and it seemed that she frequently became very wet without

realising that she had passed urine. She did, however, have normal bladder sensation and thought she emptied her bladder fully on passing urine.

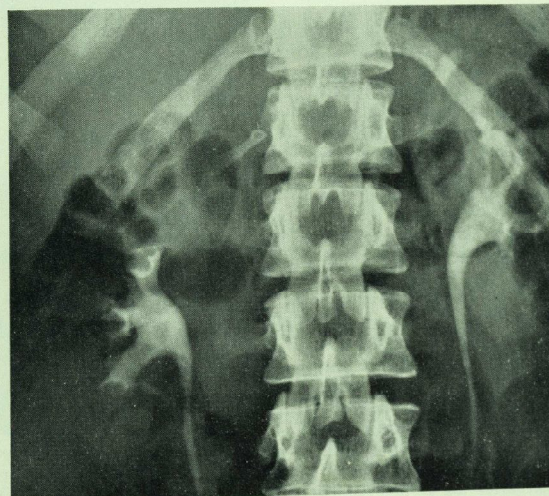


Fig. 1. I.V.P. showing duplex on the left: junction of ureters not seen.

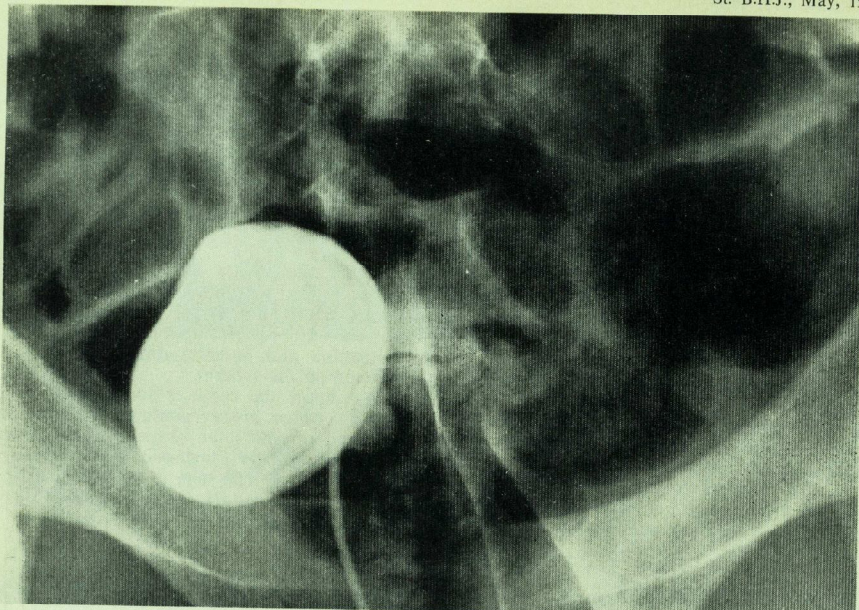


Fig. 2. Right ascending ureterogram, the right catheter has coiled up in the dilated ectopic ureter.

Physical examination revealed no abnormality. An intravenous pyelogram was performed and showed a left duplex kidney but the termination of the ureter from the upper portion of this kidney could not be identified (Fig. 1). The calyceal pattern on the right resembled the lower pole pattern on the left.

On 22.8.60 Mr. Birnstingl performed cystoscopy and E.U.A. The bladder was normal with two ureteric orifices. Exploration of the external urinary meatus revealed a small aperture at 5 o'clock into which an ureteric catheter could be passed. An ascending ureterogram was performed (Fig. 2). In view of this finding, on 24.8.60 Mr. Birnstingl performed a left partial nephrectomy and ureterectomy.

Unfortunately the girl was still wet after this operation and, on 7.9.60, further E.U.A. was performed by Mr. Badenoch. A second aperture was found in the external urinary meatus and a further ascending ureterogram was performed on the right side (Fig. 3). On 12.9.60 partial nephrectomy and ureterectomy was undertaken by Mr. Badenoch. Thereafter the child became dry and continent.



Fig. 3. The right ascending ureterogram, some dye has flowed back from the ureter, the rest is filling a dilated ectopic ureter. This film has been printed back to front.

Case No. 2: C.M., aged 8

This child was first seen in September 1962 as a surgical emergency with abdominal pain when no firm diagnosis was made and she was referred to the paediatric department. She complained of recurrent attacks of abdominal and back pain and sometimes vomiting.

Her mother stated that she had temper tantrums and was teased at school because she smelt. She also said that the little girl had damp underclothes by day but did not wet the bed at night. Her dampness improved when she was made to pass urine every hour.

An intravenous pyelogram was performed and this demonstrated that the right kidney was duplex with a double ureter whose termination could not be seen (Fig. 4). On 17.4.63 E.U.A. was performed by Mr. Badenoch. During this an efflux was noted from the vulva while cystoscopy showed two normal ureteric orifices.

On 17.6.63 Mr. Badenoch explored the right kidney and ureters. Two right ureters were identified and opened. Ureteric catheters were passed downwards and the ectopic of the two ureters was found to open into the urethra distal to the internal meatus. The ectopic upper polar ureter was then anastomosed to the bladder (Uretero-neo-cystostomy). After operation the patient was continent.

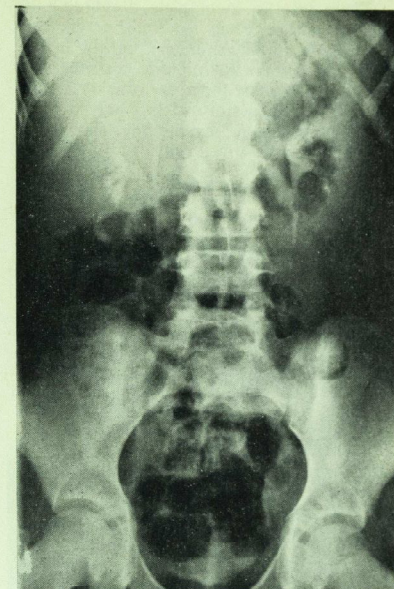


Fig. 4. I.V.P. shewing duplex on the right. The lower pole demonstrates the drooping flower appearance.

Case No. 3: S.C., aged 21

For many years this girl was troubled by slight incontinence, chiefly by day. This was enough to cause her to change her underwear if she did not wear a pad. By night she used to wake up damp but did not actually wet the bed. She used to micturate frequently in an attempt to keep dry and she had normal bladder sensation.

Her mother stated that this trouble dated back to her early childhood and at the age of 13 she developed anorexia nervosa probably in an attempt to reduce her fluid intake. She was in and out of a psychiatric hospital for a year and had been investigated by a urologist and told that nothing could be done for her.

When she was examined in the out-patients' department, a bead of urine was seen to appear at the hymen after careful inspection for several minutes.

Intravenous pyelogram on 3.5.65 showed a normal left kidney but no evidence of a kidney on the right side (Fig. 7). On 3.5.65 E.U.A. was performed by Mr. Hudson and Mr. Wick-

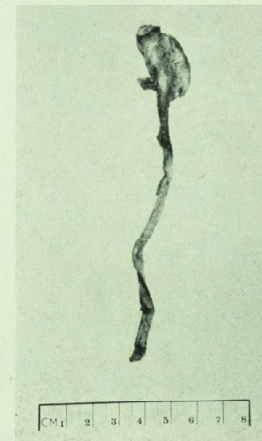


Fig. 5. Operation specimen, case 3, showing full length ureter which opens into the vagina.

ham. There was an incomplete diaphragm in the vagina. Above it was a normal cervix and what appeared to be an ureteric orifice in the right vaginal fornix. An ureteric catheter was passed into the orifice for a distance of 2 cms. and ureterography performed but only a poor picture was obtained. Cystoscopy showed a normal left ureteric orifice only (Fig. 6).

In spite of the lack of X-ray evidence of a second kidney or ureter, it was felt that the clinical evidence was sufficiently strong to war-

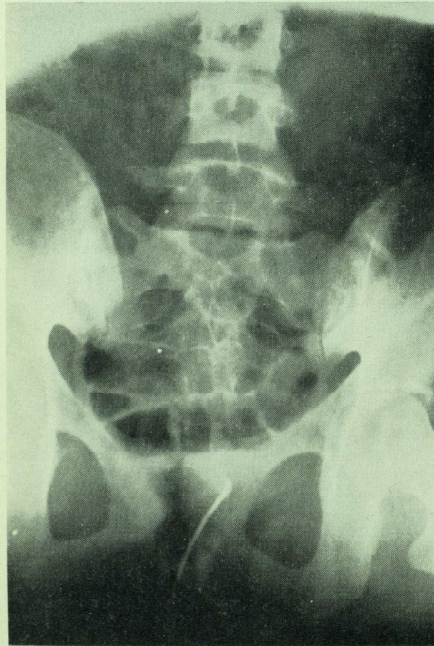


Fig. 6. Unsuccessful vagina ureterogram.

rant laparotomy, the presumptive diagnosis being that of a small right sided pelvic kidney.

On 10.5.65 operation was performed by Mr. Badenoch. Surprisingly, a small kidney was found in the normal position on the posterior abdominal wall. The ureter was traced to the vagina and was divided before it crossed the uterine artery. Both kidney and ureter were removed (Fig. 5). Thereafter this girl became continent.

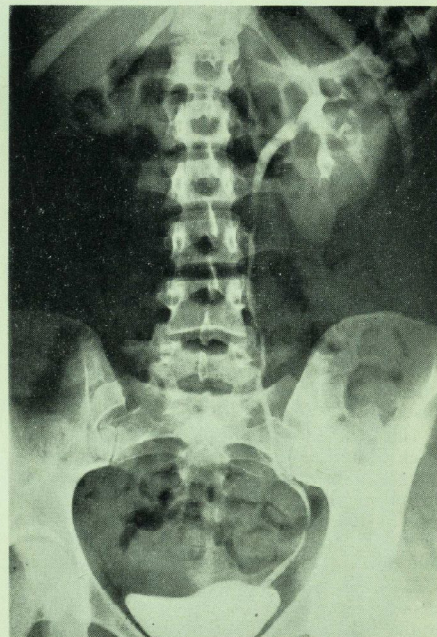


Fig. 7. I.V.P. showing single, large kidney with normal ureter. There is no renal shadow on the right

Case No. 4: A.R., aged 13

This girl presented with vaginal discharge. Four months previously she had attended elsewhere with severe dysmenorrhoea since the menarche two months earlier. She was, at that time, found to have a double vagina, one side being an haematocolpos. The right hymen was excised and it was the persisting damp discharge from this side which brought her to London.

On 28.8.63 Mr. Howkins performed an E.U.A. and bilateral hystero-graphy. This confirmed uterus didelphys with double vagina.

Intravenous pyelogram showed a rotated left kidney and no evidence of a right kidney (Fig. 1).

On 4.12.63 cystoscopy was performed by Mr. Williams. This revealed a normal bladder with single ureteric orifice on the left. There was inflammation in the vagina which appeared to be the source of discharge. She was re-admitted and on 24.4.64 excision of septum between the two vaginae was performed by Mr. Howkins.

The post-operative course was marked by low grade fever and abdominal pain. She was again admitted with continued pain and fever and on 17.7.64 exploratory laparotomy and appendicectomy by Mr. Howkins and Mr. Williams was performed. The appendix was normal and the genital tract was as demonstrated by x-ray. No right kidney could be identified.

She continued to complain of discharge and was re-admitted in November 1964. In the ward vaginal tamponade was carried out and intravenous indigo carmine was injected. The tampon was not discoloured.

On 11.11.64 cystoscopy was performed by Mr. Hudson and Mr. Wickham and the findings were as before. Further E.U.A. and bilateral dilatation and curettage was performed by Mr. Howkins on 13.11.64.

The Gynaecological Travellers Club saw this patient and Mr. Dewhurst suggested repeating the dye test without packing the vagina, just using a vulval pad, the pad to be inspected before voluntary micturition. On two occasions this test was positive, and it was regarded as suggestive of the presence of a urethral ectopic ureter.

On 23.11.64 cystoscopy and urethroscopy was performed by Mr. Badenoch. No abnormal aperture could be found.

Very despondent, the girl was discharged still soiling her underwear. The only abnormality had been a small diverticulum of the bladder neck which filled during micturition and which had been noted on the cystogram (Fig. 9).

She was readmitted in July 1965, in the hope that this diverticulum might be found to represent the right renal tract.

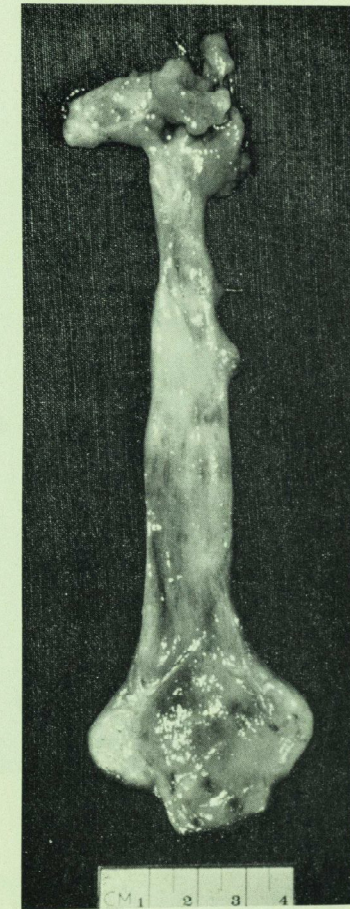


Fig. 8. Operation specimen ureter containing pus.

On 5.7.65 urethroscopy was performed by Mr. Wickham but no orifice could be identified. On 12.7.65 repeat cystoscopy was performed by Mr. Badenoch. The findings were the same. Just at the end of the procedure, the Junior Registrar, Mr. Lumley, pointed to a small fold at the lower end of the right half of the conjoined vagina. A catheter was passed into this and a retrograde ureterogram performed, (Fig. 10), showing the presence of an ectopic right upper urinary tract.

On 19.7.65 right nephro-ureterectomy (Fig. 8) was performed by Mr. Badenoch. The ureter

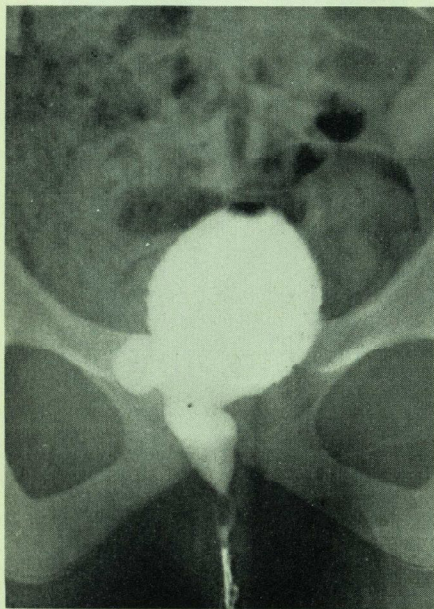


Fig. 9. Micturating cystogram, shewing curious diverticulum of upper ureter.



Fig. 10. Retrograde vaginal ureterogram. The kidney is crossing from the right side of the pelvis to the lower pole of the kidney mass.

which was filled with pus was traced with difficulty from the lower vagina across the aorta and vena cava to a crossed ectopic kidney adherent to the lower pole of the left kidney. The right uterine and left ovarian vessels were both divided in the course of this operation without affecting the viability of their respective organs.

This girl had been considered to be an example of Milne's syndrome (unilateral haematocolpos in a double vagina associated with an absent kidney) but this was obviously incorrect.

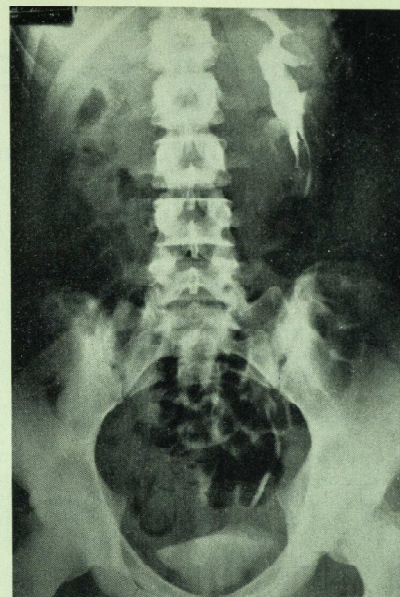


Fig. 11. I.V.P. shewing single kidney with centrally placed ureter. This degree of malrotation should have suggested a crossed renal ectopia.

Discussion

These four girls all suffered varying degrees of emotional disturbance from their complaint and were quite unfairly labelled neurotic. In two of them the intravenous pyelogram showed only a single kidney and no help in identifying a second kidney was obtained from the x-ray studies. The dye tests were misleading or unrewarding, probably because the small pyelonephritic renal segment failed to concentrate the dye. In one patient in whom there was a crossed renal ectopia, the diagnosis was missed at exploratory laparotomy. The final diagnosis in both these patients was achieved by careful clinical examination. When an ectopic ureter is suspected there is no substitute for prolonged observation and repeated examination using a

probe to explore every nook and cranny. Even then, an ectopic ureter opening into the urethra may almost be impossible to detect, particularly if it is higher than the external urinary meatus.

The intravenous pyelogram may be helpful when an abnormal upper pole ureter is suspected even though no concentration of dye occurs. Factors which suggest a non-functioning upper pole are said to be a "Drooping Flower" appearance, a discrepancy in the number of calyces, tilting of the ureter away from the vertical and an abnormal upper calyx. Unfortunately, none of these signs can be relied upon to be present.

The gratitude and change of mental attitude in all these young women was remarkable.

Acknowledgement

We are grateful to Mr. Alec Badenoch for permission to report these cases.

THE PROCESS OF SENESCENCE

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1. Introduction

Because ageing implies no more than the existence of time related changes, I prefer to use the word *senescence* when describing my research. Human beings senesce, and so will mice and flies if they live long enough. By senescence, gerontologists mean that organisms progressively deteriorate as they get older. Internal changes take place which cause them to become less and less able to cope with the various environmental stresses to which they are continually exposed. In other words, there is an increase in the probability of death with increase in age.

There is often a misunderstanding about senescence, particularly human senescence. For example, it is widely believed that the human life span will be greatly extended beyond the biblical three score years and ten when the application of medical science has finally overcome illness due to pathogens, injury, cancer, congenital and genetic defects and malnutrition. Although the human mean expectation of life will certainly be increased, I doubt if a much higher proportion of future generations will receive a congratulatory telegram from their gracious monarch on living a hundred years than do now. This is because there is a maximum mean expectation of life for each species, or for each population within a species if we wish to be precise. The life span is as much a genetically determined characteristic of the individuals in a population as is their height or rate of growth. We can expect to live 70-odd years and mice two to three years, while the fruit flies (*Drosophila*) I use in my research have life spans which can best be measured in days.

Death is easier to understand than senescence. An organism dies when its internal steady state can no longer be maintained by either natural or artificial means. A dead organism is no longer organised. Once dead it rapidly proceeds

to a physical and chemical equilibrium with its surroundings through the processes of autolysis and decay. It is the changes in the organism leading to the loss of ability to maintain its steady state that we know so little about. It is a problem with which a growing number of research workers are concerning themselves.

Senescence is essentially a human problem because few other animals have a long post-reproductive life in natural conditions. Most animals die early in life and only the fittest survive to become parents, but, when we look after animals as well as we can look after ourselves, it is possible to demonstrate in them typical senescent changes. In other words, we reveal senescence if we remove the causes of death in early life.

When investigating human senescence we are obliged to study ageing human populations transversely because records of the physiological states of any human individual from birth till death in old age do not exist. The best we can do is to make comparisons between young and old persons, but this suffers from the disadvantages that the individuals have been raised in different environments and differ genetically from each other. In experimental work we overcome these difficulties by (1) using an animal with which we can carry out many longitudinal studies of senescing populations of individuals in our working life time, (2) controlling the environmental conditions in which we keep them, and (3) using genetically identical individuals. Rats, mice and *Drosophila* are such suitable organisms.

However, before we study senescing rodents or flies in lieu of human beings, we must be certain that they senesce in the same or a fundamentally similar way. One universal characteristic by which we can recognise a senescing population is the increasing likelihood of dying with increase in chronological age.

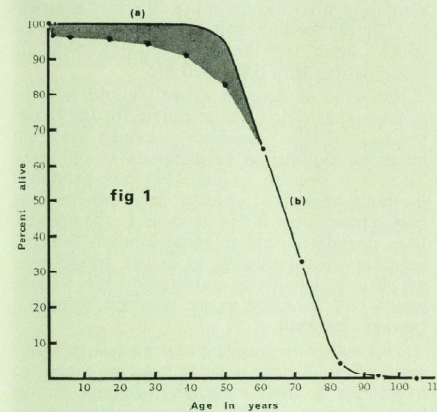


Figure 1 Human survival data based on the Registrar-General's report on deaths in England and Wales in 1959, together with the expected survival curve in the absence of non-senescent deaths.

Figures 1 and 2 give the observed survival data and expected survival curves for populations of Man and *Drosophila*, the differences between the observed and expected survival being indicated by the shaded regions. The curves can be divided in two parts in which (a) no deaths are expected, (b) deaths occur at an increasing rate. In practice, deaths do occur in part (a) but these are non-senescent or accidental deaths which are theoretically avoidable. Many non-senescent deaths occur in Man, particularly during the first year of life. There are fewer non-senescent deaths in my *Drosophila* populations because I take greater care of my ageing flies than we do of ourselves.

Gerontologists find that distinguishing between senescent and non-senescent deaths is not always easy. For example, has an elderly person killed while crossing the road succumbed to an environmental stress, in this case a car, because of his old age, or has he died of an accident which could have been avoided? A young person would probably have been agile

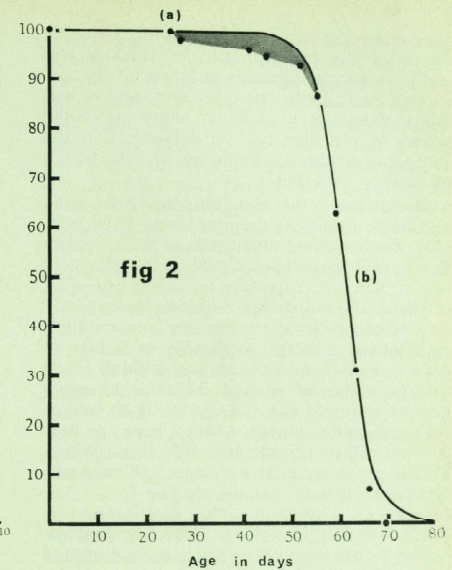


Figure 2 Survival data of hybrid *Drosophila melanogaster* females at 25°C., together with the expected survival curve in the absence of non-senescent deaths.

enough to jump out of the way or, if he had been hit by the car, would more likely have recovered from his injuries.

The difficulty of distinguishing between accidental and senescent deaths is one good reason for studying populations of genetically identical individuals. It is unlikely that all the individuals in an ageing population will die simultaneously from the same cause, but if they do, as when an epidemic wipes out an experimental animal population, the cause of death is obvious.

In our experimental work, we take great care over the maintenance of our animals, but even so the small shaded region in Figure 2 shows that we have not entirely eliminated the non-senescent deaths. We believe that the deaths occurring in part (b) are a consequence of the progressive degenerative changes that have been occurring in part (a) and that this senescence will occur no matter how propitious the environment.

One of the main occupations of gerontologists is describing senescent changes and analysing

the underlying processes responsible for them. We hope that this will help geriatricians find out how the consequences of senescent changes in man may be alleviated. We also want to find out if the onset of debility, which inevitably comes in old age, can be delayed. Can the process of senescence be slowed and the period of activity extended?

One finding is that men, mice and *Drosophila* decline in vitality as they get older. It is probably true of other organisms as well, though few have been studied. Vitality is convenient jargon for the capacity to carry out vital activities, those activities requiring the expenditure of energy by the organism. It is purely a materialistic concept explicable in terms of physics and chemistry and has nothing to do with metaphysical vitalism. My flies are much less active in old age and cannot fly so well as they could when young. As flies, mice and men get older, they become less able to do things. Studies of the age-related changes in human performance indicate that this decline is more or less linear with time. The deterioration is gradual and it is only on reflection that we realise we are not so fit and active as we used to be.

2. The causes of senescence

Do senescent changes have an underlying cause common to all organisms? We cannot answer this question because we do not know what causes senescence in even a single species. A living organism may senesce and die because its cells can no longer function in an old body. Conversely, it is possible that loss of cell function leads to failure of the whole organism. The first alternative implies that senescence is due to the failure of the functional interdependence of the many types of cells of which living organisms are composed. As this is a consequence of cellular differentiation it is the basis of the developmental theory of senescence. The second alternative, that loss of cell function precedes the death of the organism, is the basis of the cellular theory of senescence.

At the present time we cannot discriminate in favour of either the developmental or the cellular theories of senescence. Indeed, the two are not necessarily mutually exclusive. However, the cellular theory is the more popular, probably because it is currently fashionable to call oneself a cell biologist. This is evident in the hypotheses that senescent death occurs when the cells "run out of programme" or when there is an irreversible "loss of molecular information". By these phrases is meant that a

living organism possesses in its DNA codes the information necessary for growth, development, reproduction, and all the metabolic reactions making these processes possible. It is postulated that there are either no instructions for the maintenance of an organism's internal steady state in post-reproductive life or errors accumulate in the coding and read-out mechanisms which, when they reach a certain level, are incompatible with continued life.

But why, it may be asked, should not the genetic code which was adequate for the maintenance of the organism's steady state at maturity continue to be adequate in old age? This, it is argued, is just what has happened in those animals, including man, where long post-reproductive life is of value to the species. It is postulated that in these animals Natural Selection has produced a longer programme which is less liable to information loss or one which can be more easily repaired should it become damaged.

This leaves the problem of the cause of information loss. A once popular but now discarded hypothesis is that irreversible damage in the form of somatic mutations accumulated in the nuclei of body cells with consequent failure of the coding and read-out mechanisms. Although laboratory produced ionising radiations shorten life as well as produce mutations, natural sources of radiation are not in sufficient amount to be life-shortening by damaging the DNA code. It is not yet known if large doses of radiations accelerate the normal ageing process or merely mimic it. Another hypothesis is that senescence is due to lethal genes which are only expressed late in life. Mutant genes which only become manifest after an organism has reproduced will not be selected against and will tend to accumulate in the population. The gene responsible for Huntington's chorea illustrates this point very well.

One widely held theory of ageing postulates that senescence is due to the depletion of some vital substance or substances within the body due to the loss of synthetic abilities of the cells as a consequence of their differentiation. Another developmental theory postulates that senescence is caused by accumulated waste products which are toxic to the cells and which inhibit vital synthetic process. There are more theories than facts in gerontology and much more work will have to be done before we can decide if an organism dies because its cells are old or because its cells cease to function in an old body.

3. *DROSOPHILA* in ageing research

Although the anatomy and physiology of laboratory mammals closely resemble those of man, these mammals have one great disadvantage when used in ageing research. It is not possible to separate the processes of development and senescence. In mammals, as in very many other organisms, the process of cell reproduction and the subsequent differentiation continue right up to the moment they die. In certain tissues this continues even after the organism as a whole is dead. *Drosophila*, like other insects with complete metamorphosis, does not have this disadvantage. Development ceases immediately after the emergence of the adult insect from the pupal case. Apart from cell division in the gonads, there are no further cell divisions in the body. An adult *Drosophila* thus consists of a fixed number of body cells and it is possible to study the changes which take place in these cells and in the surrounding fluid and non-cellular structures as the organism ages. We know that these changes do occur because the flies die no matter how well we look after them.

During development there has been a build-up of bodily organisation which reaches a maximum at emergence of the adult fly. During adulthood we can study the decline of this organisation as the fly ages. In practice we sample at intervals a population of genetically identical individuals formed by crossing two highly inbred flies. This is standard practice when a research worker requires phenotypically uniform experimental organisms. The phenotypic uniformity of hybrid *Drosophila* is evident when Figure 2 is compared with Figure 1. Senescent deaths, which are assumed to be normally distributed, have variances which reflect the heterogeneity within the populations. The use of hybrids also gives us the fittest possible flies with maximal longevities.

Animals are not closed systems because they continually exchange matter and energy with their surroundings. Because there is neither further development nor replacement of cells in an adult *Drosophila* it must not be assumed that the component molecules remain unchanged throughout adult life. Some molecules "out live" the organism and these are of no importance in senescence. DNA is probably one of these. Others are turned over many times in a fly's life-time. Enzyme molecules, which are proteins, are among these more rapidly turned-over molecules. Should they not be continually replaced at a rate equal to that which they are utilised, the fly would not be able to maintain

its internal steady state. Changes in protein content and in the rates of protein turn-over are two of the aspects of the ageing process I am investigating at the present time. We suspect that in the absence of dietary protein flies draw upon their structural protein, of which they have large amounts in their flight muscles, to maintain the soluble proteins at a constant level. A similar thing happens in mammals when they are kept on a protein deficient diet. The utilisation of skeletal muscle is probably the main reason why aged flies cannot fly so well as they could when young.

The food which a fly consumes is used to replace worn-out parts and as a source of energy. Flies fed only water die in two or three days. Those given sugar in addition live much longer, but not so long as flies fed on their natural diet of water, sugar and yeast. They rely on sugar for that maid of all work, ATP, which is needed to mobilise their other nutrient reserves. We know the flies cannot get their ATP from yeast because when fed on yeast and water they die as quickly as they do on water alone. The reserves of amino acids, nucleotides and other molecules and ions are limited, and death occurs when these are exhausted unless they are supplemented from an intake of yeast cells. As a result of these metabolic processes waste products are formed. Those that are not excreted accumulate within the cells and the surrounding haemolymph. It is possible that these are toxic to normal metabolism and may contribute to senescence. Changes in uric acid content, the main nitrogenous excretory product in *Drosophila*, is another topic being currently investigated. At the best of times, animals are metabolically inefficient organisms. Does this inefficiency increase as they get older? Can the process of senescence be expressed in terms of a decline in an organism's ability to make use of the resources available to it?

4. The rate of ageing

Why doesn't a mouse live as long as an elephant? An elephant has a heart rate of about 35 beats a minute, while that of a mouse is some 600 beats a minute. That the process of senescence could be linked in some way to metabolic rate has fascinated gerontologists since 1908, when Rubner pointed out that the life spans of animals were generally inversely proportional to their metabolic rates.

One of the main factors influencing metabolic rate in a "cold-blooded" animal such as *Drosophila* is environmental temperature, and

we find that the life span of this insect is less at high temperatures than at low. This suggests that flies live at a faster rate at the higher temperature and die when they have used up the vitality they possessed on emergence from the pupa and that which they subsequently acquired by feeding as adults.

How long will flies live if they spend part of their adult life at a high temperature and the remainder at a low temperature? If Rubner's hypothesis is correct, that is, if their life spans at different temperatures are related to the rates of change in their internal states at these temperatures, they should live for some intermediate period. But they do not. The period spent at the high temperature is not life shortening. They live as long as they do at the low temperature. How can we reconcile this finding with the hypothesis that the process of senescence is speeded up at high temperatures and slowed down at low temperatures? We have carried out numerous split temperature experiments in *Drosophila* all of which show that the changes taking place at a high temperature can be reversed when the flies are returned to a low temperature provided they do not stay too long at the high temperature. Does this mean that senescence is not a

rate process? Before we can answer these questions we need to know much more about the nature of the senescent changes.

Our working hypothesis is that *Drosophila* needs a greater capacity to synthesise enzymes at higher environmental temperatures because the rate of utilisation of enzymes at these temperatures exceeds the rate of their synthesis. In other words, anabolic reactions have a lower temperature coefficient than catabolic reactions. A high temperature is not life shortening if the flies are subsequently returned to a low temperature because they can partly make good the losses incurred at the high temperature. But the losses cannot be completely made good owing to the decline in the capacity to synthesise enzymes, which is an irreversible age-related process.

We have not yet tested this hypothesis because we do not have enough basic information about the process of senescence, and of protein synthesis in particular, in ageing *Drosophila*. Perhaps I shall have the opportunity of telling you the results of our current and future research into these problems at a later date.

The research described in this article is supported by the Medical Research Council.

COST CONSCIOUS THERAPY

This series of articles will examine the drugs available for the treatment of common conditions. The branded proprietary preparations in each group will be compared with the more traditional drugs, with particular emphasis on the extent to which the manufacturer's claims are borne out by independent testing and the value for money which the new preparations represent.

The cost of drugs to a hospital is frequently less than that normally quoted and Dr. W. R. L. Brown has agreed to provide details of the prices paid by the Pharmacy for drugs in bulk. It is hoped that these will be particularly useful to housemen.

Each article will be written by a student under the general guidance of Dr. Paul Turner.

Non-Barbiturate Hypnotics

by J. R. Griffiths

Artificially induced sleep has long been an important weapon in the doctor's armamentarium, either as a specific treatment for insomnia or as an adjunct to other therapy.

The drugs used for this may also have a tranquilising or anticonvulsant action or be useful, in small doses, as daytime sedatives; in general only their hypnotic action will be considered here.

Vast quantities of hypnotics are prescribed both in and out of hospital, but it is generally recognised that the perfect sleep-inducing drug has not yet been found. Such a drug would be cheap, easy to take and would quickly induce sleep for a predictable period. At the end of this period the patient would awaken refreshed and without drowsiness or other after-effects. In hospital practice it is useful if the patient

can co-operate when roused in the night and subsequently sleep without further sedation. Consecutive doses should not have accumulative effect, there should be no side-effects and the lethal dose should vastly exceed the therapeutic dose. Lastly, the drug should not be habit forming or induce tolerance.

Existing hypnotics fall into three groups. A number of compounds were in use prior to the introduction of barbiturates and one of these, chloral, is still in use. Paraldehyde is often quoted as a hypnotic in this group, but finds its main use as an anticonvulsant agent, and in the management of manic states. The barbiturates, first introduced in 1903, have become the "classical" hypnotics and form the yardstick against which others are judged. The third group consists of a number of more

recent and much more expensive proprietary preparations which are claimed by their manufacturers to have advantages over the barbiturates. Four will be considered here; Dichlorphenazone, Glutethamide, Promethazine and Nitrazepam.

Barbiturates

The Barbiturates are cheap, well-understood hypnotics which have been in use for over 60 years. It is a measure of their success that all other hypnotics are considered under the heading of non-barbiturates and are promoted by their manufacturers largely as overcoming one or other of the disadvantages of this classical family of drugs. The properties of and indications for barbiturates will not be considered at length but it is necessary to enumerate the disadvantages which subsequent preparations seek to remedy.

Different barbiturates act for different lengths of time; in the orally administered hypnotics this length of action is mainly determined by the length of the side-chain on the basic molecule. Even the relatively short-acting oral hypnotics leave the patient drowsy on waking, though whether this is due to residues of drug in the body or to a more basic effect on the central nervous system is not known. Barbiturates are poorly metabolised or excreted in liver or kidney disease and dosage has to be altered in these conditions. They interact with alcohol and can induce tolerance or addiction, especially in the susceptible "neurotic" patients for whom hypnotics are often prescribed. Elderly people often become confused and disoriented. Lastly, they are toxic in doses only a few times larger than the therapeutic dose and can endanger life. Patients may take tablets repeatedly in a state of drug-induced automatism, children may acquire them and they have become a fashionable technique for suicide.

Some of these faults have come to light only because of the prolonged and widespread use of barbiturates and may equally occur with newer and less well understood hypnotics. One suspects that the habit forming property of barbiturates will be found with most convenient and palatable hypnotics if these are continued for a sufficient length of time.

Chloral Hydrate

Chloral is an unstable hypnotic with an unpleasant taste, which dates from the days

before barbiturates. It is normally taken orally; within 30 minutes it produces sleep lasting about eight hours. Since it is a hygroscopic solid it is difficult to prepare in tablet form and is therefore given as a dilute solution and with suitable flavourings to minimise the irritant action on the stomach and disguise the unpleasant taste which are its chief disadvantages.

Chloral is cheap, well understood and safe. Despite its unattractive taste, suitable preparations have been found to be excellent hypnotics for children—many doctors' families have thrived on them.

Dichlorphenazone (Welldorm)

The first of the branded proprietary drugs to be considered is dichlorphenazone, a complex of chloral hydrate with phenazone. Its properties are basically those of chloral and its principal advantage is that it may be prescribed as an almost tasteless tablet. It is thus more palatable, more easily administered to children (for whom an "elegant and pleasant flavoured" elixir is also manufactured) and more convenient for daytime sedation. The manufacturers also claim a slight analgesic action which makes it suitable for sedation when insomnia is associated with slight pain, and a lack of respiratory depressant activity which makes it suitable for hypnosis in respiratory distress. There will probably still be occasions, however, when the improved presentation of this drug does not outweigh its considerable extra cost.

Glutethamide (Doriden)

Glutethamide is a general-purpose hypnotic which is marketed chiefly as an alternative to the barbiturates, to which it is not structurally related. Its manufacturers claim that it has less "hangover" effect than barbiturates, less respiratory depressant action, less cumulative effect and produces less confusion and disorientation in elderly patients. It is difficult to comment on all these claims, but the key ones are those related to hangover and cumulation. These effects seen with barbiturates are supposedly due to residues of drug remaining in the body after the patient wakes. Glutethamide is allegedly excreted and inactivated more quickly than barbiturates and is said to be more acceptable than them to patients in clinical trials. There is evidence that glutethamide is more rapidly excreted by dogs than are a number of barbiturates, but this technique does not allow for the possibility that

barbiturates remaining in the dog are inactive or for differences in human metabolism. Human studies are, however, difficult to interpret. Although patients in some clinical trials said that the drug gave less hangover than the barbiturate with which it was being compared, no rigorous statistical analysis seems to have been performed and this observation was not made in several other trials.

On the evidence available, glutethamide is the obvious alternative to barbiturates when these are specifically contra-indicated. It has not however replaced them for general use, especially as it is much more expensive. It occasionally causes nausea and skin rashes.

Promethazine Hydrochloride (Phenergan)

Promethazine is basically an antihistamine, one of whose side-effects is the production of drowsiness. This limits its use as an antihistamine in some circumstances but in others it is a useful bonus, as when a patient with urticaria is to be sedated. Equally the galaxy of side effects produced by its antihistamine properties limits its use as a hypnotic but it has found a place in three contexts. It is a useful sedative and hypnotic for children (especially in cases where agitation is associated with allergy) and a paediatric elixir is produced for this purpose. It forms a part of the pre-medication cocktail in some formulae, while its anti-emetic and central sedative effects combine well in obstetrical sedation, again usually in combination with other compounds.

Nitrazepam (Mogadon)

This is an extremely interesting drug which displays certain fundamental differences from the major hypnotics. Barbiturates act by stabilising the neuronal cell membrane and consequently "damping down" all higher neural activity, particularly in the reticular system. The hangover effect associated with barbiturates is thought by some to be due to this fundamental property which is also alleged to diminish the beneficial psychic effects of sleep. Nitrazepam, on the other hand, belongs to the Benzodiazepam family, whose action is mainly to relieve anxiety. Diazepam and chlordiazepoxide, the two other well known members, are tranquilisers with some sedative action whereas nitrazepam is principally a sedative and hypnotic. Like all the benzodiazepams it acts on the limbic system and it has been postulated that its hypnotic action results from a diminution of the emotional and other stimuli

reaching higher centres. Like all the drugs promoted as replacements for the barbiturates it is claimed that nitrazepam produces more "natural" sleep and diminishes the hangover effect and difficulty in waking. As in the case of glutethamide it is difficult to evaluate these largely subjective sensations and most of the evidence from clinical trials is anecdotal. A few controlled trials have compared nitrazepam with a barbiturate drug such as amylobarbitone but they have produced equivocal results.

The safety of nitrazepam is not in doubt; no successful suicide had been reported with it up to 1966. Unfortunately it is much the most expensive of the drugs under consideration and this alone could make it a second choice in most cases where a simple hypnotic is required.

Dose of hypnotics (Table 1)

(Daily hypnotic dose for adults unless otherwise stated).

Phenobarbitone: 30-120 mg.

Amylobarbitone: 100-200 mg.

Chloral Mixture: One tablespoon at bedtime diluted with half a tumblerful of water.

Chloral Elixir (Paediatric): Up to 1 year 2.5-7.5 ml.

Dichlorophenazone: Two 650 mg. tablets 20 minutes before retiring.

"Welldorm" Elixir (Paediatric): 2-6 teaspoonfuls.

Glutethamide: Two 500 mg. tablets 15 minutes before retiring.

Promethazine Hydrochloride (Paediatric):

Infants up to 3 months 5 mg.

Infants 3 months-1 year 10 mg.

Children 1-5 years 15-20 mg.

Children 5-10 years 20-25 mg.

Nitrazepam: One 5 mg. tablet before retiring.

Cost of drugs (Table 2)

(Price in bulk to hospital pharmacy unless otherwise stated).

Phenobarbitone: 60 mg. 4/2 per 1,000.

Amylobarbitone: 60 mg. 8/6 per 1,000.

Chloral Mixture: Approximately 9d. for 16 oz.

Chloral Syrup (Paediatric): Approximately 1/- for 20 oz.

Dichlorophenazone: 34/- per 1,000.

"Welldorm" Elixir: 4/1 per 150 ml. (standard price).

Glutethamide: 71/- per 1,000.

Promethazine Hydrochloride: 10 mg. 42/- per 1,000; 25 mg. 66/- per 1,000.

"Phenergan" Elixir (Paediatric): 11d. for 60 ml. (standard price).

Nitrazepam: 176/-.

BOOK REVIEWS

Bailey & Love's Short Practice of Surgery. 14th Edition. Editors: A. J. Harding Rains & W. Melville Capper. Published by H. K. Lewis & Co. Ltd.

The declared intention of this well established book is to cover all the needs of the undergraduate, and to provide the post-graduate a little extra. The fact that it has now been published for over thirty years, is an indication that it has managed this with more than a fair degree of success.

During the course of their lives, textbooks of every kind have a habit of growing larger with each new edition. It is a tribute to the editors' singleness of purpose, (and very gratifying for the student) that this edition is in fact shorter than the last, even though much new material has been included. Although not everyone would agree that all obsolete matter has been removed, the process of eradication has been commendably high.

In addition to some excellent new matter provided by Messrs. Knight, Charnley, and Cleland, in their respective fields, there are many additions especially in the chapters including skin and burns, stomach, thyroid, and genito-urinary surgery.

The descriptions of surgery as applied to tropical diseases has been amplified again, not only because these conditions are encountered more and more frequently in this country, but also in some measure to accommodate the reader in a country where these diseases are commonplace.

As in previous editions the text is liberally supplied with good illustrations, (colour, black and white, and thumb-nail sketches). There are a number of new illustrations in this edition, all of them with biographical details as footnotes.

The first six chapters give an excellent introduction to the fundamentals of surgical practice. Thereafter each organ or region in turn is adequately dealt with. This edition should increase the already large following of Bailey and Love among students and general practitioners. The text is very readable, and the information is there, a combination that most readers find satisfactory.

Principles of X-Ray Diagnosis, by David H. Trapnell. Published by Butterworths at £6 10s.

This book is based on three earlier Butterworth publications 'Principles of Chest X-ray Diagnosis', 'Principles of Bone X-ray Diagnosis' and 'Principles of X-ray Diagnosis of the Skull' all of which are the work of the Barts Diagnostic Radiology Department. Much additional material has been included and the same methods of critical study of X-ray films have been applied to other regions. Dr. Trapnell acknowledges his debt, as do we all, to Dr. George Simon, for instilling the value of these basic techniques.

Two short introductory chapters deal with some elementary radiation physics and describe how film quality and artefacts may be assessed. These are followed by chapters on the principles of observation and description of X-ray films dealt with system by system. The radiographs are well selected and reproduced. A few line diagrams have been used to clarify certain points and are so good that one wonders why they were not used more. The text is a little longwinded and some comments could more succinctly have been included in the legends of the illustrations.

The author states that this book is primarily intended for those who have just begun a full-time course in Diagnostic Radiology. One can not wholly agree with this claim. The trainee in Radiodiagnosis builds on his clinical foundations through intensive instruction in analytic observation. To assist him he requires the earlier more detailed volumes in the series together with a text planned nosologically before moving on to more specialised books and literature with descriptions of techniques. He would outgrow this book so quickly that its cost could almost be reckoned in pounds per week. These strictures would apply less to graduates from overseas whose clinical experience is often less extensive and whose trainee attachment within an X-Ray Department is frequently part-time.

The second claim is that the book is for final year medical students and for candidates for higher degrees. I feel that this is much more

valid and the book's real success or failure should be measured within these terms of reference. As a basic guide to the rational examination of a wide variety of films for those not in day to day contact, the book is very good and will help to fill a gap in medical education that is a cause for concern.

I think the success of this book is assured. It may tell medical students more about radiology than they want to know about radiology but the fault will be theirs. It undoubtedly satisfies a need and I prophesy that it will be stolen in large numbers from the medical libraries of the world for, like all radiological textbooks, it is expensive.

Biochemical Values in Clinical Medicine, by Robert Duncan Eastham. John Wright, 162 pp. Price 15s.

This useful little book has been justifiably popular for some years since it neatly fills a gap left by the larger textbooks. Dr. Eastham has confined himself to listing in alphabetical order the many chemical tests now used in medicine. For each one he gives normal ranges, a discussion of the pathological conditions which the test may indicate, a very useful section on normal physiological conditions which may produce abnormal results and a few of the flaws and pitfalls associated with the technique. All this information is compressed into a limp covered pocket book which will be particularly useful to housemen and Finalists but which will repay anyone's casual browsing.

The book is strongest on the tests of routine chemical pathology and suitably terse concerning the many outdated tests which remain in the repertoire. Those sections on tests which are mainly of value in research are less even in quality, although many of the references are well up to date. I found the typography unappealing and the book is expensive for its size, though not, perhaps, for the information it contains.

J. R. Griffiths.

A General Textbook of Nursing, by Evelyn Pearce. Published by Faber. Price 36s.

In the 17th edition of this well known text, minor modifications have been effected in an effort to keep the material up-to-date. In particular, Miss Pearce has included a new chapter on the nursing care involved in head injuries and completely re-written the chapter on the nursing care of patients following heart surgery which now plays a dominant part in the field of new technological achievements. The chapter on ear, nose and throat nursing

has also been extensively revised. One alteration of particular value is the change to the metric system, coupled in places with the approximate equivalents in the Imperial system. The addition of a series of photographs depicting internal splinting has added clarity to the subject. Although some photographs and diagrams are extremely clear and helpful, there are those which are of no beneficial use and perhaps could be replaced in the next edition. For example, the photograph illustrating the articles required for blanket bathing in Fig. 15 is far from distinct. But perhaps this is a small point to raise.

The greatest problem in revising a textbook is the difficulty of maintaining a high standard of up-to-date information and to include modern techniques as far as possible. The oxygen masks illustrated in Figs. 131 and 132 would be considered by the modern nurse to be outdated. With the introduction of pre-packed sterile goods and disposable equipment, practical work has undergone a profound change and it will not be long before textbooks of many years standing will need to undergo a radical transformation.

To a student nurse, this book provides much information on the general aspects of basic nursing care and is ideal for the 1st and 2nd year nurse. The careful arrangement of subject matter and the numerous diagrams combine to make this a well well-balanced and comprehensive textbook. An excellent text, well worth the money.

P. A. Mountford.

A Moment in Time, by H. E. Bates. Penguin. Price 5s.

This is a moving little story of a young girl who finds herself sharing the life of the young R.A.F. officers stationed in the South of England during the 2nd World War.

It is particularly poignant because until this time Elizabeth had been utterly separated from her own generation. She flings herself wholeheartedly into this new existence—adopting all its expressions and attitudes.

Luckily for her, there are not many girls around; she has more admirers than she can cope with. These relationships often cause her much sadness but eventually she does find happiness.

It is not a long book and easy to read; it carries all the humour and lightness characteristic of this author's work.

S.L.M.

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ATHLETICS CLUB

This season's fixtures although few in number are of a high standard; therefore all athletes should be fully fit for their events. For this purpose a regular training session will take

BADMINTON CLUB

The club has had a season of moderate success with only one of the ten matches played being won. The Men's team particularly was often outclassed, having been promoted at the end of last season, to the University First Division. The Mixed team managed better and had some very close matches, being victorious but once.

At the Annual General Meeting held on the 13th March, the following elections were made for next season:—

place every Wednesday at 2 p.m. at Charterhouse. All athletes are welcome to this session which will comprise mainly of repetition sprints around the square.

Captain: N. Bidmead.
Hon. Secretary: L. Temple.
Treasurer: C. Froggatt.
Staff Representative: Miss R. Foley.

The following represented the club during the season: C. Bowker, M. Buckingham, L. Temple, N. Bidmead, N. Visram, R. Franklin, M. Kellett and for the ladies, Miss R. Foley, Miss W. Smith and Miss M. Sumner.

M. S. Buckingham

CANOE CLUB

Now that the sun is shining and the Thames is beginning to warm up we may expect to see an increasing number of paddlers down at the Royal Canoe Club, Kingston. As a sport canoeing offers something to a wide range of people: a good hard paddle for the racing enthusiast, a chance to practise the techniques of canoeing for the slalomist, or just a refreshingly different way of passing Wednesday afternoon for the less energetic.

Throughout the winter months a certain amount of serious training has been going on, the L.D. season began early this month and will continue through till October. Last year

Bart's produced both Ladies and Men's singles champions in this field. Richard Pumphrey, ex-Cambridge canoe club, is a very welcome new member, especially as Charles Evans has now qualified and "retired" to do some work. In the slalom field Peter Durrey and John Albert represent Bart's at Inter-University fixtures.

Anyone interested in joining us on Wednesdays will be very welcome. We leave College Hall around 1.30 (get in touch with Richard Pumphrey) and are generally back by 7 p.m. Just bring some old clothes—and a towel.

Adrienne Huskisson

GOLF CLUB

Bart's v. St. Thomas's Hospital, Wednesday, 13th March, at West Hill Golf Club. Drawn 2½-2½

This was a very close fixture, and although we have had in the past good results against St. Thomas's, their great advantage of intimate knowledge of all the hazards of their home

course stood them in good stead.

The weather for the most part was perfect, but showed signs of breaking up more than once throughout the afternoon. A blustery wind and rather hard greens made conditions far from easy.

HOCKEY CLUB

The month of February though the shortest in days was our longest in fixtures, no fewer than nine, even counting the extra day for leap year (which most of our members regard with terror) we had all our time cut out to

maintain the standard we needed to repeat our U.L.U. cup-winning performance of last year. Alas, this was not to be, but we managed to return a respectable playing record. The details are as follows.

v. Indian Gymkhana, 3rd February. Drawn 3-3

Against snow, noise from London Airport and skilled, colourful opponents, we managed to match their rapid stickwork with determined tackling. We emerged victorious in spirit if not in score.

The President's match

v. East Grinstead, Sunday, 4th February. Lost 1-5

A severely depleted side (three representing the United Hospitals), were trounced by an experienced East Grinstead Sunday XI. The defeat of the afternoon was more than compensated for by the pleasure of the social evening provided by our president Mr. Percy Jayes and his wife at their home. We thank them very much for their wonderful hospitality.

v. Harpenden I, 10th February. Lost 1-2

As always when we play such London club sides, the verve and experience of older players out for their weekly exercise proves a match for our fitter and younger side, however, though defeated we enjoyed this close, keen game.

U.L.U. Cup Semi-final

v. University College, 14th February. Lost 0-1

This closely fought match against a U.C. team bristling with London University players showed how well Bart's can play when given good conditions and skilful opposition.

It sounds too much like "sour grapes" to blame our defeat on poor umpiring, but even our opponents admitted this to be the case.

Half-time with no score, despite a penalty flick against us early on, gave Bart's the

JUDO CLUB

In January we entertained Cambridge University to a return match, hoping for another victory. However, the Light Blues were in intensive training for the Varsity match, and showed their superiority by convincingly beating both the Bart's team and a United Hospitals team.

On a brighter note we have been very successful in our Loose League matches, beating both Chelsea College and King's College, which should give us a good chance of doing well in the League.

LAWN TENNIS CLUB

From the point of view of match record last season was not a very successful one. Of the 17 matches arranged only four were played and of these one was won. However these results belie the enthusiasm of the players, since

advantage of the slope. A short corner, beautifully flicked by A. Barclay, was unfairly stopped and turned round the post by a defending back; the expected penalty was not awarded.

After an off-side goal against us was allowed, we realised that the 13-11 odds against us were too great.

A pity that such an otherwise enjoyable and important game should hinge on such poor judgement.

Other matches:

- v. Orpington I, 17th February. Won 2-1.
- v. Smiths of England, 24th February. Lost 1-2 (a new member joined the club during this match).
- v. Marjons I, 28th February. Won 6-0.
- v. O. Oakmereans I, 2nd March. Won 2-1.
- v. Richmond IIA, 9th March. Won 1-0.

The U.L.U. Sixes Tournament

Held at Motpur Park on 20th March this provided both wonderful sunny weather and good hockey. We reached the semi-finals only to be beaten by the School of Pharmacy who in turn lost to St. Thomas's, the eventual champions.

The season's playing record

P	W	D	L	F	A
32	17	6	9	69	40

Congratulations to Steve Thomas who was once again chosen to represent Wales against Ireland this season.

News of the Easter Tour to Guernsey next edition.

Pete Jordan

Chelsea College: 1 pt.; Bart's: 11 pts.
King's College: 4 pts.; Bart's: 7 pts.

In the London University Championships we were unfortunate in having to fight University College, who were the eventual winners. The other finalists were St. Mary's Hospital, whom we had already beaten earlier in the season. Perhaps the Boat Club Ball (the night before), also took its toll.

The date for the A.G.M. has not yet been fixed, but this will be posted at a later date.

A. C. Ruddle

only three of the matches were cancelled by our side, due to lack of support.

The club runs two teams and plays matches against other hospitals and colleges throughout the Summer term. Mid-week home matches are

played at Charterhouse, while Saturday home matches are played on the superb grass courts at Chislehurst.

Every year a team goes on tour to Cambridge; always a most enjoyable week-end. This year it will be over Whit week-end.

The standard of tennis played in the club is very wide, beginners being always welcome. A professional coach will be available on several occasions during the next few months.

Ann Miller

DIARY

May

- 1st—Ladies' Tennis v. Goldsmith's College, Home.
- 4th—Ladies' Tennis v. Royal Free, Home.
- 4th—Men's Tennis U.L. Cup 1st round.
- 5th—Men's Tennis U.H. Trials.
- 6th—Ladies' Tennis v. University College 2nd

RIFLE CLUB

**Barts v. Leicester University—Away
27th January, 1968**

A team of seven roared up the M.1 to arrive in Leicester around lunch-time. Once there, the members of the team dispersed for refreshment and finally met up at the University soon after closing time. The match was in two sections—the serious half, 10 shots per man on N.S.R.A. targets—won by Bart's and a friendly shoot at "Animal" targets—won by Leicester. On points the afternoon resulted in an overall win for Barts.

Our thanks are due to Leicester for an excellent meal they gave us afterwards, and to Messrs. Hambly and Thompson (and, unwittingly, the Leicester University Kitchens) for some very good Damson Pie—as a half-time snack.

Results:—

	10-Bull cards	Animals
Mike Hambly ...	95	86
Mike Rymer ...	91	89
Dick Thompson ...	92	69
Ian Battye ...	84	84
Chris Sedergreen ...	97	67
Paul Ciclitira ...	87	69
Ian Franklin ...	95	76
	<hr/> 637	<hr/> 540

Leicester: 10-Bull cards 623
Animals 548

Return match with University—At Home

VI Away.

8th—Ladies' Tennis v. St. Mary's, 1st VI Home. 2nd VI Away.

8th—Men's Tennis v. St. Mary's, Home.

9th—Athletics Club v. Lloyd's Bank.

11th—Ladies' Tennis v. University College 1st VI Away.

11th—Men's Tennis v. London, Home.

15th—Ladies' Tennis v. Guy's, Away.

15-18th—Men's Tennis Oxford Tour.

18th—Ladies' Tennis v. K.C.H. (U.H. Cup).

22nd—Ladies' Tennis v. R.D.H., Home.

22nd—Men's Tennis v. Guy's, Home.

25th—Ladies' Tennis v. London Hospital, Home.

25th—Men's Tennis v. College of Estate Management, Away.

29th—Men's Tennis v. City University, Away.

29th—Athletics Club v. Guy's Hospital.

11th February, 1968

The Leicester team came down to London on Saturday, 10th February and attended the Rifle Club Hop. They were put up in various flats, and after lunch in College Hall on Sunday, we all descended to the range—the match was shot on two sets of cards; usual N.S.R.A. ten-bull targets, and the one card consisting of five pictures of "charging infantrymen" (whose uniforms bore a striking resemblance to those worn by a certain European nation around 1940!). Bart's won on both types of targets. It is interesting to note how the standard of the Captain's shooting rose when he was aiming at people, rather than bullseyes.

Scores—Team of 7: Leicester 1,248; Bart's 1,274.

Team:

Simon Crocker (Capt.)	91	99
Mike Rymer ...	94	97
Chris Sedergreen ...	90	91
John Davies ...	90	76
Jim Franklin ...	93	95
John Lawn ...	94	96
John Johnson ...	93	85

The University Individual Championships for .22 shooting were held on 16th and 17th March, again at the outdoor ranges of Twickenham Rifle Club. Shooting on both days was extremely difficult with very strong gusting winds, rain and light varying from bright to very dull. Conditions on the Saturday were rather better than Sunday and all the winning scores were put up on the Saturday—it was

therefore unfortunate that we chose the Sunday for our shoot! Four members of Bart's R.C. were present and really dealt with the conditions well although the scores appear disappointing at first sight. This was the first time that Mike Pembrey and John Lawn (both freshers) had shot over 50 and 100 yards. The scores were:—

	25 yards	50 yards	100 yards	Total
John Lawn	82.87.93	82.86	76.63	569
Mike Pembrey	84.89.90	83.86	81.88	601
Gareth Tuckwell	82.92.94	82.93	87.88	618
Simon Crocker	90.93.96	90.90	88.88	635

There were also Time Limit Competitions of two cards each of 10 shots in 90 seconds; and a team competition—team of four: each person shooting one card at each of the three distances:—

	25	50	100	Total	Time Limit
J. Lawn	89	85	76	250	86.86
M. Pembrey	90	86	88	263	75.81
G. Tuckwell	84	82	87	253	89.91
S. Crocker	96	94	88	278	85.91
				<hr/> 1,044	

The full results of the Championships have not yet been received—we live in hope!

S.C.C.

The results to date from the Postal and Engineers Cup team have been very mixed.

At the time of writing the Engineers Cup team are lying fifth in their league having won only one match this season. Team from: S. Crocker, M. Rymer, I. Franklin, R. Thompson, J. R. Davies, G. Tuckwell, J. Lawn, C. Sedergreen.

The Postal "A" team have enjoyed more success and are lying first in their league. Team: S. Crocker, M. Rymer, I. Franklin, C. Sedergreen, J. Davies, G. Tuckwell.

The Ladies' team have shot extremely well this season and are also lying first in their league. Team: Miss A. Pablot, Miss D. Lucas, Miss A. Phillips, Miss M. Whitehead, Miss G.

RUGBY CLUB REPORT

Saturday, 2nd March: Streatham 14, Bart's 6

Saturday, 9th March: Bart's 8, Aldershot Services 3

At last a win! Against a much improved Services side, compared with the past few years, Bart's managed to gain their first win in the

Prestwick, Miss

The S. and K. teams did quite well considering it was a trial season: S. and K. "A" came fourth in their league and S. and K. "B" second in theirs.

Unfortunately both the Novices and Postal "B" teams suffered from a lack of consistent support which meant that several times incomplete sets of cards were sent to the markers—this does tend to preclude much hope of winning and is rather hard on the two or three people who do regularly shoot their cards.

The full-bore season has now started—shooting takes place at Bisley Ranges on specified Sundays during April to July. Anybody interested in .303 shooting should contact Ian Battye or Mike Rymer.

Parties will be going down to Bisley on the following days: 7th April, 28th April, 11th May, Pafford Cup; 18th-19th May, U.L. Championships; 15th June, Armitage Cup. The arrangements for Bisley usually run as follows—leave College Hall 9.30 a.m. Start shooting at 11.30 a.m.—liquid lunch, and then finish about 5.30 p.m. Given good weather this makes a very pleasant break from London.

Pistol

The final of the London University Pistol K.O. was an "all-Bart's" affair:—

Ian McLellan ...	97. 99
John Reckless ...	97.100

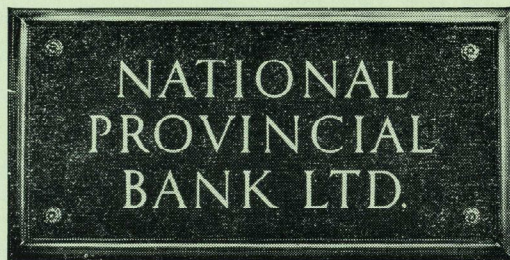
John Reckless therefore becomes the University Pistol Champion. This final was remarkable for the extremely high standard of shooting—pistol scores such as these are in the International class, and I can find no previous record of anybody at Bart's shaving scored 100 ex 100 on a pistol target.

Ian Franklin is to be congratulated on being awarded a half-purple by London University for his .303 shooting; Simon Crocker is to be congratulated on being awarded a Full Purple for his small-bore shooting in the London University team—a great honour for him and the club.

M.J.R.

last seven games, by a goal and a penalty to a penalty.

The Bart's forwards started with great vigour and the three-quarters were linking with one another well. These efforts were rewarded by a well-taken try by Andy Mason; this was easily converted by Cassidy. The Services returned



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with new vigour and by throwing the ball around with great speed they came extremely near to scoring on several occasions, prevented only by good covering and adequate tackling on our part, and their lack of a good kicker.

Saturday, 16th March: Birmingham 17, Bart's 0

A depleted 1st XV went down badly to Birmingham in a scrappy game. A gale force wind blowing across the pitch forced both sides into many mistakes.

Birmingham scored in the first minute from a cross-kick by their right wing, before any of the Bart's team had shaken off the rigours of the journey. Cassidy, kicking well with the wind, put us down in the opposition 25, but poor finishing let down several potential scoring movements by Lambert. The three-quarters were denied good possession as the front row experienced some trouble in the set scrums, this combined with the failure to win the loose ball, normally one of our stronger points, reduced our scoring potential. Bad covering let in the Birmingham three quarters for several tries.

Saturday, 23rd March: Bart's 3, Metropolitan Police 39

At half-time, having had the advantage of a strong wind, Bart's were trailing 23-3. The out-

look was grim for the police were truly a strong and compacted unit, however a sterling effort by the forwards up front combined with an injury to the Police's right wing after a good hard tackle by Simon Smith, kept the score below the forties.

The failure in the first half lay in the failure to gain possession from a far heavier and stronger pack, and the inability of the whole team with the exceptions of Nick Packer and occasionally Simon Smith to tackle hard below the waist. Nick Packer gave an excellent defensive display stopping several certain tries. The Bart's three quarter line was continuously confused by the addition of an extra man into the opposition line whether it was the wing-forward or the full back and this gave rise to most of the thirty-nine points. The back row were often seen to be covering but failed to produce a good hard tackle. In the second half Andy Mason was beginning to show some typical No. 8 covering even though he was playing in the second-row. The Hospital's three points came from a penalty well converted by Barry Cassidy.

Bart's were well beaten by a first class side.
Mark Britton

Inter-Firm Seven-a-Side Competition Sunday, 10th March

The Inter-Firm Sevens this year were again a tremendous success both socially and rugby-wise. Although the day itself was grey, a large crowd turned out to scream support for their respective teams. Conveniently sixteen teams entered so it was decided to hold a plate competition for those knocked out in the opening round. The first game of the day followed last year's tradition by starring the young ladies of Charterhouse (with others recruited) under the canny generalship of Miss Primrose Watkins, who were faced by the might of the 1st year 2nd M.B. team, under Barry Cassidy. With the whole crowd totally on the girls' side they went down 11-8, two tries and a goal to a try and a punted goal.

The victorious 1st year 2nd M.B. team proceeded to the final after a hard game against the 2nd year 2nd M.B. This was one of the better games of the competition, with the tireless trio of Mason, Fairhurst and Smith for the second year, and Carroll, Cassidy, Jefferson and Laidlow their counterparts all playing well. The Finalists disposed of the 1st year 2nd M.B. II. then they were in turn summarily removed by the first team of the same year in another good

game. Jefferson and Buckley combined well for the Finalists, but the team as a whole were let down by their lack of fitness—their speed seemed to be in inverse ratio to the length of the game.

The Veterans cunningly seemed to be swayed by the liquid reward offered to the winners of the spoon competition, going down in the dying moments of their first round match to Midder and Gynae. The cosmopolitan Dressers, (including McIntyre, who managed to postpone his visit to Oxford), the defending champions, disposed of the finalists and the clerks in turn, but almost lost to a Midder and Gynae seven inspired by Brian Rees and Clive Grafton. The game waxed from end to end with Hopkins, another Midder star, itching to show his famous sidestep, but the greater degree of possession gained by the Dressers saw them to the Final.

A crowded stand saw the Veterans deservedly win the plate competition. The nippy Dave Pope showed his old sevens form, and with the vociferous Gilmore they gradually wore down the Finalists II.

The main Final was one of the best in recent years, marred only by the injury to Mark Britton. Johnson's hooking ensured the Dressers

a stream of set piece possession employed by the elusive Lambert to feed the speedy Ussher on the right wing and the big hearted, broken-nosed Elliot on the left. Britton and Carroll fought an interesting duel in the line-out before Britton in full flight for the line was chopped down by Elsc. Knocked unconscious he retired, snoring gracefully from the competition. Derek

Hall came in as a reserve sportingly allowed by the Pre-clinicals. The game came to a close with the Dressers victorious 14-3.

Thanks for the efficient way the competition was run are due in a great part to Mark Britton, and the invaluable refereeing of John Stevens and others. The prizes were kindly presented by Mrs. P. Stevens. K. McIntyre

THE DRAW

Girls	} 1st year M.B.	} 1st year M.B.	} 1st year M.B.	} DRESSERS
1st year 2nd M.B.				
Finalists II	} 2nd year M.B.	} 1st year M.B.	} 1st year M.B.	} DRESSERS
2nd year 2nd M.B.				
Finalists I	} Finalists I	} Finalists I	} 1st year M.B.	} DRESSERS
Midder & Gynae II				
2nd year 2nd M.B. II	} 1st year M.B. II	} Finalists I	} 1st year M.B.	} DRESSERS
1st year 2nd M.B. II				
Dressers	} Dressers	} Dressers	} Dressers	} DRESSERS
Finalists II				
Chepstow	} Clerks	} Dressers	} Dressers	} DRESSERS
Clerks				
Veterans I	} Midder & Gynae	} Midder & Gynae	} Dressers	} DRESSERS
Midder & Gynae I				
Dressers II	} Dressers II	} Midder & Gynae	} Dressers	} DRESSERS
Veterans II				

SOCCER CLUB REPORT

v. City of London College—Home. Lost 0-6

Bart's were overwhelmed by a faster and quicker-thinking side which may well have scored double figures but for Quinn's goal-keeping. For the first twenty minutes the play was equally divided but soon C.L.C. discovered that their wingers could win the match for them. They soon took control and from a 2-0 half-time lead did not let up until they had scored four more.

v. London Hospital. Lost 1-2

This was the best match so far this season. London, playing to win the U.H. Championship, were often thrown off balance by quick break-aways by the Bart's forwards. Skanderowicz, Bowen-Roberts and Farrow were always dangerous near goal and Knight and Burke put over some fine crosses. London went into the lead following some early pressure but Bart's hit back strongly and Turner, following up, put over a fine centre for Skanderowicz to

glance home. London scored again shortly before half-time but in the second half had to hang on grimly as Bart's threatened to equalise. In a London attack Quinn made two brilliant saves in succession, and as Bart's attacked Dorrett and Harrison went close to scoring. Lambert had an impressive game at full back.

v. Royal College of Music. Won 3-0

This was a match that was not worth the trouble of rearranging three times. Playing on a small, uneven pitch in Regent's Park with a gale force wind blowing straight down the field Bart's put up a shocking performance against the worst side they have ever played.

Facing the wind in the first half the Bart's defence made the situation worse by continually booting the ball away when playing it on the ground would have relieved the pressure. The forwards should have scored with ease had they been less hasty. R.C.M. came close to scoring in the second half when a bad pass nearly beat

the goalie. The forwards were often in each other's way but eventually Skanderowicz scored with a shot off the post. Following this Harrison scored from a free-kick squeezed through a wall of players. Skanderowicz scored a third just before the end.

v. St. Thomas's. Lost 0-4

Tommies used this match as a "warm-up" for their cup-final tie. With surprising ease they ran up three goals in the first half hour and another in the second half. Bart's defence lacked cohesion and tackling was half-hearted. Tommies moved the ball about with no mean skill and might have scored again but for bad finishing. Bart's scoring opportunities were few and the attack had little enthusiasm.

v. Guy's. Drawn 1-1

This was a somewhat lucky result for the final fixture of the season against the losing Cup-finalists. Bart's defence was at sixes and sevens in the first minute and after one shot had been parried Guy's scored with a lob over the goalie's head. Somehow Bart's managed to hold out against strong pressure from the Guy's forwards who hit the bar or post no fewer than five times! Bart's wasted a number of chances before Bowen-Roberts ran on to a

fine pass to shoot past the goal-keeper. After this setback Guy's were thwarted by their eagerness to score and continual attraction to hitting the ball at the wood-work!

The season's record is very average after promising to be very good at Christmas. The response to playing in the University League has been negative and matches have been cancelled. In view of this the club has withdrawn from the competition for next season and has instead entered for the University cup.

Results:—
Played Won Drawn Lost For Against Points
 26 11 3 12 51 59 25

Scorers: 9 Knight; 8 Weir; 6 Bowen-Roberts, Leech; 5 Burke; 3 Farrow, Skanderowicz; 2 Harrison, Woodrow; 1 Dale, Dorrett, Ellis, Sutton, Turner; 2 O.G.'s.

Players: Burke, Bowen-Roberts, Dorrett, Ellis, Farrow, Harrison, Knight, Leech, Pater-son, Quinn, Skanderowicz, Turner, Woodrow. Also: Dale, Houghton, James, Johnson, Lam-berth, McBeath, McGechie, Moselhi, Place, Thew and Ussher.

The A.G.M. and Dinner will be held on Wednesday, 8th May. All members are urged to attend.

S. C. Ellis



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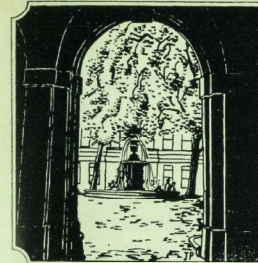
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Saint Bartholomew's Hospital

JOURNAL

Vol. LXXII No. 6

CONTENTS

1st June 1968

Editorial	202
News: Announcements	203
Obituary	204
Nurses' News	208
The Respiratory Unit—The First Year, by J. C. Missen and T. B. Boulton	209
Coccidioidomycosis, by Rick Jolly	215
Some Aspects of African Trypanosomiasis, by Isla Sitwell	219
Dissection Records, by John L. Thornton	222
Follies by Roger Rolls	226
Crossword	232
Away from Mosul, by Colonel W. C. Spackman	234
Ars Longa	238
Reviews	240
Spport	243

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Editorial

It is gratifying to find in the Report of the Royal Commission on Medical Education a chapter devoted to Overseas Technical Assistance.

At a time when there is a shortage of doctors in the country, when the N.H.S. has difficulty maintaining financial stability, and when many young doctors look across the Atlantic for greater opportunities it is worth remembering that there are countries where the situation is *worse* than it is here. For example, simply in terms of manpower, the facts are these. In Britain there are approximately 1,200 doctors per million persons. The Executive Board of the W.H.O. proposed to the 16th World Health Assembly that 100 doctors per million should be regarded as the lowest acceptable standard in a developing country. Nine of the Commonwealth countries represented at the 1965 Commonwealth Medical Conference fell below this level. They were all in Africa.

Many plans are put forward as ways in which aid can be given to developing countries.

One of the most promising is the recommendation that all medical schools in Britain, either singly or in groups, should form a relationship with a medical school in a developing country.

This is surely an excellent scheme. The type of relationship will presumably be left for the respective schools to choose, and it will presumably be very flexible, as the school in the developing country improves. At first it might be necessary for a team of advisors and teachers to go out from Britain and perhaps stay for several years, at a later date this might be a rotating registrar arrangement as between hospitals in this country, later still it might be a visiting professorship arrangement—in either direction. There is obviously enormous scope for expansion in this field.

It is unfortunately not so easy to carry out such schemes. Difficult and important problems present themselves. Work in these fields clearly requires very able men who are prepared to work under conditions to which they are not, at least at first, accustomed. If a post at the registrar level is to appeal to the sort of men required, it will have to fulfil at least two basic requirements. Firstly such work should not make it difficult for the doctor to return to Britain and continue on his path to consultant medicine. Secondly it must be a reasonably well paid job otherwise the calibre of practitioner required will not seek this work.

How to ensure that a doctor will not endanger his chances of gaining a consultant post in Britain if he goes to a developing country is perhaps not difficult in theory, but in practice may be. While it is easy to state that work abroad may be taken favourably into account at an interview, this is cold comfort to the doctor who cannot afford the plane fare home to attend the interview. Who is to pay for it? In a similar vein, who is to pay him while he is working abroad? The developing country is unlikely to have enough resources to offer him a competitive salary, and the prospect of seeing satisfactory results of his work may not be enough to entice away a young doctor with perhaps a wife and children. While Britain is in the present economic difficulties it is unlikely that she can afford to offer large sums for payment of doctors abroad. Is the burden then to fall to the medical schools forming the relationships mentioned above? Clearly they cannot be expected to pay it all. But a significant contribution would certainly demonstrate to those in high administrative office that the schools involved in helping those abroad felt it a worthwhile contribution to World health, and might encourage other sources to provide aid.

NEWS

ANNOUNCEMENTS

Birth

CHARLTON.—On 20th April, to Jennifer (née Price) and Clive Charlton, a son (Jason Clive), brother for Simon and Clare.

Engagement

EDMONDSON—BAYSTON.—The engagement is announced between Dr. Philip Charles Edmondson and Miss Margaret Bayston.

Deaths

FINZI.—On 3rd April, Dr. Neville Samuel Finzi, M.B., Lond. (Hnrs. Foren. Med.); M.R.C.S., L.R.C.P. Lond., L.S.A., D.M.R.E. Camb., Hon. F.A.C.R., aged 86. Qualified 1903.

POWELL.—On 17th April, Dr. Ronald Rees Powell, O.B.E., M.A., M.R.C.S., L.R.C.P. Qualified 1916.

WILSON.—On 8th April, Dr. Henry Leonard Wilson, M.D., F.R.C.P., D.P.M., aged 70. Qualified 1925.

Appointments

St. Bartholomew's Hospital Medical School
Dr. John Landon, Senior Lecturer in chemical pathology and in medicine at St. Mary's Hospital, has been appointed to the newly established Chair in Chemical Pathology.

University of Cambridge

Dr. R. J. Harrison, Professor of Anatomy at the London Hospital Medical College, has been appointed to the Chair of Anatomy, *Makerere University College*

R. L. Hucksten, F.R.C.S., has been appointed Professor of Orthopaedic Surgery at Makerere University College, Kampala, Uganda, East Africa.

Royal College of Surgeons

At the ordinary meeting of Council held on 14th March, 1968, Diplomas of Fellowship in the Faculty of Anaesthetists were granted to the following Barts men and women:—

BURBRIDGE, Nicholas John.
HALL, Francis Geoffrey.
JONES, Noel Owen
MATTHEWS, Juliet Mary

Change of Address

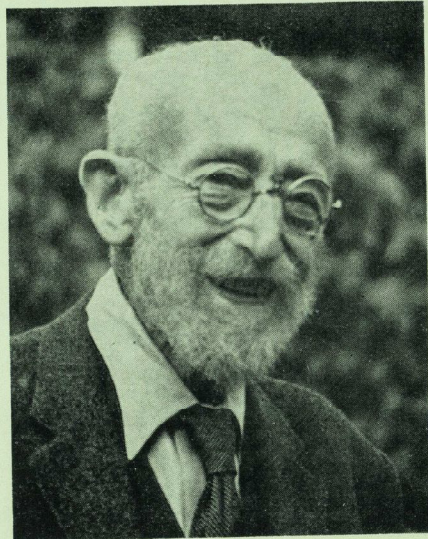
Dr. and Mrs. Archer have now moved to: The Mont Cottage, High Lane, Stanstead, Essex. Telephone Stanstead 2540.

Major A. S. Cane, D.S.O., O.B.E., M.D., has now moved to: c/o Mrs. J. D. Sills, Helion's Bumpstead, near Haverhill, Suffolk.

Change of Professional Address

George T. Hankey, O.B.E., F.D.S., M.R.C.S. Eng., 3 Harcourt House, 19a Cavendish Square, London, W.1. Telephone 01-580 1141.

OBITUARY



BARTS IN THE NINETEEN-TWENTIES

Dr. N. S. Finzi, M.B., D.M.R.E., F.F.R., F.A.C.R.

Dr. N. S. Finzi, M.B., D.M.R.E., F.F.R., F.A.C.R., Honorary Consulting Radiologist to the Hospital died on 3rd April at the age of 86. I have already written a formal obituary notice for the British Medical Journal, and I shall here try to convey more informally, an impression of him as he appeared to his friends and colleagues at the height of his career in the nineteen-twenties and thirties.

Neville Samuel Finzi was born in 1881, the son of a doctor, and qualified from University College Hospital in 1903. In 1907 he was appointed Medical Officer to the Electrical Department, as it then was, of the Metropolitan Hospital where he soon developed an interest in the therapeutic possibilities of X-rays, and later, radium, and as early as 1908 established contact with Dominici and other French workers with radium. He acquired his own

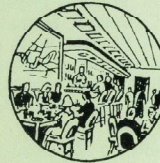
supply of radium in 1909, and used it for surface and intracavitary treatment, and was early in the field of interstitial therapy. The empirical method of dosage which he devised proved to be remarkably accurate when tested by the scientific dosimetry which only became available 30 years later.

In 1913 he was appointed Chief Assistant to the X-ray Department at Bart's, under Hugh Walsham. He served in France from 1914 to 1918, and succeeded Walsham in due course as Medical Officer in charge of the Department. In this office he served the Hospital until his retirement in 1946.

I first met Finzi at Cambridge in 1924, when I was working for my D.M.R.E. Two or three of us post-graduates in radiology had been asked to dinner by Shillington Scales, the Director of the Diploma, and Finzi was the

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guest of honour. He was then in the early forties, and approaching the height of his career, and we were all a little awed at the prospect of spending the evening with so famous a fellow-guest. It was therefore with relief that we found that the youthful, vivacious, gay and unassuming member of the party whose hearty laugh we had heard even before we had entered the drawing-room, was no other than the guest of honour. In appearance he was very tall, very thin, with red hair and a luxuriant red moustache, and gave an impression of tremendous energy. He was interested in any topic which might be discussed, courteous, friendly and a good listener as well as an interesting talker, and indeed a delightful companion. When, later, I called upon him in his department as a candidate for an appointment, I found a very different Dr. Finzi. Frowning, pre-occupied, impatient and harrassed on all sides by people wanting instructions or advice, he allotted me two patients and asked me to prepare treatment plans. When I later handed him my plans, he glanced at them, and uttered two words "what nonsense", adding as an afterthought, "you'd better dine with me this evening, if you can manage". That evening, I approached the door of 107 Harley Street with some trepidation which was not lessened by the magnificence of the interior, but once again I found the delightful Dr. Finzi of the Cambridge meeting. In a very few minutes I was at ease, and being wonderfully entertained by a sympathetic and warmly generous host. I was fortunate in gaining the appointment, and joined Finzi's Department in October, 1924 as Medical Officer to the Radiotherapeutic Research Department. This Department, which subsequently became the Radiotherapy Department, was the first of its kind in this country, and owed its inception to his influence. From his experience with X-rays and radium in treatment before the first war, he had become convinced that the only hope of improvement in the results of the X-ray therapy of cancer was by the use of much higher voltages than were then available, and on his return to Bart's. In 1919 he was instrumental in forming a committee which later became the Radiotherapeutic Research Committee (and is now the Cancer Committee), with the principal object of establishing the high-voltage research department which was eventually opened in 1924. The Radiotherapeutic Research Committee when I arrived at Bart's in 1924 was a very distinguished one. With Sir Thomas Horder (as he then was) as Chairman, its indefatigable honorary secretary was Malcolm

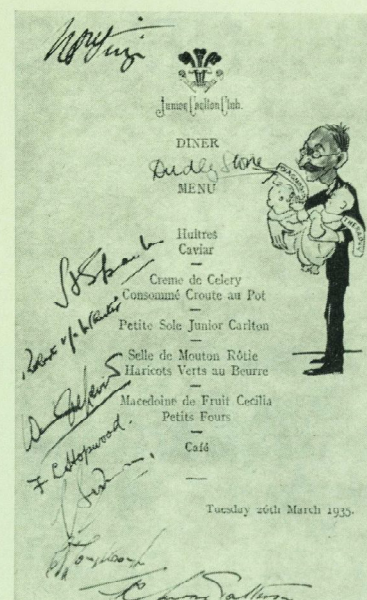
Donaldson, happily still with us, without whose energy and enthusiasm the plans might well not have come to fruition. Geoffrey Keynes, that most erudite and polished of medical writers, also happily still with us, was another member. All the rest are, alas now dead. They included Sir Charles Gordon Watson, George Gask, Professor of Surgery, Douglas Harmer, Frank Hopwood, Professor of Physics, great in frame, in scientific knowledge, and in sound commonsense and Ronald Canti, who was the first to record cinematographically the movements and division of living cells.

The 200,000 volts available in the Radiotherapeutic Research Department did not satisfy Finzi for long, and against the opposition of most other British radiologists he continued to urge the use of still higher voltages. This was the theme of his Mackenzie Davidson Memorial Lecture of 1933, a report of which came to the notice of Mrs. Meyer Sassoon and, through her munificence, led to the establishment of the Mozelle Sassoon Department with equipment operating for the first time in Europe, and perhaps in the world, at one million volts. Unfortunately, this Department had hardly got into its stride when war broke out in 1939, and by the end of the war much higher voltages were in sight and soon became available. But even so, its results lent support to Finzi's strongly held views, which have since been proved to be justified.

Finzi's achievements were not limited to the field of radiotherapy. He was also a first class diagnostic radiologist, and his opinion was widely sought. The work that passed through the X-ray Department in those days was prodigious, having regard to the small staff, and Finzi always exceeded his scheduled hours. Yet he found time to carry on a very large private practice. However, he brought to his recreations, lawn tennis and mountaineering, as great enthusiasm as to his work. For many years he took a six weeks' holiday in the Alps, from which he would return with nose and scalp peeling freely. He entertained lavishly at his house and was wonderful host, with a connoisseur's knowledge of food and wine. He was probably the first to discover that exposure to small doses of X-rays artificially aged wines, and for many years he aged his port in this way. When I acquired a cobalt unit at the Clinic, I tried the effects of this on some fine but new claret supplied by Sir George Aylwen and by Alan Sichel of Sichel and Co. Due probably to gross overdosage the results were disastrous and not unnaturally no further sup-

plies were forthcoming. Equally disastrous was Finzi's experiment with some Waterford glass. One of a pair of decanters which was kept on the mantelpiece of his treatment room at Harley Street turned a beautiful mauve as a result of

exposure to minute doses of radiations over a period of years. When, however, he tried to produce the same effect on its fellow by irradiation it turned a horrible brown and was never again presentable.



Finzi loved children and babies and they loved him. When Geoffrey Keynes removed a cartilage from his knee, visitors to him at the nursing-home would as like as not find him sitting up in bed with a month-old twin on either arm—the mother was very ill, and Finzi was the only one who could keep them quiet. Perhaps this is the inspiration for the cartoon which was drawn for a dinner given to him by his staff on the occasion of the splitting of the diagnostic and therapy departments in 1935.

On his retirement Finzi grew a beard and went to live at Cobham, Surrey, where he devoted himself to his garden. His interest in his old work never abated, and up to a few weeks before his death he read his journals assiduously and made note of matters to be enquired about.

Many honours came his way. He was a founder-member and Past President of the

Röntgen Society, which merged later with another society to form the British Institute of Radiology, of which he was also a Past President. He was a Past President of the Section of Radiology of the Royal Society of Medicine and was President of the Radiological Section of the B.M.A. at the 1932 Annual Meeting. In 1932 he was elected to the Honorary Fellowship of the American College of Radiologists, and in 1965 to the Honorary Fellowship of the Faculty of Radiologists. This latter honour gave his particular pleasure. He held the office of Master of the Society of Apothecaries in 1956. In his last years he endured much suffering with exemplary courage, but however ill he was, he never failed to enquire about old friends and colleagues. He was perhaps the last of the Barts "characters" of the nineteen-twenties.

Walter Levitt.

NURSES NEWS

by Elizabeth Ferreira

There lurk in the Nurses Home a whole range of activities open to the remainder of the hospital. It seems probable that lack of knowledge, rather than apathy is the factor, which controls the low percentage of non-nurses taking part.

Tuesdays and Wednesdays from 5 to 7 p.m. find the Sun lounge of Gloucester House aglow with creativity. Art classes, sponsored by the G.L.C. are held here under the able instruction of John Carter. Most of the work is done in oils. In the Autumn there will be another art exhibition again open to the whole hospital, of work done during the last year—since the last exhibition.

The Choir is the exception, which proves the rule, its addicts are to be found in every stratum of the hospital hierarchy and led by Robert Anderson it enjoys a high degree of popularity. At present it is rehearsing "Judas Maccabaeus" to be performed on 23rd May at 7.30 p.m. in St. Andrew's Church, Holborn. Tickets are priced at five shillings and can be bought in advance (see posters) or at the door. Small musical evenings are held in College Hall, without an audience, members play chamber music and sing solo to piano accompaniment.

Next term the return of folk singing is envisaged, but this time perhaps to College Hall, the volume if not the quality, of audience participation will certainly be enhanced by the proximity of the bar. Dances continue to be held in Gloucester Hall as a traditional way

of raising money. It is also thought in some quarters to be an excessively noisy way of doing it.

Of sports centred on the Nurses Home, tennis and swimming continue to be most popular. The tennis team plays many other hospitals and is this year taking part in the Nestle Inter-Hospital Tournament. There is ample evidence of the prowess of the swimming team in the form of silver trophies. The splendid pool in the basement of Gloucester Hall (open at certain times to all members of the Hospital) is rumoured to have played a part in this. This year Bart's plays host to the Inter Hospitals Gala on 11th July and seems to have an almost unsportingly good chance of winning it.

On the ground floor of the Nurses Home is the office of Mrs. P. Owen, the Social Secretary, she is always happy to deal with enquiries. Hers is the difficult task of integration, societies and activities have to endure the lack of coherence induced by round-the-clock hospital work. Trying to get people together at regular intervals is hard. Mrs. Owen sends out a News Letter each month giving details of coming events etc. She also deals with theatre tickets, passes for Radio and Television performances and inter-relation with the "societies" of other hospitals. This last function has happily become increasingly important lately and the future holds bright prospects of even closer ties.

THE RESPIRATORY UNIT— THE FIRST YEAR

J. C. Missen, B.M., B.Ch., F.F.A.R.C.S. and
T. B. Boulton, M.B., B.Chir., F.F.A.R.C.S.

Until December, 1966, all patients with respiratory problems requiring mechanical intermittent positive pressure ventilation (I.P.P.V.) were treated in the general wards. This situation was unsatisfactory for many reasons; the anaesthetic registrar in charge found it difficult to supervise as many as seven patients on ventilators scattered around the hospital; a considerable strain was placed on already busy nursing staff; and nurses in training often found themselves looking after patients on ventilators when they had little or no experience of this very special branch of

nursing. There could be little continuity of special nursing care in these circumstances and communication difficulties frequently arose when instructions had to be passed on verbally from one nurse to the next.

In December, 1966, a three-bedded Respiratory Unit was opened on the third floor of the Queen Elizabeth block in accommodation generously vacated by the Department of Thoracic Surgery (Fig. 1 and Fig. 2).

From that time it has been possible to nurse patients requiring I.P.P.V. with the essential facilities close to hand and with continuity of

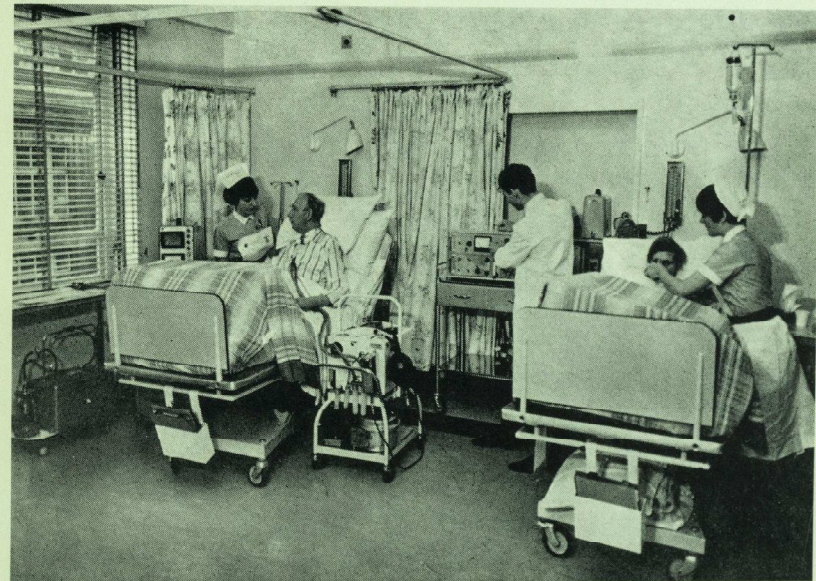


Figure 1. One half of the Respiratory Unit

Note the special beds, the East-Radcliffe

ventilator and the infra-red CO₂ analyser. A nursing commitment of one trained nurse per patient is required.

trained nursing staff. Since the Resuscitation Registrar², (a member of the Department of Anaesthesia), devotes a not inconsiderable part of his time to the respiratory care of patients who have undergone open-heart surgery on cardiopulmonary by-pass, the situation of the new unit next door to the Recovery Room of the Thoracic Surgery Unit also facilitates closer and more adequate supervision of these cases than has previously been possible. The experience gained over the past six years in this Recovery Room and in the hospital emergency cardio-pulmonary resuscitation service has provided a valuable basis of practice¹ for the new unit and full use has been made of the excellent ancillary services already provided. Expert physiotherapy and efficient portable X-ray facilities are of great importance in a unit such as this. The unit is also fortunate in the prompt and valuable service given by the Department of Pathology and Bacteriology and for the advice and help which is always available from the Cardiologists and the Thoracic Surgeons. The

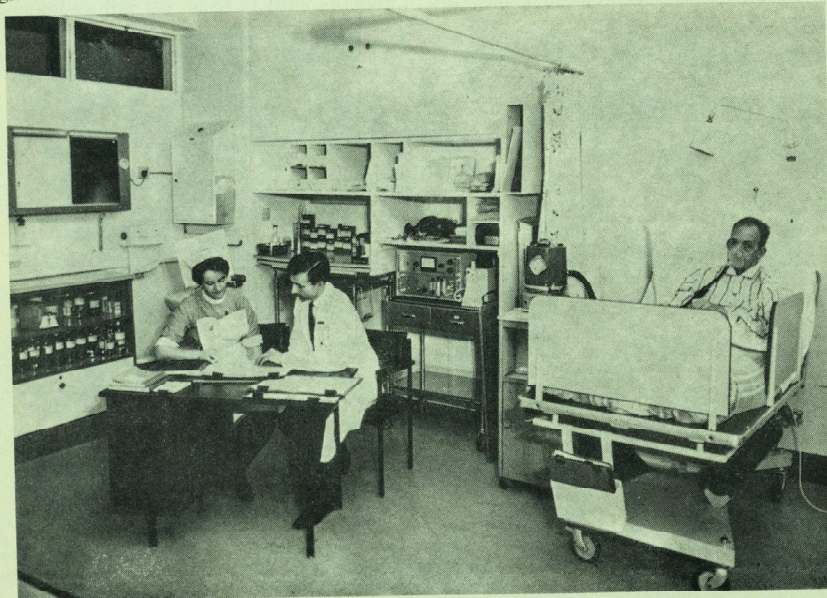


Figure 2. The other half of the Respiratory Unit Administration and storage of equipment

operating theatres are relatively close and blood gas analysis is available either in them or from the Anaesthetic Research Laboratory.

ADMINISTRATION

Patients may be transferred to the Unit from any part of the hospital; many come direct from theatre or from the Casualty Department. The Respiratory Unit is administered by the Department of Anaesthesia and the Resuscitation Registrar is responsible for the co-ordination of the day to day treatment but the patients remain under the care of the admitting consultant. This co-operation between members of many departments has been a rewarding experience which has provided valuable lessons in the liaison necessary in running an Intensive Therapy Unit. Patients are usually transferred convalescent to the wards of the admitting firm or department but, on one occasion, a long-term ventilatory case was transferred to St. Ann's, Tottenham, which specialises in the care of chronic respiratory problems.

must be contained within the Unit. Lack of space is the main problem which limits the scope of the Unit at the present time.

**RESPIRATORY UNIT
DAILY MANAGEMENT CHART**

Date: _____ Name: _____ Serial No. _____

A. MEASUREMENTS AND INVESTIGATIONS

PATIENT		BLOOD CHEMISTRY		BLOOD GASES	
	Time				
Pulse		Sodium		pH	
Apical Pulse		Chlorides		Base	
Temperature		Potassium		P _{o2}	
Respiration		Blood Urea		P _{o2}	
Blood Pressure		HD.		O ₂ sat.	
Venous Pressure		P.C.V.			
Fluid Balance					
		Sputum			
		Tracheostomy Wound		VENTILATOR	
		Urine		Tidal Volume	
		X-Ray - Chest		Rate	
		X-Ray -		Pressure	

B. GENERAL MANAGEMENT, DIET etc.

C. TREATMENT

	Name of Drug or Preparation	Quantity	Frequency of dose	Route*	Times Given
I.V. FLUIDS					
1					
2					
3					
4					
DRUGS etc.					
1					
2					
3					
4					
5					
6					

* 'A' means ADD to drip bottle
NOTE: Drugs must also be prescribed and checked on the Blue Board.

Completed by

Figure 3. The Daily Management Chart (See text.)

Records and Charts

Detailed instructions for the care of the patient for each period of 24 hours are recorded on a Daily Management Chart (Fig. 3). Medical and nursing staff can thus see at a glance the treatment and investigations which are currently being undertaken.

Pulse, B.P., drugs given, fluid balance, suction, physiotherapy and nursing care are recorded on an Intensive Care Chart which, when folded, may be filed in patient's ward notes (Fig. 4).

Detailed case notes on the patient's progress are kept by the Resuscitation Registrar. This

is particularly important as it enables the Anaesthetic Registrar on duty at night to continue the necessary close supervision.

RESULTS

Tabulation of results is difficult because of multiple pathology but Table 1 demonstrates the wide variety of patients admitted to the Unit.

Post-operative cases

Patients admitted post-operatively constituted the largest group (28 cases) Table 2. All failed to breathe adequately at the end of the operation, but not all had been given muscle

relaxants and a number were unable to breathe for mechanical reasons, such as ruptured aortic aneurisms with gross abdominal distention. The mortality (41%) might be considered depressing but it must be remembered that many in this group were elderly and often very ill, having undergone major surgery which could truthfully be described as "heroic".

Obstructive lung disease

Eight patients were ventilated for acute chest infections which had led to respiratory failure.

TABLE 1

Patients Treated in the Respiratory Unit 20.12.66 to 19.12.67.

	No. of Patients	Dis-charged	Died	Still in Unit
Post-operative	28	12	16	—
Obstructive lung disease	8	6	2	—
Myocardial infarct (post arrest)	8	5	3	—
C.V.A.	6	1	5	—
Drug poisoning	5	5	0	—
Crushed chest	5	4	1	—
Status epilepticus	3	2	1	—
Multiple injuries	2	1	0	1
Miscellaneous	5	3	1	1
Totals	70	39	29	2

The length of stay of patients in the unit varied from one day to over three weeks—the average being ten days.

No. of Bed-Days per Patient

Days	1-2	3-5	6-10	11-20	Over 20
Patients	19	18	14	10	9

Patients with an acute infection superimposed upon mild parenchymal lung disease respond to vigorous physiotherapy, controlled oxygen and antibiotic therapy, but more severe cases are liable to sputum retention and respiratory failure. Such patients can be divided into two groups:

Group 1. The less severe cases may be ventilated via a non-irritant plastic oral endotracheal tube. These tubes facilitate I.P.P.V. and the removal of purulent sputum by suction and may safely be left in place for 5 to 7 days. By this time, the patient is afebrile, the lungs are clear and fluid balance has returned to normal. Following a trial of spontaneous ventilation the patient is extubated, and con-

trolled oxygen therapy is continued via a blower humidifier and a Harris face mask until analysis shows that the blood gasses have returned to acceptable values.

Group 2. The more seriously affected patients require I.P.P.V. for up to 2 to 3 weeks and therefore require a tracheostomy. At first it is not always possible to place a patient in the correct group unless the history is known but the distinction will become obvious when the trial of spontaneous ventilation is allowed

TABLE 2

POST-OPERATIVE PATIENTS

	No. of Patients	Dis-charged	Died
Aortic aneurism ...	5	1	4
Portal hypertension ...	3	2	1
Embolism ...	3	1	2
Fracture of the femur ...	3	1	2
Perforation ...	2	2	0
Acute pancreatitis ...	2	1	1
Carcinoma of the oesophagus ...	2	0	2
Excision of the colon ...	2	2	0
Hemihepatectomy ...	1	0	1
Cervical cord decompression ...	1	1	0
Air embolism ...	1	1	0
Pneumonectomy (chronic renal disease amyloidosis)	1	0	1
Pneumonia following peritonitis	1	0	1
Bleeding gastric ulcer	1	0	1
Totals	28	12	16

after 5 to 6 days I.P.P.V. It may then be found that parenchymal involvement is so severe that patients are unable to maintain adequate oxygenation at this stage, although they may be able to eliminate CO₂.

Following I.P.P.V. for 2 to 3 weeks blood gas tensions will be found to approach normality when the patient is being ventilated with air, and a trial of spontaneous ventilation with added oxygen can be attempted. Weaning the patient from the ventilator may take some days but fears that such patients would never be able to breathe spontaneously again after prolonged ventilation have so far proved groundless; it should be pointed out, however, that all the group 2 patients treated were

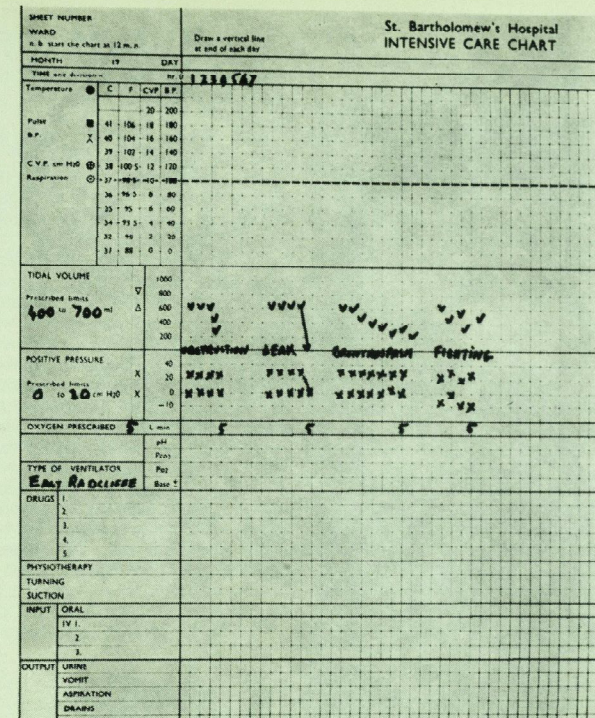


Figure 4. The Intensive Care Chart.

The chart may be adapted to the acute and chronic phases of the treatment of the patient; each division may be made to represent fractions of an hour, one hour or multiples of an hour as necessary. If the mechanical parameters deviate outside the prescribed limits, as in some of the examples shown, the Resuscitation Registrar is immediately informed.

ambulant and two were working prior to their acute attack.

Three patients died from overwhelming infection in spite of vigorous treatment.

Myocardial infarction with cardiac arrest

Four patients were admitted straight from Casualty after a co-ordinated rhythm had been restored following cardiac arrest outside the hospital. One survived, only to die nine weeks later from a further infarct.

Four patients arrested in the general wards

and were transferred after the heart had been restarted—three were still alive and one lived for another year before her next fatal coronary occurred.

Crushed chests

Five patients required tracheostomy and I.P.P.V. following multiple fractured ribs with underlying contusion of the lungs, thoracic cage instability and associated ventilation/perfusion disturbances. Several of these patients had other injuries in addition to the fractured ribs. One

patient showed E.C.G. changes which had reverted to normal by the end of a week. Another patient became anuric and required peritoneal dialysis for three weeks.

Four patients survived; one patient, aged fifty, initially did very well but succumbed to unsuspected pulmonary tuberculosis discovered on routine sputum testing while on I.P.P.V.

Cerebral injury and disease

Not unexpectedly the mortality rate from respiratory failure associated with subarachnoid haemorrhage or traumatic head injury was high. Of the six patients admitted only one survived.

CONCLUSION

The three-bedded Unit is modestly accommodated and staffed compared with other units³ and should be regarded only as a pilot scheme. It must also be remembered that it serves only one aspect of modern "intensive care"—the treatment of respiratory failure. Even then there are insufficient beds to accommodate all the cases who require treatment on mechanical ventilators; twenty patients had to be ventilated in general wards during the period under review because accommodation was not available in the unit; in addition sixty cases were

ventilated electively in the Thoracic Surgical Recovery Room and a small number of infants were ventilated elsewhere in the hospital. Unfortunately the unit is not able to accept cases which require isolation as there is no space for a cubicle.

The services of the unit are being increasingly sought for the other intensive care facilities which are provided in addition to respiratory care. There is an urgent need in the hospital for improved post-surgical recovery facilities particularly in the field of major reconstructive surgery and radical surgery for neoplastic disease; such patients require a degree of intensive treatment and a concentration of specialised nursing staff which is neither possible nor practicable in a general ward.

The increasing demand on the unit reflects a generally growing appreciation and support for the concepts of progressive and intensive care⁴. Furthermore, a growing number of nurses in training are discovering the satisfaction which nursing in such a unit provides. Intensive care units demand a high nurse/patient ratio and the heavy nursing involved may require special off-duty arrangements⁵ but they result in better patient care and lighten the burden elsewhere in the Hospital.

SUMMARY

The first full year of work by the Respiratory Unit is reviewed and discussed. The need for improved facilities in this field is emphasised and explained.

ACKNOWLEDGEMENTS

The authors are indebted to the Department of Medical Illustration for the figures.

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Coccidioidomycosis

a study by Rick Jolly

Coccidioidomycosis is an unusual fungal disease endemic to a region of California that merits only small print even in the larger textbooks. Though almost always benign in its course, the disease can be rapidly fatal, and there are probably a large number of persons today with undiagnosed primary infections. With heavy tourism through the endemic area and ever increasing transatlantic exchange, the disease may be encountered in England and Europe.

The San Joaquin (pronounced "wah-keen") Valley is 450 miles long by 50 wide. The Pacific ocean and a protective ring of mountains give it a uniform climate that together with a complex irrigation programme make it extremely fertile. The endemicity of the fungus is highest in the south, especially in Kern, King and Tulare counties, (the latter giving its name to the plague-like tularemia which has squirrels and rabbits as animal vectors). Endemicity has also been shown in the adjoining states of New Mexico, Arizona and Texas. The world's first case occurred in Argentina, and the disease has also been reported as originating in Venezuela, Bolivia and Paraguay.

In 1891, an immigrant Portuguese farm labourer in the Valley noticed a tender spot on the back of his neck that slowly spread forwards over his face as open, fungating and painful sores (see Fig. 1). Abscesses developed in the legs and testes, the sputum became purulent, and he died in hospital in early 1895. Post mortem examination showed abscesses riddling the body. Microscopically, these were filled with an unfamiliar parasite which was named *Coccidioides immitis* ("not mild," hence "savage") by Rixford and Gilchrist in the first published report* of the disease. From that time until 1937, much progress was made in the study of the mycology and pathology of the disease. However, it was generally assumed that infection always led to the fatal granulomatous stage.

In 1937, careful analysis of the observations of many doctors in Kern County² showed that many cases of coccidioidal granuloma had been preceded by erythema nodosum, which was also a characteristic feature of the common and locally prevalent "valley fever". Radiological changes in the latter disease, together

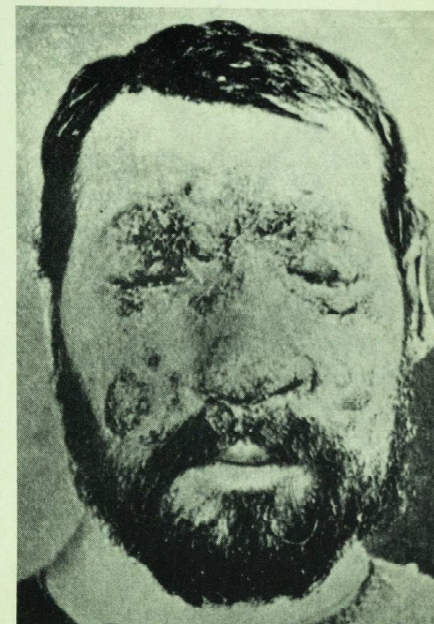


Fig. 1

with occasional positive sputum examinations, were usually much improved after three months. In one series the coccidioidin test was so strongly positive that the test material had to be diluted to avoid complications.

It was then realised that two forms of the disease existed, and the term *Coccidioidomycosis* was used to cover all the manifestations consequent to inhalation of the spores of the fungus *Coccidioides*. These ranged from a mild infection often diagnosed as a cold or influenza, through the erythema nodosum of valley fever to the occasional, highly fatal, coccidioidal granuloma.

The fungus exists in two different phases (see Fig. 2). There is a parasitic phase occurring in the tissues, and a saprophytic phase that is entered when the host tissue dies or the organism is expelled in an exudate. Fig. 3 shows the typical sporangium—a refractile,

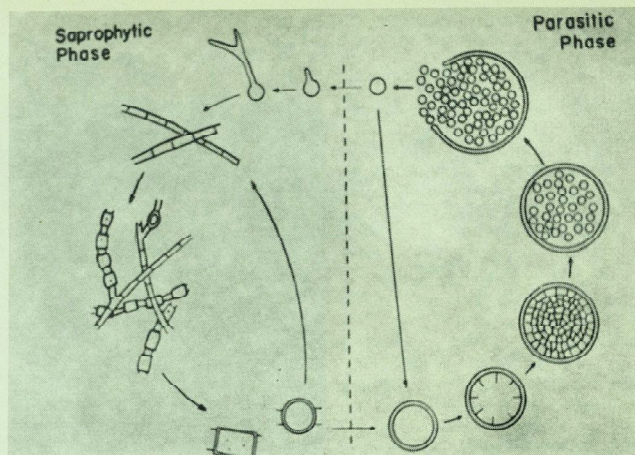


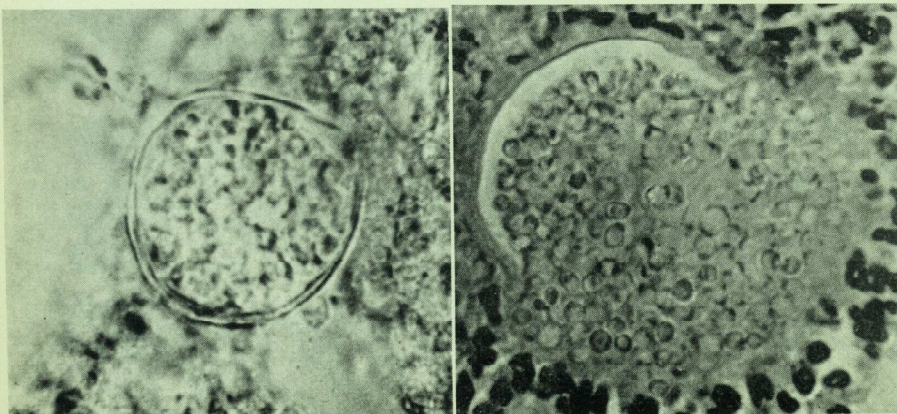
Fig. 2

double-walled sphere containing up to 250 endospores according to cycle stage and maturity. Fig. 4 shows the bursting spherule liberating the endospores into the host tissue.

Clinically, the disease is difficult to differentiate from tuberculosis, but the clinching feature of diagnosis is the isolation from infected material⁹ of the organism with its definite, characteristic features.

Sabourad's dextrose agar is a good standard medium, especially with added peptone. Animal inoculation techniques and a modification of

Fig. 3



the P.A.S. method of tissue staining have been described⁴.

It is extremely important to take proper precautions in the laboratory, as deaths have resulted from incautious handling of specimens⁵. The main principle is to avoid inhalation of the highly infectious (saprophytic) mycelia in the culture plate or tube. All suspicious cultures should be kept sealed until autoclaved or killed by formalin.

The question of contagiousness has often been controversial. The isolation that was the

Fig. 4

natural reaction to the ugly cutaneous sores of the early cases was later modified when it was shown that only the hyphal or saprophytic form was infectious. Attempts to infect living tissue with the parasitic spherule have always failed. Even when the hyphal form was found in the residual pulmonary cavities of some patients, no single incident of cross infection was shown in extensive investigations⁶.

Fig. 5 Isolated peripheral granuloma.



Immunologically there is good response to infection, which is normally lifelong and complete. Although the susceptibility to the primary infection is similar in all races, the reaction to the infection differs. Negroes, and especially Filipinos, are much more likely to develop the serious, disseminated forms of the disease (about 1 per cent. of all cases). The reasons for this are unknown. Age and sex are probably not significant factors in susceptibility, but dissemination is commoner in men.

The commonest immunological test uses coccidioidin⁷, a filtrate of the cultures of 10 strains of *Coccidioides*. 0.1 ml. of 1:1,000 dilution (dilution depending on potential hypersensitivity) is injected intracutaneously from a sterile, tuberculin-free syringe. The test is read at 24 and 48 hours and considered positive if there is induration of greater than 5 mm. Local erythema must be ignored.

The clinical course of the disease may be summarized thus:

1. INFECTION

	symptomatic	
Pulmonary		"flu like"
	asymptomatic	pneumonia

2. RESOLUTION

benign residual lesions
in lungs, heart and pleura

or,

3. DISSEMINATION

<i>acute</i> :	"miliary", meningitis
<i>chronic</i> :	meningitis, isolated peripheral granuloma

Lesions appear most commonly in the lungs and bones (see Figs. 5, 6 and 7) and the skin—characteristically the nasolabial fold. In dissemination practically any organ, except the G.I. tract, can be involved. The most severe form of the disease, coccidioidal meningitis, is invariably fatal, often after a chronic course.

Studies have not yet shown an effective vaccine for induced immunity, but few primary cases actually need treatment. Where indicated, treatment should be symptomatic, with restriction of activity only in dark skinned patients.

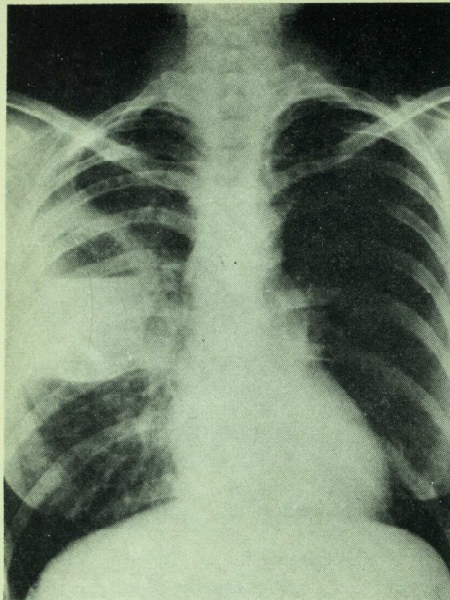


Fig. 6 Note fluid level.

Steroids interfere dangerously with the natural response. Anti-fungal agents such as Nystatin and Amphotericin B have caused temporary remission in some severe cases, but Nystatin should not be used and amphotericin, while being easy to administer I/V is toxic. As one distinguished investigator says, "We are faced

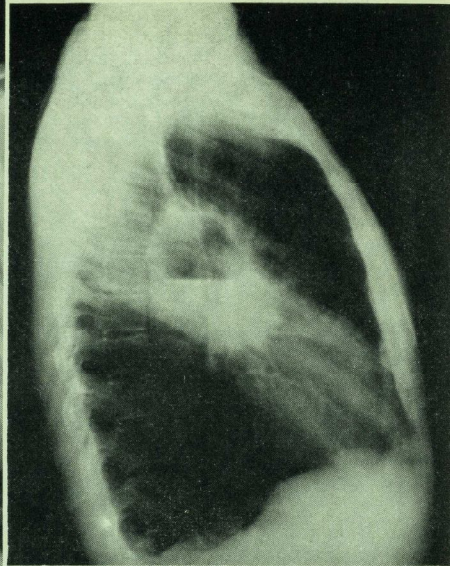


Fig. 7

with the paradox of intimate acquaintance with the disease and embarrassing confusion about its cure."⁸

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Some Aspects of African Trypanosomiasis

by Isla A. H. Sitwell

The disease of Sleeping Sickness has been known for a long time. From their writings it is evident that the Arabs had encountered it in the 14th Century. It has only been comparatively recently that the aetiology and epidemiology of the disease have been elucidated thus making a rational approach to treatment possible. The effects of the disease on both the human and animal population in Africa has in no small way contributed to creating the Africa we know today. As has been shown so well in the case of Malaria the irradiation of a disease of this nature, in which there is an insect vector, depends to a large extent on an intimate knowledge of the life history of the vector and of its relationship with the human and animal population.

The causative agent of Sleeping Sickness (African trypanosomiasis) is the Trypanosome, a flagellate protozoa 20-30 μ long of the class Mastigophora, which parasitises tissue fluids. The disease in man is carried by *Trypanosoma gambiense* and *Trypanosoma rhodesiense* but the disease in animals, Nagana, is caused by a variety of trypanosomes, some of which are species specific and of which at least one, *Trypanosoma brucei*, is morphologically similar to the human pathogens. Animals can act as natural or reservoir hosts for the human pathogens without showing signs of infection thus setting up a pool of pathogenic trypanosomes from which man can ultimately be infected.

The insect vector is the Tsetse fly, the genus *Glossina*, comprising about 22 species. The flies occupy an area of about 4 $\frac{1}{2}$ million square miles of tropical Africa lying approximately between 15°N and 25°S. They can be found in terrain ranging from mangrove swamps to near desert, from where annual rainfall is 15" per annum to where it is 188" and from sea level to over 6000 feet. All species of *Glossina* can transmit Nagana but only a few can carry *T. gambiense*

and *T. rhodesiense*.

The disease in man is fatal if untreated though the cause of the disease varies depending on whether the infecting organism is *T. gambiense* or *T. rhodesiense*. In both cases there is often a primary lesion on the skin at the site of infection consisting of a localised inflammatory swelling. This may be accompanied by a short fever with pains in the head and joints, stupor and dizziness. In the Rhodesian form (*T. rhodesiense*) Trypanosomes can be found in the blood, but a parasitaemia is rare with *T. gambiense*. The latter usually invades the superficial lymph nodes especially in the posterior cervical region, though glands at the elbow, in the axilla, and in the inguinal region may also be involved. *T. rhodesiense* does produce a lymphadenopathy but not as early as *T. gambiense*. The glands do not usually suppurate and may shrivel as the disease progresses. There may now appear a transient oedema of the trunk and extremities and an exanthemata and erythema of the skin. After 4-6 weeks in the Rhodesian infection or several months in the Gambian, the trypanosomes migrate to the CNS. Symptoms of involvement include tremors of the limbs and outstretched tongue, paralysis of muscle groups, increased reflexes, unsteadiness of gait, some hyperaesthesia and, characteristically, a desire to sleep during the day. Symptoms of epilepsy and meningitis may also appear. Death occurs within six months in *T. rhodesiense* infections but may be delayed some years in the Gambian form. It was noticed in 1864 that Negro slaves imported into Martinique died, often 6-8 years after leaving Africa, of a then unknown, non-infectious, disease now thought to be Trypanosomiasis.

The Trypanosome was incriminated as the causative agent of sleeping sickness early this century when Dutton in 1902 discovered *T. gambiense* in cases in Senegambia. Since then

much work has been done on its life cycle in man and in the fly. When a member of the species *Glossina* bites an infected man or animal it is capable of transmitting the disease mechanically for a short time. The fly vectors specific to the Gambian form are *G. palpalis* and occasionally *G. tachinoides*, and for the Rhodesian form are *G. morsitans* and occasionally *G. swynnertoni*. To take the cycle between man and *G. Palpalis* as an example, the fly will ingest the *T. gambiense* sucked from its infected victim. The trypanosome passes through several reproductive and developmental stages in the intestine of the fly finally migrating to the salivary glands as a crethidial form. This matures in the glands to the metacyclic (trypanosomal) form and only then is the fly infective. This process takes 18-20 days and is only completed in a small proportion of individuals. It has been shown that *G. palpalis* is more readily infected by an infected feed taken on the first day after emergence (7.6%) than if the feed is taken on the second day (1.1%) or afterwards. Thus for transmission to occur the following criteria must be satisfied: the fly must be willing to feed within 24 hours of emergence, the first host must be an infected man in whom the disease is in an early stage with sufficient trypanosomes in the peripheral blood, and the fly must survive for at least 18 days to become infective.

Gambian trypanosomiasis is limited to West and Central Tropical Africa spreading as far east as Lakes Victoria and Tanganyika, whereas the Rhodesian form is found in the East ranging from Kenya to Rhodesia.

Glossina palpalis, the main vector for *T. gambiense*, lives close to water and occasionally in forests where it can survive in the damp microclimates created by dense foliage. For the disease to become established there must be a close Fly-Human relationship. Obviously once a fly population has become infected the human population may change and cyclical transmission may still occur. There have been epidemics in all parts of W. Africa since 1925. Just prior to that a pandemic swept from Angola to the Belgian Congo through French Equatorial Africa to Nigeria (1928-36) to the Gold Coast (1932-40) and finally to Sierra Leone (1939-42). These were all widespread and long lasting and their cause really unknown. Possibly they were associated with a cessation of tribal warfare. Before this people lived in closed communities in the forests surrounded by a wide clear area where the trees had been felled to eliminate the possibility of a surprise

attack. Thus they were also separated from *Glossina*. When tribal conflicts ceased a population dissemination occurred with individuals living in the forest in close contact with *Glossina*. Also the Trypanosome's human host could travel further afield on the new railways and roads that were being built.

As has been mentioned the fly-human relationship is important. The closer this is and the less movement there is the higher will be the chance of cyclical transmission. There are three main factors affecting the Fly-Human relationship. Firstly geographical: a village pond choked with undergrowth provides an excellent site for a close unchanging fly population. Secondly, and probably the most common, is climate. A hot dry climate may dry up all the waterholes except one thus providing a stable fly population and a very large—perhaps several villages—susceptible human population. Thirdly, man may have killed off many of the wild animals to assuage his own meat hunger. Therefore the fly bites man preferentially. Transmission from man to man in the same village can be obtained via a local stable fly community. Transmission between villages also occurs. Many Africans are keen market gardeners and travel far to sell their wares. On the way they may congregate at recognised meeting places to refresh themselves at the waterhole. Thus the fly community at that hole may infect individuals from many villages. Again some rivurine sites may be used by members of more than one village for fishing or for collecting bamboo building poles etc. In the laboratory it has been found that *G. morsitans* can transmit *T. gambiense* but this probably rarely occurs in the wild. It has been noted that villages infested with *G. morsitans* do not succumb to *T. gambiense* infections, whereas adjacent villages associated with *G. palpalis* do.

In *T. gambiense* infections the cycle is always Man-Fly-Man. There is little evidence on an animal reservoir. In the Rhodesian form however a disease reservoir in wild animals is most important. Surveys have shown that 52% of waterbuck are infected along with bushbucks, antelopes, zebra and warthogs. The bushbucks and warthogs are particularly important because they are more likely to be near villages in small groups. These animals are not affected by *T. rhodesiense* and act purely as reservoirs. It is thought that they are not themselves often bitten by *G. morsitans* but that transfer of infective trypanosomes may be entirely mechanical and due to some other bloodsucking insect common to both man and the animals. In this

case the trypanosomes would be maintained by their reproduction in *Glossina* during a Man-Fly-Man cycle and would merely be stored in the animals. Apart from the animal reservoir the same points regarding fly-human relationship and transmission by population migration apply here as they did with *T. gambiense*. *G. morsitans*, the principal vector of the Rhodesian form, has a wide habitat ranging throughout woodland and savannah.

The disease in animals, Nagana, may not be as unrelated to the human disease as has been thought. *T. brucei* was discovered by Bruce in Zululand in 1894 and shown to be the aetiological factor in Nagana. It is now known to infect horses, cattle, sheep, goats and dogs, the disease being especially fatal in horses. Again there are animal reservoirs in zebras, antelopes and waterbuffalos. *T. brucei* is morphologically similar to *T. gambiense* and *T. rhodesiense* and the question arises as to whether in fact *T. brucei* is a reservoir of *T. gambiense* or *T. rhodesiense* or whether it is a different species and not pathogenic for man. The disease in animals is in many ways similar to that in man. It is characterised by oedema, weakness and emaciation. The disease in cattle takes a chronic course. The animals are usually young when first infected and, depending on the trypanosomal challenge, may build up an uneasy balance with organisms which may be tipped against the animal in the event of stress. For this reason the infected cattle cannot be used as beasts of burden and great trouble is taken to drive cattle from summer to winter pastures through fly-free country. The acute disease in horses has been blamed for the failure of the followers of Islam, who relied on horses for transport, to penetrate and indoctrinate Africa.

Control measures against Trypanosomiasis can only be effective if the relationship between Man and Fly is understood. They may be directed either at Man or at the Fly or both. Mass movements of infected populations into fly-free areas have been carried out with some success. Before World War II the Germans in

German East Africa used almost a scorched earth policy to irradiate the habitat of *Glossina*. In the hot weather the fly can only live in the microclimates created by vegetation near watercourses so if these are destroyed the fly too must die. Insecticide control is not satisfactory. The habitat is left denuded of flies and very rapidly is invaded by *Glossina* from neighbouring areas and, because of lack of competition, is quickly populated. Human surveillance and treatment is being tried on an ever increasing scale. As Man is probably the only host for *T. gambiense* rapid treatment of cases would be expected to work. *T. rhodesiense* is more of a problem because of the animal reservoir. Either the animals must be slaughtered or else driven to well defined areas where eventually the disease would die out. Both diseases can be cured in the human using Mel B or pentamidine. Mass prophylaxis with pentamidine has been employed, one injection being given every six months. However the effect wears off about a year after treatment is stopped and hence unless the entire susceptible population can be induced to continue their treatment the system fails and the area becomes reinfected. Either a large medical team must be used to follow up the scattered population or the treatment is virtually useless.

In this short account the emphasis has been placed mainly on some aspects of the epidemiology of Trypanosomiasis and no mention has been made of the morphology, serology and in particular the antigen lability of the trypanosome when passaged through laboratory animals. The study of the epidemiology of disease is becoming increasingly important now that fast world-wide travel has become a reality. An understanding of the points mentioned relating to transmission of disease over distances and to the vector human-animal relationship can be applied to many diseases and can help to create a programme of preventative medicine which is both economically and socially viable.

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DISSECTION RECORDS AT BARTS from 1832-1872

by John L. Thornton, Librarian

A few months ago Dr. W. J. Hanbury deposited in the Library four old leather-bound volumes which had come into his possession, and which at first glance appeared to be post-mortem records. On closer examination they proved to be records of bodies dissected in the Medical College between 1832 and 1872, and the information given suggested that further investigation would provide interesting information.

The volumes cover the sessions 1832-3—1834-5, 1835-6—1841-2, 1842-3—1854-5, and 1855-6—1872-3 (ending at December, 1872) respectively. The first contains records of 279 bodies, the second 484, the third 747, and the last 1,032, making a total of 2,542. The numbers for each session vary between 108 and 41, the average being about 60 per session. The books contain the following details: full names, and it is notable that very few persons had more than one forename; sex and age; address; where death took place; date of death;

date of receipt of body; time, and name of office of person handing over body (e.g. "7 P.M. from the Beadles"); cause of death and name of person signing the certificate; date of burial (mainly in earlier entries). Notable names among those signing death certificates are George Burrows, G. L. Roupell, William Lawrence, E. A. Lloyd, Clement Hue, P. M. Latham and Edward Stanley. A large proportion was signed by Frederick Wood, the Apothecary. It was noticed that entries for 1837-8—1840-41, 1853-4 (first four entries only) and 1859-60 to the end of the 1862-3 session are mainly in the handwriting of Sir James Paget.

It was decided to compare the first one hundred entries with the last one hundred entries (an interval of approximately forty years) to note the marked difference in given causes of death, and in other details. Most deaths took place between the ages of 60-69 (1832-3, 19; 1871-2, 23), but in 1832-3 18 died

between 40 and 49, 16 between 50 and 59, and 5 (all females) were between 80 and 89. In 1871-2 the second highest age-group for deaths (18) was between 30 and 39 (equal male and female). Six (4 female and 2 male) were aged 80-89, and two (both female) were 90 and 94 respectively. In the 1832-3 group there were 43 females and 46 males (sex was not given in all instances), and in the 1871-2 group there were 44 females and 56 males. Places of abode, where given, were mainly workhouses, and in the 1832-3 group the following appear: Unknown, 30; Shoreditch Workhouse, 15; St. Giles Workhouse, 7; Islington Workhouse, 3; Aldersgate Workhouse, 3; Saffron Hill Workhouse, 2; House of Correction, Cold Bath Fields, 2, and Waistalls Lunatic Asylum, St. Sepulchres Workhouse, St. John's Workhouse, St. Martin's Workhouse, and St. Margaret's are also mentioned. Forty years later none of these is mentioned, but instead we have Holborn Union, 28; St. Luke's Workhouse, Holborn, 13; Holborn Workhouse, 7 (these three institutions appear to have been separate as they are often named on the same page); Whitechapel Workhouse, 4; St. Mary-lebone Workhouse, 3; Highgate Infirmary, 2; St. Giles's Workhouse, 2; and Edmonton Union, Westminster Workhouse, Milbank Prison and the Female Penitentiary are also mentioned.

Causes of death are given in varying terminology according to the whim of the

person signing the certificate, for there was no standardization for the purpose of compiling statistics. There are some fascinating verdicts arrived at after Coroners' inquests, and five of these read: "Died by the Visitation of God". Two of these bodies were marked "For lecture", and one wonders if Mr. Stanley was able to throw additional light on the matter. On March 7, 1834, Thomas Wilmott, aged 50, was found drowned in the Regents Canal: "The body was quite unfit for dissection from putrefication and will be returned for interment tomorrow". There were cases of cut throat (Oct. 25, 1842 and Jan. 1, 1843); poisoning (Jan. 18, 1846 and Nov. 26, 1856); intemperance (Sept. 26, 1856); and Sarah Deprose was found drowned in the Surrey Canal on November 28, 1851. Ann Davis, aged 40, died on Christmas Day, 1851 in Mile End Workhouse as the result of "debauchery"; and Jane Smith, aged 19 died from the "effects of chloroform" (Oct. 20, 1853). The address of Mary Burns, who died on July 28, 1872, of typhus at the age of 67, is given as St. Bartholomew's Hospital, but her body does not appear to have escaped dissection.

During the years 1832-3 the main causes of death are given as Fever (14), with Typhus Fever specified in two additional cases; Chronic Asthma (6); Phthisis (6); Dropsy (6); Decline (5); Measles (5); Consumption (4); Inflammation of lungs (4); Old age (4); Diseased lungs (3);

No.	Name	Age & Sex	Last place of abode	Date and	Place of death	Time of Removal	Day & Hour at which the Body was received and from whom	Buried
2	Christian & Luamama							
1	John Donovan		Workhouse St. Giles in the Fields	Oct. 10 th at 10 P.M.	St. Giles'	Oct. 15 th - 7 A.M.	Oct. 15 th - 7 1/2 A.M. T. Powell	Buried Nov. 3
3	Mary Kinstanley		Workhouse St. Giles in the Fields	Oct. 9 th at 10 P.M.	St. Giles'	Oct. 15 th - 7 A.M.	Oct. 15 th - 7 1/2 A.M. T. Powell	Buried Nov. 3
4	A man unknown	75	Unknown	Oct. 17 th at Church Lane	St. Giles	Oct. 20 th - 7 1/4 A.M.	Oct. 20 th - 7 1/2 A.M. T. Powell	Buried Nov. 17 th
5	James Duggan	50	Parish of St. Mary Axe	Oct. 24 at Saint	Bartholomew's Hospital	Oct. 29 th	Oct. 29. 1 A.M. (Beadles of the Hospital)	Buried Nov. 16 th
6	Edward Coombes	79	Workhouse St. Giles in the Fields	Oct. 29 at 10 P.M.	St. Giles	Oct. 31 st	Oct. 31 st - 8 P.M. T. Powell	Buried Nov. 17 th

Apoplexy (2); Syphilis (2). The following are also among the causes featured: Diarrhoea, Constipation, Diseased kidneys, Internal haemorrhage, Burn, Convulsions, Cough and Dyspnoea, Paralytic "worn out", Visceral disease and ascites, Paralysis and general debility, Delirium (injury to the leg), Heart disease, Died suddenly, Inflammation of chest, Cancer, Effusion upon the chest, Chronic bronchitis, Puerperal convulsions, and Pertussis. It is interesting to compare these figures with those given for 1871-2, and to note the variation in emphasis, possibly due to an improvement in diagnosis and/or a more standardised nomenclature: Phthisis [pulmonary tuberculosis] (20); Bronchitis (14); Senile decay (11); Heart disease (10); Anasarca [dropsy] (6); General paralysis (6); Disease of liver (3); Apoplexy (2); Bright's disease (2), and Typhus (2). Other causes of Death are given as Exhaustion, Aneurysm, Epilepsy, Congestion of lungs, Tubal nephritis, Hydatids in abdomen, Epithelioma of labia, Carcinoma of labia, Pneumonia, Suicide [cut throat], Lupus, Sloughing abscess of neck, Albuminuria, Jaundice, Aneurysm of aorta, Delirium tremens, Softening of brain, Abscess in brain, Rupture of blood vessel, Tertiary syphilis, Pyaemia, Disease of kidneys, Atrophy, Ascites and phthisis, and Empyema. For obvious reasons these mortality statistics cannot be compared with more recent figures, mainly because they chiefly relate to inmates of workhouses, and represented the poorest classes in the community.

These raided cemeteries for newly buried were the earliest to be maintained, and the reason for their existence was found, as anticipated, in the Anatomy Act of 1832. Before this was passed the supply of bodies both for the medical schools and the private schools of anatomy came mainly from the resurrectionists. These raided cemeteries for newly buried corpses, and their exploits have been recorded by Bailey (1896), Ball (1928), Hewer (1954), Le Blond (1965), Turner (1932) among others. Even eminent teachers of anatomy occasionally joined in these pursuits, notably Astley Cooper (Cooper, 1843), who left a remarkable account of his dealings with the resurrectionists, for the teaching of anatomy depended on a supply of bodies, and the only legal source was that of corpses of criminals. Body-snatching was obviously unpopular with the public, but it led to even more dreadful scandals when men such as Burke and Hare turned to murder, selling their victims to the unsuspecting anatomists (see MacGregor, 1884). In fact, Burke and Hare

were never resurrectionists, but supplied the corpses of persons they had murdered, notably to the unsuspecting Robert Knox, who was hounded for his part in the transactions.

In 1831 John Bishop and Thomas Head (alias William) murdered a boy of ten named Cunningham they had found sleeping in Smithfield, and sold his body to Bart's. They were hung at Newgate on December 5, 1831. A document dated December 11, 1831 recording a coroner's inquest has been reproduced by Alexander Macphail (1916-7). The inquest was held in the Board Room at St Bartholomew's Hospital, and was on a body received for dissection with throat cut and other injuries. Mr. Edward Stanley and others decided that death was probably due to natural causes, and that the injuries were caused by body snatchers. The jury returned a verdict of "natural death", and the body was to be re-interred at the expense of Cripplegate Ward. Bart's was in fact, a centre for the activities of the resurrectionists, who brought corpses to the Hospital for distribution, and even shipped them from there to Edinburgh.

A committee under the chairmanship of Henry Warburton was set up to investigate the problem of the supply of bodies for dissection, and Abernethy, Brodie, Astley Cooper and Wakley were among the eminent men who gave evidence. The first Bill came before Parliament in 1829, but was defeated. In 1832, however, "An Act for regulating Schools of Anatomy, 1st August 1832. (Gulielmi IV. Regis: Cap. LXXV)" was made law. This recognised that the legal supply of human bodies for anatomical examination was insufficient, and that to supply these bodies "divers great and grievous Crimes have been committed, and lately Murder". Licenses to practice anatomy were to be granted, and three persons were to be appointed as "Inspectors of Places where Anatomy is carried on", this number to be increased as required. Each Inspector was to make a quarterly return to the Secretary of State "of every deceased Person's Body that during the preceding Quarter had been removed for Anatomical Examination to every separate Place in his district where Anatomy is carried on, distinguishing the Sex, and, as far as is known at the Time, the Name and Age of each Person whose body was so removed as aforesaid".

The Act also made it lawful for any executor or other party having lawful possession of the body of a deceased person, not being an undertaker entrusted with the body for interment, to permit it to be dissected, unless the person

had during his lifetime either verbally or in writing expressed his desire that this should not be done, or if surviving relatives decided against. These could still object if a person directed that his body should be dissected. No body could be removed until forty-eight hours after death, and after twenty-four hours notice of intending removal to the Inspector of Anatomy. Those receiving bodies must obtain with them a certificate of death, and also notify the Inspector, "and shall enter or cause to be entered the aforesaid Particulars relating thereto, and a Copy of the Certificate he received therewith, in a Book to be kept for that Purpose, and shall produce such Book whenever required so to do by an Inspector so appointed as aforesaid". The volumes described here constitute the records kept in accordance with this paragraph.

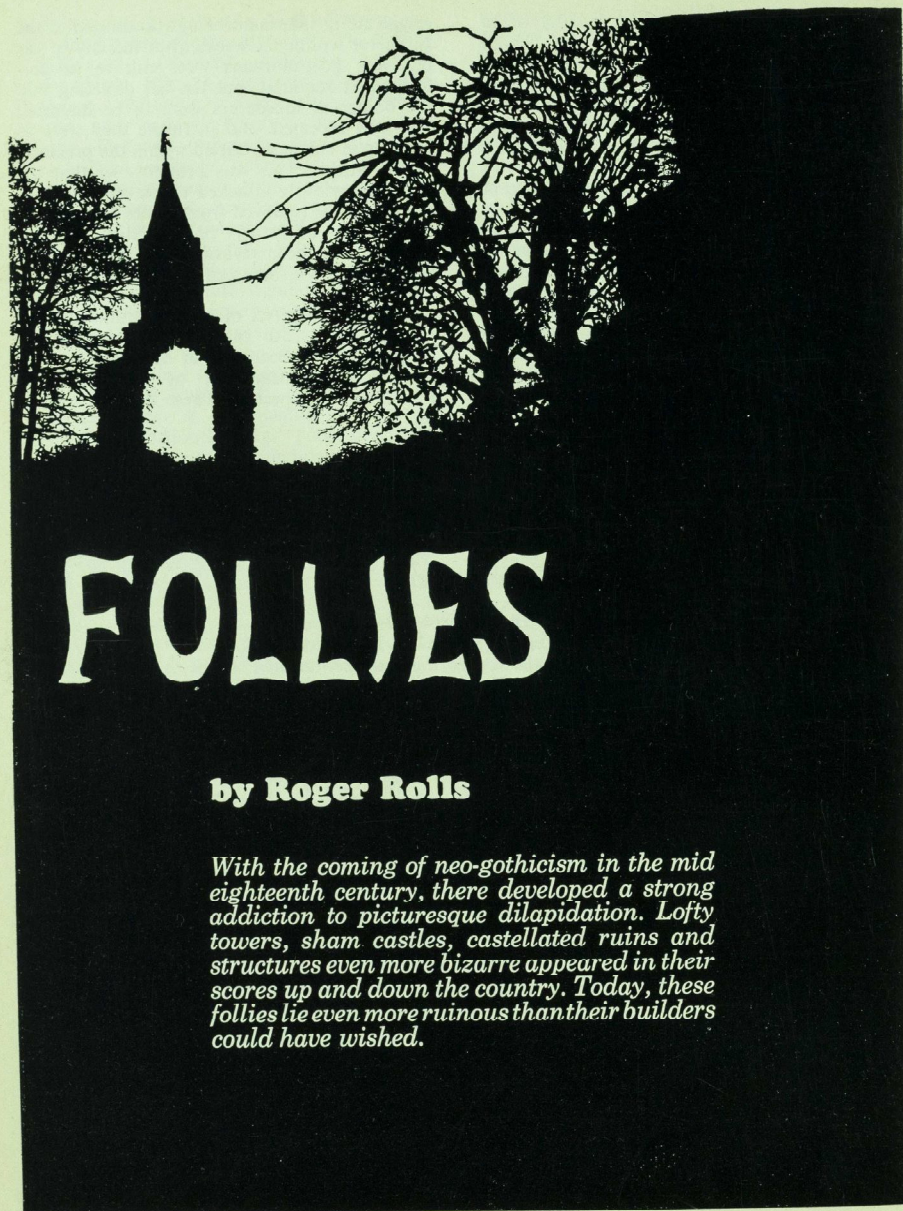
Bodies were to be placed in a decent coffin or shell, and eventually decently interred, a

certificate of interment being transmitted to the Inspector within six weeks after the day it was received. Post-mortems were still to be performed as required, but the act directing that the bodies of murderers were to be dissected was now repealed, and in future they were to be hung in chains or buried within the precincts of the prison. This was probably so that the stigma previously attached to the dissection of criminals was removed from future subjects for dissection. A history of the dissection of criminals has been recorded by Jessie Dobson (1951), mainly from records kept by William Clift.

The Anatomy Act of 1832 was amended by an Act dated 25th May, 1871, which merely empowered the Secretary of State to vary the period for transmission of certificates of interment to Inspectors. These Acts are still in force.

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FOLLIES

by Roger Rolls

With the coming of neo-gothicism in the mid eighteenth century, there developed a strong addiction to picturesque dilapidation. Lofty towers, sham castles, castellated ruins and structures even more bizarre appeared in their scores up and down the country. Today, these follies lie even more ruinous than their builders could have wished.

The road winds tightly, sunk between two sheer walls of rock, then opens quite abruptly upon a tiny Somerset village set in open countryside. Here in Barwick stands Jack the Treacle Eater, overlooking the big house in the park. The house now echoes with the clatter of desk-lids and the recitations of irregular verbs but was once the seat of George Messiter; wealthy, leisurely and undoubtedly eccentric. Jack, athletic and fond of treacle, was messenger boy to the Messiter family, at least so one story goes. But some locals have a different story, about a milkman called Jack who was kept alive in a tower on nothing but treacle. Whoever Jack really was, we may never know but his name lives on in one of four incredible structures which grace the boundaries of Barwick Park at each point of the compass.

Architectural whimsies such as these abound throughout the British Isles and each fosters its own little tale. Some can be seen for miles around whilst others lie crumbling and ruinous beneath rhododendron thickets.

Almost as many attempts have been made to define a folly as there are such structures standing. Strictly speaking, a folly should be entirely without functional intention and should have been erected simply to satisfy and give pleasure to the builder. Not every folly, however, is pointless and gimcrack, neither is every foolishly conceived building a folly. There are many borderline cases which purists would pass by without as much as a glance. These might include gazebos, garden ornaments, temples and summerhouses. Others like belvederes and towers, obelisks and columns are more difficult to cast aside from the folly fraternity. Some follies have become monuments to their builders, but the majority of true monuments could never be classed as follies. Again, the materials used in folly building are as diverse as the types of style. Often quite flimsy materials were used and architectural principles involved did not always make for the greatest stability. Many were very short-lived. Indeed when the enthusiasm for folly building was extended to the builder's own abode, the results were often disastrous. William Beckford's ill-fated Fonthill lasted scarcely more than thirty years before all 276 ft. of Gothic tower slowly subsided one night in a gale.



R. M. ADCOCK

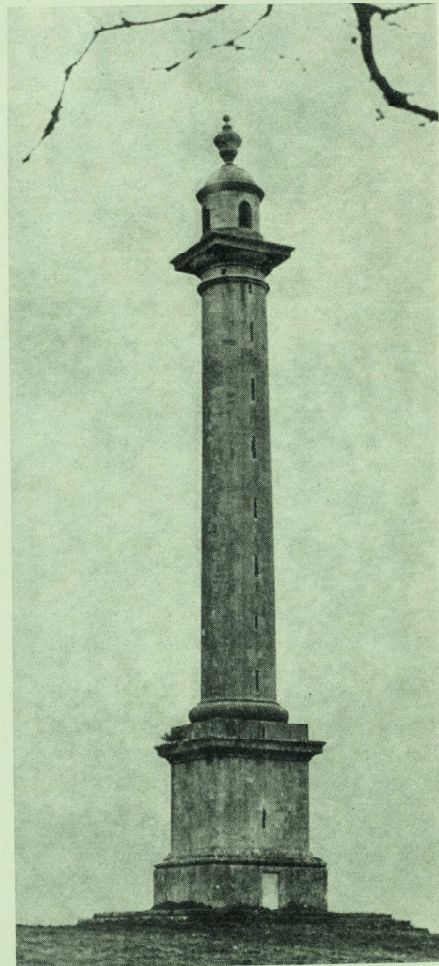
Above: Cone Folly, Barwick.

Opposite: (Litho): Jack the Treacle Eater.

Folly building was ushered in by Sir Thomas Tresham in 1593. Although there may have been earlier follies, his Hunting Lodge at Rushton (Northants) is a splendid example of a building in which utilitarian aspects of design are put last. Tresham was an ardent Catholic and his obsession with the doctrine of the Trinity is believed to be the motivation for building his triangular shaped lodge. Three dominates the whole building. The dimensions all measure in multiple of three feet, there are three floors with three and six-sided rooms, the windows are in threes, surrounded by trefoils. Even the Latin phrases in the inscriptions each have 33 letters.

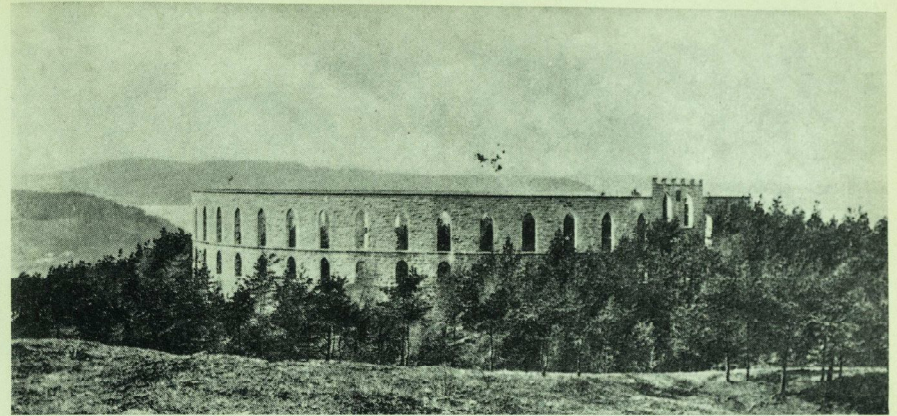
After Tresham's efforts, folly building smouldered ignominiously for about a century until it was fired into flamboyant frenzy by the Romantic Movement. In an age when the ferocity and uncertainty of living had melted into a relatively tranquil society, the imagination became starved of action. Sir Kenneth Clark in his book "*Gothic Revival*" remarks that "the immensely secure society of the 18th century indulged in daydreams of incredible violence". Such a mood can be seen clearly reflected in literature of that time, viz. Northanger Abbey. It was an age in which stimulation of the senses became paramount in the Arts. The eye of fashion looked at landscape through the medium of literature and painting. Great volumes were written on the art of garden design, with particular view to creating mood. In 1767, a book entitled "*Grotesque Architecture or Rural Amusement?*" was published, giving details of plans and elevations for "Summer and Winter Hermitages, Terminaries, Gothic Grottoes, Moresque Pavilions and Mosques" to name but a few.

Early classical garden architecture, no doubt inspired by Grand Tour visits to Italy, formed a basic design for a good many of the earlier follies. The Temples and Mausoleum at Castle Howard are attempts by Vanbrugh to improve the landscape. Earlier classical designs were usually executed by competent architects. Even James Gibbs is thought to have built a folly at Stow. But it was not until later in the 18th century that follies seemed to develop that quaint personal quality which makes them so endearing.



R. M. ADCOCK

Pynsent's Folly, near Taunton; once climbed by a Suicidal cow. Cupola by Capability Brown.



McCaig's Colosseum, Oban.

Classical style in folly building was used far less than Gothic, possibly because, as Hugh Walpole put it, "One must have taste to be sensible of the beauties of Grecian architecture; one only wants passions to feel Gothic". Already a number of mediaeval edifices had collapsed and stood in state of ruin. Ancient fortifications inspired poets like Dyer and Warton in their love of melancholy.

"Tis now the Raven's bleak abode:
Tis now th'apartment of the toad;
And there the fox securely feeds:
And there the poisonous adder breeds
Concealed in ruins, moss and weeds;
While, ever and anon, there falls
Huge heaps of hoary mouldering walls."

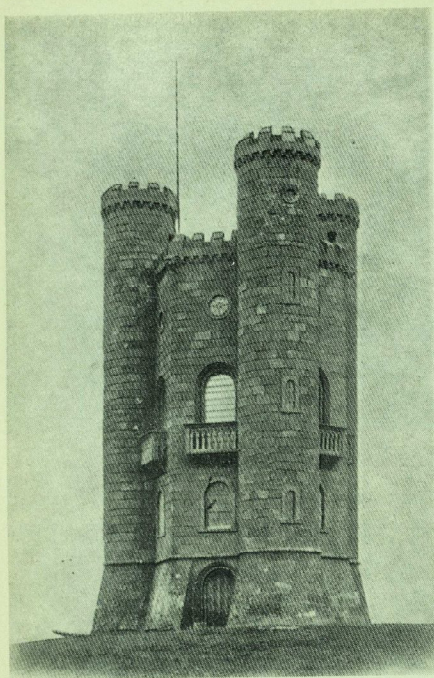
Dyer—"Gronger Hill" 1727

It is not surprising that men like Sanderson Miller, amateur builder and professional follyman, was commissioned by a number of wealthy gentlemen to design castellated buildings "in a style most ruinous". Building ruins on one's estate might well be looked on today as unmistakable symptoms of psychiatric disorder, but in the 18th century it was all rather jolly.

But although a good many follies were erected as props in a vast game of self-dramatisation, not all folly-builders had the sophistication of Walpole or Dyer. Many had nothing better to do with their money. Take the case of mad Jack Fuller. Wealthy and unmarried, he became seized with a folly frenzy in late middle age. Jack swore one night

at a dinner party that the steeple of Dallington church (Sussex) was visible from his dining room window. Unfortunately the next morning proved him wrong. Rather than lose face, he built himself a stone replica of the steeple in a field on top of the hill above the house. Another wager, but this time of a more sinister nature, concerns the building of a great dark pyramid on the Wentworth-Woodhouse estates near Rotherham (Yorks). The base of the pyramid is traversed by a tall narrow arched passage, the "Needles Eye", through which the gambler is said to have driven a coach and four at full speed, a feat to be marvelled at when the width of the arch is scarcely large enough for a mini to pass through.

Some follies were built not only to satisfy a whim but to provide employment for local labour. The Barwick follies were probably built by glovemakers from Yeovil during a depression in their trade. Certainly "McCaig's Colosseum" above Oban made use of local labour. John Stuart McCaig was an extremely wealthy man. During a lecture to the Y.M.F.C.I.S. (Young Mens Free Church Mutual Improvement Society) he is supposed to have told his listeners that in art like all else, it was always possible to improve on the first efforts. The Colosseum "that most splendid of creations", was to be reattempted along the Craigard Road. Today, McCaig's colosseum, its Gothic windows pointing skywards, stands floodlit through the trees above the town.

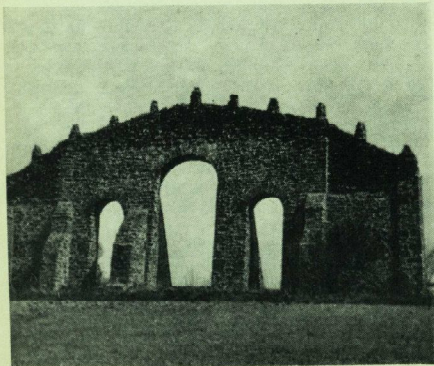


Above: Broadway Tower, sometime home of William Morris.

Right: Ash Tower, Barwick.

Below: Eye Catcher, Rousham.

K. A. YOUNG



Towers standing rampant reflect a redbrick potency on many a hill-top. Built often at the highest peak, its owner would boast a prospect over several counties: seven seemed to be a popular number, though Broadway Tower (Glos.) was alleged to command a view over no fewer than thirteen counties. Towers are particularly notable in the south though they are abundant in every part of the country. A. T. T. Peterson, High Court judge in Calcutta, is said to have had worries about his eventual interment on retiring in 1868. The story of his insistence that his coffin be placed at the top of a high tower is probably not the actual reason why he built a concrete structure over 200 ft. high at Sway (Hants.). It is remarkable that this tower was raised with no scaffolding.

What must be the last folly built in England is yet another tower. Erected by Lord Berners near Faringdon (Berks) in 1935, it provoked a mammoth outcry. Objections arose from all quarters. A Ministry of Health enquiry was held, newspapers talked of scandalous abuse of land and long housing lists, and an admiral complained that his view was ruined. In the midst of the controversy, the tower was built

Books for further reading:

FOLLIES. Ed. Hugh Casson. National Benzole Series. Published by Chatto & Windus. 1963.

A small well-written book which could find a place in the map compartment of any car. Includes gazetteer.

FOLLIES AND GROTTOS. Barbara Jones. Published by Constable. 1953.

Covers every aspect of follies and has detailed descriptions of many of the more interesting. Includes gazetteer.

Follies to see in London are:

GUNNERSBURY PARK, Middlesex. Numerous ruined arches overgrown with weeds.

SEVENDROOG CASTLE, Shooters Hill, Woolwich. 18th century triangular plan tower. Has tea-shop in its base.

ROUNDHILL HOUSE, Dartmouth Road, Sydenham. Wren spire from St. Antholin's church in the city removed here in 1874. Fast being overgrown by proliferating vegetation.

and its final completion celebrated by a grand party which was given full coverage by the Tatler. But the excitement was soon to be extinguished by approaching war.

In days when it is not even possible to erect a greenhouse without infringing some byelaw, follies are evidently a thing of the past. Municipal authorities have little time for frivolity when utilitarian building is so badly needed. Farmers who busy themselves with aluminium silos and modular concrete battery houses are not likely to heed the advice of the author of an 18th century landscape manual who says: "Let every structure needful for a farm arise in castle semblance and every buttress broad whose proud projection seems a mass of stone give space to stall the heifer and the steed". But as the not-so-distant frolics of a less realistic time echo with the ghosts of paid-up hermits and moss and lichens clothe the crumbling masonry, it is we who are left with authentic mustiness, dilapidated and decaying, with doors which creak on their rusting hinges. Only now can these venerable works truly capture the charm of Gothic romanticism which our ancestors desperately wished to resurrect.

Further afield includes:

HORSMONDEN TOWER, Kent.

MAD JACK FULLER'S FOLLIES, Sussex.

At Dallington: The Sugar Loaf.

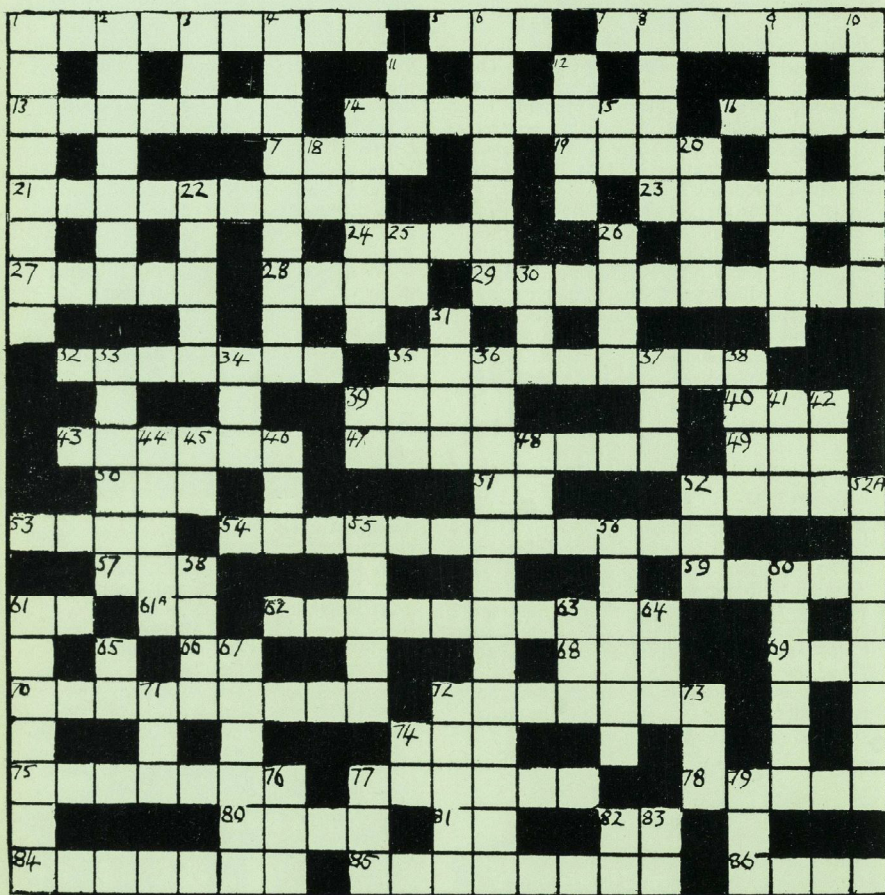
At Brightling: The Needle;
The Mausoleum;
The Observatory;
The Tower;
The Rotunda.

WEST WYCOMBE, Berks.

Converted Medmenham Abbey and Mausoleum. Church rebuilt in 1763 by members of the Hell Fire Club. Church tower surmounted by Golden Ball: within, orgies took place. Shams, grottoes and temples, Stories of debauched living abound.



CROSSWORD



A prize of one guinea will be awarded for the first correct entry opened by the Editor after June 10th.

DOWN

1. No good giving this order to chew over! (8)
2. Looks as though that which heals has upon it a gourmet! (7)
3. Def. art. (3)
4. An ill wind blowing our way from Mon General? (4-5)
6. Pertaining to 59 across (7)
8. How little Edward conducted himself before meals? (5)
9. Lack of sand—painful—not only on the feet! (8)
10. Going up—going down—collect a letter and come into being (7)
11. A favourite changes a letter and gets kicked around (3)
12. Lower House of Legislature of Eire (4)
14. As English a jargon as pie! (6)
15. National Trust (abbrev.) (2)
18. Observe—lose a letter—becomes himself (2)
20. Get rid of a hundred to expose this island's network (4)
22. Skin (5)
25. Not under (2)
26. You'll soon see this precise place (4)
30. To put in ones this may be dampening (3)
31. Fop (3)
33. Waders (6)
34. Approximate this to that which has length but no breadth—there's a good chap (3)
35. Roman nut (3)
36. Traitor (13)
37. Keen resentment (3)
38. Scruff (4)
39. Yes he was born! (2)
41. Forced expiratory volume (abbrev.) (3)
42. Cornish prefix (3)
44. Go to Egypt to see a film? (5)
45. Def. Art (Fr.) (2)
46. Add nil to Manx Races and carry home the medicine (3)
48. Coming carrying this means submission (3)
52. National Liberation Force (abbrev.) (3)
- 52A. Look again—and now tell me something I don't know! (8)
55. Little bird enlists—sounds unsteady—but gives standard answers (5)
56. Shaw's play gives clue to this unhealthy bird! (6)
58. Short month to find this ancient Irish tribal division (4)
60. Given correct punctuation in translation this little fellow kills men! (7)
61. One small volume regretted shewed addition (7)
63. Of the ear (3)
64. Upon (3)
65. Comes after 61 across (2)
67. Half man, half fish (6)
71. Boring tool (3)
72. Suppose there's nothing to long for? (3)
73. Poke
74. Short road (2)
76. Incite (3)
77. Less than an ocean (3)
79. Open country (3)
82. Preposition (2)
83. Of me (2)

ACROSS

1. Medicine mixed with honey (9)
5. Lowest (3)
7. A water-tight case—don't press me for a diagnosis (7)
13. But this is pressing (7)
14. Inclination (8)
16. Binding inclination (4)
17. Ancient Egyptian moon-goddess (4)
19. Way (4)
21. Lopped (9)
23. Break-bone fever (6)
24. Avoid a desert (4)
27. What Dr. ordered? (5)
28. Sanguinous relations! (4)
29. Sounds nice—but go on (10)
32. Take a letter from a bit of skirt to start a church (7)
35. I turn it? No! It's good for me as it is (9)
39. Barely notice a change in the sandhill (4)
40. Remove the silencer from the arrow—you'll get a stern look (3)
43. I make no bones about this part of the anatomy! (6)
47. Means putting in practice (8)
49. Through (3)
50. Is she the plaintiff in the petition? (3)
51. General anaesthetic (abbrev.) (2)
52. Not ever? (5)
53. Bolt, bar or barrier (4)
54. Direction of sensory input? (7-5)
57. Once if necessary (abbrev.) (3)
59. Chronic fungal scalp infection (5)
61. Energy source—just when one's usually hungry (2)
- 61A. Again or back (2)
62. Play ball with this insertion! (10)
66. Physical training (abbrev.) (2)
68. Take away a few coppers for this sheep (3)
69. It looks pretty—as long as its not too tight? (3)
70. To help to heal (9)
72. The Greeks had a word for this impulse to push (7)
74. Was this Belgian town the last resort? or the first? (3)
75. Hoot or wail (7)
77. Taken in time this could make a cat immortal (6)
78. Material sold in a City fair? (5)
80. S-shaped moulding in section (4)
81. Not any? (2)
82. Forenoon (2)
84. Unloading this set of symptoms and signs reveals an abnormal food response (7)
85. I trace by (anag.) (8)
86. Latin loop (4)

AWAY FROM MOSUL

by Col. W. C. Spackman, I.M.S. (Ret'd)

The thrilling account of Col. Spackman's journey is continued . . .

At Mosul (mid-March 1917) the new Town Commandant was only interested in getting me away north out of his hands and I for my part was most anxious to make the long journey of 1,200 miles across deserts and the Taurus mountain ranges into Anatolia, the last of all the captured Kut garrison to set out on the trail that had cost the lives of so many of my fellow prisoners of war. I had been paid by my captors the regulation few Turkish paper pounds and even cashed a cheque—on ordinary paper—with a trusting local merchant (duly honoured after the War by my London bankers, God bless them!) and had hurriedly bought a few much-needed articles of kit.

So, after a day's rest I was put on board the last of a convoy of Austrian lorries returning empty from supplying the Turkish Army on the Persian front at Ravandoz. It sounded wonderful, a week's hard march in 24 hours! I did not realise on setting out that this was to be by far the most uncomfortable and exhausting of all my journeys, and there were times during the following several weeks when I thought I had reached the limit of human endurance. What added greatly to my trials was that I was landed as fellow-traveller with none other than the Afridi officer of the Indian Army of whose loyalty I had been so suspicious in Baghdad. Tribulation had now reduced him to a complaining submissiveness. He grumbled and groaned about everything without ceasing and seemed incapable of doing anything for himself, constantly getting into some dispute with our guards which ended in his appealing to me as to God Almighty for intervention or assistance of one sort or another, but as he and I could only converse in Urdu of which language he knew even less than I did, I felt at times I could well have murdered the brute. On our month-long night-mare journey into the Anatolian mountains I often felt like saying "Drop dead!" and indeed he died of typhus during the summer!

Meanwhile, we stand together in the cool morning air guarding our kits beside the Austrian lorries in the wide square before the massive old caserne at Mosul. On this occasion there were no friends to offer me the customary gifts and tokens of good-will for my journey, and we clambered into the back of the last lorry. We sat hunched up on the bare boards and clung to the sides whilst the empty lorry leapt and bumped along the unending track. This well-used route was very rough and the weather dry, so that each vehicle raised a thick blinding cloud of dust which swept along and eddied back behind the driver's cab apparently in a sinister attempt to blind and suffocate us. For myself, I was soon also denuded of skin through my slacks from the heavy and unpredictable jolting and exhausted by the effort of holding on to the side of the lorry, whilst my Afridi was in an alternating state of being sick and passing out!

I usually enjoy travel at ground level; there is always something of interest to be registered as we pass along, but on this occasion I was too fully occupied trying to mitigate present discomforts to give any attention to collateral interests. A long stretch of high barren ground was followed by a descent to more fertile land with occasional streams where the opportunity was taken to fill up radiators and for a quick wash of face, eyes and hands to get rid of some of the clogging dust.

Tragedy of the Armenians

At these stopping places there were well-built but derelict villages and signs of recent cultivation in the fertile fields. These were, in fact, Armenian villages where the able-bodied males had been massacred by the Turks and the others had suffered the appalling fate of helpless refugees in callous hands. The previous summer, in Mosul, I was besought by an aged woman to take charge of her grand-child, a charming girl of about three but as a P.O.W.

I was powerless to help. In Rome in 1945 I was reminded of this incident by a bronze statue of just such an old woman. She was sitting on the ground in an attitude of utter dejection, her head bowed in woe and on her face an expression of abject despair, destitution and suffering: it exemplified the real tragedy of modern war. But even this poor old woman may have gained some quality of compassion lacking in those who triumph. Look now at another statue, near at hand. Get off your bus at Hyde Park Corner and go into that acre of calmness amid the whirlpool of London's traffic. There you will see a graceful figure in the full glory of his youth and strength lightly leaning in his mighty sword—a splendid, even a touching sight. But note the horrific words upon the pedestal on which he stands. The ruthless inscription reads:—

"Saul hath slain his thousands but David his tens of thousands".

Does he not deserve our pity almost as much as the stricken widow? To defend and protect is a natural and necessary instinct but this is a different thing from glorying in the mass destruction of others.

We halted that first night at a pleasant and peaceful little town, Nisibin, more Syrian in character than Arab, and when we corralled our lorries I found myself lamenting the revolution already taking place in the matter of transport. Where were the caravans of pack animals, camels, ponies and mules I had been accustomed to further East, with their wild-looking men in their quilted and felted garments and fascinating fur hats? Let the journey take five times as long, with unexplained delays in unexpected places, why worry? In the East days and hours were not counted on a niggardly timetable. The muezzin's cry from the minaret at sunset was twelve o'clock desert time, a bit confusing to the westerner and "yavash" (slowly) the key to peace of mind.

But I must hurry after all to catch my lorry. All aboard for Ras-al-Ain with Aleppo next stop after that! Yallah! Yallah!

Ras-al-Ain was a large straggling and amorphous camp without any redeeming feature. It marked the eastern terminal of the railway running from Syria. A double line of rails, for a short stretch only, terminated feebly in the desert sands surrounded by irregular dumps of railway and military stores; a few goods wagons, open and closed, with a couple of smoky, fussy little engines aimlessly pushing or pulling them about but more often standing frustrated except as a source of hot water for

tea for the driver and his friends. During the course of my subsequent rail journeys I learnt to get my hot water for washing and shaving from the same source. Also to be noted were droves of mangy donkeys with down-cast heads and some disagreeable-looking camels. But what did thrill me was the sight of numbers of our sepoy working in gangs on or near the railhead.

As it was now nearly a year since we had been captured, these represented the tough survivors, the "he that endureth to the end" types; they were, by training in the Indian Army, used to hard work and discipline, and so the Turks had found it good policy to feed and shelter them adequately.

The Springs at Ras-al-Ain

One other vivid and surprising memory I have of Ras-al-Ain. Hot, sore and filthy, grimly aware of the sticky and disgusting condition of my shirt and trousers, I asked to be allowed a wash. My guard took me to a place, about half-a-mile away where there was a sequence of three pools arising from the springs from which the place took its name. I chose the furthest and largest with its deep and crystal-clear water sparkling in the sun. All that was needed were a few shady trees and some playful nymphs splashing in the shallows! The water was cool and utterly refreshing, and looking down I could see my own shadow outlined flickeringly on the chalky bottom and shoals of small fish darting too and fro. Enough time remained for me to wash my shirt and trousers and put them to dry on a sun-heated rock while I indulged in a second luxurious paddle around the heaven-sent pool.

One of the minor hardships I experienced in my solitary and forced journeys was getting one's clothes washed, and often de-loused (there was the added risk of typhus), and I often had to do my own laundry as well as my own cooking, both after a fashion, à la guerre comme à la guerre, as the French say.

I had just long enough in Ras-al-Ain for news of my arrival to reach the sepoys working on the line and in particular to the Quartermaster Havildar of my own 48th Regiment who arrived opportunely with a large bundle of miscellaneous clothing and other items including a small cooking pot, every single item of the greatest value to me for months to come, all done up in a blanket.

The affluence of Quartermasters has been a standard army joke for centuries and was the one unailing item in the repertory of all NAAFI comedians. I am sure it dates back to



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Roman times and even to Alexander's Macedonians as they came storming through those Sicilian Gates in the Taurus I was shortly to climb (though in the opposite direction). On this occasion, so far from viewing with sanctionious disapproval the dubious fiddling that had probably been involved. I accepted the Q.M.H.'s largesse with avaricious gratitude!

A night's stop at a bug-ridden hotel in Aleppo—I never got used to these horrible creatures which you met everywhere—and back again into the third-class compartment, its wooden benches crowded with soldiers who smelt abominably and seemed to prefer sleeping in a flopping position supported by me. The three or four days it took to reach the foot of the Amanus mountains were a nightmare. The only relief was when, as we slowly struggled up the long gradients, the poor over-taxed engine ground to a halt for lack of steam pressure. All third-class passengers, myself among the first, then descended and scoured the countryside for anything that would burn, chiefly brushwood and even reedy grass. Thus replenished, our engine would give a cautious whistle, we all climbed back again and raised a cheer as we slowly got under way for a further couple of miles or till the welcome relief of a level stretch eased the strain on the worn-out mechanism.

Over the Taurus into Anatolia

High up in the mountains there was a big camp of German and Swiss engineers supervising the railway construction and making an immense tunnel and a fine viaduct across a gorge. We traversed the tunnel in pitch darkness, drawn through by a curious sort of engine worked, I suppose by compressed superheated steam. It was charged at a steam-raising plant and had no funnel but a very long cylindrical body. The air in the tunnel was fresh, cool and clean but muggy.

My recollection of the rest of that exhausting journey is very vague. It took many days, through the Taurus range and the famous Cilician Gates and so ultimately down to the Anatolian plateau at Posante. I marched many of these stages but had some form of transport for my kit, a country cart or a donkey. I slept in dirty little hotels or on station platforms but was often as they say "too tired to sleep", and

got scratch meals at crowded locantas. The worst night was crowded in with about thirty Turkish soldiers in one of those cattle trucks one used to see, labelled "quarante hommes ou huit chevaux". No one had bothered to clean it after the huit chevaux and it was full of fleas. The big doors were locked and the only light and air came from two small windows high up. The great thing was, I comforted myself, that we were moving!

Thy hundred hills, thy thousand streams,

Karamàn, O Karamàn!

The hot dry plains, the sun, the skies,
Karamàn!

. . . blood and bones of slaughtered men,
Karamàn!

There was a P.O.W. camp for British soldiers at Afion Kara Hissar where a stupendous near-vertical rock rising abruptly from the plain gives the town its name. The commandant of this camp had a particularly evil reputation for sadistic vices, but I passed straight through without stopping, being told my destination was a place called Kutahich where I was assured our Kut officers were living in luxury. Knowing the British addiction to football this was featured as a notable attraction. Foolishly I believed at least part of this fable, but it turned out to be exclusively a Russian camp. Here I remained for a few days till the mistake was sorted out. The Russians treated me well and kindly but their combined knowledge of French was much less than mine. They were, I think, as unaware of the Revolution that had just taken place in their country as I was. I saw two of them playing chess and foolishly tried my hand at it with them: they were quite polite, almost apologetic, when I was hopelessly defeated in quick time!

The mistake in destination was ultimately corrected and I was to go on to Kedos, a hundred miles across the mountains, where life was said to be entirely arcadian, endless football and nothing to do! Apart from Kedos really being my final destination there was not a word of truth in their description of it, but my Turkish escort did not mean to deceive me so much as to cheer me up, seeing I was getting cynical and depressed, with of course, in case you have forgotten him, my Afridi still dragging along beside me.

ARS LONGA

CINEMA

Odeon, St. Martin's Lane. Thoroughly Modern Millie.

Julie Andrews in her familiar role as the typical all-American English Rose plays a positively delightful young Lady-about-town of the 1920's. Out to catch her man she becomes involved with a dear sweet slave-trader, who spends most of her time kidnapping young "orphan" ladies and selling them into slavery via the local Chinese laundry.

The plot thickens and the intrigue deepens until the whole episode looks as though it'll never be sorted out, but don't worry they all live happily everafter in the end.

Leicester Square Theatre. Carry On Doctor.

The "Carry On" team is back in the West End with their latest film: "Carry On Doctor". It's the same tremendous line up, but, sad to relate, without their redoubtable leader James Robertson Justice with whom indubitably some of the "Carry On" magic has gone.

The film appears to have little in the way of story but then that's not fashionable now anyway. It would perhaps be best described as a sequence of unrelated events in which a series of minor disasters ends happily everafter.

Kenneth Williams as the scheming consultant and Hattie Jacques as the Matron are disappointing and if anything this is the film's shortcoming. Even in comedy the acting must have sufficient conviction to sustain the relative plausibility of the various situations and in "Carry On Doctor" they do not.

Jim Dale plays the young houseman, who, like all young housemen, is more interested in studying the talent (Barbara Windsor) than medicine.

Sidney James, Bernard Bresslaw and Peter Butterworth as patients, complement the principal stars well and together they get lots of laughs. Charles Hawtrey deserves a special mention for his immensely funny portrayal of an "expectant father" which is amusingly resolved with the delivery of his baby.

As far as entertainment value is concerned, if you are a doctor, nurse or student then you probably ought not to miss this one, though judging by the audience and the reception the box office may well be relying on you.

ART

Tate Gallery, Millbank. Barbara Hepworth.

The Tate has with Barbara Hepworth's co-operation collected together this contemporary artist's work in two galleries, which together give a thoroughly representative exhibition.

The collection is predominantly of wood, stone and metal, and is almost entirely abstract.

The smaller works showed more character, since, placed together as they were, the larger works tended to be overbearing and could not therefore be fully appreciated.

The exhibition showed Hepworth's versatility in that whilst there are many non-representational pieces in wood there are also several interesting pieces in the style of Cubism; Construction (Crucifixion) springs to mind as being the best, if not the largest example of this.

Some of the abstract paintings too, were particularly appealing, though the set of "Theatre" paintings, completed in 1949, held pride of place for me.

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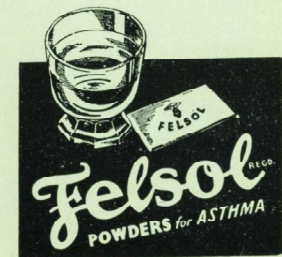


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REVIEWS

MEDICAL BOOKS

POSTGRADUATE MEDICAL EDUCATION RETROSPECT AND PROSPECT — A Report by John Recans and Gordan McLachlan, Nuffield Provincial Hospitals Trust—

The allocation of £500,000 towards the development of Postgraduate Centres which was made by the Nuffield Provincial Hospitals Trust following the Oxford Conference in 1961 provided the greatest stimulus to regional post-graduate medical education. Mr. Gordon McLachlan was responsible for much of the thought put into the project and with Dr. John Revans, S.A.M.O. of the forward looking Wessex R.I.B., he has now summarised the many facets of the problem of Postgraduate Medical Education.

In the four sections entitled Retrospect, Perspective, Analysis and Prospect it is abundantly clear that the outstanding requirement for the successful future of postgraduate medical education in this country is the co-ordination of the efforts of the many interested bodies which include the Royal Colleges, the Universities, the Postgraduate Institutes and the Regional Boards with their local postgraduate centres.

The Nuffield Foundation has given financial support to the newly formed Central Committee which the authors of this brief review believe to be the best focus that exists or is likely to exist for some time.

J.L.

The Liver (Colston Papers No. 19)

Edited by A. E. Read.

This book gives an account of a Colston Symposium devoted to the liver. These symposia are in memory of the 17th century philanthropist who is rightly honoured by the University of Bristol. In the past subjects covered in these symposia have ranged through such topics as German lyrical poetry and Colonial Administration; it was fitting that the liver should have been chosen as one of the few medical topics, for members of both the Departments of Medicine and Surgery at the Bristol Medical School have contributed significantly to our knowledge of this field. The contributors came not only from Great Britain but also from the Continent of Europe, South Africa and the USA and most aspects of liver function and dysfunction were discussed.

The main sessions were devoted to the structure and function of the normal liver, newer techniques in the diagnosis of liver disease, hepatitis, portal hypertension, liver failure, liver transplantation and, finally, there was a panel discussion on the treatment and prognosis of portal hypertension. Under these headings most of the modern advances in the study of liver disease were touched upon, for example, the role of immunity in perpetuating chronic liver disease, the attempts to isolate the hepatitis virus and the problem of drug jaundice, while old problems still need clarification, thus the role of surgery and the treatment of portal hypertension were debated vigorously. But the main reason why this book is so superior to most reports of symposia which are published is that each article is self-contained and contains enough background information so that a general reader may understand and enjoy reading it. Although medical students will not have time to read such a book it will be invaluable help to anyone needing an answer to many problems related to disturbed liver function.

Essentials of Cardiology. S. G. Owen, T. B. Stretton, J. Vallance-Owen. 2nd Edition. Lloyd-Luke Ltd., 49 Newman Street, London, 1968 Pp. 226. Price 30s.

In the first section of this book the authors instruct the medical student in the elicitation and significance of the common clinical signs in cardiology. Many of the signs are well explained, but the necessity for simplicity has, at times, led to rather brief accounts. More liberal use of illustrations might well have been useful. The electrocardiogram is covered more fully in the section on special investigations and is well illustrated. The third section of the book deals with the diagnosis and treatment of heart failure and the arrhythmias.

The remainder of the book gives short, but useful accounts of some of the commoner varieties of heart disease. The general style of the prose may well appeal to the student at the beginning of his clinical years and he can obtain considerable information from browsing through the book. For the student in his early clinical years willing to give time to the reading of a separate book on cardiology, this book will provide a useful introduction to the subject.

A Synopsis of Children's Diseases. 4th Edition. John Rendle-Short, O. P. Gray.

This well known and popular member of the synopsis series has now reached the fourth

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edition Professor Rendle-Short has been joined in this edition by Dr. O. P. Gray and together they have revised and rewritten many sections of the book and thus have adequately covered the many advances that have occurred since the last edition in 1961.

Being in the form of a synopsis, the style is in note form and the information condensed, making it ideal for general revision, especially for those who have had some experience in paediatrics. There are only a few illustrations and references, but those given are apt. However, there are several tables and those concerning differential diagnosis are particularly good, as for example one on intestinal obstruction in the neonatal period and another on congenital heart lesions.

As the authors quite rightly point out themselves, this book is not intended to take the place of a standard text book but would certainly occupy a valued place on the bookshelves of the paediatric house physician, the general practitioner and those studying for D.C.H.

GENERAL READING

Hall of Mirrors, by John Rowan Wilson. Published by Fontana. Price 5s.

David Line is a young enthusiastic Professor of Surgery, and has taken under his wing two American surgeons who have developed a diagnostic computer. He finds it hard to get the idea accepted, and fails to obtain a research grant to develop the idea.

Sir Thomas Gilling, Physician to the Royal Household, and one of those instrumental in refusing Line's grant, is called in to attend a well-known politician who is desperately ill. The politician dies after surgery which reveals an obscure and, at that stage, inoperable fungus infection. During his treatment however, Gilling has refused the use of the computer, which in Line's opinion is bigoted.

Line subsequently programmes the computer with the relevant details of the politician's illness, and comes to the conclusion that an earlier diagnosis might have been reached with its use, and the man's life have been saved. Line expresses this opinion in a letter to a medical publication, and the story is taken up

by a national newspaper. As a result of these actions Gilling is forced to sue Line for libel.

The court proceedings make up the main part of the book, the whole story being told in a series of painless flashbacks. The story is skilfully told by a man who has had more than slight experience of human relationships and of the medical profession. He succeeds in maintaining the reader's interest throughout and manipulating his allegiances to such an extent that the culmination of the story remains hidden until the very end.

An enjoyable book which rarely sinks to the commonplace. The cover picture is of a young surgeon who appears to be striking up an unprofessional relationship with a young lady—this hardly seems relevant.

Martin Clifton.

When Eight Bells Toll, Alistair Maclean. 3s. 6d. Fontana.

The first Alistair Maclean in Fontana for three years was published in April.

"When Eight Bells Toll" is written in Maclean's fast-moving style, the speed of which is maintained throughout the ingenious story.

Philip Calvert, the hero, is not the stereotyped women-loving, karate black-belted, sun-worshipping secret agent, but rather drawn into the Secret Service by a personal tragedy, thus making the narrative that much more convincing.

The scene is set in the Western Isles giving ample scope for Maclean's more vivid prose. Here a gang of Bullion thieves has its base, and here Philip Calvert catches up with them.

Each chapter makes putting the book down more difficult, which is probably why this book is already a best seller.

Local Government Elections, 1968, C.P.C. 6s.

This fine publication issued last month is one book that no true blue library should be without.

The attractive cover in representative colours gives clue to the new and exciting material within. Each page, after the foreword by the Leader of the Party, is packed with action-filled words, each point being slammed home in heavy print.

The twelve chapters leave no one without the "Official Party Line" and the sub-divisions of the chapters add to the dynamic approach of this up-and-coming group. Doubtless this edition will soon be amongst the best-sellers.

SPORTS NEWS

JUNE DIARY

5th—Men's Tennis v. St. George's—1st Team (Away) 2nd Team (Home).
5th—Golf Club v. Guy's (Home).
8th—Men's Tennis 2nd Team v. Royal Free (Home).
9th—Golf Club v. Tandridge (Away).
12th—Men's Tennis v. St. Thomas' (Home).
15th—Men's Tennis v. University College 1st and 2nd Team (Home).

GOLF CLUB

Bart's v. Royal Dental Hospital at Chislehurst, 28th February.

A strong Bart's team was altogether too powerful for an inexperienced Dental's team, and won easily by five matches to nil. Ken Ross and Chris Booth both had rounds of 68.

C. Booth	...	...	won 7 and 6
K. Ross	...	...	won 9 and 8
J. Sadler	...	...	won 7 and 6
H. Rutherford	...	...	won 6 and 5
J. Mackinnon	...	...	won 8 and 6

Bart's v. Imperial College at Hendon, 20th March.

In very difficult windy conditions at Hendon,

19th—Men's Tennis v. King's College Hospital (Away).
19th—Golf Club v. London (Home).
22nd—Men's Tennis v. Middlesex (Home).
26th—Men's Tennis v. Charing Cross (Home).
26th—Golf Club v. St. Thomas' (Home).
29th—Men's Tennis 2nd Team v. St. Thomas' (Away).

Bart's did well to beat Imperial College by four matches to two. In the top match nothing went right for Ken Ross, whilst at number two, Chris Booth was unlucky to lose to a long putt on the last green, having recovered from three down with only four to play. Stuart Davison had an excellent run round the middle of the course to clinch his match. Bill Tingey also ran into form.

K. Ross	...	...	lost 9 and 7
C. Booth	...	...	lost 1 down
S. Davison	won 3 and 2
A. Hoppe	won 3 and 2
H. Rutherford	won 2 and 1
W. Tingey	won 6 and 5

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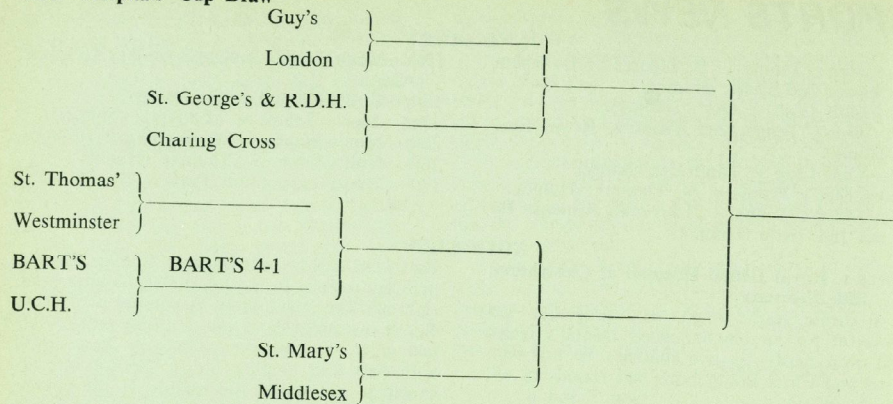
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Golf—Hospitals' Cup Draw



The Club had a busy month during March. There were two successful hops organised in conjunction with the Tennis Club, and an excellent dinner held at the White Hart. We were very pleased to welcome Sir James Paterson Ross as our guest of honour at the dinner.

Bart's v. Charing Cross at Roehampton, 3rd April.

It was with great difficulty that we fielded a four-man side, *but*, as it proved, a team of all-conquering ability. We were very honoured to star Earl Nelson from Kentucky, U.S.A. as the number one player. Playing with borrowed clubs, as were Jake MacKinnon and Alan Hamilton, he won one up. His technique of putting out of bunkers confused us all and proved to be deadly for his opponent. Bill Tingey's match was unfinished at three up with four to go having surrendered to the conditions of driving rain and snow. Our thanks go to the Charing Cross team for their hospitality.

Results:

Earl Nelson won 1 up

Alan Hamilton ... won 5 and 4
 Bill Tingey ... 3 up at 15th hole
 Jake MacKinnon ... won 7 and 6
Bart's v. U.C.H., Cup match 1st round, 10th April at Denham Golf Club. Won 4-1

Even with a very depleted cup side we managed to defeat U.C.H. by four matches to one. From the first tee it rather looked as if we were in for another soaking, like the previous week, but those rather ominous black clouds soon gave way to warm, sunny conditions—ideal for golf. I am grateful indeed that Stuart Davidson should give up a day of his holiday and motor up from Brighton for the match and also to Jon Sadler who very kindly played even though in the middle of his finals. Dave Grieve had a huge win of 9 and 8—and it could have been 10?

Alan Hamilton went down on the last green thus preventing a grand slam. I would like to thank the opposing team for their hospitality at what must be one of the most attractive courses we manage to play on.

W. R. Tingey

RUGBY CLUB REPORT

The season is now over and in retrospect it has been reasonably successful. Our triumph yet again in the Inter Hospital's Seven-a-side Tournament and an unexpected win in our last match against Tredegar has given an extra boost to the end of the season. Our final record is:—

Played	Won	Drawn	Lost	For	Against
34	16	4	14	343	368

Results

30th March: Clifton 30, Bart's 8.
 7th April: Inter Hospital's Seven-a-sides.
 Semi-final: Guy's "A" 9, Bart's 10.
 Final: Bart's 17, Guy's "B" 0.

WELSH TOUR

12th April: Glynheath 11, Bart's 9
 13th April: Treorchy 3, Bart's 17.
 15th April: Tredegar 16, Bart's 17.

SOCCER CLUB REPORT

As a result of our experiences this season the Soccer Club has decided on a change in policy for next season. This year we have been playing in the University of London League and have played many unpleasant matches on some extremely poor pitches. Next season, when some of our players are (we hope,) relieved of the burden of 2nd M.B., we want to play our strongest side at all times. We can only do this if we can offer them high class fixtures on pleasant grounds and against hospitable people. On this basis we have withdrawn from the University of London League and intend to play in the University Cup Competition. We shall arrange matches with a greater social attraction and hope to arrange at least one tour for next season.

We usually go to Oxford or Cambridge on tour but next year we shall think about the

Continent and perhaps a trip to the Soccer Festival at Easter in Jersey. Thus we look forward, next season, to increased support and more enjoyable matches.

That this season's programme has been arranged and played is due to the hard work of our Secretary Chris Ellis to whom thanks go. For his leadership on the field our thanks go to our Captain Paul Turner; his defensive (and sometimes attacking) talents and drive will be sorely missed next season.

Congratulations to Steve Dorritt and Ron Thew who have played for United Hospitals this season. Chris Ellis and Ron Knight have branched out into playing for the United Hospital's President, Hugh Simons in his team which has a number of names including the delightful one—Pink Elephants!

R. K. KNIGHT

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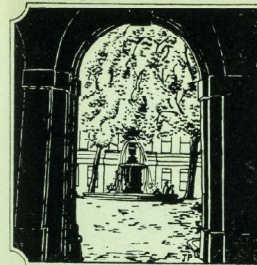
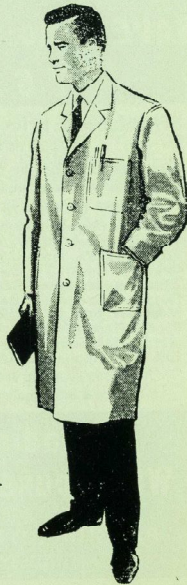
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JOURNAL

contents

Vol. LXXI No. 7

1st July, 1968

248	Editorial
249	News
250	Retirements
251	Answers to Competition X-word
252	Society Reports
256	View Day
256	Holiday Travel
258	Liaison: a Short Story
259	Radiology Quiz by Rick Jolly
290	Answer to Quiz
260	Lost Conscious Therapy by J. R. Griffiths
263	The Scientific Basis of Medicine
264	Prisoner of War with the Turks by Col. Spackman (Final Episode)
	Pop Feature:
267	The Byrds
269	Jimmy Saville
271	Barts: a Living Fossil
273	Book Reviews
279	Sports News
286	Papers by Old Barts Men
290	Late News

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editorial

STUDENT RIOTS

Violence has stormed the streets of Paris. Students have rioted in protest against their government. How does this affect us? It could never happen here. But it has.

Consider the Grosvenor Square riot of a few months ago, the strike at the London School of Economics, the troubles at Essex University. Why do these things happen?

Students both here and abroad feel that they are not being sufficiently represented. That they are slaves to pompous inefficient systems, with little means of appeal.

This view is to some extent justified. Education and knowledge, both of science and politics, together with technological environment, have improved so drastically since these systems were set up that it is hardly surprising that many thinking intelligent young beings should not be satisfied with these systems.

In France, students are crying out against stubborn dictatorship. In England, we are opposed to pseudo-democracy, in a country where free speech is so valued that we are forbidden to exercise it for fear that it curtail the liberties of others.

As yet no force exists here strong enough to precipitate action. But beware of complacency. The threshold may be low.

FUTURE ISSUES

It is proposed by the Editors, that the *Journal* will, for the next six months, follow a monthly theme, as set out below.

Each publication will be orientated around its theme and it is hoped that Readers of the *Journal*, having been given prior notice, will write to the Editor giving their opinions where appropriate, or writing short articles, related, directly or indirectly to the monthly subjects.

August—Education and Teaching Methods.

September—Endocrinology.

October—75th Anniversary Issue.

November—Hypertension.

December—Abortion.

ANNOUNCEMENTS

Engagements

FINCH—HAYWARD.—The engagement is announced between Dr. Daniel Finch and Miss Gillian Hayward.

MOLYNEUX—NEECH.—The engagement is announced between Mr. Malcolm Molyneux and Miss Elizabeth Neech.

RICHARDSON—OSWALD.—The engagement is announced between Dr. John Richardson and Miss Susan Oswald.

Marriage

FREETH—PETTY.—On 18th May, Dr. Malcolm Freeth to Geraldine Petty.

Births

MIDDLETON.—On 28th April, to Susan (née Sharman) and Dr. Basil Middleton, a daughter.

WALLER.—On 11th May, to Dr. Anne and James Waller, a son (Stephen David), brother for Elizabeth.

FRY.—On 16th April, to Louise (née Tyler) and Dr. D. E. Fry, a daughter.

Death

BRAUN.—On 18th December, Dr. L. I. B. Braun, M.B., B.S., M.D., F.R.C.P., Hon.L.I.D., aged 73. Qualified 1917.

British Paediatric Association

Dr. A. White Franklin has been elected president of this Association. Dr. D. W. Winnicott was awarded a James Spence medal.

Royal Commission for Medical Education

Professor Quilliam, Professor of Pharmacology, in his capacity as a representative of the University of London Medical Graduates on the Senate, would be pleased to receive comments from London Medical Graduates and Undergraduates on their reaction to the report and recommendations of the Royal Commission for Medical Education which has recently been published.

CORRESPONDENCE

Trunk-Room Clearance

Sir,—I would like to draw the attention of certain of your readers, to the present overcrowded state of the trunk-room in College Hall.

Unfortunately storage space in College Hall is limited and we cannot accommodate the extraordinary array of cast-off belongings of those no longer resident in College Hall. Some articles being stored at present belong to former residents who qualified and left five years ago!

During the forthcoming summer vacation we will have to clear the trunk-room of all articles which do not belong to current residents, in order to make room for the belongings of new residents coming in October.

It would greatly facilitate our task, and be in their own interest, if those who are leaving College Hall at the end of this term and those who have already left would be good enough to remove their trunks and other bits and pieces from the trunk-room by mid-July.

Yours sincerely,

R. L. ROTHWELL-JACKSON,
Jr. Warden,
St. Bartholomew's Hospital,
E.C.1

Journal Diary

The *Journal* intends to start a diary of coming events in and around the Hospital, which will give notice of events for the coming month. Since the copy must be at the press a month before the issue appears, notice must be as much in advance as possible; however, there may be provision for this in a "Stop Press", so send anything in that you have.

Notices of meetings, dances, balls and dinners are the sort of things we have in mind, and this is obviously an easy way for you to advertise them. But should you have anything else, drop that in too; at the *Journal* Office, or the *Journal* tray in the students' cloakroom (or even via the hospital internal mail).

This is open to all readers of the *Journal*, and not confined solely to students.

RETIREMENTS

Mr. A.W. Badenoch M.A., M.D., F.R.C.S.

On the 23rd June, 1968, Mr. A. W. Badenoch retires after a period of just over 21 years on the surgical staff.

He received his initial medical training at the University of Aberdeen, qualified in 1927 and took the M.D. in 1929. Bearing out Dr. Samuel Johnson's observation that "the noblest prospect which a Scotchman ever sees, is the high road that leads him to England". Mr. Badenoch came south in the early 1930s, to study in London for his English Fellowship, which he obtained in 1934. After resident appointments at several London Hospitals, including a period as resident surgical officer at St. Peter's Hospital for Stone, he was appointed to the staff of the Metropolitan Hospital in 1936. He joined the Royal Air Force Medical Service at the outbreak of War and served continuously from 1939 to 1945, obtaining his M.Ch. in 1944.

On demobilization in 1946 he was appointed first of all to the staff of St. Peter's Hospital for Stone and in 1947 to the general surgical staff at St. Bartholomew's. He was the first non Bart's graduate to be appointed to the full Consultant Surgical staff. His skill as a urological surgeon was rapidly revealed but perhaps more importantly he brought to the hospital his own particular brand of straight talking and plain common sense.

During his twenty years of association with the hospital his career has become increasingly distinguished. In 1953 he published his manual of Urology, one of the two standard works on this subject in the English literature. He has published many papers on various aspects of urological surgery, more particularly in relation to calculous disease and to the reconstructive surgery of the urethra. His modification of the Millin prostatectomy did much to increase the safety of this operation and to substantiate his reputation as the most experienced prostatectomist in this country.

Professional recognition of his skill has been acknowledged by his election as President of the British Association of Urological Surgeons, as President of the Urological Section of the Royal Society of Medicine, as British Representative to the International Society of



Urology, as President of the Hunterian Society and as a Counsellor of the Royal College of Surgeons of England.

At Bart's the excellence of his work has attracted an enormous urological practice to the Hospital culminating in 1967 with the establishment of a full and independent Department of Urological Surgery. Perhaps the best measure of his industry is the fact that the position to which he was appointed 21 years ago has now required no less than three Consultant Surgeons as successor replacements!

To anyone who has been associated with Mr. Badenoch and the Green Firm in the last ten years, perhaps the most outstanding impression that remains is one of friendliness, perhaps best exemplified by the so-called "Green Firm Parties". These considerable gatherings, so splendidly organized by Mrs. Badenoch, took place in both summer and winter and enabled the whole Firm to assemble for what was always a tremendously enjoyable evening. Needless to say the food and drink were always of epicure standard and in pre-breathalyser quantities!

It is sad to reflect that Bart's is now not only losing a surgeon of great professional skill but more importantly it is relinquishing daily contact with the common sense and wisdom of a most humane and friendly man.

We wish Mr. and Mrs. Badenoch great happiness in their retirement.

Dr. A. REDMOND M.B., B.Cd., B.A.O., N.U.I., DUBLIN

Aidan Redmond retired in February, 1968, on his 65th birthday after working for 20 years as Senior Hospital Medical Officer in the Special Treatment Centre.

He served with the Royal Air Force Medical Service during the 1939-45 war; and it was during this time that he became interested in venereology. He was appointed specialist venereologist and served in a number of R.A.F. Hospitals at a time when there was a great deal of interesting clinical material to be seen. After he was demobilized, he returned to his practice in the West End, but soon obtained VD appointments at the Royal Northern and St. Bartholomew's Hospitals. In recent years, however, due to some ill health, he confined his clinic work entirely to this hospital.

As well as being a very able and experienced clinician, he had an infinite capacity for hard work and devoted himself to the multitude of problems with which patients attending this type of clinic present. He was always ready to help them with sympathy and good advice. He contributed a chapter (as co-author) to *Harvard's "Fundamentals of Current Medical Treatment."*

His cheerful Irish good humour and interest in life's affairs made him many friends within the Department and he also kept close contact with a number of the Hospital Consultant Staff, whom he had known in the R.A.F. His retirement has been a sad loss both to the Department and the Hospital.

C.S.N.



ANSWERS TO JUNE CROSSWORD

DOWN: 1, Edentata. 2, Epicure. 3, The. 4, Anti-trade. 6, Mycotic. 8, Acted. 9, Shingles. 10, Nascent. 11, Pes. 12, Dail. 14, Pidgin. 15, N.T. 18, Se. 20, Rete. 22, Cutis. 25, On. 26, Spot. 30, Oar. 31, Dude. 33, Ibises. 34, Toe. 35, Nux. 36, Tergivisator. 37, Ire. 38, Nape. 39, Ne. 41, F.E.V. 42, Tre. 44, Luxor. 45, Le. 46, T.T.D. 48, Cap. 52, N.L.F. 52a, Research. 55, Titre. 56, Thrush. 58, Sept. 60, Vibrio. 61, Accrued. 63, Oto. 64, Epi. 65, P.C. 67, Triton. 71, Awl. 72, Opine. 73, Sac. 74, St. 76, Egg. 77, Sea. 79, Lea. 82, At. 83, My.

ACROSS: 1, Electuary. 5, Ima. 7, Caisson. 13, Exigent. 14, Penchant. 16, Bias. 17, Isis. 19, Iter. 21, Truncated. 23, Dengue. 24, Gobi. 27, Treat. 28, Akin. 29, Complement. 32, Minster. 35, Nutrition. 39, Nude. 40, Aft. 43, Fillet. 47, Exercise. 49, Per. 50, Sue. 51, G.A. 52, Never. 53, Obex. 54, Cortici-petal. 57, S.O.S. 59, Favus. 61, AC. 61A, RE. 62, Battledore. 66, P.T. 68, Tup. 69, Boa. 70, Cicatrise. 72, Osmosis. 74, Spa. 75, Ululate. 77, Stitch. 78, Cloth. 80, Ogee. 81, No. 82, A.M. 84, Dumping. 85, Acerbity. 86, Ansa.

SOCIETIES

ABERNETHIAN SOCIETY

"Some Unexpected Twists in Diabetic Research"

Prof. W. J. H. Butterfield, O.B.E.

The first meeting of the Summer Term began with something of a flurry as Prof. Butterfield arrived by cab from one of his many committees five minutes late; however, nothing daunted, he swept into the theatre with an impressive bundle of papers beneath his arm and gave us, extempore, one of the most fascinating talks of the year.

The need for a stricter definition of the limits of Diabetes, laid down by the W.H.O. as a blood glucose level of 120 mg. at 2 hours in a glucose tolerance test, led Prof. Butterfield to undertake a large population survey at Bedford, 25,000 people were screened by urine samples using Clinistix, and those containing glycosuria further tested by glucose tolerance tests (G.T.T.). The two hour blood glucose levels were then plotted and it was found that instead of two distinct populations (one of normal distribution, and another of the pathological diabetic state) as expected from an American survey, only a gradual scatter from normality to levels of 300 mg. per cent was present. The American survey had been based on rather inadequate selection and numbers, but further statistical analysis of the Bedford figures (using a technique aptly named "gamblers ruin") revealed two populations of blood sugar levels, though far less distinct than had been envisaged. From the graph it was apparent that the statutory level of 120 mg. included 12 per cent of the normal population, and a more rational diagnostic figure would be 200 mg., then including only 3 per cent of the normal population, and only excluding a small number of diabetics. So this was a severe warning to those who relied too heavily on laboratory diagnosis, since with the aid of other stigmata it is quite possible clinically to distinguish the normal from the pathological population; firstly with a positive family history (in 50 per cent as opposed to 10 per cent in normal individuals), secondly by the age of the patient (more likely to include him in the abnormal group), and thirdly by any

other stigmata of the disease. It is significant in this context that diabetic retinitis is only found in the pathological population; however, assessment of other complications such as those of atherosclerosis, are as yet undetermined.

Another curious feature arising from the Bedford survey was the problem of renal threshold, normally cited as 180 mg. glucose per cent. It had been apparent from the original screening test that glycosuria was a most inadequate test, since it included a considerable number of the normal population. By plotting the blood sugar peak against the ages of the patients, it appeared that not only was there a steady increase with age, but that this was paralleled by an increasing renal threshold and in the young it might be as low as 50 or even 20 mg. This casts a great deal of doubt on the rationale of many of our present therapeutic regimes. Firstly, many of the young unstable diabetics have very low thresholds, so that glycosuria may be present even in gross hypoglycaemia and urine testing becomes entirely valueless. In casualty this may pose serious problems when such a hypoglycaemic coma is treated with insulin on finding glycosuria, and for this reason blood sugar levels should always be tested with Dextrostix. The treatment of unstable diabetics in the past with unrestricted diets may have owed much of its success to the very fact that these patients lose so much carbohydrate in the urine, and require considerable dietary compensation. Secondly in the elderly diabetic, a high threshold may maintain urine glucose free in gross hyperglycaemia so that monitoring of treatment by urine should be performed when the patient has had a large meal, not when fasting. In addition there may be a large portion of the older generation who are diabetic but who fail to be recognised because they never have detectable glycosuria with persistent hyperglycaemia and this may be a great contributory factor to the development of atheroma in the aged. A great deal remains to be known about

variations in renal threshold and its measurement, and some extremely significant results are likely to become apparent in the near future.

Prof. Butterfield's address was throughout highly entertaining and it was quite evident by the number of questions put to him at the end

"The Advance of Gastroenterology"

Dr. F. Avery Jones, C.B.E., F.R.C.P.

On Thursday, 23rd May, the Society welcomed back Dr. F. Avery Jones, C.B.E., an old Bart's man, who now leads the Gastroenterology Unit at the Central Middlesex Hospital.

The subject of his lecture was "The Advance of Gastroenterology."

Dr. Jones began by emphasising how knowledge in medicine, and in gastroenterology in particular, has been steadily accumulating over the past 30 years, with a marked acceleration in progress during the last 15 years. Such progress, he suggested, is reflected by the increasing number of new syndromes which have been and are being described, a progress, he asserted, which was largely due to the work of clinicians.

In the light of this he urged the members to maintain an open mind in their clinical work, in order that the advance might continue.

Direct observation of the intestine by endoscopy has been greatly improved by the introduction of the flexible fibroscope. Biopsy techniques have greatly improved, enabling pathologists to study the gut at all stages of disease, and offering a method for evaluating the effect of various therapies.

Dr. Jones chose next to consider the symptom of haematemesis. As a houseman at Bart's under Professor L. J. Witts, the standard treatment for haematemesis originally consisted of giving sips of water, and ice to suck, allowing very little food during the first few days. However, using this regime, it was not uncommon for gross azotemia to progress to renal failure and death, during, or at the end of, the first week. This treatment was equivalent to therapeutic dehydration. Professor Witts decided to follow the suggestion of a Dane, Meulengracht, and began from the start to feed his patients with a high calorie diet more or less equivalent to normal food. Apart from avoiding dehydration, the aim was to keep the stomach full and so avoid hunger peristalsis. Mortality was considerably reduced.

that he had conveyed considerable enthusiasm to his audience; and the Society is most grateful that among his many commitments he should have found time to come to this most successful meeting. Dr. K. O. Black proposed a vote of thanks.

C.D.

The role of salicylates in the aetiology of haematemesis was originally suggested in 1935 by Sir Arthur Hurst. But this was largely ignored until a paper written by a general practitioner appeared in the *British Medical Journal* a few years later. The doctor had induced in himself a series of haematemeses ranging in volume from a few cubic centimetres to one full pint by ingesting one tablet of aspirin. Dr. Jones pointed out that there are today around sixty-five preparations to be bought over the counter which contain salicylate. More often as not its presence in such concoctions is not indicated by their labels.

Although the Mallory Weiss syndrome was originally described in 1929, its importance as a cause of haematemesis remained largely ignored until 1953, when a retrospective study was published by Mallory *et al* in the *New England Journal of Medicine*. Lacerations of the cardio-oesophageal junction due to vomiting are now accepted as causing up to 5% of all haematemeses. The lesion may be suspected when the vomiting of food is followed by blood.

Pseudoxanthoma elasticum (Groenblad-Strandberg Syndrome) is a more rare cause of haematemesis. Dr. Jones showed a slide illustrating the infiltration of the skin of the neck, giving it a crepe bandage appearance, and another illustrating the loss of elasticity and increased wrinkling of the skin. Haematemesis in this case is thought due to rupture of a vessel into the gastric lumen.

With regard to the management of haematemesis, Dr. Jones described work carried out recently by his Unit on the measurement of the central Venous pressure. It has been shown that such monitoring is relevant in:

1. Assessing transfusion requirements;
2. Assessing the likelihood of rebleeding;
3. Detecting the occurrence of rebleeding early on, when no change in systemic blood pressure or pulse rate has occurred;
4. The monitoring of a rapid transfusion.

Changing to a fresh topic, Dr. Jones showed

a slide of a gentleman standing on a beach, equipped with mask, flippers and trident: concealed under the swimmer's trunks was an ileostomy bag. Major advances in surgical treatment, and the development of steroid therapy have completely altered the prognosis of ulcerative colitis. This contrasts with the fact that its aetiology, in common with many other diseases of the gut, remains to be determined. Classification of the disease has become clearer with the realization that twenty per cent. of cases previously diagnosed as ulcerative colitis were probably in fact Crohn's disease of the colon, a new concept which has only recently been accepted in the U.S.A.

Dr. Jones mentioned some aspects of research occurring at the present time. In particular he described work carried out by his Unit on the mechanism of the belch, providing as an illustration an adept demonstration of the symptom. He pointed out that swallowed air soon passes from the stomach to the nether

Choral Society

**Bart's Choir, Soloists and Orchestra at
St. Andrew's Church, Holborn**
Conducted by Robert Anderson

Judas Maccabaeus is not to be heard so often nowadays as it was before the First World War. Not that it has fallen into disrepute or any such puristic nonsense—but neither has it the devotional aspect of "The Messiah" nor can it properly be staged. It is also, to some extent, second-rate Handel—which means, of course, that it is still better than most other composers' best.

That it, and similar works, have retained so much public appeal is due, as much as any other reason, to English amateur choirs, for it is great music to sing and enables them to demonstrate their prowess admirably, to the delight of their audiences. So Bart's choir did on this occasion.

It is regrettable, however, that the better anyone becomes the more demanding therefore become the mean-minded critics. And this choir deserves a great deal more than a mention of the fact that such and such a concert was held and that everything in the garden was lovely. In this respect, you can't win!

regions of the gut, and that discomfort felt below the left costal margin due to flatulence has been shown to be due to the accumulation of air at the left splenic flexure. No amount of belching could be expected to alleviate this pain.

In conclusion Dr. Jones emphasized that major advances in the study of gastroenterology depend on the study of man and not animals. This point was taken up by Dr. Dawson in his vote of thanks, who related how, at a convention of research workers on the other side of the Atlantic, a number of learned papers had been read. Of the many presentations only one referred to work carried out on a man. At the end of this paper an intent young man stood up to remark: "That's all very well, but what has it to do with the white American rat?"

Dr. Dawson thanked Dr. Avery Jones for what had been an interesting and stimulating talk, and the meeting was brought to a close.

expects. This is the art of transition, and it is staggering that this was the first occasion that he had ever heard the work. By coincidence, Judas was given at the Festival Hall on the previous night—a comparison of the direction favours Mr. Anderson.

The orchestra, augmented by a Mander Positive Chamber Organ (John West), was splendid, unlike the previous occasion when it was not. The lack of a second flute in the first half was admirably concealed by some dexterous overtime from David Baker.

Which only leaves the soloists. It helps to know a little more about style in such a work than this reviewer does, but apart from one or two notable moments, their contribution was adequate rather than sublime. Their ability to negotiate Handel's florid decorations was at best inelegant and at worst, non-existent—but if this is not considered important by some,

Crucible Society

PURPLE
George Lodge

The reason I chose to entitle this short report purple, was because I want to describe the successful fusion of red (Soviet Communism) and blue (Bart's Conservatism), which took place on 14th May of this year, when the Society entertained, as its guest speaker, Mr. Elysev, attached to the department of information at the Soviet Embassy in London.

The debate on the appearance of our speaker was resolved, when he appeared dressed in a British blue pinstriped suit with the traditional accompaniment of matching blue spotted silk tie and handkerchief. We learnt that during his first year in London he had become conditioned to speaking to political groups such as young Conservatives or Liberals; and so we hope that he found his eager and voluble

Harvey Society

The aim of the Harvey Society is to promote the basic medical sciences and their application to clinical medicine. The Society meets five times a year. The subject matter of lectures given this year has been most varied, ranging from "Contraception" to "Human Experimentation" and "Leonardo da Vinci's Science of the Human Body."

Attendance at lectures has for the most part been fairly good. However, it is rather ironic that the majority of people attending the

then their involvement with the music was always apparent. In the aforementioned duet, "Oh lovely Peace", Jill Gomez and Maria-Therese were a delight. Unfortunately, "Sound an alarm" (for tenor)—the aria in which Judas exerts the Israelites to sally forth against the "valiant Gorgias"—was not on the same plane. It was shouted, and shouted out of tune to boot. Yet neither — (tenor) nor — (base) ever once lost that sense of fervour with which "Judas" is by nature invested, and that is something both uncommon and which earns our gratitude.

Thus, in sum, Judas Maccabaeus was an occasion of great pleasure and achievement. It is a pity we were not able to applaud it — out of respect for our surroundings — for certainly everyone there dearly wished to.

R. S. Thompson.

audience on this occasion with its many shades of opinion, a refreshing change, and possibly a new insight into the mind of the British student.

Most of our members and guests were impressed, I think, by the images of the present and future of the Soviet Union presented by our speaker and by the honest patriotism and faith in his country, which he clearly expressed. We were further delighted, when after undergoing the traditional dinner-time interrogation to which most of our speakers submit themselves, Mr. Elysev responded to our invitation, in good Bart's fashion, to adjourn to the bar to partake of some excellent British beer.

meetings of what is a preclinical Society, are clinical students. The absence of preclinical students probably explains the marked reduction in attendance over the last few years.

The Committee is always very pleased to receive suggestions as regards to speakers and subject matter. Any preclinicals interested in running the Society are invited to put forward their names.

Heather S. Andrews

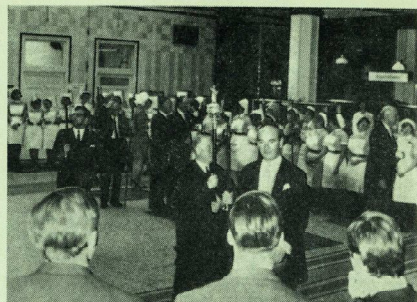
VIEW DAY MAY 1968

This year View Day was held on the 8th May, a somewhat unhappy choice when the appalling weather marred so much of the proceedings. Originally, View Day as such was a review of the Hospital property carried out by the Governors, who were appointed after the Hospital was granted to the City of London late in the year 1546. However, there was a precedent of sorts in the Middle Ages, in that services were held in Easter Week, at St. Mary Spital, the idea being to attract attention to the hospital and to induce them to donate money to support it.

Several times, in the past, the idea of putting the patients on show with the Governors has been used to obtain funds and in the 18th century a Governorship might be bought for the sum of fifty pounds.

Now, View Day is no longer a money gathering occasion, or so the public seem to think, in view of the abysmal response to the efforts of the *Journal* salesmen at the Henry VIIIth gate. It is, however, an opportunity for friends and relations to see the Hospital in general and the work done by the various departments.

Displays put on included "Premature babies" from the Midwifery Department; a truly frightening array of diets over the last 40 years,



guaranteed to offend the more delicate susceptibilities of even the most hardened gourmand, up to the more palatable dishes of today; a display from the Dispensary illustrating drug presentation and last, but by no means least, a pair of leeches.

Despite the weather, which necessitated umbrellas all round in the Square, with a subsequent detraction from viewing the governmental procession, the effort put into it by all concerned, coupled with a free tea, ensured a pleasant afternoon all round.

Jim Drynan.

HOLIDAYS' 68

At this time of the year, people are thinking of late (and, if this is the case, cheap) holidays abroad. Whether you are about to start your twelve-weeks summer vacation or you are getting by on six weeks a year, some of these organizations might be of use to you.

I've listed below an outline of the sort of thing that's available from different organizations. Obviously with any organized trips there are bound to be certain restrictions on your timetable and at the other extreme you should not expect the organizers to do everything for you.

It is worthwhile, wherever you are going, to take a trip to the National Tourist Agency of the country concerned in case you find you need visas or permits to stay. These are mostly situated in the Regent Street-Piccadilly area, addresses in the telephone book. On the

whole you'll find that you come away with piles of absolutely useless information, glossy and non-glossy brochures, most of which has no more conceivable use than to stick in the dustbin or to paste on the wall, should you do that sort of thing. Although don't despair too easily, because with the right approach to the girl behind the information desk, you can easily come away with something worthwhile. That's where you're on your own.

If you intend to travel by car, organizations such as the R.A.C. or A.A., providing you're members, will help you with maps and all sorts of graffiti; in addition they will arrange Green Card Insurance, International Driving Permits and book your boat passage for you. If you're not a member you can always try and bluff your way through, saying you haven't got your card with you. A Green card may be useful.

as some insurance companies hesitate to give these to students; they also run an insurance scheme to cover you for repairs abroad and recovery of your car should it happen to fail you. If you have to abandon a car abroad, remove all the identification marks first, such as number plates, engine and chassis numbers, otherwise you may well receive a bill for import duty after you return.

As regards boat passages, details of these may be obtained from most large travel agents with prices and time tables of sailings. Sailings alter throughout the year, so don't rely on there being a boat back at the same time as when you left. On the whole, better services and facilities are provided by the independent companies such as Thorensens', at Southampton, Townsends' at Dover, the Swedish Stena Line from Tilbury and the Dutch companies sailing from Immingham and Felixstowe than by the state-owned railway companies. Food and drink are certainly better and, value for money, cheaper too. Of the others, French are best, followed by British, with the Belgians worst.

Relatively recently the number of routes available has increased enormously, and it is worthwhile consulting all the possibilities both sea and air to find out which is the best suited to your requirements.

Should you not wish to do too much organizing yourself, I have included a list of organized and semi-organized trips which are immediately available. Some of these organizations cater exclusively for students, nurses, etc., but others are open to all.

Country	Duration	Cost (£s)	Organizer
Greece	21	44	N. & J.
"	16	35	Highway Adventure
"	14	46	Quo Vadis
" and Turkey	21	52	" "
Yugoslavia	22	67	" "
"	18	56	Quo Vadis
Rumania, Bulgaria,			
Yugoslavia	22	67	" "
Russia—Moscow,	15	79	" "
Leningrad	28	113	" "
Russia, Eastern			
Europe	29	149	" "
Turkey—Istanbul	21	45	Highway Adventure
Israel	22	124	Quo Vadis
Turkey, Israel	29	139	" "

Turkey, Israel,				
Greece	36	154	"	"
Siberia, Japan	28	279	"	"
London, Yokohama	43	319	"	"
			127	single
Scandinavia	28	113	"	"
Central INDIA,				
China	37	349	"	"
India—Bombay	70	150	"	Highway Adventure

Spain or Italy—£15 return, Dover-Barcelona,

Dover-Trieste—Student Travel.

Of these organizations, Quo Vadis offers free travel anywhere to anyone organizing a party of 10 or more.

The British Universities Societies of Arts, 32 Shaftesbury Avenue, offers a work study course in Africa, India, Far East, United States and Australia: enquiries should be addressed to the Hon. Secretary.

The addresses of the above organizations are listed below:

Highway Adventures, 125 Park Road, Beckenham, Kent;

Student Travel, 5-7 Ditchling Road, Brighton; Quo Vadis Student Travel, 43 Doughty Street, London;

N.&J. Transport Service, 1 King Street, Dover, Kent.

However, anyone interested in these kinds of trips is well advised to go along to the National Union of Students offices at 3 Endsleigh Street, London, W.C.1, where further notices are posted. Barts is not a member of the Union but here again you can bluff, it costs £2 to join. They can put you in touch with organizations such as the German Student Travel which can give you substantial reductions inside Germany. In addition you get further reductions at museums and art galleries and on public transport in some countries, I have never come across any organization, however, which caters for reduced prices in bars.

One further word of warning, a chap I knew lived in Greece and has since left in disgust: "There we were man, just as things were starting to swing with all these Swedish chicks coming in, when what do they do? They have a coup for themselves; chick scene screwed just like that man..." So whatever you find out and arrange, there are always some things you can't control.

At the time of writing, don't go to France, unless, of course, you like throwing paving stones at policemen.

Jim Drynan.

LIAISON

A SHORT STORY BY MALCOLM FLETCHER

The sky was smudgy grey and his feet were tugged at by the soft earth beneath them. The park was empty on Wednesday mornings, he looked out over the lake to the other side, where a few unhealthy trees were putting on the clothing of spring. He thought of the country and sniffing the sooty air appreciatively, walked on slowly.

He first saw it behind the bandstand a pair of embarrassed eyes, lowering their lids in red faced confusion, like a tube train commuter without his trousers. That description is slightly inaccurate for the face in question was green. The puzzled human being reached the bandstand in a couple of bounds to find a naked little green figure about three feet high scuttling away over the rough grass.

A hunters instinct was aroused, he followed in hot pursuit, whooping delightedly and rapidly gaining on the odd creature, grabbed it by one of the two antennae with which it was conveniently provided at the top. There was a sharp, high pitched squeal and it tried to bite him.

"Easy, little fellow," he said and then nearly dropped it, for it began to speak.

"Put me down!" Said the Martian indignantly.

"Eh?" He'd heard of Thalidomide so, blushing to the roots of his hair he put it down and pretended not to notice the difference between them. "Not so nice today, the weather I mean." He tried to act naturally, he'd heard that the physically deformed were sometimes mental wierdies as well.

The Martian appreciated the attempt of the Human to put them on terms of equality so, unobtrusively massaging his tender antenna, he added his contribution. "Even worse five miles out."

"Not so bad as winter though."

"No."

"At least the wind isn't so cold."

"No," the Martian was playing safe, he didn't want to have to admit that he did not know, what wind or winter were.

The Human now felt that sufficient preliminaries had now been gone through and so he said as carelessly as he could.

"Pity about your disability, how'd it hap-

pen?" Now it just so happened that the Martian was very sensitive about his physique; ever since school, when his antennae hadn't started to grow until long after they should and when they did they didn't grow long enough. He evaded the question pretending not to hear, thus plunging the human into even more exstastic depths of embarrassment.

The Human, feeling at the same time very sorry for one so terribly afflicted, asked him if he would like a cup of tea. This the Martian interpreted correctly as an offer of food and although it was against regulations to consort with aliens he felt almost friendly towards the Human and he was terribly afraid that if he refused the man would be rude about his antennae again.

Accordingly the odd pair tramped into a cafe some minutes later and their requests for tea were received unconcernedly by the woman behind the counter. The only other customer was a newspaper reporter, nursing his hangover behind the early edition before going in to work. He didn't notice anything unusual until the Martian, who had been managing quite well kidding himself that he was enjoying the strong brown liquid, dropped his saucer and broke it. The reporter looked up to a confused scene.

"Don't worry love, it's only a broken saucer."

"Saucer! Saucer!" The Martian was most agitated now. "Please don't talk so loud." How had they found out about his broken saucer? He turned round to an apoplectic stare from the reporter and suddenly feeling even more paranoid he took his only human friend by the hand and scuttled out of the cafe.

"What was that?" Asked the newspaperman, terrified that it had been a hallucination.

"Just a Martian," said the woman behind the counter.

"Just a what!?"

"Just a Martian, we 'ave 'em 'ere quite regularly, must be the fifth we've 'ad in this week. That right Lil?" She called to an unseen extra, scrubbing pots somewhere.

"Yeah, fifth this week," replied Lil.

The reporter left the cafe, heading smartly for the nearest phone booth to a stony reception from his bored, news starved editor, whose

only constructive suggestion was that the reporter needed an immediate holiday without pay.

Back in the cafe an animated discussion was taking place.

"Can't say as 'ow I like them foreigners, Lil."

"No."

"Mind, Martians aint as bad as the French ones."

"No."

Meanwhile the Martian had led the Human being to a remote part of the park, where his flying saucer lay broken, crumpled into a tree.

"I broke the low flying regulations," he said. "And then I saw one of your females. She conformed to a remarkable degree with the description in the handbook and while I was photographing her, this happened." He cast a forlorn gaze over the wreckage.

The Human being was again very sorry for the little green man. He thought it jolly sporting of the air force to have let him in, in the first place, and he did not want his friend to be court martialled.

"Hmm they seem to have changed slightly since I left the R.A.F. but I don't expect it'll take me long to get my hand back in again. I was a flight engineer during the war you know.

"Oh really?" Said the Martian.

It took the Human the remainder of his day off to fix the alien machine, "beautifully simple," he thought, still he was glad the little fellow stayed around to give him advice and hints.

By five o'clock the last nut was in place and although the saucer was rather badly dented still and its shiny new paint was scratched, it seemed to function satisfactorily. The Martian tuned in his radio in time to hear the message ordering him back to base, "Come in number five, your time is up."

The Human, feeling aglow with brotherly love walked back home to his supper.

His wife, who talked rather a lot, giggled over the evening paper. "Says' here they've seen another of those flying saucers."

"Lot of rot that, some people'll believe anything."

RADIOLOGY QUIZ



This man, a decorator, lost his index finger. What was the nature of his injury?

Rick Jolly

ANSWER: PAGE 290

COST CONSCIOUS THERAPY

This series of articles examines the drugs available for the treatment of common conditions. The branded proprietary drugs in each group are compared with the more traditional preparations, particularly emphasizing the value for money which they represent.

Often the cost in bulk of drugs to hospitals is lower than their listed price and Dr. W. R. L. Brown has agreed to provide details of these price differences. These, it is hoped, will be particularly useful to housemen.

Each article will be written by a student under the guidance of Dr. Paul Turner.

Diuretics

by J. R. Griffiths

In 1966, at an average cost of 13s. 7d. each, 5,200,000 prescriptions for diuretics were dispensed, an increase of 9d. per prescription on 1965. This is an estimated increase of just under £200,000 and was probably caused by the increased prescription of newer, patented drugs, disfavoring the more traditional ones. Do these new drugs give value for money?

To compare diuretics on the basis of cost/effectiveness is difficult owing to their differing sites of action and suitability for treating different conditions; they differ in their potency, frequency of administration and accompanying supplementary drugs and routine investigations. The dosage must also be tailored to suit the patient, his age, state of hydration, metabolic idiosyncrasies and the diuresis required.

Because of this a precise dose per dose cost comparison of the diuretics considered in this

article is impossible, however an approximate idea can be gained from Tables I and II. These show the cost to the hospital pharmacy of each drug and dosage as given by the British National Formulary, 1966, or the manufacturers' literature.

There are two groups of diuretics to be considered here. These are (i) The "general purpose diuretics", i.e., the mercurials, the thiazides and frusemide. (ii) Those with a more limited use confined to special conditions, i.e., spironolactone, triamterene and ethacrinic acid.

The Mercurials

Organic mercurial compounds form a classi-

cal group of diuretics. They are powerful, act rapidly and their action is well understood. Their side effects are more manageable than those of some recently introduced diuretics. The major drawback is the mode of administration by deep intramuscular injection. (They can be injected intravenously if a rapid action is required but this can be hazardous.) This disadvantage is counteracted by their power; a good diuresis can be affected from one injection every three days or even weekly. To prevent accumulation, they should not be given more than once every two days.

In the past many mercurials have been used as diuretics but the one most favoured and the one now employed as the standard is mersalyl. This is given in solution with a small quantity of theophylline to stabilize it and promote its absorption. In addition ammonium chloride may be administered orally to cause an alkalosis and thus enhance the action of mersalyl.

At the start of the treatment a test dose of 0.5ml. of mersalyl should be given to test sensitivity reactions at a low dosage. Abscesses may form at the site of injection and occasional dermatitis, stomatitis and colitis is seen. Mersalyl has a toxic action on the kidney and should not be used in acute nephritis. If on administration the drug fails to produce a diuresis further doses should not be given for these may accumulate in the tissues causing chronic mercury poisoning. For this reason treatment with mersalyl should be discontinued in refractory cases of fluid retention.

The advantages of mersalyl are (i) its cheapness. (ii) the relative lack of electrolyte imbalance, which it causes. In addition to this the considerable loss of potassium seen with diuretics of the thiazide group does not usually occur with mersalyl and it is unnecessary to give routine electrolyte supplements. There is therefore a strong case in favour of mersalyl as the standard diuretic in adult hospital practice, unless it is specifically contraindicated.

The Thiazides

The thiazides and the related compound frusemide are the main competitors to mersalyl as general purpose diuretics. Like the mercurials the thiazides act by increasing the sodium excretion, however, they also increase potassium excretion and it is necessary to give a potassium supplement with them, to prevent gross potas-

sium depletion. They have the advantage of oral administration and this makes them useful in general practice or the treatment of out-patients and children.

There is controversy about the manner in which the potassium supplement should be given. An ideal solution seemed to be to administer the thiazide tablets with a coating of potassium salt. However, when these tablets were introduced, cases of ulceration of the small intestine were attributed to them and it is now thought that potassium is not best administered at a time, when maximum diuresis is taking place. The current standard treatment is the administration of effervescent potassium tablets. (N.B.: The cost of this supplement should be taken into account, when calculating the cost of thiazide treatment.)

All the thiazides have similar maximal diuretic effects although the dosage required to achieve this maximum varies widely. For example, one gramme of chlorothiazide is equivalent to 100 mg. of hydrochlorothiazide or to 10 mg. of bendrofluzide. These dosages would be reasonable given every second day, though they may safely be doubled. The thiazides are not as powerful as mersalyl.

The potassium depletion seen with the thiazides is particularly marked in hepatic disease and ascites. It will potentiate the action of digitalis and can lead to hepatic coma and renal damage. The thiazides occasionally produce skin rashes and very rare cases of thrombocytopenia and agranulocytosis have been reported. They are also diabetogenic and may precipitate attacks of gout.

When oral diuretics are required or mersalyl is specifically contraindicated thiazides are an obvious choice. The cheapest is bendrofluzide and it is probably as good as any other. The hospital dispensary obtains it exceptionally cheaply and if great potency is not required this is a strong case for preferring it to mersalyl.

Frusemide (Lasix)

Frusemide is an oral diuretic, structurally similar to the thiazides. It is the most powerful diuretic currently available and has the advantage of an extremely rapid action, which is completed in four to six hours. Like the thiazides it causes excessive excretion of potassium but the effect is magnified, partly because it is more powerful. Frusemide should be given therefore along with routine potassium supplements, this increases the already high cost. It

has been in use for a comparatively short time and no other major side effects have been reported during this period.

Since frusemide is much more expensive than thiazides or mersalyl it would seem advisable not to use it, when the other two could be substituted. It might be used in hospital practice (administered perhaps intravenously) to produce a very rapid diuresis in waterlogged patients, who need immediate dehydration, or in any case when its increased potency over mersalyl was particularly necessary. Again this increased potency could make it suitable for patients requiring an oral drug, when thiazides are not suitably strong, bearing in mind that the induced electrolyte imbalance would be correspondingly more intense.

Spironolactone (Aldolactone)

This is the first of the "special purpose diuretics" to be considered in this review. Its action differs radically from the drugs considered previously in that it blocks the action of the sodium retaining hormone aldosterone at the distal tubule of the nephron. This increases sodium excretion and diminishes potassium excretion. This drug is most effective in cases of hypersecretion of aldosterone, which is thought to cause the oedema associated with ascites or nephrosis. Spironolactone is always given in combination with mercurial or thiazide diuretics as it has little action on its own.

Paradoxically, despite its potassium conserving action, it is necessary to give routine potassium supplements during treatment with spironolactone, also electrolyte balance and blood urea levels must be watched. The action of the drug is cumulative and a full response does not develop for several days.

Spironolactone is a fairly expensive addition to normal diuretic therapy, useful in certain circumstances.

Triamterene (Dytac)

Triamterene is a synthetic oral diuretic which acts on the kidney tubule to promote sodium excretion, it does not cause potassium loss and may even cause its retention in certain circumstances. It is less potent than the thiazides but may be given in conjunction with them in an effort to retain potassium if depletion of this ion is especially undesirable (as in hepatic ascites) or alone if potassium depletion has already taken place. In doses over 200 mg. triamterene can cause mild diarrhoea and the

British National Formulary recommends that it should only be used in hospitals where blood urea and electrolyte levels can be checked.

Ethacrynic Acid

This powerful diuretic has only recently been introduced, structurally it is unrelated to the thiazides. It promotes the excretion of sodium, potassium, chloride and hydrogen ions and its action is thought to be on the proximal convoluted tubule and the loop of Henle of the kidney tubule. It will act additively with the thiazides and can be used in conjunction with them, usually decreasing the glomerular filtration rate.

Ethacrynic Acid is a very expensive drug and little experience of its use has been accumulated. It finds its main application in the treatment of resistant oedema.

Dose of Drugs (Table 1)

Daily dose for adults unless otherwise stated.
 Mersalyl: 2 ml. every two to seven days.
 Chlorothiazide: 500—1,000 mg.
 Hydrochlorothiazide: 50—100 mg.
 Bendrofluazide: 2.5—5 mg.
 Frusemide: 40—120 mg.
 Spironolactone: 100 mg.
 Triamterene: 50—250 mg.
 Ethacrynic Acid: 100—200 mg.
 Effervescent Potassium: 40—80 mEq.

Cost of Drugs (Table 2)

(Cost to the Hospital Pharmacy per 1,000 tablets except where stated. Contract prices for bulk supplies where available.)

Mersalyl Injection—2 ml. ampoule: 308 shillings per 1,000.
 Chlorothiazide—500 mg.: 210 shillings per 1,000.
 Hydrochlorothiazide—50 mg.: 260 shillings per 1,000.
 Bendrofluazide—2.5 mg.: 30 shillings per 1,000.
 Frusemide—40 mg.: 490 shillings per 1,000.
 Spironolactone—25 mg.: 230 shillings per 1,000.
 Triamterene—50 mg.: 480 shillings per 1,000.
 Ethacrynic Acid—50 mg.: £24 18s. 0d. per 1,000.
 Effervescent Potassium—500 mg./6.5 mEq.: 9 shillings per 1,000.

THE SCIENTIFIC BASIS OF MEDICINE ANNUAL REVIEWS 1968

The Annual series of Lectures by the British Postgraduate Federation dealing with the Scientific Basis of Medicine represents a highlight of the London Academic Medical year for, on these occasions, the growing points in Medical and allied sciences are presented and possible impacts of these in Medicine are discussed.

The reviews, twenty-one in number, cover a wide range of subjects. Typically, the first contribution is particularly appropriate at a time at which the recommendations of the Royal Commission for Medical Education are being discussed. It is entitled "Medicine in Transition: The Administrative Setting" by Sir Robert Aitken, M.D., D.Phil., F.R.C.P., the Vice-Chancellor of the University of Birmingham and the Chairman of the Standing Conference on University Entrance. The Report of the Royal Commission should be perused by all medical graduates and undergraduates because its suggestions are sweeping. The Reviewer, in his capacity as a representative of the University of London Medical Graduates on the Senate, would be pleased to receive comment from London Medical Graduates and undergraduates on their reactions to the Report and its bearing on Medical Education in the light of their personal experiences.

The subjects of the other reviews are as varied as Medicine and Science themselves. The mechanisms of lysosomal action and of microbial pathogenicity, immunization against viruses, laboratory control of vaccines, autoimmunity, lymphocyte populations, insulin in blood and urine, together with naturally-occurring anticoagulants and fibrinolysins, platelets and thrombosis as well as a reappraisal of the pulmonary artery system are monographs each of interest in its own right to the general or specialist reader. Mr. R. G. Burwell examines bone homotransplantation in the light of the repair processes involved in accepting the transplant and concludes with a plea for

research into the cellular biological aspects of this field.

The review by Dr. Iain MacIntyre on calcitonin (or thyrocalcitonin with which it seems to be identical) is as welcome as it is stimulating giving the main evidence for the existence of this second hormone which lowers plasma calcium and phosphorus levels and some indication that it might inhibit bone breakdown.

Dr. A. M. Dawson of Bart's is the author of "Carbohydrate Absorption" in which he reports on his research interest in disaccharidase deficiency in the neonate and in the adult.

The important responses of the adrenocortical and other endocrine systems to the trauma of surgical operation is discussed by Mr. I. D. A. Johnston of Newcastle.

Dr. C. A. Clarke reviews a clinical trial in centres in the U.K., U.S.A., and Germany of a method of prevention of Rh-haemolytic disease by giving anti-D gammaglobulin to unsensitized Rh negative women following the birth of an Rh positive ABO compatible baby. Subsequent pregnancies seem to indicate that the gammaglobulin was fully protective and had not merely postponed immune antibody production.

Three reviews by Dr. H. O. J. Collier on bronchoconstriction, by Professor J. R. Vane on the release and assay of hormones in the circulation and by Dr. E. Marley on sympathomimetic and allied amines on the central nervous system give evidence of current active interests of pharmacologists. The final review by Dr. G. B. Ansell on metabolism of brain phospholipids concludes this informative volume.

The Annual Reviews 1968 should interest medical undergraduates and postgraduates by bringing forward areas of exciting advances in Medicine and showing the contributions which biological research can make to medical progress.

J. P. Quilliam.

Prisoner of War with the Turks

FINAL EPISODE

Onwards to Kedos

For the last seventy miles of my arduous and adventurous six-weeks journey of 1,200 miles I was provided with an araba, a flat and springless four-wheeled wagon drawn by a pair of small active stallions. In the to and fro of my year-long wandering after the fall of Kut I had been carried by raft, by various river steamers, on horses and donkeys, on a motor lorry and in cattle trucks, but almost as far on my own feet as all the others combined: Kut to Mosul, Mosul back to Baghdad and now Baghdad to Kedos.

A Mountainous Journey

I was relatively comfortable on this araba with its mattress supplemented by a small cushion I had acquired, and a hooped hood above. We soon began to ascend into the pine-clad mountains of the central Anatolian plateau where the only sign of human activity was the smoke of the charcoal-burners. At lower levels there were vineyards and olive groves and stretches of alpine pastures with flocks of sheep and goats in charge of small boys playing little tunes on rustic pipes, sadly interrupted by the blood-curdling threats and profanities directed at our ponies by our arabachis which produced from them a short-lived and perfunctory response. Nevertheless, we made steady progress and put up for the night at a large khan high up in the mountains, sleeping in a line on a raised platform after a communal meal of mutton pilau.

In these mountains one saw here and there young men who, with the connivance of the villagers, were evading military service. Strong young arms and unbent backs, to say nothing of gay spirits, were not to be surrendered lightly to distant campaigns from which so many did not return.

Impromptu Dip

Before dawn we were all stirring and while a meal of boiled wheat grains and yoghurt was being prepared I sallied forth in search of a wash and found, in the angle of the road, a convenient water trough made out of the hollowed-out trunk of a large tree and fed by a spout of water from the mountain rivulet.

by Col. W. C. Spackman, I.M.S. (Ret'd)

I rather shocked and surprised the local people by taking an impromptu dip and followed it by a refreshing wash and shave. Soon we were on our way again, gradually descending among the fertile and peaceful hills and towards evening I was given the exciting news that the little town appearing in the valley below was Kedos, and I warmed myself with the expectation of being welcomed by my old friends in the well-established P.O.W. camp I had been led to expect to find there. I was totally unprepared for the actuality.

Last Mile

Gaily we swung down the road for the last mile and just short of the town turned in at an imposing gateway on our right and pulled up by a little garden with a rose pergola and small summer-house by the bank of a stream. There were several good stone buildings on our right under the wooded hillside facing an open grassy field big enough for the reputed football ground and half a mile away across the stream one could see the two minarets of the town and its houses constructed, fatally as it turned out, almost entirely of wood and huddled close together in narrow lanes.

Surprise

As I jumped to the ground I looked for the other prisoners in vain, but instead there came charging from the barracks half a dozen elderly Turkish soldiers in their drab grey uniforms, led by a chaoush (sergeant), who surrounded the two of us with fixed bayonets, evidently thinking that their moment of martial glory had come and prepared to take violent action should we make the slightest hostile move! The two arabas now drove off into the town leaving us standing with our small bits of baggage encircled by a ring of steel, till there emerged from the little summerhouse the strange figure of the Commandant, Habib Nuri Bey, wearing the uniform of a lieutenant-colonel of the Turkish Army.

The Incredible Commandant

Habib Nuri was an Albanian, as he proudly announced on innumerable occasions. This distinction, combined with the point that he had proved totally incompetent to hold a

military command in the field, seemed to qualify him to administer a camp for British officer prisoners of war.

Very short and stooping, with hunched shoulders, his face excessively wrinkled, he presented an almost constant expression of intense irritation like that of an angry weasel. Between his drooping moustaches and stubbly beard his slobbering lower lip hung down to expose his few irregular discoloured teeth. On the rare occasion when he decided to be extremely affable his face assumed an inane and fawning leer which was even more fascinating than its customary expression. His uniform was as shabby as his personal appearance was unkempt, his trousers ending in folds around his heels where they fraternized with his trailing sword.

On the present occasion this grotesque person desired to impress on his subordinates his ideas of military discipline and efficiency. It also gave him an opportunity to satisfy his never-failing curiosity on the subject of our personal effects, few as they were. My table knife, razor and book of verses were at once impounded, though with evident misgiving I was allowed to keep the fork. The book was sent to Constantinople to be censored, and in fact about a year later it returned bearing my name and rank (in Turkish script and upside down, right to left) and the censor's official stamp, and these it bears to this day, a precious possession.

Bare Boards

I was then sent off under close guard and locked in a large empty barrack room devoid of all furniture or lighting except a couple of barred windows and there I remained for the next two weeks, sleeping on the bare boards. There were as yet no other P.O.W.s at Kedos and never had been, so the place was at least clean. I was given a loaf of local bread, a jar of water and allowed to buy other simple items of food, eggs and yoghurt, and taken out daily to wash at a spout of water channelled from the hill-side. I prolonged these little excursions as much as possible.

Still nursing the unconquerable hope,

Still clutching the inviolable shade,
and repeating bits of my anthology of verse,
Tennyson and especially Henley's famous lines:

Under the bludgeonings of chance

My head is bloody, but unbowed!

all very heroic stuff in retrospect but real enough at the time, though I was able to laugh at myself in my ludicrous predicament. I even noticed that an Armenian girl appeared

at the window of a house not far away and signed to her, but the "romance" never got any further!

Nuri and I had almost daily interviews when we assailed each other in a chaotic and incoherent mixture of Turkish and French with increasing fury and exasperation, ending in his stamping his foot and observing—"Monsieur le Docteur, comme la bête feroce!" and stumping off only to return a little later to present me, with a bow, a rose from his garden and the unconvincing remark given with a sad smile—"Je suis comme votre père!"

Briefly, to round off my story, within a month and thereafter at intervals, freshly captured British officers began to arrive and we gradually got, by our own efforts, a reasonably organized camp in that isolated little town among the hills of Anatolia, under a better and more understanding Commandant and so survived the bitter winter of 1917 and the summer of 1918.

Holocaust

One night, in September 1918, under a full moon we gave one of our theatrical performances in a garden setting and the whole local population came out as usual to watch, but down in the town an old woman upset a brazier of charcoal and a gusty wind started a fire which spread with devastating speed among the huddled wooden houses. It had been an exceptionally dry summer and the whole place soon became a raging furnace. We all rushed down into the town but though we all worked desperately, almost nothing could be saved. Those who lived in hired houses in the town lost all their possessions and our carefully amassed and precious library was wholly consumed. In the morning we returned to our barrack, some of our young officers incongruously dressed as ballet girls, now in sad disarray from the dirt and heat of their frantic efforts in the burning town.

But the war was ending and after only a short delay we were sent by stages to Smyrna where, after three or four weeks of comparative freedom, we were picked up by British transports—what a glorious sight that was, to see the Union Jack again after all our years in captivity!—and so reached England before Christmas, 1918. Given a liberal spell of leave, I spent my time getting fully restored, taking some refresher courses and getting married in preparation for returning to India where I resumed my career in that best of all Medical Services, the I.M.S., till it came to an end after the Second World War.



MIDDLE EARTH MIDDLE EARTH MIDDLE EARTH MIDDLE

The Byrds

MALCOLM FLETCHER



Photo by courtesy of CBS

The "Middle Earth," at 43, King St., Covent Garden, is one of the few clubs, which can claim, on a Saturday night, to have a higher decibel output than the "Vicarage Club." It is a fantasy world, where the walls melt into liquid streams of colour and the strong rhythms bounced between them slice the lining from your brain. The "Earth" could not claim to be the most comfortable club in London, it consists basically of a large, rectangular basement with white walls onto which moving images are constantly projected. These are produced by

focusing the projector light through a thin film of coloured dyes, sandwiched between two glass slides. The heat of the bulb heats the dye, which makes its enlarged image writhe on the wall. The slide is moved by the operator in time to the music or to his own personal whim, while at the same time he is introducing new dyes to the film or clearing away the old ones or merely blowing air bubbles through it. In this way, with several banks of projectors, the entire area is converted into a capsule of changing colours.

Meanwhile the air reverberates with music; mostly wild and fast, sometimes slow and peaceful, blending in with the colour to produce audio-visual effects of a curious depth.

main attraction

In the early hours of the morning, the main attraction appears. Tonight it was the "Byrds," sauntering on stage, relaxed, comfortable, five minutes early, five hours after I had entered the club. In this same, apparently relaxed fashion they then proceeded to open a sluice gate of emotion, delivering song after song with impeccable quality and feeling. Every facet of the performance was infinitely polished, making sounds of unbearable loveliness, ad lib from audience requests.

The high treble, twelve string sound, which was until recently an almost invariable "Byrds" trademark is not heard so much now, but the audience eventually forced them through their older classics, like "Turn, turn, turn" and "Mr. Tambourine Man," which were played as accurately as the original recordings at the same time gaining by personality and intimacy.

wild response

The response was one of wild enthusiasm, and elicited two encores immediately. After the second of these I stopped clapping and tugged at the hem of a caftan, sported by a long haired gentleman, who appeared to have something to do with the amplifying equipment. He turned and I flashed my shiny new "Bart's Journal" press card at him, he helped me up onto the stage without a murmur and waved me on towards a door, through which the last "Byrd boot heel was wandering."

I flopped down in the dressing room a few seconds later beside the great man himself, Jim McGwinn the lead singer and a founder member of the group. We were both very exhausted.

He told me how nervous they had in fact been before the act started, their last tour in Britain had been marred by the impending loss of two members of the group, their reception had not been good. Tonight was unbelievable, it made him very happy. I tried to tell him how good, I thought the performance had been and for an instant his eyes gleamed with satisfaction, then dulled with fatigue.

inhuman

"We've gotta go back on, an audience that claps for fifteen minutes, if we don't it's inhuman."

His head jerked up and nodded slightly.

On the other side of me was seated Kevin Kelley, a relative newcomer, who had only been with the group since January. He was tired too, tired and almost overcome with delight at the way the audience had reacted. They had to go now for their third encore, he wearily picked up his guitar, patted me on the shoulder as much as to say "thank you all you lovely people for liking us" and walked out.

In front was Douglas Dillard, fatigued eyes peering out of a fringed buckskin jacket. His instrument, a banjo was lying at his feet, he did not go back. This big man from Missouri had been with the group for a week and had only played with them three times, only joined in time for the tour. Yet, as I thought back, I remembered many numbers all but centred on his own distinctive playing. He'd always played the banjo, played most stringed instruments, in the "Blue Grass" style.

soon over

Then there were the wives, sitting with the beautiful sounds their husbands were making echoing through the walls of the stark, harshly lit dressing room, wishing desperately that the show would soon be over and that they could all go home.

TOP OF THE POPS TOP OF THE POPS TOP OF THE POPS

Jimmy Saville

Paul Dieppe
Andrew Fletcher



Studio G: "Top of the Pops." The afternoon rehearsal was minutes away, and the stars wandered about aimlessly. Herman, of Herman's Hermits, was quite talkative. "Are you married yet?" he yelled across to Lulu, who was nervously telling me how she never got worried before a show. "No," she replied.

All awaited the great Jimmy Saville. He arrived in black tracksuit and blonde hair. "You're all looking gorgeous," he beamed. We all beamed back. The producer raced across. "Let's get started, Jimmy."

Enter a mass of frizzed hair and stripey flared trousers. "Are you a Monkee?" "Yes," he yelled above the din. "What's your name?"

"Mickey." His manager interrupted, "Sorry, come back later."

Cameras roared up and down the narrow floor space. A young technocrat in an orange shirt prevented people from getting run over. Sound poured into the studio, and pictures flickered down from the many monitors. Behind us, beyond a black curtain, live backing music was provided to order.

One wall was covered with messages: "We love Tork." "Tork is fab." Who was Tork?

pop hair

Pop hair is big business. We watched, as

Jimmy Saville's was prepared for the cameras. "I like to help back-street charities, one's you'll never have heard of." The Morning Star Hostel for Destitute Men was one of many.

"Do you think your work is worthwhile?"

"Yes. It does me good, and it does a lot of people a lot of good too. The Pope and Cardinal Heenan never said anything against pop music."

Eleven years ago, he was playing records at a girl's twenty-first party in Otley; thirty shillings for the evening.

"That got me four other jobs, and that's how I'm talking to you now. I've never asked for a job in my life, and I never intend to."

"Do you plan ever to get married?"

"That's my only nightmare."

Back in his dressing room, he announced: "A large animal like the National Health Service must have a few blemishes. The principle is marvellous, and the execution is the best you can expect from grown-ups."

"I've had several articles written on me by medical people, and they're the worst of the lot, because they're so opinionated."

"Are you ever nervous before a TV show?"

wrestling

"No, only before wrestling matches. I had my ninetieth fight last week." Four years ago, his foot was smashed in the ring. "I did a radio Luxembourg show with my foot in a pail of warm water, and then appeared on 'Top of the Pops,' and did three more shows, all before having it set. And that shows you how seriously I take my work."

"After two days work, I was so hooked on hospitals and patients that I can't stop now." Jimmy works two days a week in the Leeds General Infirmary. "The top people there hold me in such esteem, that the man who did the three valve heart thing allowed me to stand at his elbow. First time a layman has been let in on the scene."

"I was standing at his head, with the surgeon on my left. I could see more than he could. They let me stand on a sort of platform."

"Would you have liked to do medicine?"

"No. It's too demanding."

tell your 175 readers

"This year, I won four out of six of the top DJ awards in Great Britain."

"I'm doing one one-hour show a week for Radio One. They pay me more for that than any other D.J. makes in a week."

"Why do you think you're so successful?"

"I don't know. You should be able to tell me that. I don't smoke, and I don't drink. I save all my money. Every penny of it."

"What are you going to spend it all on?"

"Maybe one day I'll decide to turn it all in, and go round the world in a slow boat with two fast girls. When I'm ninety, I'll marry two teenage girls, one on either side of me to stop me rolling out of bed."

"How old are you now?"

"Seventeen. I've been seventeen for years now. I'll become ninety just as soon as I want."

"I've got five cars. Next month I'll have the world's finest Rolls-Royce. Thirteen thousand six hundred pounds. White convertible: solid gold door handles; eight track stereo tape recorder: four speakers, one in each corner of the car; refrigerator; electric hood, and all the rest. It'll be the only Rolls-Royce ever sold with Green Shield stamps."

"What is your favourite country?"

"For weather, California. For scenery, Switzerland. Polynesia for free love. For people, perhaps Ireland. All together, though, there just ain't nowhere like Great Britain. Needless to say, that's because we're British people."

intuitive

"I worked for five years in a pit. I knew I was going to make a lot of money. I knew it in my water. I'm very intuitive."

"Is there anything you want you haven't got?"

"If a man is sound in wind and limb—and loaded—and looks fantastic, like me, what else could he want?"

"Life either digs you, or it doesn't. I've never changed, and I never will."

"Everyone owes me so many favours, it's just not true. The early Rolling Stones records never sold, and I was the only disc jockey in the country who went on playing them."

only a quid

A white shirt appeared. "How much did it cost?" he asked. "A quid. Got it from a greengrocer's round the corner." "Fine."

Jimmy left us for the canteen. The live show was only an hour away.

BARTS—A LIVING FOSSIL

My companion was grey-haired, balding and boyish. He had been a registrar when I was a student. We had not met for more than fifteen years. He was now very eminent in his own specialty on the American Continent and had clearly thought deeply about medical education. In front of us was a reptile. I was explaining our interest in the metabolism of this creature—"What sort of a lizard is that?" he said.

"He's not a lizard, he's *Sphenodon*," I replied. "His first cousins were the Dinosaurs; he's a living fossil—unchanged and unchanging."

"Rather like Bart's," said my companion. I looked at him wondering what he meant. "A sort of pillar of reliability, enduring when others have melted away?" "No," he said, "I wasn't thinking of that; Bart's is really very like your chum *Sphenodon* here, a living fossil as you said. Occupying a niche in the world, inconspicuous, unproductive, occasionally showing a little activity and then relapsing into torpor again. Evolution has passed him by, he persists but he will never conquer the earth—unless he adapts himself to new circumstances, proves himself a little more adventurous and joins in the competition of evolution."

As a zoologist I could not endorse his views on evolution; as a Bart's trained doctor I was disturbed by his views on my old school. He read my thoughts.

"I used to have illusions about Bart's, but not after I joined the staff there," he continued. "I now see that it's a third rate medical school—no, a fourth rate medical school by world standards. Its graduates are turned out to be good G.P.s, 1937 vintage. The world of modern medicine no longer needs people like that, or put another way, the society which uses doctors produced in such a mould is not receiving the best of modern medicine."

"What would you propose then?" I asked.

"The scope of the changes that would be needed to make Bart's into a progressive school would be enormous. The whole organization and philosophy of the place is so entrenched in its mouldering traditions that something like an earthquake would be needed to achieve anything. To start with one would have to have all full-time consultant staff, with provision for private practice within the hospital. In this way the consultants can be identified with, and indeed identify themselves with, their

hospital, not with two or three hospitals as often happens now. It also helps to ensure that their housemen and registrars receive the sort of interest in their training that is a vital function of a medical school. The chief is either in the ward or in his laboratory. Graduate staff take part in the research programmes of the firm, or indeed run the research programmes under the guidance of the consultant as well as looking after their clinical responsibilities under the eye of the consultant. This also means that the Medical School must accept that to get the best available medical staff in the present-day scene, rightly or wrongly, means offering research facilities. Bart's is probably better placed financially than almost any other school to do this. It could say, to a clinical physiologist for example, 'Here are your patients, here is a laboratory, here is the money to provide the best equipment and staff you need for your work. There's only one condition—you must be here full-time. If you want a few private beds we can fix it.' Half a dozen units like that and the name of Bart's would shine as it has never shone before." My friend's enthusiasm showed that while he took such a disdainful view of our old school, deep down he wished it well and wanted it to prosper and be renowned. "Further," he continued, "it must have an energetic programme of postgraduate training, open not only to Bart's men but to any capable young people. The period of postgraduate training would follow quickly upon graduation, not after Fellowship or Membership as at present, and consist of a general clinical laboratory work in the specialty of choice, a clinical attachment period and finally a special project period in which the physician, or surgeon, carves out his own special field of knowledge. Unless young Bart's men can see the writing on the wall, their school will sink lower and lower, surviving as a museum piece of medical education."

Sphenodon turned its scaly head a little and its flanks rose and fell. Its respiration rate was six times a minute. My companion scratched its head, it didn't move.

"Survival alone, old boy, is not enough; extinction is only just around the corner. If circumstances change and you don't adapt you will join your cousins, the dinosaurs."

Edwin R. Nye.

MEDICAL BOOK REVIEWS

The Pharmacology of Inflammation, by W. G. Spector and D. A. Willoughby. Published by The English Universities Press. Price 40s. (123 pages.)

Inflammation is basic to much of pathology, and this is a comprehensive, concise, and up-to-date review of what little is known of its underlying pharmacology. At 4d. a page this book must be considered expensive even by those used to buying medical textbooks, but it will save many evenings of searching through the literature for information that is essential to the "with-it" medical student, and it would be a self-deprecating person who considered a week of saved evenings were not worth £2.

The attitude towards inflammation is very much a "Bart's" one, and though it is good to have LNPF discussed against a background of the other mediators, it seemed to me that a disproportionate amount of space was devoted to this substance as compared with for instance, the role of complement in the production of a chronic inflammatory exudate (15 pages to 20 lines).

One very useful point of this book is that it puts in their place the many theories that appear in the big textbooks, and another is that it shows how little we really know of the basic biochemistry and pharmacology of inflammation.

R. S. H. P

A Short Textbook of Orthopaedics and Traumatology, by J. N. Aston. Published by English Universities Press. Price 27s. 6d.

This book provides a useful introduction to orthopaedics for the student. Each chapter begins with a summary of the topics to be discussed, and is well divided by bold sub-headings.

The text is accompanied by a series of line drawings which are adequate rather than elegant, and the absence of any radiographs is noticeable. The book is well indexed.

The author has succeeded in covering the main subjects of orthopaedics and traumatology in a well planned and concise manner.

This book is good value and a welcome addition to the University Medical Texts.

A. L.

Radiographic Techniques Related to Pathology, by Margaret Clifford and Ann Drummond. Pp. 71. Published by John Wright & Sons Ltd., Bristol. Price 12s. 6d.

After a careful reading, this reviewer is left with the impression that a good intention—to present useful knowledge of pathological conditions together with appropriate radiographic techniques—has not been translated into the printed word with complete success.

What we are offered is a pocket-book on selected pathological terms (with some often unnecessary clinical signs and symptoms and a few avoidable errors) accompanied, not by techniques as the authors claim, but by scant statements of projections. Centering points and other essential details which make techniques, and permit them to be reproducible, are absent.

We may look forward to a second edition in which pathology errors are corrected and techniques are concisely but more usefully described. The text will also benefit by the replacement of some commonly-used slang terms (views, tube tilt, dorsal spine, central beam, etc.) by professional terminology, and the rewording of vague or muddled instructions (slight rotation; A.P. abdomen oblique—supine).

This book could become a means by which the radiographer or senior student can with confidence realise what more is required for a radiological diagnosis.

F. J.-T.

A Radiographic Index, by Myer Goldman & David Cope. Pp. 86. Published by John Wright & Sons Ltd., Bristol. Price 15s.

The fact that this pocket-book, first published in 1961, is now in its third edition, should indicate its value to radiographers and students.

It is primarily an alphabetical reference guide to a selection of anatomical parts (about 200) and suggested radiographic techniques for each. There are useful lists of contrast media, common medical abbreviations and terms, and "Named Views of the Skull" although personal names and the use of the word "views" are to be deprecated.

Exposure factors differ a great deal from one hospital to another and the tables of so

called average exposures in Appendix IV, without knowledge of generator, screen speed and other variables, are of doubtful value.

The authors acknowledge that different techniques are used in other hospitals but this should not detract from the value of this book, at least as a comforter to junior staff and students in the absence of advice from experienced colleagues.

F. J.-T.

Antibiotic and Chemotherapy, by Garrod and O'Grady. Second Edition. Published by E. & S. Livingstone. Price 50s.

This book has much to recommend it. Firstly it is written by two very eminent Bart's men who are writing on a subject that they are highly qualified to do so. Secondly they have written the book in a style that is very easy to read and which puts the information within its covers in a most acceptable form. It is difficult to fault this publication which though perhaps primarily intended for the qualified doctor has a great deal to offer the student; a fact that cannot be over-emphasized.

The book is mainly concerned with antibiotics, but embraces sulphonamides and other synthetic drugs employed in the chemotherapy of the microbial infections.

The contents are divided into two parts. The first describes the antimicrobial drugs and other drugs, their history and specific properties, with special reference to their antibacterial activity, whilst the second places the emphasis on the infections and then goes on to their specific treatment.

Tables summarize the information given and where they appear they are often valuable in themselves for direct reference. Also of particular value was the inclusion at the end of each chapter of detailed information of the pharmaceutical preparations and dosages, of drugs mentioned in the previous chapter.

In conclusion it must again be emphasized that the book has more to offer than just being an excellent reference book for the qualified doctor, but owing to its high standard of authorship is also of great value to the medical student.

C.F.

Bacteriology Illustrated, by Gillies & Dodds. Second Edition. Published by E. & S. Livingstone. Price 47s. 6d.

This book is a superb example of the ideal aid to practical and theoretical bacteriology for the medical student, whether he is learning or revising.

The text is divided into three parts: General Introduction; Systematic Bacteriology; and, Diagnostic Methods.

The book is well-written and very concise, giving sufficient information for an excellent introduction to bacteriology.

The General Introduction Section deals with the morphology and staining techniques of the bacterial cell, its physiology and cultivation, antigens and antibodies, and the classification and diagnostic identification of bacteria.

The Systematic Bacteriology Section deals as the name implies with the groups of bacteria whose coverage is necessary for a complete basis to clinical bacteriology.

The last section, Diagnostic Methods, given extensive information of investigations necessary in clinical medicine together with technical details of the method of estimation and examination of specimens; and, of laboratory procedure, which makes the book particularly useful to laboratory technicians also. The final chapter terminates the publication by providing a short resumé of prophylactic immunization.

Numerous plates all add much to illustrate the text—the colour reproduction and photography being of an extremely high standard. There are also many diagrams which summarize the text particularly well and help to clarify many of the techniques of investigation.

In addition to being a very well-produced edition, the book is very easy to read and tends to stimulate real interest, thus making it that much more value for money.

C.F.

Fundamental Physics of Radiology, by W. J. Meredith and J. B. Massey. Published by John Wright and Sons Ltd. Bristol. Price £4 10s. 0d.

In the 600 pages of this book the authors have done what many Hospital Physicists have threatened to do for a long time, and that is to write a first class text book on the Fundamental Physics of Radiology for student radiographers and radiologists, whether they be diagnostic or radiotherapy. Few could have done it better.

The style and sequence in the book are such that it is a pleasure to read, which few text books are. It is written so lucidly that anyone interested in the subject or part of it can obtain from the book a simple and often pictorial exposition of the fundamental principles underlying the process involved. It would be of interest and use to those medical students who wish to explore the use of radiations and radioisotopes in medicine.

The book does not cover basic physics for which the authors recommend *Basic Physics in Radiology* by Kemp and Oliver. It starts with *General Physics*, covering such topics as Matter and Energy, Radiations, Radioactivity and Isotopes, Radiation Absorption and its Effects. The second section deals very thoroughly with *Diagnostic Radiology* and here, as throughout the book, no fact or principle is stated without a complete and simple explanation being given. The properties of the X-ray films are particularly thoroughly covered in relation to the radiation exposure they are subjected to. The third section deals with *Radiotherapy Physics, Treatment Planning, Therapy Equipment, Aids to Accurate Treatment and Radioactive Isotopes in Clinical Medicine*. The final section deals with *Radiation Protection*.

It is obvious that here we have a book written by authors who are not only fundamental physicists, but have and do apply their knowledge to practical problems in order that the best can be obtained from radiation tools in medicine.

G. S. I.

X-ray Diagnosis for clinical students and practitioners. 2nd Edition, by G. Simon. Published by Butterworths. 70s.

"X-ray Diagnosis" is intended as a contribution towards the incorporation of the teaching of the subject into the general curriculum.

There are six chapters: an Introduction, the Radiology, in turn, of Bone and Joint Diseases, the Abdomen, the Chest and the Head and Neck, and the sixth chapter, Miscellaneous on general radiology.

The first chapter gives a fairly long description of X-ray technique and the nature, mode of production and properties of X-rays. The style of writing in the book makes even this section very readable, and the section provides a very sound basis for the future interpretation of X-rays.

The next four chapters deal systematically with the type of X-rays seen from day-to-day by the clinician. The text maintains the fine, very readable style of writing, and is amply illustrated by many X-rays of a high quality which are easily understood due to the explanatory note with each plate.

The last chapter deals with the radiology, and its interpretation, of the blood vessels and muscles, together with the relation of radiology to such subjects as Psychology, Backache, Dyspnoea, and the Law.

To conclude, this book is hard to fault; it achieves what it sets out to do, that is, it provides an excellent introduction, instruction and reference book for the medical student and newly qualified doctor.

C.F.

Orthopaedics for the Undergraduate, Crabbe Heinemann. 32s.

The text of this publication is unmistakably good.

The first chapter is only three pages long and gives a short history of orthopaedics, its scope and a glossary of commonly-used terms. The second chapter deals with post-operative complications and the principles of traction, and it's here that the many fine line drawings are most useful, adding much to illustrate the text.

From the end of the second chapter the book seems to deteriorate. In the Preface the author himself suggests that "whether the reader be undergraduate or postgraduate . . ." the reader should study Chapters 11 to 17 (on Clinical Examination) before reading the remainder of the book. On this basis it seems strange therefore that these chapters should not have been put at the front of the book.

Whilst criticism of the lay-out of the book may seem petty, criticism of the content itself is of the highest importance, and again the Reviewer feels bound to condemn the use of line drawing throughout the book in place of X-rays. It is the Reviewer's contention that no textbook on Orthopaedics can be viable without numerous illustrative X-rays.

It is therefore all the more regrettable that the useful text being without adequate clinical illustration, barely makes this book value for money, though in conjunction with another supplementary book, it might prove most useful.

C.F.

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The Doctor's Black Book, by Tony Munzlinger. Published by MacDonald & Co. Price 10s. 6d.

This is an hilarious collection of cartoons examining the medical profession. The publishers do not recommend this book for open display in doctors' waiting rooms and who can wonder why! Suffice it to say that when I showed it to a number of fellow medics we all nearly collapsed with laughter. Thoroughly recommended.

R.K.

GENERAL READING

Faith Healing, by Dr. Louis Rose. Published by V. Gollanz. Price 30s.

There are at this moment many people who claim to be able to cure a large variety of diseases by the laying on of hands and by prayer, and there are many more who are convinced that they have been so healed. History is full of stories of people, shrines and the bones of saints which are said to have healing powers. But despite the wealth of material awaiting scientific scrutiny, serious and unbiased investigators have always seemed unwilling to apply themselves to the subject. This is sad, for, as Dr. Rose says: "If—not one perhaps but ten or a hundred—examples were found of disease being cured by some mechanism which could not be explained other than by the intervention of intelligences operating from outside our ordinary world, then even the practical benefits would be as nothing to the scientific, religious and philosophical implications". It is, however, understandable, and the difficulties that have presented themselves to Dr. Rose in the course of his investigations are indeed formidable. Not the least of these is the fog of emotion surrounding the subject, and I think what prevents many people from even picking up a book on the subject is a fear of being barraged with religious propaganda and what might be described by some as "sentimental twaddle." Dr. Rose, however, who has recently been appointed as Bart's first honorary Research Fellow in Psychological Medicine, is amply qualified to disperse this fog and to drag out into the light of day a few facts.

In the first part of his book, Dr. Rose puts faith healing in its historical perspective, and gives a most interesting account of the healers, their lives and ideas from the time of the priest-magicians of the ancient civilizations through to the present day muddle of religious healing sects, and "individual" healers with their own theories. Did you know that the English Sovereigns were believed to have healing powers, and practised healing by touch on a large scale right up to the time of William III, or that a Scotsman called Graham who was born in 1745 charged up to 500 guineas for a night in his "Temple of Health" which contained a "Grand Celestial Bed" reputed to have cost £10,000 and which owed its virtue to the "magnetic vapours" surrounding it? Many fascinating facts, beautifully put together. There

is a chapter on the attitude of the disciplined churches, with a careful consideration of the Lourdes phenomena, in which he points out, and later on adopts himself, the strict criteria to be satisfied before a cure is judged as miraculous by the Roman Catholic Church. He ends this part with a chapter, aptly entitled "Many Questions, Some Answers" in which he examines the possible explanations of the healing phenomena—with "Okham's Razor" fully sharpened—being mainly concerned, of course, with the mechanism of suggestion.

The second part of the book is an account of his own investigations into some of the claims of the healers. Its aim is to determine whether or not paranormal healing can scientifically be said actually to occur. This is the basic issue, which is not to be confused by attempts to elucidate possible mechanisms of possible paranormal activity. He discusses and describes his progress in searching out and analysing evidence in the light of his well defined criteria—a process "painstaking, sometimes tedious, sometimes frustrating but always I believe, worthwhile," the main difficulty of which is the apparent reticence of the healers in aiding their own cause by keeping good records. Of particular interest are the twelve representative case histories of purported cures, and also the dialogue between himself and Mr. Harry Edwards, a well known spiritualist healer, which he has open-mindedly included. Inevitably, though, the book ends on an inconclusive, somewhat pessimistic note, and this, it seems to me, is inherent in the type of investigation Dr. Rose has carried out. It is really a pre-experimental study, and what is now required, without which no convincing progress can be made, is a controlled experiment. Dr. Rose has, of course, attempted this but was met with obstruction from hospital authorities. I wished, for the sake of resolving slightly the doubt, if not the original confusion, that still was in my mind at the end of the book, that Dr. Rose had delayed publishing the book until he had succeeded.

However, perhaps this book will serve to advertise the cause of this particular branch of science. Besides this, the book remains very readable, entertaining and informative, and perhaps above all, thought-provoking.

G. K.

Sex and Society, by Helena Wright. Published by Allen and Unwin. 21s.

Helena Wright is a qualified gynaecologist, but, although she begins her Preface with the words: "For the past thirty-seven years . . ." the book is not that bad! The author seems to favour the time-tested sexual morality of total sexual permissiveness, which she ascribes to being "new", thus failing to distinguish between sexual morality as it is, and sexual morality as it is admitted to be.

Basically the book has very little that is new to offer, though doubtless the collectors of all books with similar titles will find this publication a welcome addition.

C.F.

"Nairn's Paris," by Ian Nairn. Published by Penguin. Price \$1.65. (10s.)

The number of guide books written about Paris must by now be well into treble figures. Nearly all of which have stated that the Tour Eiffel, constructed in 1886, is 984 feet tall and is held together by over 2,500,000 rivets. Mr. Nairn may possibly be unique in omitting this information, however, his book is concerned more with his impressions and thoughts not only about the famous Paris landmarks but also those unknown parts of Paris, which escape the notice of the average tourist such as rue Volta—"a fragment of medieval Paris or present day Naples."

The latter half of this book is concerned with the "Île de France," here again both the known and some of the unknown attractions are described as Mr. Nairn sees them.

Needless to say, the author being architectural correspondent of "The Observer," this book is well written, and the views put forward are both interesting and amusing.

This book is not, however, particularly well illustrated it does not contain a single map of Paris and for the latter part one needs only to buy half a dozen Michelin maps to find where the places are.

Taken as a whole the best part of this book is the Preface which gives one the valuable information that the best companions for information and advice are the green Michelin guides: for buildings; Pierre Lavedan's "French Architecture"; and, for maps: the "Cartes Taride" and the Michelin maps—these all give excellent value for money, something that cannot be said for this book.

N. McI. J.

Sweetly Sings the Donkey, by Shelagh Delaney. Published by Penguin Books. Price 3s. 6d.

Shelagh Delaney is a person who doesn't really understand her own success. She marvels at the effect she has on other people and her writing exudes an innocence of judgement.

"Sweetly Sings the Donkey" is faintly autobiographical. It contains no obvious wit, yet rings with laughter. It is a book about fact, but fact very distorted by the eye of the observer. Compelling emotional logic leads idea to idea; the connection is always simple, the justification not always so.

The book is presented as a series of anecdotes. These range from experiences in a convent school, and the career of a homosexual teacher, to excerpts from begging letters sent to her once she became well-known, and thoughts from Poland.

Shelagh Delaney should be studied as an insight into disillusioned innocence.

A.F.

The Hunter and the Horns, by W. H. Canaway. Published by Penguin. Price 3s. 6d.

If there's one thing which usually wears me down about books set in an alien geography, it's that the author will go on telling you about how alien it is in paragraph after paragraph of mind-numbing prose.

But, pleasantly, in this book the Arabian Desert background is economically sketched, as are the customs and imponderable personalities of the Arabs with whom the anti-hero has to do. He—Parsons—is a schoolteacher who has sought to change from his spineless background, and now instructs Arab apprentices to a Middle East Oil Company, but he finds his past dominates him even here: he has an English mistress from Hayward's Heath, makes hygienic love with her, writes rapid letters to the Mater at home, and most of all tries to preserve the dwindling species of Arabian Oryx slaughtered by Arabs for the aphrodisiac property of its horns. This affair, which represents his own quest for an unconventional manhood set against theirs for the traditional, leads him into a series of adventures ranging from the erotic to the persistently terrifying. A good if undemanding read.

B. E. O.

Late Call, by Angus Wilson. Published by Penguin. Price 6s.

Angus Wilson, in his numerous short stories and handful of novels, has long delighted me with deft caricatures of the class-conscious and perverse. His world is that of decaying gentlefolk who suggest standards of living they never quite knew: of pederastic clergymen and authors who sometimes don't realise what they are up to: the bitchy in-fighting of theatre people who never quite made it: the schemings of delinquents who never will. Occasionally, these characters are too self-deluding and fall into a frank dottiness which arouses amusement and something near disgust: a benign old procuress of young people for the jaded old, who sit in her rosy cottage happily repeating "Love makes the world go round"; the youth who thought he hated his mother but suffers cosmic terror when she dies: the barrister who makes his wife take on a succession of au-pair boys.

From this unlikely background comes a novel with rare compassion and insight, wherein Wilson's favourite butts—the old and unadjusted—are kindly portrayed in depth. The old witty frigid precision in defining character has given way in places to a warm clarity. The heroine of the novel is an unlikely enough figure: Sylvia Calvert, a large, fat, hypertensive woman who has to resign from her job and take her senile husband to live with their son and his family. This son, middle-aged and recently widowed, is the headmaster of a local comprehensive school, a doctrinaire founder-member of the classless thrusting New Town, a great organizer and compulsive talker who runs his household of three children as a socialist cell and shrine to his wife. To this alien background Sylvia fails to adjust. She is not used to doing nothing except play the aged parent. Her husband's behaviour—a mixture of charm and irresponsibility which suggests a good leucotomy—loses the family its old friends. The grandchildren rebel against their upbringing and expose their father's concealed weaknesses.

There is much to cause amusement, many scenes and deft rignettis which pin their subjects down ironically. But the most extraordinary aspect is the way in which Wilson depicts so compassionately — yet without romanticising her—what it must feel like to be a fat old lady, given to dizzy spells, declining into quiet despair, seeing an ordered world disrupt into buzzing incomprehensible fragments, feeling herself full of the desire to love and be useful but with no object to accept these gifts. The crisis tragic and the resolution heroic —she finds an opportunity, and gets her feet onto the ground again, and everyone is the better for it. Altogether a most interesting work from an author in his fifties and still increasing his range.

B. E. O.

The Stories of F. Scott Fitzgerald, Vol. 4. Bernice Bobs Her Hair and Other Stories. Published by Penguin Books. 5s.

This selection of eight short stories is one volume in a series of five planned by Penguin Books featuring the shorter works of F. Scott Fitzgerald. Bernice, in the title story, maintains social prestige by a daring bluff, until her jealous cousin decides to call it. In "The Baby Party" doting mothers clash when one baby pushes another one over; apple-carts are upset and matters rapidly escalate to a fight between respective fathers. The stories all make an interesting study of both life in the 1920's, when they were written, and the philosophy and life of the author. In short, the various themes and their treatment by Scott Fitzgerald add up to a collection that will be enjoyed by many.

R.K.

SPORTS NEWS

SPORT'S DIARY—JULY

Wednesday 3rd — Golf Club v. Middlesex (Away).

Saturday 15th—Men's Tennis v. Westminster (Away).

Saturday 20th — Men's Tennis v. U.C.H. (Home).

Wednesday 24th—Golf Club v. Westminster (Away).

Wednesday 31st—Golf Club v. U.C.H. (Away).

ATHLETICS CLUB

26th and 27th April. Fifty-Second Annual University of London Athletic Championships

The heats were held on Friday, 26th April, on a glorious evening at Motspur Park. The Bart's Athletic Club is one of the oldest hospital clubs and until a few days ago had no official colours. The new official colours (two black diagonal lines on a plain white vest and black shorts) were very distinctive among the more rainbow-coloured vests of the other hospitals. I would like to take this opportunity to thank the Students' Union for the special grant which enabled us to obtain these long-overdue Club vests.

The first track event was the 100 metres in which our sprinters (Tony Breeson and Bill Draycott) were outclassed, and failed to qualify for the finals; coming fourth in their respective heats. Brian Scott was in fine form despite lack of training (due to his Final Examinations) coming second in the 200 metres hurdles in a time of 25.2 secs.; which is a Bart's record as well as a personal best.

The 3,000 metres steeplechase saw Bob Thompson once again entertaining the spectators by his excellent breast stroke in the water jump, and his directions to those unfortunates who had lost their way. J. Brooks running with a more competitive spirit came fourth, while we are not actually sure where Bob finally finished.

One athlete who showed that Bart's was not a hospital to be reckoned with lightly, was Paul Bebbington, with a discus throw of 135 feet 3 inches; over 13 feet from his nearest rival. This was the second Bart's record to go on Friday (previous record 116 feet 4 inches).

Saturday saw a different picture with an overcast sky which later let loose with the traditional rain of such athletic meetings. The 200 metres saw Tony Breeson who, despite a rigorous training session the week before, again

dismally was left at the start to finish fifth. A noteworthy performance came from R. Barratt who confidently won the 1,500 metres in fine style.

The team was: A. J. Breeson, J. Brooks, W. Draycott, R. Moody, B. Scott, R. Rogers, B. Thompson, P. Bebbington, R. Barrett.

Bart's v. Lloyd's Bank Away—Thursday, 9th May.

Despite extensive team selection as shown on the Athletics Notice Board, we left Charterhouse with a total of four athletes. The other teams taking part in the match being—Metropolitan Police; South London Harriers; and Barclay's Bank.

Each of our four athletes entered a minimum of six events, i.e., three track events plus three field events. Although by no means competent at all these events, Bart's was able to consistently obtain precious points over its competitors who only entered one man per event compared with our regular two men per event. Bart's Athletic Club, has thus evolved a new class of "Utility Athlete". Robin Barrett performed well in both the 330 yards and the three-quarter mile coming third and fourth respectively. Tony Breeson and Bill Draycott discovered a new talent in the Javelin event; while Richard Moody showed his prowess as a discus man.

Despite the fact that our opponents had teams of at least 15, Bart's put a gallant show for a compact team of four. The final results being:—

Metropolitan Police	63 points
Barclay's Bank	59 points
Lloyd's Bank	56 points
Bart's Hospital	52 points
S.L.H.	22 points

A. J. Breeson

BOAT CLUB REPORT

The United Hospitals Boat Club Bumping Races were held at Chiswick on 27th, 28th and 29th May, on a fast flowing tide and with a slight headwind, almost perfect racing conditions.

The 1st crew had only a fortnight's training (killing one duck on the way) which in the event was insufficient, to maintain our place as Head of the River. Our thanks to Chris Hudson for his coaching and patience with a crew which was rarely the same for two consecutive outings, to our many substitutes, and to our waders, who enabled us to do good starts.

1st Crew

On the first night, a fair start got Bart's 2½l. on Mary's by three minutes but then, expecting Guy's to catch Mary's, the rating and work slackened and over the next three minutes Mary's superior fitness told and they

scored a bump fifteen strokes after the Road Bridge.

On the second night, trying to catch Mary's before being caught by Thomas's, the crew were very scrappy and never settled, getting bumped by the end of the Docks.

On the final night, after a good start and stride, the crew settled to hold Guy's and then to draw away at the finish, where they began to gain on Thomas's, who had failed to catch Mary's

2nd VIII

The Gentlemen maintained their position as the fastest 2nd crew rowing over each day with a fast start and a gentlemanly rate. On the second night, despite "2" having gate troubles, they got to ¾l. from U.C.H. but unfortunately could not score a bump.



3rd VIII Becalmed

3rd VIII

Having a substitute for a last minute injury, they rowed over on the first night and on the

second night, this time with their cox rowing! But on the last night they were bumped by a fast moving London VIII.



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The Rugger VIII's

The clinical crew, impressive in their white vests with a blue tinted, scantily clad figure of Jean Harlow, surged their way with flashing power strokes for two nights, only to be eclipsed by a Guy's crew on the final night.

The pre-clinical crew trained hard, and scored a bump when the Guy's cox jammed his lines to pas the wrong side of the island! They were bumped back on the following night and rowed over on the final night, despite the

Rugger Club dinner and some substitutes.

The Crews were—1st VIII: M. Castleden, C. Cobb, D. Edwards, R. Harold, R. Hill, D. Davies, R. Thomas, T. O'Carroll; J. Winner, 2nd VIII: S. Slaffer, N. Snell, R. While, D. Matthews, B. Moore, P. Cheetam, B. Grimaldi, J. Martin; I. Bintliffe. 3rd VIII: D. Richardson, R. Rayner, O. Bastard, S. Whiting, S. James, J. Graham-Pole, J. Blake-James, R. Hayward; A. Fletcher.

Tim O'Carroll.

CANOE CLUB REPORT

The long-distance racing season is now well and truly started. Bart's paddlers have so far competed in two major events. A first was won at Teddington in April. Then at Bedford early this month we won the Ladies' doubles—by half length over eight miles and came fifth in the Men's singles—against a very much more competitive field. Judith Williams is now

paddling K1 with remarkable ease. Some new paddles have been ordered so we expect to see even more people coming down during the summer months. The University Slalom—washed out in March—is to be held on 30th June instead.

A.J.J.H.

CRICKET CLUB REPORT

The season opened this year with a match against Sussex University 1st Team, which was played at East Grinstead. Bart's lost the toss and were put in to bat and by tea were in the commanding position of 144 for 5. Husband and Purcell were the main scorers, the former having hit a handsome 54 not out and Purcell, the captain, 30.

A declaration was made and Sussex began steadily after tea and were 50 for 2 in as many minutes. Then they collapsed in the face of some good attacking bowling by Grieve and Husband and were all out for 79 runs. (Grieve 6-36, Husband 4-42.)

The following Sunday Bart's were at home to London House. The least said about this match the better. Let it just suffice for me to make a brief mention of the score-card:—

London House 194 for 4 dec.
Bart's—46 all out.

On Saturday, 4th May, the team made its way to Cambridge for an afternoon match against Clare College. Having arrived at Cambridge somewhat earlier than required, lunch was taken at one of the older inns in the town, with the result that we were 24 for 6 wickets by 3.30 p.m. This score became more respectable when the lower order pulled us up to 98 all out. During the tea interval the rain came

down and Clare only managed to score 15 for 0 wickets before the match was abandoned due to heavy rain.

This poor display at Cambridge was followed on the Tuesday by the first round of the Hospital's cup against Guy's. The weather was very had indeed as Bart's went in to bat, having lost the toss.

The cricket matched the weather and by 3.30 Bart's were all out for 130. Such a total looked a very easy task for the accomplished Guy's batting line up to hit in the four hours play left. By tea the score was 70 for 2 and it looked inevitable that they were to achieve the task set them. Our only real hope was for the rain to save us.

However, after tea things began to go in Bart's favour. Guy's lost two quick wickets shortly after tea, bringing their total to 82 for 4. Then came a very slow period during which three runs were scored in forty minutes. Two more wickets fell in quick succession and the score was 95 for 6. It was at this point that the Bart's team stopped "praying for rain" and began to think in more positive terms. The final forty-five minutes the match could have gone either way. Bart's managed to bowl out the last four batsmen for twenty-one runs, bringing Guy's total to 116 and a victory for Bart's.

Scorecard :—

Bart's batting	
G. Purcell—ct. Bowden b. Crafts	... 23
R. Jones—ct. Gilham b. Crafts	... 2
P. Furness—ct. Appleby b. Beecham	... 15
R. Higgs—ct. Bowden b. Clarke	... 24
M. Britton—b. Clarke	... 1
D. Berstock—ct. Bowden b. Goodhart	... 0
D. Grieve—st. Bowden b. Pearson	... 20
I. Hann—l.b.w. b. Clarke	... 12
E. Lloyd—ct. Gilham b. Pearson	... 27
D. Hall—b. Crafts	... 1
P. Rhys-Evans	... not out 0
Extras	... 5
TOTAL	... 130

Guy's bowling

R. Clarke—3 wickets for 22 runs.
D. Crafts—3 wickets for 45 runs.
C. Pearson—2 wickets for 13 runs.

The following Saturday an away match against Southend ended in a tight draw but was nevertheless interesting in as much as our batting showed, at least signs of improvement, with Husband scoring 65 and Purcell 44. Scores :—Bart's 151 for 5 wickets dec.

Southend 146 for 2 wickets.

The day after Bart's won the toss and put Hampstead (our strongest opponents) in to bat. After a promising start, during which Hampstead lost three cheap wickets, they then went on to score 176 for 8 declared by tea.

Bart's innings was typical of previous matches and they were all out for 74, Purcell being the only one to put up any resistance

Scorecard :—

Bart's batting	
G. Purcell—ct. Morris b. Wilkins	... 9
R. Jones—ct. Wier b. Page	... 20
P. Furness—b. Page	... 2
R. Higgs—ct. McAdam b. Webb	... 12
M. Britton—b. Page	... 3
P. Wood—b. Page	... 13
E. Lloyd—b. Webb	... 0
D. Berstock—ct. & b. McAdam	... 19
I. Hann—b. Wilkins	... 18
J. Shepherd—ct. Seward b. Wilkins	... 22
P. Rhys-Evans	... not out 0
Extras	... 3
TOTAL	... 121

Guy's batting

R. Goodhart—b. Rhys-Evans	... 0
A. Gilham—l.b.w. b. Berstock	... 36
R. Clarke—b. Berstock	... 26
D. Silk—ct. Higgs b. Rhys-Evans	... 9
M. Appleby—b. Berstock	... 17
D. Crafts—ct. Grieve b. Lloyd	... 1
D. Thomas—st. Hall b. Lloyd	... 10
W. Davies—b. Rhys-Evans	... 1
R. Beacham	... not out 0
C. Pearson—b. Berstock	... 11
S. Bowden—b. Berstock	... 0
Extras	... 5
TOTAL	... 116

Bart's bowling

D. Berstock—5 wickets for 27 runs.
P. Rhys-Evans—3 wickets for 32 runs.
E. Lloyd—2 wickets for 23 runs.

with a good knock for 34 runs.

The second round of the Cup was played the following Tuesday, against Middlesex Hospital.

Bart's were put in to bat and yet again found themselves in the embarrassing position of being 49 for 6 at lunch. However, the lower order batsmen managed to pull the score up to 121 all out.

Middlesex went in to bat and lost 2 wickets for 31 at tea. After tea Lloyd came on to bowl and in an excellent spell of 13 overs took the remaining 8 wickets for 47 runs and Middlesex were all out for 115.

Middlesex bowling

Wilkins—3 wickets for 27 runs.
Page—4 wickets for 57 runs.

Middlesex batting

McAdam—ct. Hann b. Berstock	... 26
Fermont—ct. Shepherd b. Berstock	... 2
Webb—st. Shepherd b. Lloyd	... 16
Page—ct. Rhys-Evans b. Lloyd	... 40
Seward—ct. Purcell b. Lloyd	... 4
Lazer—b. Lloyd	... 13
Thompson—ct. Wood b. Lloyd	... 0
Norris—b. Lloyd	... 10
Wilkins	... not out 0
Almond—ct. Higgs b. Lloyd	... 0
Wier—ct. Rhys-Evans b. Lloyd	... 0
Extras	... 2
TOTAL	... 115

Bart's bowling

E. Lloyd—8 wickets for 47 runs.
D. Berstock—2 wickets for 35 runs.

The next Saturday Bart's played an away match against Crishall. Crishall, batting first, were all out for 59. Bart's hit the required runs for the loss of seven wickets, Vartan having

scored 23 not out, including two sixes.

A further batting collapse was to follow the day after when Bart's, in reply to Romany's 148 all out, only managed to score 88.

RIFLE CLUB**Full-bore shooting**

Bart's have been down to Bisley on four occasions so far this season—three practices and one match—The Pafford Cup.

Pafford Cup

This competition is open to all colleges in London University, Bart's entered two teams of four and the "A" team came third. The competition is shot over ten rounds at 200, 500 and 600 yards, and proved to be a battle against time and the weather. In the afternoon,

in true Bisley fashion, a storm broke and almost drowned those firing at 500 yards (the secretary was safely under cover in the butts at this time!). Shooting was unfortunately not up to standard, except for that by Dick Thompson and Ian Battye.

Teams : Thompson, Battye, Franklin, Tuckwell, "A" team. Rymer, Griffiths, Ciclitira, Stratum, "B" team.

Anybody interested in .303 shooting (it doesn't always rain at Bisley) should contact I. R. Battye.

Small-bore Shooting

The .22 season ended with a very enjoyable match against Whitbreads at the Brewery. It was a triangular match : Bart's—Whitbreads—Barking Police.

After the more serious competition was over, Whitbreads provided some excellent sport by suspending envelopes containing "Whitbread" playing cards, tie-pins, Biro's, etc., on lengths of cotton, and giving each firer 30 seconds in which to cut the cotton and win the envelope. After the time-limit had been extended, every-

one was able to come away with a pocketful of "goodies". We were then entertained in the Whitbread sports club at the Brewery. Bart's came third in the shooting competition, but held their own afterwards.

Team : M. J. Rymer, R. Thompson, J. Davies, G. Tuckwell, O. Else, J. Lawn.

It is hoped to get Whitbreads down to Bisley this summer, and have a .303 match with them—as they haven't done any full-bore shooting before!

M.J.R.

**MEN'S TENNIS CLUB REPORT
MAY, 1968**

This year approximately twenty first team matches and ten second team matches have been arranged. In previous years many people have been keen to play at the beginning of the season but then interest diminishes as the season progresses. It is hoped that this season people will play throughout the season, so that we can get a regular team.

We would like to welcome new members to the team, namely Tony Dale, Peter Hill, John Wellingham and Victor Blanchette.

U.L. Cup v. Q.M.C., Sunday, 12th May. Lost 5—4.

This was the first match of the season due to the atrocious weather, and we felt ourselves unlucky to go down by the one match.

BART'S I : Ussher and Savage—Lost Q.M.C. I, beat Q.M.C. II and III.

BART'S II : Hunt and Higgins—Lost Q.M.C. I, beat Q.M.C. II and III.

BART'S III : Dale and Hill—Lost Q.M.C. I, II and III.

The Oxford Tour. Wednesday, 15th May—Saturday, 18th May. Won 3, lost 0, 1 cancelled.

The party consisted of John Ussher, Chris Hunt, Nick Houghton, Tony Dale, Victor Blanchette, John Wellingham, Peter Bowen-Roberts and Robert Chesney.

As can be seen from the results this was a successful tour in every way. John Ussher and Tony Dale failed to lose a match, which

Results :

Wednesday, 15th May. v. St. John's. Won 6½—2½.

BART'S I: Ussher and Dale—Drew St. Johns I, beat St. Johns II and III.

BART'S II: Hunt and Houghton—Lost St. Johns I, beat St. Johns II and III.

BART'S III: Wellingham and Blanchette—Lost St. Johns I, beat St. Johns II and III.

Thursday, 16th May. v. Corpus Christi. Won 7—2.

BART'S I: Ussher and Dale—Beat Corpus I, II and III.

Inter-Hospital League v. St. Mary's Hospital.

Sunday, 19th May. Won 9—0.

The Inter-Hospital League is a new idea this year. Instead of playing three doubles matches, each pair plays a match against the opposite pair, and then each player plays a single against his opposite number.

This match turned out to be an unexpectedly

easy victory without a game lost. The old faithfuls, Tony Edleston and Marcus Setchell, scored a good victory over the U.H. Secretary and his partner. This was the first time we had played at Chislehurst this season and, as usual, the courts were in perfect condition. Our thanks to Laurie White.

BART'S II: Hunt and Houghton—Lost Corpus I, beat Corpus II and III.

BART'S III: Wellingham and Blanchette—Lost Corpus I, beat Corpus II and III.

Friday, 17th May. v. Pembroke. Won 6—3.

BART'S I: Ussher and Dale—Beat Pembroke I, II and III.

BART'S II: Hunt and Houghton—Lost Pembroke I, beat Pembroke II and III.

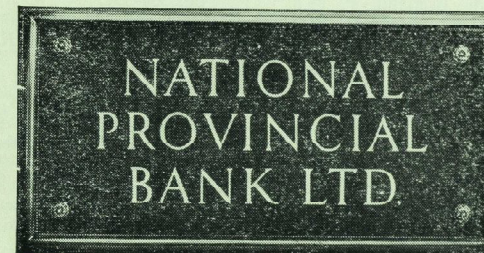
BART'S III: B. Roberts and Blanchette—Lost Pembroke I and II, beat Pembroke III.

Saturday, 18th May. v. Lincoln. Cancelled, due to rain.

easy victory without a game lost. The old faithfuls, Tony Edleston and Marcus Setchell, scored a good victory over the U.H. Secretary and his partner. This was the first time we had played at Chislehurst this season and, as usual, the courts were in perfect condition. Our thanks to Laurie White.

C.G.E.H.

* * *



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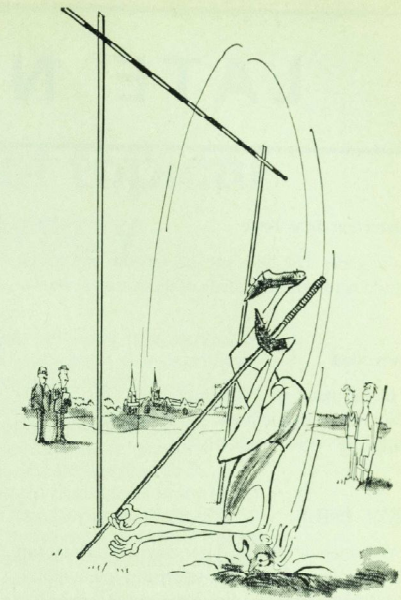
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LATE NEWS

Correction June Issue

On page 224 line one of second paragraph should read 'These records of dissection at Bart's'

Correction

In this issue, p. 277 paragraph 1: for "paderastic" read "paederastic", and paragraph 3: for "rignettis" read "vignettis".

NEXT ISSUE

Will include: (1) an interview with Jonathan Miller, playwright and television personality, who turned from medicine to journalism; (2) a feature dealing with medical education and teaching methods, (3) details of current house appointments.

Knighthood

Charles Felix Harris, M.D., F.R.C.P. For services to the University of London.

85th Annual Sports Day 19th June - Winners

Javelin: P. Millard. Triple Jump: P. Griffiths. 100 yards: J. Scarr. High Jump: T. Dale 440 yards: R. Moody. 120 yards hurdles: B. Scott. Shot: P. Millard. Long Jump: P. Millard. Mile: R. Barret. Egg and Spoon race: H. Andrews. 220 yards: B. Scott. Discus: A. Holmes. Consultants 100 yards: Dr. Francis. 880 yards: R. Moody. 3 miles: R. Barret. Inter-Year Relay: First Year Preclinicals. Coltart Cup (inter-year competition): First Year Preclinicals. President's Cup: R. Barret.

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References

1. *Arch. Derm.* (1962) **86**, 608.
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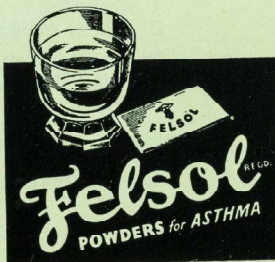
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Saint Bartholomew's Hospital JOURNAL

contents

Vol. LXXI No. 8

1st August, 1968

- 294 Sport
- 298 Albert by Malcolm Fletcher
- 299 The Effect of Chronic Bronchitis on Card Sorting by Mark Johnson
- 301 Jonathan Miller—an interview by Malcolm Fletcher
- 305 Part 1—Education: The Present. Teaching by Professor Milton
- 307 The Teacher by Robert Colby
- 309 Exams—an interview by Andrew Fletcher
- 310 Editorial
- 312 Part 2—Education: The Future. Closed Circuit Television by J. D. Gasking and Professor J. D. Quillian
- 315 Computer taught typing by Paul Dieppe
- 316 Audiovisual aids by T. B. Boulton and J. T. Mulvein
- 320 Correspondence
- 322 General Practice: a Receding Goal by Julian Toms
- 324 Group Practice in Canada by Dr. B. H. Duheume
- 326 Announcements
- 328 Reviews
- 330 Barbecue Ball—report by Robin Rayner
- 333 Late News

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SPORTS NEWS

TENNIS CLUB

Sat. 25th May v. College of Estate Management

1st and 2nd eleven.

Before rain stopped these two games, we had managed to win two matches. This was a pity as we always have a good game against this college.

Wed. 5th June v. St. George's Hospital

1st and 2nd eleven.

The 1st eleven managed to lose by the one match but the 2nd eleven had a good 6-3 victory. Oxley and Hamilton, and Dieppe and Klidjian not losing any matches.

Results

1st eleven

Ussher and Hunt lost Georges I.

Sitwell and Houghton beat Georges II.

Wellingham and Blanchette lost Georges III.

Ussher lost Georges I.

Hunt beat Georges II.

Sitwell lost Georges III.

Houghton lost Georges IV.

Wellingham beat Georges V.

Blanchette beat Georges IV.

2nd eleven

Dieppe and Klidjian beat Georges I, II, III.

Oxley and Hamilton beat Georges I, II, III.

Fraser and Rennie lost Georges I, II, III.

Wed. 12th June v. St. Thomas's Hospital.

League lost 2-7.

Wed. 19th June v. King's College Hospital.

Cup 2nd round.

Against a strong King's side, all the team played well, but we lost by less of a margin than was expected. It was a pity that examinations prevented us from fielding our strongest side.

Wed. 26th June v. Charing Cross Hospital.

Drew 3-3.

Having played even to begin with, we had the one match in hand before rain stopped play again.

Results

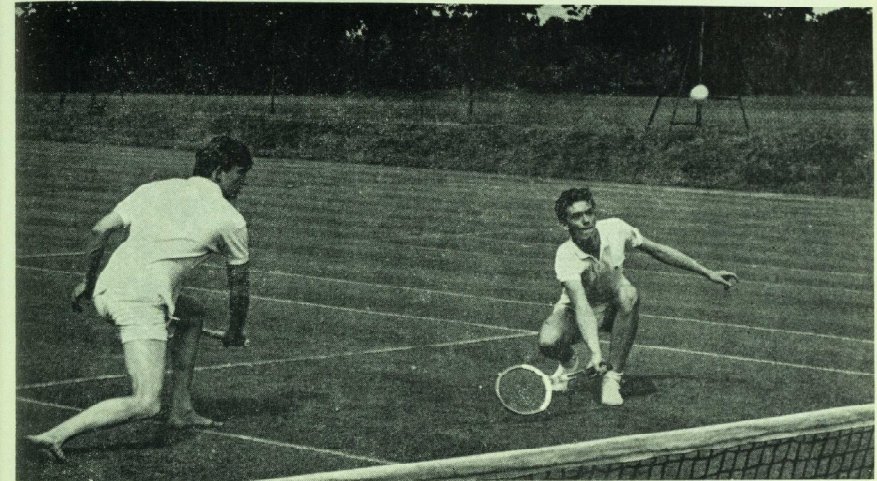
Ussher and Wellingham beat Charing Cross

I and II.

Hunt and Madson lost Charing Cross I, beat Charing Cross II.

Houghton and Klidjian lost Charing Cross II and III.

C. G. E. Hunt



JUDO CLUB

The Judo Club started the term well by winning the University of London Loose League, as we had hoped to do. The teams which fought in the Loose League included the U.H. Cup Team, varied by the addition of:

J. C. Dearlove—4th Kyu

M. Navin—5th Kyu

T. F. Coyle—5th Kyu

United Hospitals Cup—June 6, 1968.

Team:

P. Clarke—2nd Kyu

A. C. Ruddle—3rd Kyu

J. R. Davies—3rd Kyu

H. G. Duncley—4th Kyu

R. Colby—5th Kyu

After winning the U.H. Cup for the past two years, it was taken from us this year by St. Mary's Hospital, by the narrow margin of 5 points. However, 1969 should see the cup

back at Bart's.

We were very pleased this year to have several young ladies from Gloucester Hall as well as College Hall, joining us for judo practice. In fact, Miss J. MacArthur represented Barts at the Ladies Competition which was held with the U.H. Cup contest. If this trend continues, we intend to start a special Ladies Night practice session each week. Your chance to throw the men around, girls!

At the Judo Club A.G.M. on May 16th, 1968, the following were unanimously elected:

Captain—A. C. Ruddle

Vice-Captain—J. R. Davies

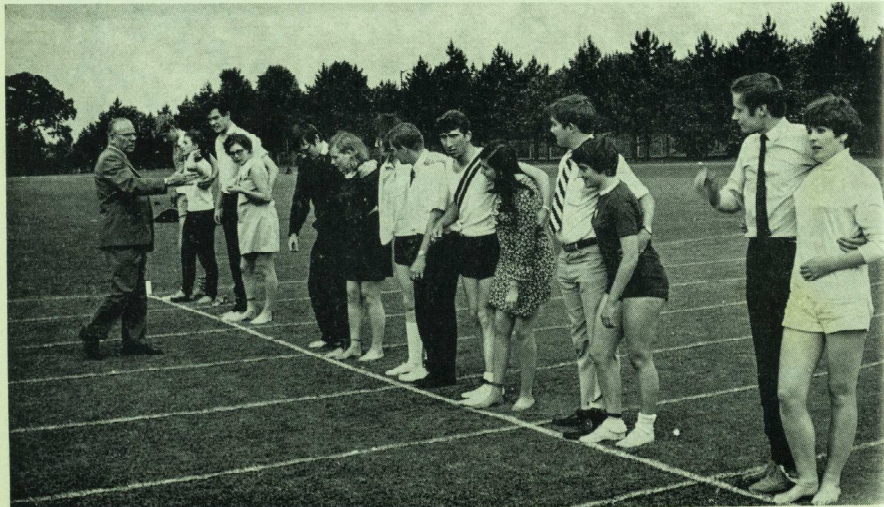
Secretary—H. G. Duncley

The Judo Club also wishes to thank Paul Clarke, the retiring captain, and the girls, for organising the Annual Dinner which followed the U.H. Cup contest.

J. R. DAVIES



sports day



GOLF CLUB

Sunday 9th June 1968. Match v. Mr. G. T. Hankey's team at Tandridge Golf Club (Surrey) Result: Won 1, Lost 5.

This turned out to be a beautiful spring day. The course, as usual, was in superb condition and looking beautiful. Unfortunately however we had a major disappointment—ridiculously St. Bartholomew's Hospital Golf Club was unable to raise six players! There were, however, some very reasonable excuses—such as 1st and 2nd M.B.

Our team therefore consisted of only three students viz A. Hoppe, W. Tingey and A. Hamilton. Also in our team were two consultants—Mr. J. O. Robinson and Dr. I. Kelsey Fry. Mr. G. T. Hankey, who normally plays for the Tandridge side, very kindly came over to the Hospital side to make our depleted numbers up to six. We played foursomes all day and started from the first tee around 9.30 a.m.

Morning foursomes:

1. A. Hoppe and W. Tingey. Lost 4 and 3.
2. Mr. G. T. Hankey and A. Hamilton. Lost 4 and 3.
3. Mr. J. O. Robinson and Dr. I. Kelsey Fry. Won 2 and 1.

Morning Result Lost 2, Won 1.

After much refreshment and a sumptuous meal in the club-house we returned to the battlefield in the afternoon. The lunch-time extravagances and high living had their effect, however, as may be seen from the results.

Afternoon Foursomes:

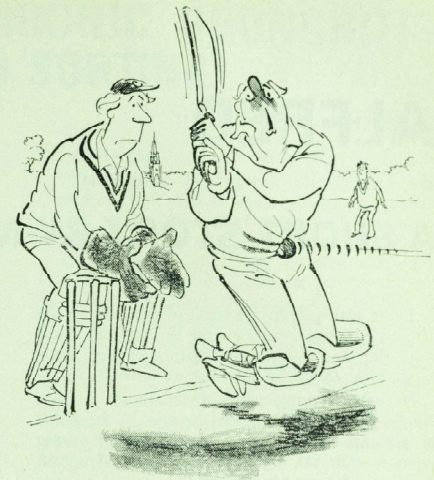
1. A. Hoppe and A. Hamilton. Lost 3 and 2.
2. Mr. G. T. Hankey and W. Tingey. Lost 3 and 2.
3. Mr. J. O. Robinson and Dr. I. Kelsey Fry. Lost 2 and 1.

Afternoon Result. Lost 3, Won 0.

Total result. Won 1, Lost 5.

Afterwards we had a tea in the club-house and then went on to Mr. Hankey's house at Limpsfield for the usual magnificent food, drinks and entertainment. We were even involved in a game of croquet—one which was of exceptionally high standard.

All together the day was a terrific success as it always is. We would like to express our hearty thanks to Mr. J. O. Robinson and Dr. I. Kelsey Fry for turning out and to Mr. and Mrs. Hankey for their generous hospitality.



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ALFRED

A SHORT STORY BY MALCOLM FLETCHER

There was a delicious scent of morning in the air, wide winged curlews cut through the haze over the moor and two figures clawed their way above them, up into the mountains.

He was a young army officer on leave from Germany. She was the girl he was in the habit of leaving behind him, a pear shaped young woman with fat legs, whose eternal devotion to him had never been denied.

The army teaches a chap to be healthy in mind and in body, so he had decided to climb the mountain, which had lain for many years brooding in the air above his home. The girl was not so keen but she eyed the unaccustomed firmness of his body; whittled into manhood by the war machine and thought it might not be a bad idea to keep that body exercised in harmless pursuits. Accordingly she left the refuge of her roll-on and, ensheathing her hindquarters with a pair of ersatz ski pants, took to the hills with him.

He found the exercise stimulating, every tendon in his body hummed exultantly as he put just a little more effort into every step, hers just cracked and long before they topped the first rise her body was a mass of pain.

In a vaguely patronising way he was aware of the agony taking place beside him but his mind was far more wrapped up in the thought of the good he was doing himself so he strode on whistling his regimental march.

"Can't we have just a little rest Alfred?" Her voice had a curious nasal quality, pitched, thought Alfred sweetly, at about the range of a humming bird's wing.

"Just a little further, we'll make our goal that stone." He pointed at a speck faraway in the distance and increased his pace.

She managed a brave smile as she flopped down beside him ten minutes later. He noted with disgust how her legs wobbled when her

bottom hit the ground, then swiftly cleared his mind and began to discourse on the weather.

Later in the afternoon they found themselves on a cliff-top, he filled his lungs in the wind and looked out at the valley spread beneath him. "She'll have to go," he thought, "hasn't got the qualities a soldier should look for in a woman. Dammit, she disgusts me."

She watched him and hated him for his years of condescension and his new fad, the army. Especially now that the years in front held a new horror, endless hillwalks.

"I'll tell her now," he thought and as he turned his foot slipped.

She was very quick, a sudden push and a hard kick to his departing head were all that was required. She watched the figure spiral down, spreadeagled above the valley floor like a puppet with rigor mortis. Then there was a muffled crunch, the Body jerked a few times and lay still.

The tears which followed were mostly due to hysteria, some to relief. However she managed to sustain them all the way home and spent a week in bed to recover from the shock.

Sadly she took off the cheap amethyst engagement ring and dropped it into the bottom of an empty drawer, where it rolled a few times then was forgotten.

Three days after her convalescence his parents sent her off on a holiday round the world to get over it, while they bore the whole thing with a stiff upper lip and returned to their gardening and golf.

A few months later in Bombay she met a quiet little Indian lawyer, who happened to be very rich, he was fascinated by the whiteness of her skin and did not mind her fat legs. They fell in love and married.

Strangely enough, they were desperately happy together.

THE EFFECT OF CHRONIC BRONCHITIS ON CARD SORTING

by Mark Johnson

Kiessling and Maag (1962) showed that there was a slowing of mental processes in men working in compressed air above a pressure of two atmospheres. Poulton et al (1964) were unable to confirm this, using a test involving the sorting of playing cards, if the test had been thoroughly learned.

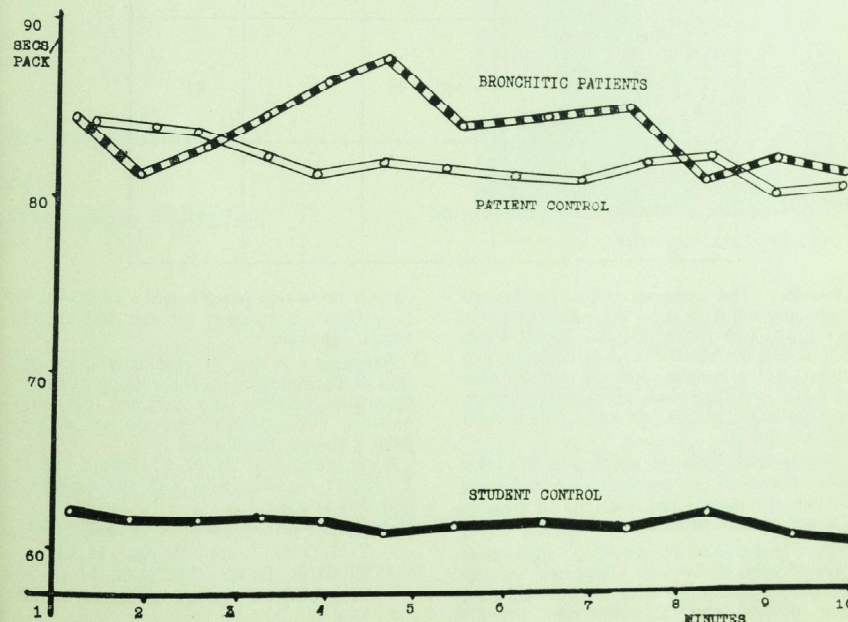
It was felt that it would be worth knowing if there was any slowing of mental ability in a group of chronic bronchitic patients with severe respiratory disability.

Method :

Experimental Subjects : A group of six chronic bronchitic patients were selected, all of whom tended to be the "blue bloater" type. These were paired by age (± 5 years) with a control group of six patients having normal blood gas tensions. A second control group was also tested, this consisted of five students

whose average age was twenty-one years.

Experimental Procedure : The subject was seated in front of a table on which were placed twelve packs of shuffled cards and four trays marked with the appropriate suit. It was explained to each subject that, holding each pack face downwards in his hand, he was to sort out the cards into corresponding trays as fast as he could without making mistakes, but should he make one, he was to correct it and carry on immediately. Once he had completed a pack he was to pick up the next and continue sorting and he was to repeat this for a period of ten minutes. Initially the subject was allowed to practice with one pack of cards to ensure that he understood the method and knew the appropriate tray for each unit. The test was then carried out, recording the time taken to complete each pack of cards.



SUBJECT	Cards dealt in 5 mins	Average no. dealt	Standard deviation	Standard error
STUDENT 1	218	258	28	13
CONTROL 2	263			
3	278			
4	286			
5	243			
PATIENT 1	157	194	33	13
CONTROL 2	245			
3	186			
4	216			
5	196			
6	166			
BRONCH. PATIENT 1	282	194	46	19
2	144			
3	176			
4	134			
5	183			
6	188			
SUBJECT	Cards dealt in 10 mins	Average no. dealt	Standard deviation	Standard error
STUDENT 1	432	517	57	25
CONTROL 2	523			
3	574			
4	562			
5	494			
PATIENT 1	395	395	69	28
CONTROL 2	499			
3	370			
4	449			
5	398			
6	327			
BRONCH. PATIENT 1	580	392	97	40
2	291			
3	357			
4	363			
5	371			
6	387			

Results: The readings were represented graphically and from these the mean curves for each group were calculated and drawn. From these results the number of cards dealt by each subject in five minutes, and ten minutes were calculated and from these the average number, the standard deviation and the standard error for each group.

Conclusion: Both the graph and the table show that there is no significant difference between the mental reaction time of patients with and without chronic bronchitis.

The importance of selecting appropriate control subjects is well illustrated in this experiment. Inaccurate deductions would have been drawn from a comparison between

chronic bronchitic patients and a control group of students, unmatched for age and environmental situation.

Summary: A test of mental reaction time fails to discriminate between a group of chronic bronchitic patients and matched control patients, although both groups are different from a student population.

I am grateful to Dr. N. C. Oswald and Dr. P. Turner for their help with the experiment and this article.

References: KIESSLING, R. J. and MAAG, C. H. (1962) *J. appl. Psychol.* 46, 91.

POULTON, E. C., CATTION, M. J. and CARPENTER, A. (1964) *Brit. J. industr. Med.* 21, 242.

Jonathan Miller

Jonathan Miller, at the age of 34, exists in the world of drama and journalism, as something of an enigma to the outsider. The son of an eminent consultant, he won a scholarship to St. John's College, Cambridge, to study medicine. After completing his clinical studies at University College Hospital, London, he practised as a Doctor for two years.



Photo by permission of Camera Press Ltd.

an interview by Malcolm Fletcher

At two o'clock in the afternoon, lunch was just beginning. Dr. Miller was out procuring a frog, which he intended to dissect and demonstrate the beating heart to his children. I was met by his wife, herself a practising G.P., and introduced to the three children.

He soon arrived, carrying the living frog in a plastic bag, shook hands with me, deposited the frog in the kitchen sink and sat down to lunch. He gave an impression of almost adolescent energy combined with an aura of quiet self assurance.

There followed a medley of eating and talking. His wife suggested that the children, having seen him kill the frog, might find it hard

to appreciate why they shouldn't kill the small boy next door. He thought this might not be a bad idea.

Dr. Miller asked me various questions about Bart's and the Bart's Journal. He said he thought it a pity that the teaching hospitals should each feel obliged to produce a journal in which the clinical contributions were largely by students, writing on topics they did not fully grasp.

After lunch, I went with Dr. Miller to a room upstairs, where the interview took place. He sat on the edge of a couch, talking quietly and thoughtfully; at the same time chain smoking and fidgeting with his fingers.

Journal. Why did you go up to Cambridge to do Medicine?

Miller. It was such a long time ago I can really hardly remember why I went to Cambridge. In one sense it was inevitable that I should go there, my father was there and my father had been very happy there as a medical student and he'd been taught by some rather great men, when he was there. He started in fact as a student of philosophy. His first two years were spent doing philosophy and when he was there of course there were people like Rivers, W. H. R. Rivers and James Ward and McTaggart and Russell and Moore.

Cambridge

At the time when I went up I was already myself interested in the philosophy of mind, so in a sense it was quite inevitable that I should go to Cambridge, where I could combine the study of medicine and the study of philosophy.

Journal. Was the fact that possibly you would find a higher concentration of interesting people at a place like that a decisive factor?

Miller. No, by talking about a decisive factor makes it sound slightly as if there was some sort of argument in my own mind. You mustn't forget that at that time, one is so young, that one really takes advice from one's schoolmasters and one's parents much more readily—and of course at that time, when there weren't any of these new universities, it was in the days when we still looked down on redbrick, and it was quite inevitable that one should go to Cambridge, if one could possibly get in; also I had a good scholarship there.

Journal. How old were you, when you went up?

Miller. Eighteen and a half.

Journal. How do you define your work at the moment, and the niche you've created for yourself?

Niche

Miller. It's not a niche at all I hope, I don't like to occupy niches.

Journal. Well in the mind of the public shall we say, Jonathan Miller is a sort of...

Miller. Well I can't cater for the mind of the public. I do the jobs that I'm interested in, they're all round one or two centres of interest

but I don't occupy a niche in the sense that I don't get paid a salary and I don't have a pension to look forward to and I don't have a single occupation, which I'm climbing towards.

Journal. How important is security to you, do you think you've achieved it?

Security

Miller. No one ever has achieved security, we can always be struck down at any time...

Journal. I was referring to financial security.

Miller. Even in that you see. It's all relative, one is secure really as long as one keeps one's health and intelligence. Obviously it's more important if you've got children as I have, I've got three children, but it isn't something I worry about from day to day.

Journal. What sort of people do you like to surround yourself with?

Miller. I don't surround myself with anyone, I just have friends, I don't as it were concoct a recipe for my social life. I have close friends with whom I have been for years and years and then there are people with whom I work, who are also friends.

Journal. Do you combine your friends social and the friends you work with?

Miller. Yes, I don't have any distinction between the two; I don't have a leisure life and a work life, my work life and my leisure life are one and the same thing really.

Journal. You appear to be an extrovert, would you regard yourself as such?

Extrovert

Miller. I don't know what I would regard myself as, these sort of terms are things that other people apply to you. I don't know what I am at all, I'm not sure but other people have got various names for it.

Journal. Have you a very important unfulfilled ambition?

Miller. All my ambitions are important and they're all unfulfilled.

I have fulfilled some of them, I very much enjoyed doing "Beyond the Fringe" for example and that was an ambition; to be involved in a show, which was a genuine theatrical innovation, I managed to plan it in

that way, I don't think any of the four of us planned it as such but it happened to turn out that way and I am very satisfied that it did work. I think it was quite an important contribution to the English theatre.

I've made films, which have fulfilled certain ambitions. three films I've made I've enjoyed and have almost satisfied me in as much as I've seen the mistakes in them, but they've fulfilled what I set out to do; "Alice in Wonderland" particularly.

I've directed on the stage, perhaps to greater final satisfaction than I directed in the cinema. I've worked very closely with the American poet Robert Lowell; I've directed both the premieres of his plays. I got a great deal of satisfaction from doing that.

I get satisfaction from writing so far I've only really done a certain amount of journalism, some fairly serious journalism. I'm engaged on two books at the moment.

Journal. What sort of books?

Book

Miller. I'm involved in a book on the principles of medical diagnosis. This is an attempt to try and describe for the serious layman the fundamental intellectual principles that go into establishing a diagnosis. What it is to take a history, what's involved, what one listens for, what the nature of the complaint is, what the limits of certainty of uncertainty are inside medical science. Really it's a sort of study in the philosophy of science and medical science.

Journal. Why did you give up medicine, or don't you consider that you have given up medicine?

Miller. Yes I have given up medicine, I've given up practical medicine, I've given up the formal routes of promotion and I'm not any longer going to try and become a consultant inside the hospital service, I don't want to practice with patients.

Journal. Did you ever want to become a consultant?

Miller. I didn't really want to be a consultant, one was always rather wary of that. I wanted to become a clinical neurologist and of course the only way to become a permanent clinical neurologist is to be a consultant but the role of being a consultant was to me rather incidental to the role of being a clinical neurologist.

Journal. Did you have any sort of vocational attitude towards medicine or was it just for your own personal satisfaction?

Medicine

Miller. I'm afraid it was for my own personal satisfaction mainly; I've always been interested in the physiology of the nervous system. I suppose I've inherited this in part from my father, who when he became a doctor worked with people like Henry Head and Gordon Holmes. The result is that from a very early age, names like Head and Holmes and Ferrier and Jackson were always around the house and I read their books at a very early stage. I was always interested in the structure and behaviour of the nervous system and by the time I was fifteen it seemed quite inevitable to me that I should study that. But then as I got into clinical medicine I became more and more dissatisfied with the long uncertain routes of promotion in the system with the general grind and drudgery and frustration and all the humiliation one had to undertake in order to ensure that one did become a consultant. Eventually I decided that I would like to have a slightly more free, elastic sided, life, which would enable me to do things that I was good at like writing and directing.

Journal. Your name has been associated with the movement to legalize the smoking of marijuana, is it the principle of the thing, or...

Marijuana

Miller. I don't know why, —. My name has been associated with it for one single, rather trivial incident; the fact that I signed a petition in the "Times". This is not because I have any interest in drugs whatsoever, I don't. I don't smoke marijuana myself but I signed that for the same reason that I signed the petitions on behalf of the legalisation of homosexuality between consenting adults. I think that it is basically an iniquity in the law and by and large I tend to follow John Stuart Mill on this, his essay on liberty.

Journal. What is your opinion of the wave of student unrest, which seems to be sweeping the world at the moment?

Miller. It's very hard to say in one single statement.

Journal. Do you approve of people going to Grosvenor Square and saying that there should be no Vietnam war, assuming you don't approve of the violence that subsequently occurs?

Miller. I'm not even certain I disapprove of the violence. I don't like violence of any sort but there was much less violence than everyone said, it was reported in such a way as to emphasise the fact that it was anarchic and immoral. Exactly the same sort of violence which takes place at football matches is deplored on a very much more minor level than it is when it takes place on behalf of a political belief. There's infinitely more dangerous rowdiness, more people get actually physically hurt during football rowdiness, than ever took place in Grosvenor Square. It seems to me too that violence on behalf of a belief is slightly more likeable than violence on behalf of just simply aggression and sadism and excitement. I'm not in favour of any unrest for its own sake. I'm always frightened by any revolutionary simply because, while on the one hand they do what they do on behalf of liberty, one often finds that people, who do what they do on behalf of liberty, are quite willing to deprive other people of their liberty, once they assume the reins of power. It has to be recognised what's going on, it has to be acknowledged and some measure of sympathy has to be conceded, it isn't just a trivial, silly business. It indicates dissatisfaction and ferment and there is something wrong with the institutions of our society, all over the world.

Not Audience

Journal. When you study the work of another person, say a writer or a playwright, and you are asked to comment on it as you are sometimes asked to in public, do you take into account the fact that you are possibly more perceptive and certainly better informed than the average listener/viewer/reader, and tailor your criticism towards them; or as it affects you?

Miller. I never think primarily of the audience, it doesn't really interest me. This will sound very arrogant but it's not really, it means that you just simply hope that what you say will

reach those who can understand it. You can't simplify certain things, if you simplify them then they lose usually the very features which make them interesting. Difficult things are complex and there's no way of reducing the complexity.

Journal. Do you feel you've got all the facilities you want now, in your present position, to express yourself in the way you want. For example if you were to produce a novel, could you go along to a publisher and get it published, just like that?

Better Chance

Miller. I don't know, I've never tried it. I think probably I would stand a slightly better chance than someone who has absolutely no name at all. This perhaps is something, which one ought to deplore, that people with a name in one field stand therefore a better chance of being recognized in another one but this is the way of the world and there's not much one can do to reform it. I mean people are bound to pay attention to someone whose name they've heard of. If six hundred manuscripts arrive through the post every week and you do see someone's name you've heard in some other connection, you're bound to pay some attention to what happens, you can't avoid it.

Journal. Would you like in fact to write a novel to put across an idea?

Miller. I would never want to write a novel to put across an idea, I'm not a pamphleteer. I would never want to do it in that way. I think people write novels for no known reason. People write fiction because it seems to them to be the inevitable form, it's not to express something, it's to express the novel. A novel is a self sufficient entity, it isn't a vehicle for something; as soon as it becomes a vehicle for something it becomes dogmatic and dull and uninteresting. I would like to write fiction, I think that fiction in fact is almost the highest form of human endeavour.

part 1 Education: THE PRESENT

In this series of articles we examine education as it exists now. Today, as never before, people are looking critically at teaching methods. Local authorities experiment; students riot; here we merely comment.

teaching

by

Professor G.W. Milton

Dept. of Surgery,
Sydney University; Australia

To teach is to learn. But how does one learn how to teach? Professor Milton, of Sydney University, Australia, has very definite ideas.

I have been commissioned to write a short and interesting article on teaching. A tall order. In hospitals several different methods of teaching are used and each method has its aims. The object of a lecture may be quite different from that of a ward round. The different methods of teaching usually used are: 1. Didactic lectures. 2. Ward rounds. 3. Clinical tutorials. 4. Formal case presentations or clinico-pathological conferences. 5. Student debates. In each of these the relationship between the teacher and the taught may differ. The teacher may for example take on the role of a book and recite knowledge he has acquired. The student meanwhile may write down or try to memorise the lesson so imparted. In this set-up the teacher is the active member and the student passive. Both phrases need to be defined. The activity of the teacher depends on his enthusiasm, his personality and often, in the antipodes, his age. Thus he may take a great deal of trouble to explain and illustrate his subject as well as he possibly can; or he may repeat lessons learned long ago. The student on his side can have various degrees of passivity from a gentle sleep to lively interest. So it is that a teaching session can be a stimulating exercise of a mere formality (a sort of penance).

Before discussing each of the different methods of teaching let me briefly mention a few obvious facts about learning. What we learn in the way of facts, we forget as soon as the use of the facts is discarded. For example you may learn how to ride a bicycle and when you no longer use the old machine you probably forget a lot of the finer points about the bike itself, but you do not forget *how* to ride a bike. Or if you learn anatomy, say, you will soon forget the details once you stop using that knowledge. If you do not believe this try looking at a past examination paper.

Another point about learning is that it is one of the most personal things you ever do. No one can learn for you. The teacher may explain, illustrate, plead, threaten, frighten or entertain, but sooner or later the final effort must come from the student. This is rather like playing golf. You may buy the best possible equipment, hire the best teacher, but sooner or later you have to hit the ball yourself. What sort of a game you play ultimately depends on you alone. So sooner or later you have to do the learning. If this is the case why not replace teachers with libraries of books or films?

The teacher can try to do one of several

things; he may try to teach facts, e.g. the normal blood sugar level. This sort of information is probably better obtained from books. The teacher may inform the student about his personal opinions, this may be of greater or lesser value depending on the teacher's experience of the subject and his method of presentation. Some of us teachers try to show off and this often supplies lively entertainment but has limited value as a means of instruction. Finally the teacher may try to impart in the student a method of thinking. This is difficult but, I believe, in university education it is the object of all teaching. This last sentence can be translated into jargon thus: The student is trained in the methodology for acquiring and handling data. Now let us glance at some methods.

The Lecture. Professor Auden once defined a Professor as someone who talks in someone else's sleep. This alas is often true. There are several reasons for this. The student is passive unless actively stimulated. It is almost impossible to stimulate people by a performance (a lecture is a performance) repeated several times a day. For a lecturer to make an impact on the audience it helps if he is a stranger or lectures to one audience infrequently. 2. Really good lectures are very hard to give, and the ability to give them depends as much on the personality of the lecturer as on his knowledge. The flamboyant lecturer, a sort of Falstaff, provides entertainment but not much instruction. The cold intellectual, a Cassius, can be deadly dull. Once the audience goes into a state of transcendental meditation the lecturer may as well go home. Lecturing therefore is an art, very difficult to acquire, and even more difficult to sustain to one audience for a long series of talks. The essence of the difficulty lies in the passivity of the student in a lecture. The interest of the student has to be won as he will not be congenitally interested in most topics. Indeed most Australian students are really interested in only about two topics, sex and sport. We have not yet devised a way of giving a set of surgical lectures devoted to these subjects.

If the lecturer wishes to impart facts, then he would probably be better replaced by a machine. Carefully prepared Video tapes which can be played back and used by students in their own time. Sets of coloured slides with available notes either written or taped also supply facts. If the teacher wants to use formal lectures to supply a commentary of local views and ideas this can be done provided he can sustain an interested audience. These lectures

can usually be short, about 30-45 minutes. It is very difficult to teach how to handle data by a flow of talk one way from lecturer to audience.

Ward Rounds. These usually take one of four forms, or a combination. 1. The teacher may teach "this is what I will do for this patient", full stop. 2. He may teach "this is why I do so and so". 3. He may use the ward round as a means of intimidation to be sure the students have left the card tables long enough to have seen their patients. 4. He may try to compel the students to obtain information, to piece it together and relate it to pathology and to make deductions. Then to reason out the likely results of different methods of treatment. In other words how to obtain and handle data.

Clinical Tutorials are essentially the same only the action is differently situated and fewer cases are discussed. Formal case presentations follow the same course except that those whose turn it is to present a case have greater time and greater responsibility to "work up" their cases thoroughly. The case therefore is discussed "in depth".

Student Debates put most, if not all of the effort on to the students, here it is the teacher who is passive. A subject is chosen for a formal debate and terms are selected to thrash it out, for and against. The subject can be anything that is surgical or even related to surgery, here are two possibilities. "This house believes that the use of antibiotics is more often an abuse". "This house believes that a person suffering from cancer should be told the truth." The role of the teacher is to act as a referee for facts, not to inject opinions. Debating is very slow but when a subject has been carefully discussed in this way all present should have learnt that there are many sides to all questions.

Teaching is very difficult to do well. Both the teacher and the taught should know what they are trying to do. The student should know where he must look to obtain different parts of his training, facts from the written word; method for obtaining information from practice in wards and out-patients; methods of handling clinical and pathological data so obtained from discussions with teachers. The teacher thinking on what he is doing tries to ease the students way by adjusting his method to what he is trying to instil in the mind of the student. The successful teacher has a great bond of friendship with his students which is immensely rewarding.

the teacher

by

Robert Colby

Robert Colby has taken a special interest in medical education for many years. His views are outspoken. Here he suggests a code for the ideal teacher.



During almost six years at Bart's I have so rarely experienced really good teaching that a few examples remain outstanding as memories. They have all been characterised by an attitude of concern of the teacher towards *all* the students in his group. During M.O.P.s Dr. R. V. Berry initiated group discussion of psychiatric topics towards the end of that session with rapidly increasing skill and enjoyment of Dr.

Berry and all concerned.

In the Eye department Mr. Bedford's triple interests in teaching, ophthalmology and photography are combined to provide, in my experience, the only example in this hospital of good use of visual aids.

I also feel bound to mention Dr. Holdsworth at St. Leonard's and Dr. Bowen of the department of Anaesthesia, whose attitudes towards students in their group often seemed to lessen tensions which normally hold students back from discussing a subject either at the level they want, or of their own choice or need.

Within this article it is impossible to mention other well-intentioned efforts of teaching staff scattered throughout the pre-clinical and clinical courses.

These three examples are characterized by,

- (1), student response, due to
- (2), attitudes of teachers towards the students.

These attitudes have cost nothing and have not resulted from "research into Medical Education", yet they are undeniably the basis of all good teaching. Many teachers in both higher and medical education and certainly members of the Todd Commission, do not understand this and recommend changes in finance, staffing, facilities, audio-visual aids and/or research as the only means of improving the quality of education.

Competence

A competent teacher is one who increases the efficiency with which the student learns. I see no serious mention in the Royal Commission about benefits and ways of increasing the quality, hence efficiency, of medical education by raising the competence of its teachers. With such a gross omission and totally inadequate educational representation on the Commission, I conclude that it has not made a full report under its terms of reference, and all its recommendations must be regarded as suspect.

Let us consider what qualities are needed for competent teaching. I suggest two essentials.

- (1) Basic knowledge of educational principles.
- (2) Ability to apply them appropriately.

More often than not the application of educational principles will consist in the exhibition of a particular attitude towards the learner in a given situation. Educationally valuable attitudes can develop with or without the teacher's own awareness, as a result of the attempt to accept and understand students from goodwill alone. This may be the case in many instances of effective

tive teaching, and probably accounts for two of the initial examples. The all too common and unfortunate corollary is the teacher who, with equal sincerity, wastes an enthusiastic effort because of basic misconceptions, indecision over the nature of his role, or failure to appreciate actual needs of students. However, consistently good teaching is likely to be found only in the teacher who is aware of his own level of skill and consistently seeks to improve it.

I have no patience with those persons and committees, past or present, who suggest that medical education will lag or fail to improve without massive introduction of audio-visual aids. These cannot solve any problems for teachers so educationally naive as most of those in medical education. Audio-visual aids are sophisticated tools valueless in the presence of unsophisticated teaching. The commonest misconception is that they can substitute for good teaching.

I hope in this article to focus attention on the responsibility of the *TEACHER*, not the student. I suggest that the only way of improving the disgraceful state of medical education is by the widespread acceptance and application of well known educational principles. I accept that this is no small task and I do not offer easy solutions; they are separate questions not considered here because of space and time, though they should have been the core of the Royal Commission's report.

Questionnaire

Answers to the following questions should give readers the opportunity to ponder over the scope of the teacher's responsibility. In the teaching situation, the teacher might ask:—

1. Of Himself

What part must I play in this situation?

Am I fitted for the job of teaching the students?

Have I planned a suitable course for this group of individuals?

Have I provided for:

- (a) the teaching of fact?
- (b) the practice of skills?
- (c) the discussion of attitudes?

Have I allowed for individual differences?

How can I involve the members of this group in active learning, in helping each other, even in teaching each other?

Can I influence the prevailing atmosphere in the group so that maximum learning can occur?

Do I actively, though unintentionally, inhibit the students' participation?

Is there anything in my behaviour or approach that is liable to cause a sense of failure, decrease in confidence, or unproductive anxiety in the students?

Am I afraid of appearing less competent or knowledgeable than I feel I should be? Does it matter?

How shall I measure the students' progress, and my own?

2. Of the Content (Facts, Skills, Attitudes)

What facts and skills *must* all the students have acquired by the end of the course?

Is this too much, or too little?

What other facts and skills do I think it desirable for them to know?

What attitudes are necessary for the understanding and application of these facts and skills?

3. About the Students

What is the name, age, and background of each?

What are their capabilities?

What do they already know?

What do they expect?

Do they know each other?

How do they feel?

Can they discuss freely amongst themselves?

Do they feel really free to ask questions?

Are they afraid of revealing ignorance or lack of competence?

If so, how can progress be assessed, or achieved?

Are there individuals who are particularly prone to feelings of anxiety, of lack of confidence, or who adversely affect the others?

Without expecting this of medical teachers, I should like to point out that a good professional teacher would be able to answer all these questions without much hesitation.

Plea

This is a plea for the sort of humility in teaching that our medical teachers exhibit in practising their own branch of medicine, and for recognition that supremacy in medicine or any other sphere does not confer supremacy in teaching ability. Can we afford unchecked amateurism in medical teaching? In my view the teaching ability of every teacher must be more seriously encouraged and fostered, more assistance received from capable educationists, and the delusion smashed that high-powered research is of the slightest assistance in our present need.

exams

As students we should never accept the exam system as perfect. It is not. Professor Milton (a world authority on exam techniques) gives his views.

interview by

Andrew Fletcher

"In any exam, you must decide what you're examining for. Normally this is knowledge, a test of memorising facts.

"You can set an I.Q. test, but being a good doctor depends on character, personality, and on environment."

"What do you mean by 'environment'?"

"Well, in an environment where one must have money, one will try to get it. If it is infra-dig to have money, and instead one goes long-haired, dirty, naked, then one will conform.

"You can't tell if someone will get up in the middle of the night to go and see a patient, even if he is competent medically.

"You can't determine for factors that will determine how good a doctor a person will be. You can't predetermine the environment he'll have to work in."

With reference to ward rounds, he commented: I don't think much of the "guess what I'm thinking type of exam."

"What do you suggest?"

Multiple Choice

"Multiple choice exams. Questions can be quite subtle. One answer can be 100% correct, another only 95%. You can give +1 for a right answer, -1 for a wrong one, nought for one that's half-right, and so on . . . You can grade marks according to hardness of questions, e.g. one mark for one question, and two or

three for another. Next you juggle with statistics once you get the results, and decide on the pass-mark.

"Again, you must decide exactly what you're examining for."

"How do exams help teaching?"

"They are an absolute nuisance."

"Do you enjoy marking exams?"

"No. Machine errors are much less than those of human examiners. In Sydney we find frequently that an examiner doesn't mark a whole question."

He returned to a former topic: "A question must be graded for the group under test. The type of question that all either get right or wrong, one that is too hard or too easy, is not much use."

Professor Milton summed up by suggesting multiple choice, computer marked exams, with tremendous thought as to the form of the questions.

Vivas

On vivas he mentioned a television relay system, whereby two examiners attacked the examinee, and five examiners sat in five different rooms, with no means of communication. Out of interest, a monitor was put in a room full of senior consultants free to talk among themselves, and another monitor was put in a room full of television technicians.

Television Image

All five isolated examiners were in close agreement, but they differed markedly with the group of consultants whose marks corresponded closely with those of the technicians, demonstrating the importance of "television image" to the groups able to communicate with one another.

The advantages of this system is that one can send video recordings of such exams all over the world to be re-marked in an attempt to standardise results.

Professor Milton smiled, "There's an awful lot to examining."

EDITORIAL

opinion

free health

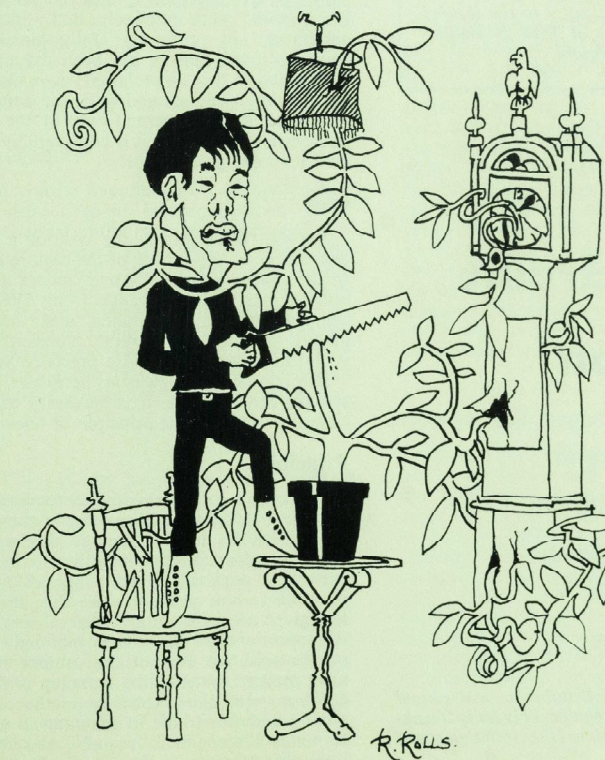
The National health is costing too much. Each year we spend more. A thousand million pounds would not be sufficient to pay the accounts for this year. No longer can we afford our ideals—we haven't got enough money.

As doctors and students we account for nearly all the expense. Yet the financial side of the system is omitted from our education. How much does a barium meal cost? Every time an X-ray card is filled in to avoid the possibility of legal action, do we cost our doubt against the nation's economy?

We are reputedly responsible people. In terms of human life we take this very seriously. No-one suggests we willfully waste money, but do we consciously save it? Very soon this must become part of every doctor's aim, or the National Health Service will become a lost dream.

new cover

Perhaps you like our present cover. Many people do. But ideas must never be static, and can always be improved. We need your help. In order to ensure the best we need your ideas—and soon. Send doodles, meditations, and visions of sheer creativity instantly to us. Change is inevitable. Let it be good.



part 2

Education: THE FUTURE

We next consider new trends in teaching methods. Experiments with television, video-tape, and computers are already under way. Does this point to the future? Possibly. But if not at least it demonstrates an urge to enquire.

closed circuit television

by J. D. Gasking and
Professor J. P. Quilliam,
Dept. of Pharmacology.

Bart's was first in Britain to use closed circuit television for regular university teaching. This article examines the technique and its limitations.

Closed Circuit Television (or C.C.T.V. in its abbreviated form) is the use of television techniques with a limited transmission distance, using wires, as distinct from broadcast television using radio transmitted signals. In both instances, the source and terminal equipment are the same. In C.C.T.V., the link is provided by a co-axial cable for the visual or video information and a pair of wires for the sound or audio information, it being generally accepted that both video and audio links should be provided in C.C.T.V. systems.

Components

The components of the simplest C.C.T.V. system consist of a camera for the production of the electrical video signal and a monitor for visualising this electrical signal. Originally, as with all valve equipment, both the camera and the monitor were relatively bulky pieces of apparatus. In currently fully-transistorised equipment, the camera has been reduced to a size which is but little larger than that of a 16 mm. movie camera and while the dimensions of the monitor is governed only by the size of the screen requirement, it is considerably lighter than its valve predecessor.

Cost

As with most things, the cost of a system depends upon the quality of the required result. In the simple example of one camera and one monitor, the cost can range from £300 for a compact industrial camera and broadcast quality monitor, to several thousand for a studio quality camera and a precision monitor.

Before quality comparisons between C.C.T.V. systems can be made, it is necessary to appreciate the fundamental principle of television.

Principle

The object to be televised is focussed by a lens on to a light sensitive area of the camera tube which produces an image of charged or non-charged areas corresponding to the black and white portions of the image. A beam of electrons is now made to scan this image and this gives rise to a voltage, the value of which is proportional to the intensity of light falling on the sensitive area of the camera tube. In most modern systems, the scanning is done by 625 horizontal lines which cover the complete picture and this frame of scanning is repeated 50 times a second. To visualise this information, the monitor scans a cathode ray tube

screen in the same fashion with an electron beam falling on a phosphor giving a light output proportional to the electron beam intensity. This intensity is varied by the voltage transmitted from the camera. To produce a sharp picture, the voltage variations that correspond to the light and dark areas of the image must occur very rapidly and it is on this basis that a quality comparison can be made. The wider the frequency range which electronic circuits can pass, the sharper is the picture because they can transmit faithfully these rapidly varying signals from the camera tube. It is upon the range of frequencies which a circuit can pass that quality may be assessed. For a simple application, such as surveillance of motor traffic, a frequency range (or bandwidth) of 2.5 MHz (2.5 million cycles per second) is acceptable, but for high quality C.C.T.V. used in scientific work such as microscopy, a frequency band width of at least 5 MHz is required. Another important part of the specification of any C.C.T.V. system is concerned with the linearity of the scan and again the requirements of linearity vary with the application.

audio channel

While considering the quality of reproduction in the video channel, the requirements of the audio channel must not be overlooked for, again, the greater the band of frequencies passed, the higher is the fidelity of the sound. Intelligible speech can be transmitted on a narrow frequency band width but music requires a broader band of frequencies to provide a pleasant auditory sensation. Fortunately, high fidelity sound can be provided for a fraction of the cost of a high fidelity video system.

simple

C.C.T.V. systems can be made as simple or as sophisticated as the application requires or the pocket permits. It is prudent to equip initially with a simple high quality system which can form the basis of a more complex set-up when funds allow. The first addition to such a simple set-up is usually a second camera (say, £200) to provide versatility. Both cameras should be of the type which permits one to be synchronised to the other, so that the scanning in the two cameras occurs synchronously, permitting switching and fading between them without interruption of the picture. If a video tape recorder (say, £1,500) is added subsequently to the system, then camera synchronisa-

tion is essential, otherwise picture break-up will disturb the video tape recording when switching from one camera to another. This process of extension of the facilities of a system can be continued until a full studio set-up is produced. Such studio facilities now exist in universities in this country and the I.L.E.A. (Inner London Education Authority) is soon to launch a system, as sophisticated as the B.B.C. or I.T.A. broadcast facilities, for educational purposes. The systems described above are monochrome, that is, giving a picture on the monitor in black and white. Colour can be provided but the cost is at present prohibitive being many times greater than that of the more expensive equivalent monochrome system.

Bart's first

The Department of Pharmacology at Bart's was the first in the British Isles to employ C.C.T.V. for regular University teaching. In 1958 we purchased one simple camera and one monitor. Over the last decade this has developed into a system with multiple monitors, to which a second synchronised camera has been added. In 1965 we added a video tape recorder to widen our facilities. In order that C.C.T.V. can be used in any room in the Department, permanent wiring has been installed linking all the main research rooms, teaching laboratories and lecture theatre. The video tape recorder has been mounted on a trolley carrying all the necessary equipment to form a mobile production control centre for making recordings outside the department, such as in a hospital ward.

televisor and magnifier

The two main functions of a C.C.T.V. system are as a televisor and as a magnifier. In the first application, it allows viewers in a classroom or theatre to watch some remote action such as an operation or a demonstration of a technique. The second application allows an audience to get a magnified view of a small object in the same room as the audience and permits a whole class to see clearly a procedure usually only visible to the students in the front row. Recording facilities allow a presentation of more complex or infrequent procedures to be made at any convenient time. Further compression of a time consuming procedure to a length suitable for lecture purposes may be carried out.

In the broad field of teaching machines both open circuit and closed circuit methods are used. The open circuit methods are those in which the subject material is presented continuously with no feed-back of the learner's response. Methods that fall into this category are films, film-loops, slides and audio-tape, video-tape recordings and closed circuit television. The learner's response to this mechanical teaching occurs at the conclusion of the presentation of the material, and should be arranged in the form of a critical discussion with the tutor.

Closed Circuit

Closed circuit methods involve the use of sophisticated machines in which the speed and direction of the progress of the material is controlled by the responses of the learner. These machines involve the use of slides, films and audio recordings assembled into a carefully devised programme which demands considerable time, first in its production and later in testing the ability of the programme to teach accurately and effectively. Some closed circuit teaching systems are completely self-contained so that the action of the learner by pressing the "yes" or "no" button in response to a question is followed by the next step in instruction if his response was correct, or by a return to an earlier point in the programme if the response was incorrect. In the latter case the learner has a second opportunity of covering this part of the programme. The response of the learner thus controls the progress of the learning programme.

Other System

Other systems, such as those employed in "language laboratories" provide audio instruction through a head-set and should the response of the learner to a question be unsatisfactory the instructor can intervene on an inter-communication system on the head-set.

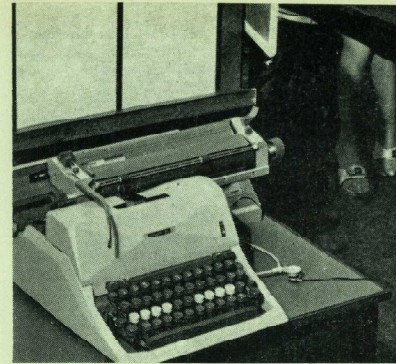
These two examples illustrate how closely developments in this area must follow the teacher and learner's requirements, thus a machine suitable for arts instruction might be quite useless to the veterinarian.

Choice

The choice of teaching machines must always turn on the ability of a method to fulfill the requirements of the learner and must have regard for the considerable investment of both labour and capital into the development of the machine and its programme. In medical teaching both methods can find application. With the open circuit method, there is considerable flexibility and the ability to change material speedily in the light of more modern developments without a complete re-design of the teaching programme that would be necessary in a closed circuit method. In the latter a modification of one part alters the whole and therefore the whole must be re-designed. Closed circuit methods find an effective application for example, in the instruction of medical technicians in the cervical smear technique for the early detection of uterine carcinoma where large numbers of personnel in diverse laboratories can be taught to use a standardised method. The open circuit method (using closed circuit television and/or video tape recording, cine film or slides) based on each department offers the flexibility and contact between lecturer and student which is an essential feature of university medical education. In times of financial stringency it has the advantage of low prime cost with a rich return on a modest capital.

Developments

However, medical teachers and their students should follow closely the developments in the field of closed circuit teaching machines which might be applied to medicine especially if quantity production brings a sharp fall in the cost of the mechanical side of the system.



computer taught typing

by Paul Dieppe

Computer-taught typing is fictional reality. Paul Dieppe, from our journal staff, investigated this claim, and was taught how to touch-type in twelve hours.



"a Now . . . b Now . . . c Now . . ." A mechanical voice rasped out the orders; flashing lights indicated the finger movements; it was my first lesson, but already I was responding accurately to the instructions.

I wanted to learn to touch type, but I didn't want to spend three or four months over it. So when I heard about the "Sight and Sound" centre in Oxford Circus, I went along.

"Yes sir, in twelve one hour lessons you will be learning to touch type at 15 to 20 w.p.m."

"Does it always work?"

"We have a 90% success rate, but if you do fail to reach the usual speed after the twelve lessons we will give extra, free, tuition."

"How much?"

Cost

"Only 7 gns. for students sir"

It didn't seem possible at first. There were about 20 of us in the class, and we were each given a typewriter to use, but it had blank keys, what use was that, and where was our instructor? Then they started the "video-matic tutor" and it was soon apparent that, if you concentrated, and did as it said you could indeed hit the right keys.

" . . . Always return your fingers to the yellow keys . . . keep your eyes on the indicator board at the front of the class . . . do not hit the keys until I say the word now . . . sit up and keep your wrists up . . ."

Memorizing the key-board, and practising outside lessons are forbidden, but I found that it took only three hours to learn the letter sequence with this sort of teaching.

Brandishing my Bart's Press Card, I asked if I could see one of the managers, to learn more about the system. He told me that it was developed by a retired service-man who had been horrified at the length and tedium of conventional courses.

Maintain Interest

"The secret is to maintain an active interest on the part of the student" he told me. "The voice, the lights and the ticking metronome demand your full attention, and you feel that you are making progress from the word go."

"Yes", he agreed. "It is a form of brain-washing, although people don't like it if you call it that."

The system is catching on fast. I was told that many firms, on both sides of the Atlantic, are sending all their key-board operators to be trained or re-trained at the "Sight and Sound" centres.

For the last six lessons we moved to a new room, with no electronic indicator board to give visual aid. Through individual ear-phones we were given rhythmical instructions of the text in front of us. The speed and difficulty of the exercises were slowly increased as the course went on.

My speed?—18 to 24 w.p.m. at the centre, and about 17 w.p.m. on my own typewriter.

audiovisual aids

A conference of audiovisual aids was organised by Leeds University Department of Anaesthesia. Here is an attempt to assess the role of such techniques in educational development.

by

T.B. Boulton

M.B., F.F.A., R.C.S., and

J.T. Mulvein

M.B., F.F.A., R.C.S.,

Dept. of Anaesthesia

The amount of material which the student of medicine must absorb both as an undergraduate and as a post-graduate is fast reaching astronomical proportions.

The full impact of this explosion of knowledge can be appreciated if it is considered that even in the seemingly short time since one of the authors started his preclinical course, just over 20 years ago, the developments in Medicine have been quite extraordinary. Then the only antibiotics were the sulphonamides and crude penicillin, only three E.C.G. leads were commonly studied, curare had not revolutionised anaesthesia, poliomyelitis and tuberculosis were still common killers, there was no cortisone and the phrase "There is no cure" appeared at the end of considerably more monographs in the standard text books than it does to-day.

How is the student to assimilate the great increase in the mass of available knowledge? How is it to be communicated to him? Even if in the future the present tendency to specialisation is carried to its logical conclusion—specialisation at the very start of the undergraduate's medical career—it is urgently necessary that new and effective methods of communicating material be found to speed up

the process of learning.

The authors were recently privileged to attend a conference on audio-visual aids convened by the University Department of Anaesthesia at Leeds. They do not claim to be either educational or audiovisual experts but they feel that their reactions to the lectures and demonstrations as consumers may be of interest to others.

Educational Technology

The conference at Leeds was fortunate in having present a number of educational psychologists and experts in the use of audio-visual aids including the Director of the Leeds University Television service.

The uninitiated rapidly became accustomed to the elements of the jargon of the subject.

Target population—the people at which the particular information is aimed.

Software—the actual education material.

Hardware—the physical means of conveying education material to the target population.

The Available Audio-Visual Aids

A great variety of teaching aids were demonstrated at the conference. For simplicity the author's impressions of each teaching aid are recorded below.

Cinematography

1. *The Instructional Film.* The advantages of this medium can be smoothness and accuracy of presentation, colour, carefully prepared commentary and the use of animation.

The disadvantages are cost in time and money, lack of flexibility both from the point of view of revision of material and of presentation) and possible distortion of exaggeration of the facts through bad editing.

2. *The 8mm. loop Cassettes.* This consists of short continuous silent films lasting a few minutes with a comparatively low cost of production. These are easily operated and will serve as moving slides in a lecture but, on the one hand the hardware is not universally available and, on the other, there is a reluctance to produce software for a limited outlet.

Television

The University of Leeds has one of the leading University Television Services in the country. Many departments make use of cen-

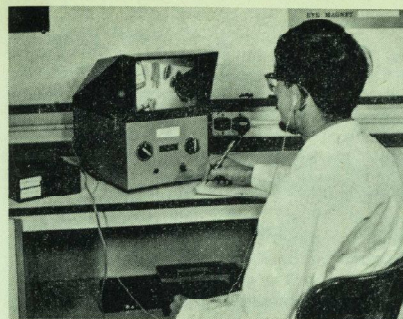


FIGURE 1 — The Supervisor Apparatus

Each lecture is 'canned' in the cassette on the left of the picture which contains both a film strip and a synchronised tape recording.

The sound ceases automatically when each picture has been described. The student may then either move on to the next slide by actuating a foot switch or backspace and repeat the material which he has already heard.

In the illustration the student is using the machine for private study; accessories are also available to project the slides on the screen and amplify the sound for an audience.

The Department of Medical Electronics has designed a switch which will convert the machine to continuous operation i.e. transmission of the whole lecture without the need for operating the foot switch.

trally distributed programmes both live and recorded.

Television should not be used in isolation in education. It should be used to present material as a basis for class discussion or to enable the target population to see features which the naked eye can either not see at all or can only see in insufficient detail. One disadvantage is that in the educational environment colour is not yet generally available particularly in the field of video-tape recording.

'Live Presentations'. Live programmes are distributed from the studio in order that the full potential of the medium can be used to present a subject as a whole or from the working location (e.g. an operating theatre or laboratory), where it is not possible for the whole audience to be present. The facility of two-way discussion between the audience and the participants in the demonstration is very valuable and was well demonstrated at this meeting.

Recorded Live Presentations. These are, of course, valuable for repeating material for subsequent classes but some of the spontaneity is lost because two-way discussion is not possible.

Video-tape. Audio-visual tapes can be produced either for a permanent library or for once and for all demonstration for specific lectures. Both techniques were shown at the meeting. An anatomy lecture in which the features of the temporal bone were demonstrated on the screen while students examined their own specimens came over well. The authors were called upon to produce a spontaneous demonstration of the micrometric measurement of a slice of bread; a credible tape was produced though neither the cameraman nor the demonstrator had previous experience of the medium.

The advantages of video-tape appear to be flexibility, ease of production and erasure and spontaneity; the disadvantages are capital cost, the present lack of standardisation of 'hardware', lack of colour and the need for powerful lighting for the presentation of detail.

The Tape and Slide Lecture

The simple taped lecture. The 35 mm. slide projector and the tape recorder are now widely available. They may almost be said to be "domestic hardware". The simple slide and tape lecture in which the student is given a verbal cue to "change the slide", is, therefore, attractive as a means of communicating information when it is not possible for an instructor to be present. The tremendous success of the Royal College of General Practitioner Service run by Drs. John and Valerie Graves, for which they have both received a well deserved O.B.E., bears testimony to the value of this medium.

The automated lecture. The authors presented the automated Plessey 'SuperVisor' apparatus (figure 1). In this apparatus the sound tape and a 35 mm. film strip are incorporated in a single cassette and the pictures are changed automatically. The demonstration was well received.

This type of apparatus has distinct advantages over the simple taped lecture provided the hardware is available. It is believed that it will prove more useful as a means of providing an automated series of lectures for a repetitive course in a Medical School rather than for distribution on a library basis.

The Overhead Projector

This is a useful extension of the chalk-board technique for projecting the written word and

illustrations enabling much of the material to be prepared in advance. A further elaboration in the 3M's system were special duplicators for use in preparing the material.

Programmed Teaching Devices

Teaching Machines. Several teaching machines for programmed learning i.e. visual display of (1) information; (2) multiple choice questions for the student to answer at each stage and (3) display of the correct answer ('Linear' programme) or (4) correction material ('branched programme') to lead the student back to the correct learning sequence.

Machines displayed included the Grundy Tutor and the Bristol Tutor.

The machines are expensive in themselves and the programming is prohibitively expensive unless the target population is very large which would not be the case in anaesthesia or most other medical specialities but they are undoubtedly useful for the individual working alone.

The programmed book. This is a simpler and cheaper method of producing a linear programme. In the field of medicine a programme book already exists on Electrocardiographs but there is no doubt that the preparation of the manuscript would be extremely time consuming and would require specialist knowledge of programming as well as medicine.

Conclusion

There is no doubt that there is both a need and an increasing demand for the proper presentation of teaching material in ways other than the live lecture or apprenticeship training alone. This is not only because the present day student has more to learn as knowledge advances, but also because he has grown up in an atmosphere of modern visual aids like television. Further there is no doubt that the mere act of preparing material for an audio-visual presentation leads to a higher standard of preparation by the lecturer than is frequently accepted in ordinary teaching.

It should be emphasised that no one audio-visual technique is adequate for all teaching

situations. The various methods demonstrated have differing application and in order to present a subject in the best way, several of these techniques may have to be used in combination.

In this country the development of the routine use of visual aids is still in its infancy particularly in Medical teaching. There is a great need for pioneer work particularly in the field of assessment of the value of these aids in transmitting knowledge and causing it to be retained: efforts in this field can extend from simple objective testing (as used in Audience Research by the B.B.C.), to elaborate subjective testing by means of multiple choice examination and computer processing of accumulated data.

In this Hospital we are blessed with a Department of Medical Illustration which is technically second to none. The School of Nursing is well advanced in its use of visual aids and some pre-clinical and a handful of clinical departments are making tentative steps in experimenting with these techniques, but the authors believe that there is need for central co-ordination and more professionalism in the presentation of teaching material.

This in turn is all part of a wider issue—the question of whether University teachers should be taught to teach. A first class research worker or clinician is not necessarily a good teacher nor is a first class teacher necessarily a good clinical or research worker and yet these functions are frequently combined. Further, although a man usually requires exacting qualifications both as a clinician and as a research worker before he receives higher promotion in medicine, he rarely receives training or is required to produce qualifications as a teacher. Specialist educational training and research must undoubtedly take their proper place in medicine if the present explosion of knowledge is to be properly harnessed.

Acknowledgements

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CORRESPONDENCE

Sir,—I read the Wix Prize Essay 1967, Lawson Tait by Peter R. Jordan, with great interest—(1) because it was such an excellent account of the life and work of the great man. (2) Because although it is now well over 40 years since I was Intern at Bart's, I still retain interest in the evolution of gynaecology, and (3) Because Tait's junior partner, Dr. Charles Martin, was, for many years, a great friend of my family and myself.

Christopher Martin, whom I knew slightly, became partner to Lawson Tait in 1891. Christopher's brother, Charles, was appointed Assistant and Secretary the same year, but when Tait's fortunes slumped, due partly to illness (he suffered from renal calculi and the usual sequelae), and partly to an unfortunate

legal altercation, the partnership of these three came to an end.

Christopher stayed on in Birmingham as a Consultant in Gynaecology, while Charles, after a short stay in Newton Abbot, migrated to Kobe in Japan. Here he worked for the greater part of his life, returning eventually to take up general practice in Llanwrtyd Wells, Breconshire.

Charles had inherited many of the characteristics of the great man, for he was able, erudite, easily roused, and enjoyed argument. I remember stealthily hiding a cup of Bovril under the bed rather than incur his wrath on finding his dietary instructions ignored.

Lawson Tait was a great collector of oriental curios, and was not above smuggling an occasional item. Similarly, Charles Martin brought home, non-smuggled, a magnificent collection of Chinese Snuff Boxes, which were



Charles Martin, Lawson Tait, Christopher Martin. Tait's staff in his nursing home.
Photo taken in 1892

on display in the Birmingham Museum, and eventually were acquired by Lord Burghley, now the Marquis of Exeter.

In 1940, at the age of 70, Charles Martin developed diabetes and retired from practice. He had no great liking for blood investigations on himself, but injected his own insulin rather than the hit or miss system.

Postal communication ran somewhat as follows:—"Charles felt very jumpy today, so doubled his dose of insulin". My reply, "He should have halved it, do this and send specimen." No sugar. Eventually no insulin and no sugar. Weight reduction had cured the diabetes. As the patient remarked "The sugar factory has dried up".

Charles Martin died of carcinoma of the stomach in 1952, at the age of 82 years.

Christopher Martin died at a comparatively young age, but not before he had written his very interesting "Lawson Tait with Personal Reminiscences" published by the Birmingham Medical Review in 1931. I enclose a photograph from his manuscript.

Before me lie two books by Lawson Tait. 1. Diseases of Women 1877, dedicated to Spencer Wells, with whom, as the Prize Essay revealed, Tait was later at enmity, and 2. Diseases of Women and Abdominal Surgery, Vol. 1, 1889. Unfortunately Vol. II was never completed.

I opened Vol. I at random, and behold, a tombstone in Romsey Churchyard:—"Mary Dawkins, who, having been tapped for dropsy 46 times, reposed in Christ, September 1st, 1826, aged 90 years.

Tait's interest in dropsy was such that he even quoted the better known epitaph from Bunhill Fields:—"In 67 months, she was tap'd 66 times. Had taken away 240 gallons of water, without ever repining at her case or ever fearing the operation."

Much more respectful to the medicals than one quoted elsewhere—

"Neglected by his Doctor
Ill treated by his Nurse
The brother robbed the widow
Which made the matter worse."

The three outstanding figures in the Surgical World of the 19th Century, in Christopher Martin's view were Simpson, Lister, and Tait.

Few would dispute this: Lone pioneers; their super-human efforts coupled with perseverance, brilliancy, and courage, did so much to advance surgery and illuminate the obscurity of the past.

Yours faithfully,
G. S. W. EVANS,
24, Amersham Road,
High Wycombe,

20th May.

Bart's Overseas

Sir,—I was very pleased to read the editorial in the June issue of the Journal and to learn that students at Bart's are interested in the idea of helping their less fortunate colleagues in developing countries. Bart's has a wealth of experience to offer in the preclinical and clinical spheres, in general and specialised fields of medicine, surgery, nursing and the ancillary services such as physiotherapy, welfare and so on but it has fallen behind every other medical school in London and many in the provinces in reaching a decision concerning such a project. It spurned co-operation in the setting up of a medical school in Saudi Arabia although all other London schools are co-operating in this project and when the Red Cross sought help for a hospital in Iran, nothing was done.

Several students from Bart's have been to

India, from St. Mary's to Jordan and so on. They have seen a wealth of clinical material, have made new friends, and have developed a more mature outlook on some of the medical problems confronting the world. But how much more profitable it would be if Bart's had a linkage with *one* definite overseas school so that exchange could occur at all levels throughout the hospital and medical school. I firmly believe that Bart's would benefit in the long run as much as the foreign university. Let us do something before it is too late.

Yours faithfully,
IAN P. TODD, M.D., M.S.,
F.R.C.S.,
149, Harley Street,
W.1.

21st June.

GENERAL PRACTICE A RECEDING GOAL

by Julian Toms

To one who has long intended to spend his working life as a general practitioner, family physician, medical generalist or whatever the in expression is, the recently crystallized ideas on vocational training for this speciality¹ are profoundly disturbing.

In the nineteenth century a medical career could begin with an apprenticeship to a G.P., just as carpenters or plumbers are still apprenticed to their masters. Since that time medicine has made significant progress, and the period of training has been extended, mainly in its earlier stages, by the addition of lengthy pre-clinical studies. If the Royal Commission has its way, pre-clinical courses will become even longer and degree status will be the rule. Much more insidious is the trend, reinforced by the Commission's Report, to extend training at the other end. The Report advocates three post-registration years of vocational training, followed by two years in practice before the position of principal can be held. It will therefore not be possible to become a principal in less than eleven years; that is, before the age of twenty-eight or-nine.

Reactionary Stance

I will give my reasons for adopting a reactionary stance in the face of what has been

called the "the vast area of agreement on what is needed in vocational training."²

In the first place, some graduates are ready and eager to enter practice immediately after registration. To lay down a statutory rate of promotion is reminiscent of the situation in the Mastersingers, where Walther is at first barred from the guild, in spite of the genius of his song, because he does not satisfy the pedantic requirements of members who are jealous of their privileged position.

Dubious Light

Secondly, if the already existing vocational training schemes for G.P.'s are any guide to future patterns (and those outlined in the Report appear remarkably similar) then the value of the three post-registration years is put in a dubious light; the Wessex system confines the trainee to the hospital for two of his three years. Undoubtedly the hospital may provide relevant experience for the G.P.-to-be, but outside the hospital gates things are different (as we would soon discover if a resident appointment in general practice were part of the clinical course). To go back to the nineteenth century one finds no record of the carpenter being obliged to spend a few years in the plumbing trade before taking on his chosen career. One has to resort to speculation to explain this eccentricity; a covert scheme to bolster the ranks of junior hospital staff could be the answer. If so, one can only admire the foresight of the authorities in these mutinous times.

Fierce Incentive

Thirdly, as things are at the moment, the difference between a possible £4,000 a year as a young practitioner and the houseman-like wages of the trainee will be a fierce incentive to avoid vocational training unless it becomes compulsory (this seems unlikely, but the screws may be put on in a round about way by denying principal status to those with no post-registration training). If the young married doctor finds he has to make a choice—either three further years of study, possibly in hospitals with no married accommodation and with his wife working to help keep the bailiff from the door and struggling to keep the stork from the gooseberry bush, or professional life as an underdog because he has no certificate to wave—then emigration may not be far from

the front of his mind. A statutory three years of preparation for general practice may produce better doctors: it will certainly produce fewer.

Welsh Sheep Farmers

Lastly, one cannot help feeling that we are in the grip of a fashion for training, paralleled in the world of general practice by the present fad for health centres. Medicine outside the hospital must be flexible and able to adapt to the needs of those it serves, whether they be Wimbledon stockbrokers or Welsh sheep farmers. Extra training may be beneficial to those who feel they need it, and it would come at a time when doctors should be competent to decide this for themselves. We have seen in this Medical School that an introductory course is not an essential preliminary to each stage of a medical education. The clinical introductory course has gone; we are now plunged *in medias res*, and there is no greater stimulus to serious endeavour than being in at the deep end. The advice given to Lord Taylor by one of his teachers is pertinent here: "Never read the references before you start a piece of research or you'll never start at all".

I could mention other reasons for feeling that the thought of a life in general practice (that is, life from twenty-nine onwards, if Royal

Commission proposals ever get beyond the covers thereof) has lost some of its attraction of late: there is the threat to the traditional freedom of the G.P., and the impression that being a student is not a sufficiently rewarding experience to be prolonged beyond seven years. But these and other more nebulous considerations carry little weight in reasoned argument, and so will not be dwelt on. One would nevertheless be more inclined to submit to the trend towards additional G.P. training if the initial moves had come from those about to enter this speciality. To add thirty per cent. to the length of the course is a painless step for those already established in practice. Indeed, if the trend continues I shall be forced to consider not only whether I *wish* to enter general practice, but whether I *can*, since the gap between me and my brass plate will grow as the years go by.

Realistic Assessment

In conclusion, a realistic assessment of the Royal Commission Report, with respect to general practice, would seem to be: It has the usual Plattitudes, Albeit not in multitudes, But it embodies certain attitudes, Conducive to the certitude That there'll never be a penitence Of General Practitioners in the United Kingdom

REFERENCES

1. *Brit. Med. J.*, 1968, 2, 758.
2. *Brit. Med. J.*, 1968, 2, 760.

operation darkroom

Messrs. Cornelius, Luck and Heighes who are Surgery Attendants of Barts have undertaken the massive task of cleaning up the photographic darkroom, so that members can "operate" in clinical conditions. The three musketeers will keep it clean and in running order and seek the co-operation of the members to keep it so.

These three gentlemen who are by no means "amateurs" will be willing to give advice and

guidance to any member wishing a helping hand.

The bulk purchase of various chemicals is being investigated, together with the possibility of purchasing film and other essentials at less than the retail price.

I hope that by this operation, we will attract new members to the photographic society and will at a later date be able to hold competitions and an exhibition.

A. Heighes.

Reading the article by Dr. Williamson in the January edition of the *Bart's Journal* left me vaguely unhappy, and led to a comparison between Group Practice in Great Britain and that in Canada. I came out to this country from England just over two years ago, having practised in a four-man group for close on fifteen years. Our set-up, though slightly smaller, was very similar to that described by Dr. Williamson, and our problems and heartaches were identical.

Group Practice in Canada comes much nearer to my personal ideal, both as to the fulfillment of my vocation, and as to the satisfaction which can be obtained through working in these circumstances. This opinion has been confirmed many times by other general practitioners who have regretfully left the old country, where they felt they were unable to practice the type of Medicine for which they were fully trained.

Group Practice may be defined as three or more doctors sharing an office building, sharing their patients' records and sharing their incomes. The larger the group becomes, the wider the scope in terms of specialities represented.

group practice in

This true "Group" formation, including both G.P.'s and Specialists, has been ruled out of court in Britain by the tripartite nature of the National Health Service.

The reasons for Group formation in Canada are many and varied, but the first and possibly most important, is to act as a counterweight to increasing specialisation, and even sub-specialisation. Secondly, a Group can offer more and complicated services, as are presently being required by a more sophisticated public. In a fair sized Group, these will invariably include an X-ray Department and full laboratory facilities within the building.

By the same token, a large group of Doctors practising in one building can acquire all the ancillary help it needs to make the best possible use of the doctor's time. Nurses, assistant nurses, receptionists, filing clerks, and secretaries can lighten the administration load. Most important of all, a business manager can be responsible for all the foregoing, and can relieve the doctors of the worries of billing, cross-checking accounts, and arranging collection of debts.

In addition, the Group will be able to call on other para-medical skills, such as physio-

therapy, inhalation therapy, dietetic service and social services, through the hospital at which the members of the Group have full admitting privileges. Incidentally, G.P.'s admitting their patients to hospital maintain complete responsibility for them and have available the full range of diagnostic facilities provided by the hospital.

Another major benefit of Group Formation is the physical proximity of general practitioners with the specialists. I need hardly stress that advantage is felt by both parties, and leads to a co-ordinated approach to the patient. As far as the general practitioners are concerned there is an immense benefit in being able to get an immediate opinion on a worrying case, be it from surgeon, physician or gynaecologist.

The last major advantage of forming a Group is inherent in the sharing of the burden of 24 hour coverage of patient care. This allows a doctor time enough to keep up to date, and time enough to recharge his energies.

I have left to the end of this general consideration of reasons for Group Practice the problem of income sharing. This is by no means as difficult a matter as it might at first

appear. Most groups have an income division policy which is based on seniority and training, and a few groups have added incentives. Seniority is based on years with the Group and years since graduation, and training refers to the possession of a Fellowship, Certification or Membership of the College of General Practitioners, or College of Family Physicians as it has recently been re-christened. Membership of the latter if Canada is no sinecure, and demands a rigorous policy of postgraduate education, and attendance at an approved course of study at least every two years. As to the use of incentives in assessing a group member's share of income, I have no experience of this method, but from what I have read, it seems often to give rise to more problems than it solves.

Returning from the general to the particular, I would like to describe the group with which I work. Such groups are usually known as Clinics in Canada and the States.

Our Clinic is in Edmonton, Alberta. Edmonton is the Provincial Capital and is a city of over 400,000 inhabitants. At present the Clinic has 15 members—two surgeons, two internists (physicians), two gynaecologist-obstetricians, (sometimes crudely referred to as O. & G.

men), one paediatrician, one doctor who restricts his practice to industrial medicine and seven G.P.'s. The entire medical staff of the Clinic at present has admitting privileges at one of the general hospitals in Edmonton, and the individual members of the Clinic are able and, in fact, encouraged to carry out whatever medical procedures they feel capable of doing, and for which they are recognized as competent by the Advisory Board of the hospital. The group has expanded rapidly since its formation in 1957, and further expansion is envisaged.

The general practitioners work in two "teams" of three, with the odd one rotating between teams. Each team has one doctor on duty for night calls—this means that each general practitioner is on call twice a week on the average, and this includes one weekend in three.

A normal G.P.'s day might well be as follows:—to the hospital to see one's own patients at 8.00 a.m. till 9.30 a.m., thence to the office (surgery?) to see office patients till 11.30—mid-day, lunch, and back to the office for 1.00 p.m.—afternoon office hours usually end up by

canada by Dr. B. H. Duhcaume

5.30 or 6.00 p.m. If not on call, the rest of the day is your own. Once a week, every member of the hospital medical staff has to attend the round of his department—be it surgery, obstetrics or medicine. The G.P.'s are given a choice and may attend any one or more of the rounds. These rounds are held at either 8.00 or 8.30 a.m., and usually necessitate a slightly later start to the morning office hours. In addition to the simple daily routine, there are certain extras—a once-a-month eight hours stint on the Emergency Department of the hospital, attendance at Medical Staff meetings and various committees. Hospital privileges are awarded annually, and, theoretically, could be withdrawn for failure to attend the rounds and meetings.

You will notice that no mention has been made of visits, or house calls. These are infrequently made, and few doctors in the cities make more than one or two a day. I know of many who will state flatly that they do not make house calls. This attitude may not seem so harsh if you stop to think that Edmonton has one motor vehicle for every two and a half persons. These cars are fully winterized,

and the car interior can be maintained at room temperature even in sub-zero temperatures. The only justification I personally can see for making house call is if the patient is old and infirm, or is a mother with a crowd of little children, and unable to find a baby-sitter. Seriously ill patients with surgical or grave medical problems are readily brought to the Emergency Department of the hospital for admission or possibly further investigation.

General practice carried out in the offices of a group such as ours is made all the more interesting and rewarding by the full provision of ancillary services. We have a complete X-ray department and are able to do our own barium meals, gall bladders, I.V.P.'s, I.V., cholangiograms and fluoroscopies. These X-rays are reported on by radiologists who come to the Clinic twice daily for this purpose and who are available for advice and questioning by the Clinic members when necessary.

The laboratory carries out routine blood counts, urinalysis, sed. rates, E.C.G.'s audiograms, pregnancy and other simple tests on the spot, and more complicated work such as

blood chemistry, is sent to the main lab., and the results are usually forthcoming within three days. The accounts are taken care of by a small army of nurses and clerks in the overall charge of our business manager. The telephone, the enemy of old, has had some of his fangs removed by the telephone answering service, which leaves one's wife free to come and go at will, and leaves the doctor free to come in and collect his messages when convenient.

I made mention earlier of postgraduate study, and as far as G.P.'s are concerned, one of the most enjoyable methods of taking this in is to go on a scientific convention. This both enables one to get away from one's practice and also to collect a little tax remission which, when coupled with a short holiday for one's wife, seems to me to be an ideal arrangement. By some strange coincidence, the conventions are often held in the pleasantest of holiday resorts, and may even occur during the skiing season.

I hope I have been able to show in this short article some of the facets of Group Practice in Canada, and I look forward to an interesting correspondence with Dr. Williamson and anyone else who thinks like him.

Birthday Honours List

Knight Bachelor

Dr. Charles Felix Harris, M.D., F.R.C.S.,
F.R.C.P.

O.B.E. (Civil Division)

Miss Joan Loveridge, lately Matron St.
Bartholomew's Hospital.

O.B.E. (Military Division)

Wing-Commander John Lindsay Miller
Corbet, M.B.B.S.

ANNOUNCEMENTS

Engagements

CHEETHAM—CHARLTON.—The engagement is announced between Mr. Paul Cheetham and Miss Penelope Anne Charlton.

DREAPER—WERTHEIMER.—The engagement is announced between Dr. Richard E. Dreaper and Miss Rosamunde Wertheimer.

HEWSON—BOULTER.—The engagement is announced between Dr. John Patrick Hewson and Miss Aileen Monica Boulter.

MACKENZIE-ROSS—GRIEVE.—The engagement is announced between Dr. Ronald Keith MacKenzie-Ross and Miss Nita Grieve.

Births

ANDERSON.—On June 10, to Dr. Rosalind (née Savage) and Dr. Keith Anderson, a daughter.

GIBSON.—On May 28, to Diana (née Denby) and Dr. David Gibson, a daughter.

HARMER.—On May 29, to Dr. Margaret (née Spittle) and Dr. Clive Harmer, a daughter (Catherine Jane Lucas).

JACKSON.—On June 10, to Gitta (née Garrelts) and Dr. John Jackson, a son (Rolf), brother for Sven.

OWEN.—On June 18, at Bart's, to Sue (née Easter) and Dr. Dai Owen, a son (Iuw Granville).

Deaths

BATT. On May 28, Dr. Bernard E. A. Batt, M.B., B.Ch., aged 86. Qualified 1907.

DEY.—On June 5, Miss Helen Dey, C.B.E., R.R.C., S.R.N., S.C.M., aged 80. Matron and Superintendent of Nursing, St. Bartholomew's Hospital 1927-1949.

HEATHCOTE.—On June 9, Dr. Henry Jonathan Heathcote, B.A., M.A., B.Ch., M.B., M.R.C.S., L.R.C.P., aged 66. Qualified 1930.

HENSMAN.—On May 11, Dr. Stuart Hensman, M.B.B.S., B.Ch., aged 65. Qualified 1928.

REINDORF.—On April 11, at Accra, Ghana, Dr. C. E. Reindorf, O.B.E., M.D., M.B.B.S., aged 90. Qualified 1910.

ABERNETHIAN SOCIETY

Thursday, May 30th, 1968:

'Leonardo da Vinci's Researches on the Heart' Dr. K. D. Keele, M.D., F.R.C.P.

For the second week running, the Society took pleasure in welcoming back an old Bart's man, a past President. Dr. Keele first became interested in da Vinci as a student. Since that time he has become somewhat of an authority on many aspects of the history of Medicine.

Dr. Keele began by expressing his own pleasure in coming back to the Abernethian Society, it was in fact thirty-seven years since he had last addressed the Society. He thanked us for our invitation.

In order to produce some perspective, Dr. Keele suggested first that we considered the fact that Leonardo lived from 1452 to 1519, some 500 years ago. Although the ideas of his

time were now out of date, they were perhaps not so much out of date as our own ideas might be in another 500 years. Dr. Keele proposed to speak about da Vinci's failures, as well as his successes, moreover, in order to give the Society an insight of da Vinci's struggle against ignorance.

The first slides of the evening were chosen to illustrate the anatomy of the heart as it was supposed when Leonardo was still a young man. Thus it was thought that the trachea took air to the heart direct, for the formation of vital spirits. The heart contained a middle ventricle, situated in the intraventricular septum. Even Leonardo's first drawings of the heart showed gross inaccuracies. Da Vinci was starting with the teachings of Galen—the heart was an organ of such importance that it required neither nerve supply, nor its own blood supply. Blood was made in the liver and distributed by the veins. The arterial pulse was due to an active dilation of the vessels producing a suction effect which acted as a propulsive force.

Leonardo came into the field as a skilled engineer and draughtsman. The notes he made on anatomy come to only 30-40 papers, compared with a known total of some 6,000. A morbid anatomist, he described how he finally dissected thirty human corpses "in various ways in order to demonstrate various things."

As an engineer he perhaps found the teachings of Galen difficult to accept. A practical man, he came to regard the heart as a muscle requiring both blood and a nerve supply. As to its function, he applied ideas of physics. He had observed that "life cannot exist when a candle will not burn" and suggested that the function of the heart was the production of heat. This might be generated by the friction produced by blood passing to and fro inside the heart. His reflections on the burning of a candle in fact show great insight into the nature of anabolism and catabolism.

Leonardo developed the concept that the dilations of the main vessels at their entry to the heart were, in fact, chambers of the heart itself. A drawing by da Vinci in 1512 shows for the first time a heart with four chambers.

Dr. Keele also showed some drawings of Leonardo's intricate dissections of the coronary circulation, and a series of drawings of the tricuspid valve with the patterns of insertion of the papillary muscle.

Possibly of most interest was a series of Leonardo's drawings illustrating his researches into the functioning of an aortic valve. Da Vinci

devoted about 10 papers to this valve, which apparently particularly interested him. He began by describing how hot water flows out from a vertical pipe. The central stream rises further than that at the side, and the latter falls first, forming eddies. He went on to suggest that at the end of systole, the leaflets of the aortic valve were brought together by the eddying bath of blood in the pouches of Valsalva, who was to describe them 150 years later. Leonardo constructed glass models of the aorta and suggested how a wax cast might be made to demonstrate the valve. In these notes he also suggests that the arterial pulse originates from the heart beat. His beautiful drawings of an open and closed aortic valve are so accurate that Dr. Keele presumed da Vinci must have observed the valve actually operating in some special preparation.

Galen had suggested that the apex beat was due to the filling of the heart. It was Leonardo, by ingeniously interpreting observations he made at a slaughter-house, who concluded that the cardiac impulse occurs at the same time as systole.

Da Vinci made some astute observations on the nature of arteriosclerosis. Having witnessed the death of a 100 year-old man, he decided to dissect the corpse in an effort to discover how it was that the old man had died so painlessly. He thought it of great significance that the arteries were both tortuous and thickened. His drawings compare them with those of an infant. He writes that thickening of the arterial coat produces a stopping of the blood. This finally progresses to death "without disease".

The function of the blood was to nurture the tissues. As the walls of the vessels are closer to the blood than the tissues, it is natural for the vessels to become over-nourished. The thickening increases as more materials are imbibed. Dr. Keele pointed to the fact that our knowledge of the aetiology of atherosclerosis had not advanced tremendously in 500 years.

Dr. Keele concluded by comparing da Vinci with Harvey. Leonardo would not practise vivisection. Though he made models, and studied flow and turbulence, his concept of the flow of blood in the body of necessity remained inaccurate. He postulated that the blood was consumed by one's tissues, any surplus being excreted in the faeces.

It was left to Harvey to uncover the final solution.

Dr. Aldren Turner, an old friend of Dr. Keele, then proposed a vote of thanks and the meeting was brought to a close.

reviews

by clive froggatt

Lecture Notes on Psychiatry, by James Willis. 2nd Edition. Blackwell Scientific Publications Paper. 102 pages. 8s. 6d. net.

This book is a revision of the first edition which is a member of the first class "Lecture Notes" series.

The book is divided into eleven chapters which deal briefly and concisely with every aspect of Psychiatry.

The text is well laid out, with many excellent headings and the prose really is most readable. No technical term is left unexplained, and in a subject where it would be easy to get bogged under in masses of long words and long sentences the author has done much to clarify the concepts making them all very easy to grasp.

The book is not long and can quite conceivably be read from cover to cover thereby giving an excellent basis to Psychiatry as a subject.

Clive Froggatt.

Clinical Physiology. 3rd Edition. Editors: E. J. Moran Campbell, C. J. Dickinson, and J. D. H. Slater.

'Clinical Physiology' is read widely by Physiologists and practising clinicians. There are few books like it, none so comprehensive or so well applied to the subject.

The latest edition adds two new chapters, one on genetics, the other on immunology. On this latter subject Dr. Hughes Jones has written a lucid and concise account, and I would recommend it to all who find immunology perplexing.

Most of the other chapters in the book have been re-written and all have been revised. Some still remain rather wordy and would benefit by a greater use of tables and diagrams.

This book succeeds in bridging the gap between Physiologists and Clinicians. Many pre-clinical students often wonder what possible use their Physiology is going to be to them; reference to this book will soon settle their doubts. Similarly post-graduates need a physiological background to solve clinical problems, and to prepare for higher exams. They don't want experimental or theoretical Physiology, but applied Physiology,—this book succeeds splendidly.

A. D. Haeri.

Cunningham's Manual of Practical Anatomy. Vol. 2. Thorax and Abdomen. 13th Edition. Revised by G. J. Romanes. Oxford Medical Publications. Oxford University Press. Boards Edn. 45s. net. Paper covers 30s. net.

Cunningham's Manual of Practical Anatomy has now been completely rewritten by Professor G. J. Romanes, Professor of Anatomy in the University of Edinburgh. The book is available in paper covers and boards, but whilst the difference in price may influence the student to buy the paper covers, it is highly recommended that students buy the boards edition which is considerably better suited to use in the dissection rooms.

The text of the Manual is very much reduced and the whole layout and type have been altered, making the book very much more readable and easy to understand.

The Revisor states that the shortening of the text has been made "to meet the needs of the shortened curricular which have been or are about to be introduced in many medical schools."

In addition to much material being sacrificed some new material has been introduced and expanded upon.

This includes a complete revision of the Manual's direction on dissection of the heart. It was felt by the Revisor that the last edition of the Manual did little to facilitate the visualization of the heart "in situ", and of its relations within the thorax. Also included, where the inclusion might be of value in the understanding of the anatomy, were some notes on the embryology and histology of the system. The embryology was particularly useful in the development of the cardiovascular system. The Manual has also altered the directions on the dissection of the perineum and pelvic regions. This has been completed in such a way as to relate more directly the practical anatomy to the likely clinical examination of the rectum and the vagina in the future. The Manual has successfully attempted to integrate dissection of the male and female pelvis in order that the similarities and differences may be emphasised and that the Dissectors do not confine their attention to the pelvis of the sex that happens to be

dissected.

Finally many new illustrations and diagrams add much to the text and the renewal of the series of radiographs is obviously going to be most useful.

CLIVE FROGGATT

Applied Pharmacology. Andrew Wilson, M.D., Ph.D., F.R.C.P., M.R.C.P., H. O. Schild, M.D., Ph.D., D.Sc., F.R.S. Published by J. A. Churchill Ltd., London. Price 60s.

The authors' aims in this book are twofold. Firstly to follow the lead given by the original author A. J. Clark when the book was first produced in 1923 to bridge the gap between pharmacology and therapeutics. This gap is partly one of time in that the two disciplines are taught at different stages in ones clinical training and in the majority of cases are probably learnt as separate entities. Also the gap is caused by the different conditions in which each science is applied. Pharmacology is basically the immediate effect of a toxic dose of a pharmacological agent on an animal tissue which is either in an intact, but healthy, animal or in vitro. In strong contrast therapeutics is concerned with the application of non-toxic doses of drugs in diseased human patients. A. J. Clark desired to give an account of the direct scientific evidence for the therapeutic action of the more important drugs and to demonstrate the importance of this knowledge in the clinical application of drugs.

Secondly the present authors have included recent developments in pharmacology as a

films

'Only When I Larf'. A. A.B.C. Fulham and Edgware Road. Starring Richard Attenborough, David Hemmings, Alexandra Stewart.

A comedy thriller of the first order, though there's probably more comedy than thriller to it.

Richard Attenborough plays the boss in a couple of con-men, number two being David Hemmings. Their tricks involve several very clever and very convincing impersonations, and

science—the theoretical aspects of drug-receptor interaction, drug testing etc.

In reviewing this book I had to consider the justification for a book of this nature and how far it realised the authors' intentions. Most students buy a text book of pharmacology and one of therapeutics and it seems difficult to imagine them spending more money and time on a book in between the two. However, think this book will probably be used as a replacement for one or another of the books.

It could certainly more than adequately replace many student textbooks of pharmacology and at the same time give a valuable introduction to therapeutics. However it could not, and does not pretend to, replace a textbook on therapeutics. For example the side effects and dangers of long term steroid therapy are not adequately discussed and, in view of the ever increasing use of these drugs in a panacea-like fashion, fewer topics could be of more importance.

I liked the layout of the book and its diagrams and especially the consideration of the methods of testing and evaluating drugs both pharmacologically and therapeutically. The introduction of many chapters by a short summary of the physiological and pathological problems involved will be of use to many.

Applied Pharmacology more than adequately covers what it sets out to, is very readable and can be recommended to those looking for this type of book.

Ronald Knight

this film proves once and for all time that David Hemmings really is a very talented actor, something which certain sceptics, like myself, had still continued to doubt.

Alexandra Stewart plays the sex in the film as Richard Attenborough's mistress—that is until David Hemmings lets his feelings be known. So the film's got everything....

Clive Froggatt

The sixth annual Barbecue Ball (incorporating the View Day Ball) was held at Charterhouse Square on June 7th.

Once more The Wine Committee is to be congratulated on a magnificent effort. It was obvious that much thought had been given to the decor. Many days had been spent in suspending hundreds of wine bottles from the ceiling of (appropriately enough) the new bar, whilst the refectory was decorated with cleverly disguised milk tetrapacs. The lighting in the refectory was also very effective, giving a delicate mauve appearance to teeth and white dresses alike though leaving the rest of the room suitably dim for dancing. The foyer looked and sounded like a small patch of West African jungle, and fishing nets and a mock-up of a fishing boat provided a suitable atmosphere in the bar lounge for the steel band.



the chaps looked miserable and rather anxious, instead of happy and relaxed like the ones at the last Boat Club Ball. Matters improved in the early hours, though.

The cabaret this year—the Bonzo Dog Doo-Dah Band—was well known to followers of B.B.C.-T.V.'s "Twice a Fortnight" programme. Some of their jokes were very corny, others were not entirely suitable for the ladies, but on the whole they were very funny. Their outlandish clothes brought howls of derision from the audience (and projectiles of screwed-up paper from a few rigger-players) but the band revelled in such jibes. The emphasis seemed to be on sex, surgical techniques and musical trouser presses, and at the end of their act they responded to the well-deserved cries of "more".

Most people, on leaving the cabaret, pro-

ceeded to one of the two barbecues. These were manned by professionals, and were supervised

Outside, the trees and barbecues were attractively illuminated. Mario Fiorentini and his group occupied the recreation room for most of the evening. The voice of the girl vocalist was rather distorted; so was the music, so I suspect it was a special sound effect. They were, however, easy to dance to. The Cortinas played there at the beginning of the evening but most people came on to the ball from dinner parties and missed this group.

The Beachcombers were in the refectory—their success at last year's Ball earned them a reputation which they lived up to. If popularity this year brings any group back next year, then this must surely be Alex Welch and his band. Their excellent jazz in the marquee attracted the better dancers and the consultants—these were often the same people!

A steel band is always popular but this year

ceded to one of the two barbecues. These were manned by professionals, and were supervised by a man of considerable circumference with a red scarlet neckerchief and a beret. He and his assistants did sterling work throughout the evening in preparing and serving the eight pigs and umpteen hundred frankfurter sausages. The sausages were a new idea and would bear repetition next year. Fresh strawberries in the refectory in the early hours of Saturday were as welcome as ever, and for most of us they were the first ones of the year.

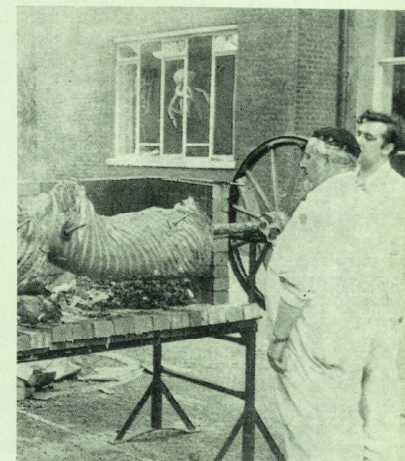
The music ended and the bars closed promptly at 3.30 a.m., all too early it seemed to most people. Perhaps next year it will last till 4.30 a.m., or if the licence cannot be extended then perhaps it will start an hour later to enable the ladies to prepare themselves

in a more leisurely manner before going to a pre-ball dinner. However, please do not think that I am criticising. As the dancers went directly, or via coffee bars, to their beds they had just reason to be very grateful—to the Met. Office for postponing the rain for as long as it

did, and for then limiting it to a light drizzle; to the fellows who served behind the many bars during the ball; and to the men in white who took such great pains beforehand to make sure that all ran smoothly, and who were left afterwards with the unenviable task of clearing up.

the barbecue ball

by Robin Rayner



HOUSE APPOINTMENTS

(1st JULY — 31st DECEMBER)

CONSULTANT STAFF	HOUSE OFFICERS	<i>Male</i>	<i>Female</i>
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			Annie Zunz

LATE NEWS

NEXT ISSUE

- (1) Interview with John Betjemann.
- (2) Feature on endocrinology.
- (3) Christian Science: a religion opposed to medicine?
- (4) Poetry section.

SWIMMING CLUB REPORT

Annual General Meeting (July 3rd) Chaired by Mr. Badenoch. Elections as follows. President: Mr George Ellis. Vice-President Mr. Douglas Shearer (Physics Dept.) Captain: Richard Jolly. Vice-Captain: Peter Coburn. Secretary: Paddy Weir. Charterhouse Representative: Charles van Heynigen. Captain's Report: success of the year due to (1) better training arrangements, (2) nurse participation, (3) good financial situation resulting in surplus passing to Students' Union. Littler-Jones trophies (for most outstanding and improved swimmers) to Doug Shearer and Charles van Heynigen (also recommended for colours). Farewell presentation to Mr. Badenoch.

JUNIOR REGISTRARS IN SURGERY

APPLICATIONS ARE INVITED for four appointments of JUNIOR REGISTRARS IN SURGERY, as under:-

- 2 posts : six months General Surgery/six months Special Department *
- 1 post : six months Emergency & Accident/six months General Surgery
- 1 post : six months Neurological Surgery/six months General Surgery

Applicants should state for which post they wish to apply and give a second choice.

The posts are tenable from 1st December, 1968, and the Salary Scales are those of a Senior House Officer in the National Health Service.

Applications, with the names of two referees, should reach the undersigned by Monday, 9th September, 1968.

(Application forms are available from the Medical Staff Office)

Further information may be obtained from the Professor of Surgery or from Miss Turner in the Medical Staff Office.

J. W. GOODDY,
Clerk to the Governors.

* Urology
Orthopaedics
Thoracic Surgery

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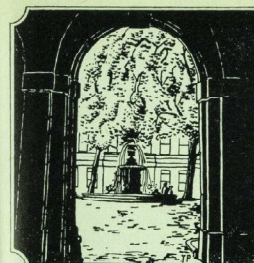
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JOURNAL

contents

Vol. LXXI No. 9

1st September, 1968

- 336 Sport
- 343 Incomplete Memory by Malcolm Fletcher
- 344 Poems by Francis Martin
- 346 John Betjeman: interview by Malcolm Fletcher
CLINICAL FEATURE: Endocrinology. Prepared by A. Newman Taylor
- 349 Hormones
- 350 The Axis
- 352 Clinical Investigations
- 354 Editorial
- 356 The Metapyrone Test
- 357 The Dexamethasone Test
- 358 The Insulin Test
- 359 Case Histories
- 361 Kathmandu by Andrew Fletcher
- 362 Holy Ground by Jim Drynan
- 366 Announcements
- 368 Reviews by Clive Froggatt
- 370 Christian Science: Justin Blake James, Paul Dieppe, Andrew Fletcher
- 373 Correspondence
- 375 Obituary: Sir Henry Dale
- 378 Late News

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