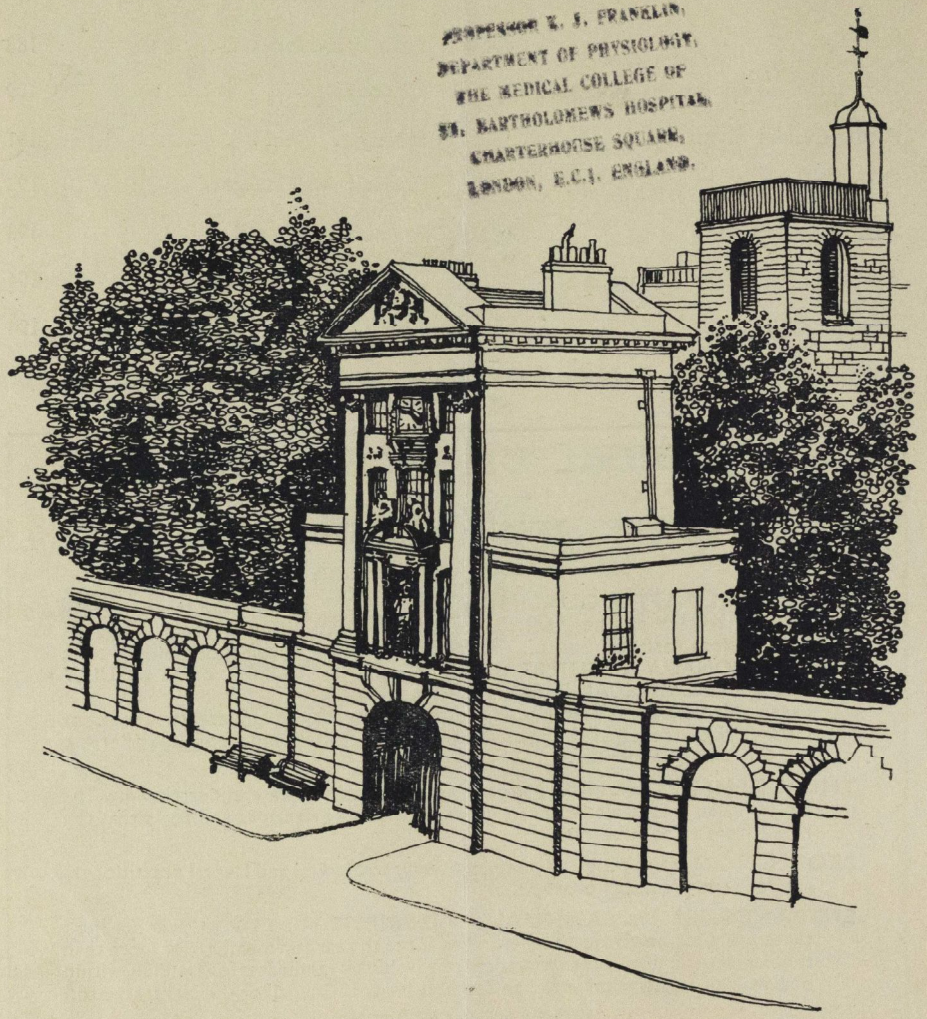
ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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July, 1953

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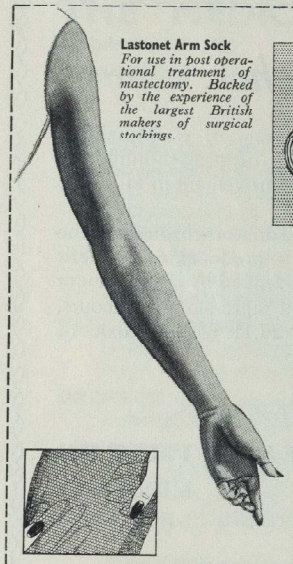

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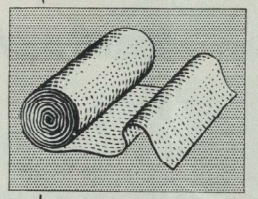

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ST. BARTHOLOMEW'S
HOSPITAL JOURNAL

Vol LVII JULY, 1953 No. 7

CUISINE

"When this information is not afforded and nature herself will yield nothing of her own accord, medicine has found means of compulsion whereby nature is constrained, without being harmed, to give up her secrets."—ON ANCIENT MEDICINE, *Hippocratic School.*

The profession of medicine evolved from the art of cookery—the oldest and humblest and most empirical of sciences. This was the Hippocratic view of its own origin, an origin of which that school of physicians was unexpectedly proud. Theirs was a practical discipline; it stood or fell, like cookery, by its results.

Without such particularity about our origins we model ourselves on those ancient Greeks. We like their pride in their profession as a craft, their concern for their patients before their science, their insistence that diagnosis cannot be reached until every method of observation has been exhausted.

And yet Francis Bacon's criticism of medicine before Harvey—"a science which has been more professed than laboured and yet more laboured than advanced"—is true of medicine today, most particularly true of General Practice, and his diagnosis still stands—this is due "to the discontinuance of the ancient and serious discipline of Hippocrates."

Supposing that Hippocrates was an individual and not a school or a point of view, as with Homer and Isaiah he is alleged to have been, and imagining that he wakes like Rip van Winkle in 1953, we can ask what his views on modern medicine would be. In view of the discovery of anaesthesia he would hasten to amend his oath. He might, or might not, be impressed with our professional standards. He would be amazed that by the chance of history his name had come to represent all that was best in his school and, being an educated Greek, he would find the National Health Service very hard to understand. Accepting the view that it is impossible to apply all our bewildering diagnostic methods to every patient, he would still be puzzled at the disorganisation whereby so many doctors are prevented from using even the simplest of these "means of compulsion" by their conditions of work. He would marvel that some even affect to despise laboratory methods relying on some nebulous "clinical sense"—a diagnostic instrument which would not appeal to him.

A memorable lecture was given lately to the Abernethian Society; unusually enough by a G.P. It dealt of mundane things, of the contents of a doctor's bag, of consulting-room couches, of a private laboratory fitted out in an old kitchen (surely in the best Hippocratic tradition) and of a branch of the Portable X-ray Company set up in a mews cottage. It was delivered in a style that suggested the administrator or the don, yet it was received with excitement and even punctuated with applause.

Two things are certain. Many students in their final years still wish to enter General Practice, "proud to make it a life's work and respecting it as a difficult and special subject."

Secondly, such a student is ill at ease because he is trained to a type of medicine for which General Practice, for reasons not particularly related to the Health Service, gives little scope at present. He has spent a large part of his training in the Path. Lab. learning

and performing simple but delicate tests. He has been taught to approach his patient confident of the aid of a wide variety of straightforward laboratory methods. But in General Practice he knows he will rarely, if ever, do a blood count, test for sugar only sometimes and never get a blood urea estimation without sending his patient to hospital.

Dr. John Hunt, the secretary of the new College of General Practitioners, suggested in his lecture* a solution and a new standard for General Practice. His own "diagnostic unit," with a trained but supervised assistant, proclaims what can be done where five or more practitioners are able to share facilities and can be done sooner, more cheaply and maybe more effectively than by the N.H.S. clinics. The individual, he suggests, can train his secretary, as in America and on the Continent, to do blood counts and other simple tests.

His standard is merely that of the Hippocratic physician practised in the medicine of the 20th century. It was introduced to hospital practice when Dr. Horder first appeared at the bedside with his microscope. Now another Bart.'s man has shown us the way to apply it in General Practice.

If G.P.s are not in the near future equipped with "kitchens" and the time as well as the knowledge to cook in them, they may well become useful auxiliaries to a fine hospital medical service, but they will never develop that total diagnosis of the whole man, which it is the special privilege of General Practice to achieve.

* Part of which appeared in the *B.M.J.* Dec 29th 1951, vol ii p.1575.

The Coronation

Dies valde pluviosa — also on "a very rainy day," April 9, 1413, John Cok, the Renter of the Hospital, who, apparently, was fortunate enough to have a seat in the Abbey, saw the coronation of Henry V. On June 2, 1953, every patient who was well enough to sit, or have his bed moved into position, was able to take an intimate part in the crowning of Queen Elizabeth II, at Westminister. The provision of television for every firm was the prime way in which the hospital marked and celebrated the occasion.

The Governors generously presented every patient and every member of the hospital staff with a copy of Richard Dimbleby's book, "Elizabeth Our Queen," containing a handsome book plate. The Giltspur Gate was modestly decorated in blue, with some not very impressive flags.

No official lead was given at Charterhouse, but popular feeling was made all the more apparent by the informal bunting over the gate. The planners who so thoughtfully provided us in the College Hall with every material benefit cannot surely have been so materialistic as to leave us without a flag mast? No doubt when the rebuilding is complete . . .

Hat Trick

Mr. Geoffrey Keynes is now a Fellow of all three Royal Colleges. We congratulate him on his recent election as a Fellow of the Royal College of Physicians, a rare enough honour for a surgeon, but not so rare as this trinity of Fellowships, which is surely a unique distinction.

This *Journal* contains the first part of his Harveian lecture delivered to the Harveian Society of London earlier this year.

Battles Long Ago

Those were the days, when Bart.'s footballers met the Arsenal at the Oval and beat them. Amateurs they may have been then, but it's a worthy battle honour. A photograph of the 1889-90 XI sent us with a letter from one of the team appears on another page. Besides our correspondent F. J. Dixon, at least two others—G. R. Fox and R. G. Hogarth are still alive. Both Dixon and Hogarth were in the team for the three years

ASSOCIATION FOOTBALL XI 1889-90

N. O. Wilson, A. E. Carruthers Mackintosh, J. Faber, G. R. Fox, W. H. Maidlow, R. G. Hogarth, A. W. Lemarchand, G. A. Coulby (Capt.), F. E. Fernie, Heny, F. Lewarne, F. J. Dixon

that Bart.'s held the London Amateur Cup. We wish these veterans well.

Prizes

Wix Prize
Awarded to: D. P. THOMAS

Hichens Prize
Awarded to: W. SANFORD

Treasurer's Prize
Awarded to: J. N. GRAHAM-EVANS, Aeq. A. R. O. CHINERY

Certificate to: D. G. BILLARDIS

Junior Scholarships in Anatomy and Physiology

1st Scholarship: Not awarded

2nd Scholarship: A. R. O. CHINERY

Clinico-Pathological Conference

The pathology classroom is, as even a pathologist would admit, an unemotional place, respectable but shabby. Yet, on Wednesday, May 27, it was so crowded that there was standing room only. Bursts of cheering agitated the cobwebs, and there was an audience as excited as children at a Christmas conjuring show. This was the first Clinico-Pathological Conference to be held in Bart.'s for twenty years.

Before the conference began, a typewritten case history was distributed. Professor Christie took the chair at 1 p.m. Dr. Bodley Scott gave his opinion and committed himself to a diagnosis (*cheers*). Reports were given by the different departments. Dr. Oswald then sportingly offered an opposing

diagnosis (*cheers*), adding enormous excitement. Finally, the P.M. findings were dramatically revealed (*resounding cheers*).

These conferences lapsed between the wars, because they were not sufficiently exciting. It was not always possible to ensure that the physicians were unaware of the P.M. findings and the audience was but little interested in hearing the chiefs faultlessly delivering the right answers. The present system though, with the P.M. findings kept a secret until the physicians have firmly committed themselves, is certain to provide a tense hour. The conferences are still experimental and the departments concerned (the two Units and the Pathology Department), would welcome any suggestions. How, for instance, are the clinical details best circulated to students? This time four sheets were left in the A.R. Is this sufficient? The conferences are intended for students, and if the notes are available, they might find it fun trying to make a careful armchair diagnosis on the night before. Would "Consultations," an honourable name never likely to be used again in its old sense, be as apt as the cumbrous phrase "Clinico-Pathological Conference"?

As Professor Christie remarked, 1 p.m. is a bad time for the staff, and the pathology classroom is too small. In future the conferences will be held at 12.15 p.m., in the large clinical lecture theatre, on the first Wednesday of the month.

We admire the courage of the staff in publicly committing themselves. Here, perhaps, in these conferences, will be found a way in which the hospital can prove its spirit and its entity.

View Day

Nationalisation, call it what you will, has not robbed us of our time-honoured right to keep annual saturnalia and, in theory, if not in fact, to let the patients come second, just for once. But if we only knew, their enjoyment of View Day probably comes little short of ours. To us they are only the dim backcloth of scrubbed faces and carefully parted hair against which we play our short but heady act (with all the dignity that teacups and chocolate biscuits will allow). To them —a select audience reclining luxuriantly among banks of flowers and foliage—we, with a new set of manners, a colourful escort and, for once, with our hair, at least metaphorically down, must present an intimate and revealing entertainment.

Steering our relatives and friends from department to department, we admired in the library an unknown medical student and watched on a screen the evidently erratic progress of building the College Hall. We goggled at leeches in the Great Hall, were charmed by the new Physiotherapy Department, and cheered in the Photographic Department by records of how the grosser forms of exophthalmos will respond to X.R.T.

But the essential people on View Day, as on every other day, are the nursing staff. Plundering Covent Garden in the small hours —and what little resistance can have been offered—organising an impressive catering service on top of their usual work, kept on duty long over time and unable to roam the hospital like us in their best clothes and favourite company, we hope they enjoyed it even so—we did, tremendously!

One old Bart.'s man making his first visit to the hospital for eighteen years was our most regular and most light-hearted contributor, a former editor of the *Journal*, Brig. R. B. Price, D.S.O. This month our shortest, but sweetest, contribution comes characteristically from him.

Treasures and Archives

For five days in May and the first time in 800 years the hospital's treasures and archives were on public view, worthily shown in James Gibbs' Great Hall. Eleven hundred people came to see them.

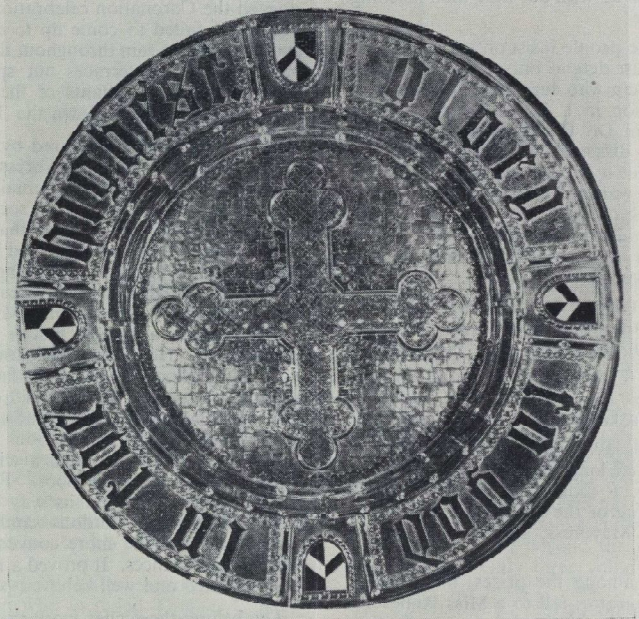
Here were our great documents and charters dating from 1137, a notable collection of medieval seals and the writings and memorials of Pott and Paget. Here were chalices and flagons in fine seventeenth-century silver and pipkins and porringers from half a dozen centuries down to John Gow's new almsdish and cruets lent by the Hospitaller.

Mrs. Whitteridge, Miss Stokes and Mr. Thornton spared themselves no pains. This was no casual display of rich frontispieces, and the merely quaint: careful labelling demanded a serious interest, but a seriousness met again and again half way with humour. Live and work as they may do among heaps of calfskin and mouldering manuscript, in an artificial atmosphere and under artificial light, there's nothing dry-as-dust about archivists.

Dr. Gow

A memorial service to Alexander Edward Gow, M.D., F.R.C.P., was held in St. Bartholomew's-the-Less, on Sunday, April 12.

The Hospitaller dedicated the almsdish and pair of cruets given to the hospital in his memory. This fine memorial, the work as well as the gift of John Gow, his brother, is of silver and blue enamel. They were much admired while on view in the Great Hall on View Day.



THE GOW MEMORIAL ALMSDISH

A consulting physician to the hospital who retired in 1946, Dr. Gow is best known to present students as the co-author with Lord Horder, and latterly, with Dr. Bodley Scott, of that not well enough known book, *Essentials of Medical Diagnosis*.

Mrs. Dale's Diary

It is an experience common to all medical student editors of hospital magazines to be addressed, sooner or later, as "Doctor" by some unknowing correspondent. But for a solitary student to be identified with the whole medical profession in England and in a national daily at that, with a daily circulation of over four million, is, we claim, a unique if somewhat unnerving event.

When the *Daily Express* came out with the headline "Mrs. Dale 'so degrading' say the doctors" the *Journal* had at last achieved fame—of a kind. It didn't really matter that our whimsical attack on this hardy perennial had been taken seriously. It didn't matter that we had been misquoted and our tenses mixed up. It didn't matter that we were placed in the van of a "Down-with-Dale movement" which, we feel sure, does not exist and was cooked up for the occasion. There we were—quoted at some length and in all seriousness, our words, written for 2,000, read by four million! When the hue-and-cry was taken up by *Illustrated* a week later, our cup of joy was full to overflowing. Overnight the *Journal* had become one of the mighty organs helping to mould British public opinion.

The letters flowed in, thick and fast, all three of them. Only one, from a regular reader of ours, was polite enough to be printable. One was from a lady in Liverpool who was obviously a candidate for the care of Dr. Strauss. She gave us a full account of the disastrous encounter of her own family with G.P.s, lashing us with every paragraph, and ending up, "Yours, with contempt." Another lady, writing from Watford, was less aggressive and more subtle, but gave the game away by suggesting that we should find something better to do with our time than listening to Mrs. Dale!

As all these people insist on taking us seriously, we must defend ourselves. He would be a brave man who suggested that the level of conversation in a G.P.'s home was any higher than in Dr. Dale's. We all have our family rows, disasters and skeletons in the cupboard. But it is precisely for that reason that we don't want to hear about Mrs. Dale's. The functions of the B.B.C. are to instruct, to educate and to entertain us—and *not* to play back to us a modified version of our own humdrum lives.

We are sorry if we have offended the wives of some of the senior staff. But not one single inch will we retreat. Mrs. Dale's Diary *is* nonsense.

The Women's Guild Draw

On Wednesday, April 29, the Women's Guild held their long-heralded and anxiously awaited draw. It took place after the annual general meeting of the guild, and was made by the Lady Mayoress, ably backed up by Lady Aylwen.

The plum among the prizes, the English Electric refrigerator, fell to a Miss Robeson, of Ealing, the case of champagne to a gentleman in Osterley, and thereafter, so it seemed, all the feminine prizes such as permanent waves and bedjackets were won by men, while masculine prizes like razor sets, whisky and stout, went to those who shouldn't use them. Everyone was delighted—and no one more than Lady Ross—when Sir James Paterson Ross won a pair of nylons.

No one really expected to win anything, and those who did were most agreeably surprised—perhaps even the undergraduate of Keble College, Oxford, who won one dozen ½-pint tins of white enamel paint. What is far more important is that the draw netted over £700 for the Women's Guild—a most handsome sum with which to carry on its excellent work for the next year.

Coronation Ball

This was by far the most ambitious social event of its kind that the Students' Union has ever sponsored, and it was magnificently successful. From 11 p.m. till 5 a.m. 1,200 dancers enjoyed the music of Geraldo, and, between times, the cuisine of the Festival Hall. Only the weather, which seems to have dogged the Coronation celebrations from the beginning, failed to come up to expectation, and intermittent rain throughout the night not only emptied the terraces but spoiled what promised to be highlights of the evening—the boat trips up and down the Thames.

At 11.30 we were honoured by the arrival of the Lord and Lady Mayoress, both still contriving to look fresh and remain charming despite an exhausting day of social engagements, beginning with the Guildhall luncheon to the Queen. They were greeted by Mr. and Mrs. Naunton Morgan, and a bouquet was presented to the Lady Mayoress by Miss Lorna Fletcher. At midnight, Mr. Naunton Morgan made a speech before giving the Loyal Toast. He dwelled felicitously on the close association of St. Bartholomew's both with the Crown and the City of London, and read out the loyal greetings sent in our name to Her Majesty, and her gracious reply. Her health was then drunk with a will, and the dancers returned to the floor. The evening continued hilariously on its way with eightsome reels, the Gay Gordons, sambas, tangos, rumbas, and all the more conventional and less energetic dances. It proved a most cheerful, contented and well-behaved party.

The behind-the-scenes work that goes into these events has to be experienced to be believed. The planning started long before last Christmas and for the final month the three ball secretaries, Miss L. Fletcher, L. N. Dowie and J. Copplestone have been seen doing little other than organising our entertainment. They were most ably helped by Bert Cambridge and Miss Wynn, and to all five of them we who enjoyed the ball so much give grateful thanks.

Journal Appointments

I H. Backhouse and S. P. Lock have resigned their appointments as joint Editors.

R. E. Nottidge has been appointed Editor and Griffith Edwards, Assistant Editor. Miss N. Coltart has been appointed Charterhouse Representative on the Publication Committee.

Congratulations

To Dr. A. A. Miles, Director of the Lister Institute of Preventive Medicine, awarded a C.B.E. (Civil Division) in the Coronation Honours.

To Dr. R. R. Powell of Redhill, awarded an M.B.E. (Civil Division) in the Coronation Honours.

To Mr. James Andrew, Registrar to the "Midder and Gynae" Department on being awarded the Green-Armitage Short-term Travelling Scholarship of the Royal College of Obstetricians and Gynaecologists. He is going for three months to a post in Vienna.

To Angus Luscombe on his engagement to Miss Ann Wickham.

HARVEY AND HIS BOOKS

by GEOFFREY KEYNES

Being the Harveian Lecture delivered to the Harveian Society of London, in March, 1953

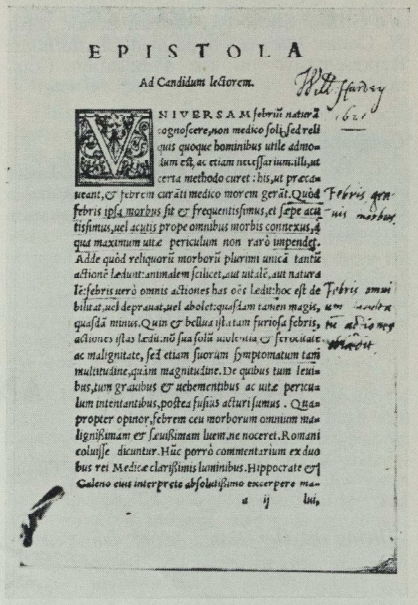
The subject of this lecture was suggested to my mind by the fact that a second revised edition of the *Bibliography of William Harvey* is about to be published by the Cambridge University Press. The title is somewhat ambiguous. "His books" might mean the books he wrote or the books he possessed, but the ambiguity suits my purpose of saying something on both subjects, though much less on his possessions than on his writings.

Harvey was in the succession of learned medical men who included Thomas Linacre and Dr. John Caius before him. The designation "learned man" implies familiarity with the writings of earlier doctors and with the classics and therefore, since there were no institutional libraries in the sixteenth and seventeenth centuries, the possession of a considerable library of books. I think it may be assumed that Harvey was well provided with books, but unfortunately we do not possess any ocular proof of this, two catastrophes having destroyed the greater part of his private accumulations. The first was in 1642 when Harvey was absent from London in attendance on the King. As a known Royalist he was an object of suspicion to the Parliamentary mob, who broke into his lodgings in Whitehall and stole or destroyed all his belongings, including his scientific papers. The second disaster was in 1666 when the library which Harvey had built and furnished for the College of Physicians was destroyed in the Fire of London. So it comes about that we have virtually no knowledge of what books Harvey may have possessed or used beyond the references in his writings. Only three volumes in all are known at the present time. One of these the *Opera Omnia* of Falloppius, Frankfort, 1584, fo. has remained in, or has been restored to, the Royal College of Physicians. It has the signature of Lancelot Browne, Harvey's father-in-law, on the title-page, and marginal annotations throughout, many of which are in Harvey's hand, but chiefly in the section *De metallis seu fossilibus.* A second volume, in the British Museum, is Galen's *Opuscula Varia,* translated from Greek into Latin by Dr. Theodore Goulston, 1640. There are marginal annotations in Harvey's hand, and against one passage referring to civic honours and distinctions he has made the contemptuous comment "Woodden legges." The third and almost

fabulous book is *De febribus commentarius* of Sylvius, Venice, 1555. It has extensive marginal annotations in the hand of the great Fabricius ab Acquapendente and the signature of his pupil, Will. Harvey, written with unusual care and dated 1621. As if that was not enough, it has also the signature of Dr. Richard Mead, the greatest medical book-collector of the eighteenth century as well as one of the most successful doctors. I vividly remember first seeing this extraordinary book, when Dr. Erik Waller, the Swedish surgeon, produced it out of his pocket as I was washing up for an operation at St. Bartholomew's some years ago. I could hardly believe my eyes then and have some difficulty in doing so now. The book is now in the Bibliotheca Walleriana at Uppsala University—where Dr. Waller has deposited his splendid medical historical library. That is the sum total of books surviving from Harvey's library that are known at the present time, except for a copy of one of his own books to which I shall refer again presently.

It is to be noticed, as it perhaps sheds a little light on Harvey's aloof character, that no copy is known of any of his three books given by him to any of his friends. This is unusual among seventeenth century writers, since nearly always several presentation copies of their books, often in special bindings of red morocco, are known to book collectors. The good Izaak Walton is certainly the most generous character of the seventeenth century of whom I have any knowledge. He gave copies of his famous *Lives* to almost everyone he knew. Harvey was different.

We may lament the fact that only three books by other writers have survived from Harvey's library. It is even more regrettable that only three books from Harvey's pen are all that he chose to leave us, since so powerful and so original a mind as his could surely have given the world still more valuable matter had he so chosen. It is to be remembered, however, that it was not his nature to be prolix, and that he was not eager to share his thoughts with anyone. He never laboured for notoriety and took a somewhat contemptuous view of his fellow men. He once remarked to John Aubrey that 'Man is nothing more than a great mischievous baboon', and he can hardly have thought it worth while to take much trouble to communicate his private thoughts to the idiots


EPISTOLA

Ad Candidum lectorem.

Harvey's signature and Fabricius' annotations on a page of Sylvius.

that surrounded him. Everything that we know about him points to the same thing.

The three books that Harvey published were *De Motu Cordis*, 1628, *De Circulatione Sanguinis*, 1649, and *De Generatione Animalium*, 1651.

The great physiologist, Robert Boyle, in one of his many books obligingly recorded a brief conversation with Harvey. "And I remember that when I asked our famous *Harvey*, in the only discourse I had with him, (which was but a while before he died) what were the things that induc'd him to think of a *Circulation of the Blood*? He answer'd me, that when he took notice that the Valves in the Veins of so many several Parts of the Body, were so Plac'd that they gave free passage to the Blood towards the Heart, but oppos'd the passage of the Venal Blood the contrary way: He was invited to imagine, that so Provident a Cause as Nature had not so Plac'd so many Valves without Design: and no Design seem'd more probable, than that, since the Blood could not well, because

of the interposing Valves, be Sent by the Veins to the Limbs; it should be Sent through the Arteries, and Return through the Veins, whose Valves did not oppose its course that way." *Boyle wrote this in 1688, more than thirty years after Harvey's death, and we cannot suppose that this rather breathless sentence records Harvey's actual words; but Boyle has no doubt conveyed his meaning accurately enough.

Harvey had entered the University of Padua at the age of 25 in 1598, and remained there until 1602. During these four years he was the pupil of Fabricius ab Aquapendente and also became his friend—one proof of this being the book already described which was presumably given to Harvey by his master in 1621. In 1603, just after Harvey left Padua, Fabricius published a folio tract on valves in veins entitled *De Venarum Ostiolis* and it is therefore clear that Harvey must have had his attention very forcibly directed to those structures during his anatomical studies. One can imagine some of the awkward questions the intelligent and logically minded pupil must have put to his rather old-fashioned teacher, and, once out of the range of his damping answers, the young man proceeded with investigations on his own lines which culminated in the brief treatise embodying his conclusions. This he called an "Anatomical Exercise," a modest name for the conclusive and clear-cut record of the first modern experimental investigation of a fundamental problem in physiology.

Harvey is often described as "the Discoverer of the Circulation of the Blood," suggesting that he stumbled suddenly and accidentally upon the truth. But in fact his conclusions were only reached after prolonged and painstaking investigations, his observations being made both on his patients and in the course of dissections and experiments on animals. He may have suspected the truth at Padua, but it was not until fourteen years later that he put the results of his work down on paper. He must have reached his main conclusions before he was forty, but it was his appointment to the office of Lumleian Lecturer at the College of Physicians in 1615 that determined the writing of his *Praelectiones* which are dated 1616, that is, when he was forty-three. We are so fortunate as to possess in the Manuscript Department at the British Museum the notes for these *Praelectiones* written wholly in Harvey's hand.

These are the immortal pages on which Harvey has scrawled his brief notes in a curious mixture of English and dog-latin to remind him of what he had to say in the course of his lectures on anatomy. He usually put his monogram, WH, in the margin against any passage which he regarded as specially important, as, for instance, the following:—

W.H. constat per fabricam cordis sanguinem
Per pulmones in Aortam perpetuo
transferri, as by two clacks of a
water bellows to rayse water
constat per ligaturam transitum sanguinis
ab arteriis ad venas
unde perpetuum sanguinis motum
in circulo fieri pulsu cordis.
(leaf 80, verso.)

It has been claimed that this page was written with a different quill, and so at a different time, from the rest of the *Praelectiones*, and this may be held to accord with the statement made by Dr. Henry Power in a contemporary MS that Harvey invented the circulation of the blood in 1614, or two years before the usually accepted date. Be that as it may, the Lumleian Lectures were on general anatomy and were given in a two-year cycle, so that six times in the twelve years up to 1628 was Harvey's message given to a fresh audience of students before he saw fit to allow his pamphlet to be distributed in print. How many of his audience in those twelve years ever realised what it was they were privileged to hear? Did they raise shocked eyebrows as they listened to their unorthodox lecturer, and did they go into a huddle afterwards for eager discussion of the scientific bombshell that had exploded in their midst? Of course it all depends on how Harvey put it, but we may be sure he never dramatised his theme or raised his voice to emphasise the fact that he was demolishing the inconsistent beliefs held by his predecessors for a thousand years or more. Perhaps the students, like most students at anatomical lectures to the present day, were half asleep, and missed the implications of what their swarthy and rather contemptuous little lecturer was saying to them. It seems to be clear that the news of Harvey's novel teaching was not carried far abroad, for no sound of controversy on the subject of the circulation was heard before the publication of his treatise. As far as is known no students' notes made

* *A Discourse about the Final Cause of Natural Things*, London, 1688, pp. 157-8.

at Lumleian Lectures have survived, so that there is no evidence whatever that the new doctrine had made any impression on those who heard it.

It remained, then, for the ultimate publication of *De Motu Cordis* in 1628 to carry Harvey's teaching to the wider audience which could appreciate and dispute the frontal attack that was being made upon established beliefs.

It is not my purpose to examine in detail the claims of Harvey's conception of the circulation of the blood to novelty, or its precise relation to Galenic theory, or to make another attempt to prove Harvey's priority and to confute the spurious claimants to this honourable position. All this has been done many times by medical historians of far greater learning than mine, and need not be repeated. It is, however, perhaps worth pointing out that the chief value of Harvey's book does not necessarily lie simply in his annunciation of the facts of the circulation of the blood. His annunciation of the facts was, indeed, incomplete, because he was unable to see, or even to imagine, the capillaries in the lungs, so that an important link in the chain of statements was missing. The real importance of the book lies in its being the first demonstration of scientific method in biological research, and it is on this quality that its pre-eminence is so securely founded.

It is not, I think, making too great a claim to state that Harvey's *De Motu Cordis* is one of the most fruitful and important books ever published. It ranks with Galileo's work on the system of Copernicus, Newton's *Principia*, and Darwin's *Origin of Species*.

Having made this large claim for Harvey's book as a milestone in the history of human thought and endeavour, I now wish to turn to the consideration of it as a material object and of the circumstances of its publication. Surprise and puzzlement have often been expressed because the book was entrusted to a young publisher called William Fitzer at Frankfort-on-Main. It has been suggested that Frankfort was chosen because of its annual bookfair and because the book was written in Latin, the international language. But most scientific and medical works were written in Latin at that time, so that the language employed does not seem to be an adequate reason. As long ago as 1929, Dr. Archibald Malloch, librarian to the New York Academy of Medicine, suggested that the real reason for Harvey's choice was his friendship with Robert Fludd (1576-1637), a celebrated London physician of Harvey's own age. More recently the facts have been fully investigated by a learned bookseller, Dr. Weil, who has pointed out that Fludd, the author of many books, had from 1617 employed as publisher de Bry of Frankfort. In 1626 de Bry died and his business passed into the hands of William Fitzer, who was, in fact, an Englishman, though he worked in Frankfort. Fitzer then took over the publication of Fludd's works, so that Fludd would naturally recommend him in 1628 to Harvey, who was then publishing his first book and was no doubt open to advice from his more experienced friend. Fludd and Harvey had been acquainted for many years, having been students together at Padua in 1602, and Fitzer's handling of Harvey's brief treatise seems to follow as a natural consequence.

Publication in Frankfort did, however, have one very unfortunate result. Distance and difficulty of communication probably prevented Harvey from seeing any proofs of his book, although it was exceptionally important that he should have the opportunity of making corrections owing to the illegibility of his hand. It is true that in those days typographical accuracy was not regarded with the (perhaps exaggerated) importance that we attach to it now, but even so it seems unlikely that Harvey would have passed the 126 errors which were listed on the errata leaf added to part of the edition of the book. Even then the list was incomplete, the first properly edited text of *De Motu Cordis* containing 246 emendations.

Harvey did not waste words and this immortal work was contained in only sixty-two small quarto pages. The whole book, with its title-page and dedications to King Charles and Dr. Argent, consists of only thirty-six leaves, afterwards increased to thirty-eight by the addition of the errata. The greater part of the edition is printed on paper of very poor quality; usually it has turned brown and is crumbling, so that not many copies seem destined to survive. Not many have, indeed, survived to the present day. *De Motu Cordis* is not a book of extreme rarity, but only forty-five copies can be discovered by Dr. Weil's careful enquiries in England and America and in continental libraries. Of these forty-five, only fifteen are in Great Britain, not one of which is in private possession. No copy has been sold

in a London auction room for very many years. A long time ago a stranger sent me a copy for advice as to disposal, but, perhaps foolishly, instead of buying it myself, I sent it on to a London bookseller, who soon disposed of it in America at a very large profit. I am glad to say that one of the fifteen British copies is likely to survive for a longer time than most. It seems that part of the edition was printed on thick paper of very good quality, three of these special copies being now known to exist. One is in the Hunterian collection at Glasgow, and there can be no finer example in existence. An eccentric old student of St. Bartholomew's Hospital, Dr. Sydney H. Badcock, who spent a great part of his life collecting engraved portraits of Harvey, used to say that in the old days *De Motu Cordis* could be bought for sixpence in the Farringdon Road, and it was popularly believed that he kept two copies, one of them untrimmed as issued, in a box under his bed. After his death, however, this proved to be a legend, or an idle boast, and it is a very long time since anyone had such luck in the Farringdon Road.

The title-page of *De Motu Cordis* is made to look rather distinguished by being largely occupied by Fitzer's showy device, carrying his monogram.

The well-known engravings of valves in veins, with which Harvey illustrated his thesis, were not original, but were obviously based on one used by Fabricius in his book entitled *De Venarum Ostiolis*, published in 1603 and again in 1624. Harvey made no acknowledgment of this, but he also made no pretence of priority in his description of the valves, and the debt to Fabricius was probably too obvious to need comment. The hand and arm in the engraving is grasping a barber's pole as for blood-letting.

De Motu Cordis had been reprinted eight times by 1660, though always for continental booksellers, and it was not until that year, three years after Harvey's death, that it was first printed in London. In 1653, however, an English version had been published, translated by an unknown hand, and this was reprinted in 1672. From that time the contemporary version was ignored, the standard text in recent times being the rather tame and stilted rendering published by Dr. Robert Willis in Harvey's *Works*, in 1847. This may be more accurate than the earlier text (though certainly not always), but it is much less interesting to read. I, therefore, took the opportunity of reviving the contemporary version in 1928, the tercentenary year, by editing it for the Nonesuch Press, and it is to this edition that most references are now made. For some reason unknown neither of the original editions in English contained the illustrations. This omission I remedied by having the figures redrawn (incidentally, from the arm of an orthopædic surgeon), by Stephen Gooden, R.A., the well-known copperplate engraver, who has recently completed two lovely book plates for the Royal College of Surgeons.

Harvey's treatise has, of course, been translated into many other languages. The first to be done was into Dutch, published in 1650, though the translator tactlessly included a poem on Harvey's death seven years before he died. Harvey was of a sardonic turn of mind, and probably enjoyed the joke as much as anyone.

Those who like statistics, may be glad to know that *De Motu Cordis* has been printed twenty-three times in Latin, eleven times in English, once in Dutch, twice in German, once in Danish, three times in French, twice in Spanish, and twice in Russian. The Dutch and English translations were the only ones done in Harvey's lifetime.

Harvey's thesis naturally aroused a great deal of adverse criticism, and many years later he said to Sir George Ent, "You know full well what a storm my former lucubrations raised. Much better it is oftentimes to grow wise at home and in private, than by publishing what you have amassed with infinite labour, to stir up tempests that may rob you of peace and quiet for the rest of your days." He long remained true to this reserved attitude, and published no reply to his critics until in 1649 he was goaded into doing so by the writings of John Riolan the younger, professor of anatomy in Paris. Riolan's book was published in 1649, and Harvey's reply followed quickly in the same year. This, his second book, was first printed in Cambridge, again in the same year in Rotterdam, and a third time in 1650, in Paris. All these books are much more uncommon than the first edition of *De Motu Cordis*, but the work is, of course, of only secondary importance, and does not command nearly such a high price. The two best copies that I have seen are in the University Library, at Cambridge, and were bought by Francis Jenkinson, a former librarian, for 3s. 6d. and 4s.,

respectively. The present-day price would be nearer £150, but even that does not approach the eight or nine hundred pounds that would be needed to secure a copy of *De Motu Cordis* if ever it turned up.

Harvey's little book is written in two exercises called *De Circulatione Sanguinis*, and it betrays a certain degree of irritation with his stupid disbelieving critics, but it is to be regarded only as an appendage to his first book, and since 1652 has never been printed apart from it.

(To be concluded)

EVENING STORM

With a rush it was upon us,
Even as the sighing died in the air,
Trees knelt down with fury to the wind,
And branches broke in the shadow,
Came hail to lash the mountainside,
And stone corries
Laid bare beneath the cold compress of night,
Raging spindrift
Tossed with the moon to the tune of the gale,
Cruelly, drove cruelly the sheep,
Down, down the valley
And the long avenues of night,
Borne out in the ventless sky,
To a restless haven of sleep,
Where rain pitted against the fold,
Even till the early hours of dawn.

D. C. A. M. POLLARD.

SO TO SPEAK . . .

Flood relief ?

"The relations of the Hospital and Priory were examined and the two inundations were finally separated . . . in 1537." —*College Handbook*, 1952-53.

The exception proves the rule

"Death from haemoptysis in Tubercle very rarely occurs except as a terminal event."
—*Assistant Physician.*

During a Colectomy

"Now we 've only got to go round the bend."
—*a flexure of speech* ?

DESERT ISLAND DISCS

Do these castaways count on lumbago and back-ache
Among other nautical risks?
They do seem to suffer, to judge by their records,
From rather degenerate discs!

R. B. P.

WATER AND ELECTROLYTE BALANCE IN SURGICAL PATIENTS

By P. F. JONES, F.R.C.S., *Surgical Tutor*

IN 1938, the *Saint Bartholomew's Hospital Reports* contained an article by Dr. Avery Jones and Mr. Naunton Morgan on "The Post-operative Administration of Fluids" which should still be read by any one interested in the subject. Since then much work has been done in this field and views have to some extent changed. It is the aim of this article to summarise present-day theory and practice.

Water and electrolyte exchange is a constant process in which, in health, gain and loss are balanced. Water, electrolytes and other foods are ingested and absorbed into the blood plasma. In this they circulate and in the capillary loops much of the plasma filters off into the tissue spaces where it is called interstitial fluid. Together, the blood plasma and interstitial fluid make up extracellular fluid : they are in virtual continuity and are identical in composition save for the almost complete absence of protein from interstitial fluid. Interstitial fluid circulates through the tissue spaces and bathes the surfaces of the body cells. Substances needed by the cells pass across the cell membranes into intracellular fluid and waste products move in the opposite direction. At the venous end of the capillary loops interstitial fluid is reabsorbed into the plasma. The excretion of water, electrolytes and waste products is ordered by the kidneys, which are the controllers of extracellular fluid composition.

This outline contains the basis of water and electrolyte balance, for normal cell life depends on the constancy of the composition of intracellular fluid and this in turn depends on the normality of the extracellular fluid which supplies it. The purposes of water and electrolyte therapy are to correct any abnormalities of these body fluids preoperatively and to maintain their normality postoperatively.

WATER

Water is taken both in food and drink, an ordinary "solid" diet contributing about one litre of water to the daily intake. Water is lost from the body by four routes, the loss by three of these—skin, lungs and faeces—being insensible. An adult loses each day about 100 ml. of water in faeces, 400 ml. by evaporation in the respiratory passages and, even in the coldest weather, 400-600 ml. of sweat : a total insensible loss of about one litre of water daily. The remainder of the normal water loss occurs in the urine and a patient with normal kidneys should drink enough water to produce 1—1½ litres of urine daily, although the irreducible minimum in which the urinary solids can be excreted each day is 500 ml. This means that a patient on parenteral fluids needs at least 2½ litres of water daily to meet ordinary insensible and urinary water losses.

When water intake falls appreciably below 1½ litres per day obligatory losses of water will exceed intake and the patient will become dehydrated and thirsty. In this state water is withdrawn from all tissues of the body to maintain the obligatory water losses : in a total water deficit of 3 litres, 2 litres will be lost from intracellular fluid and 1 litre from extracellular fluid. Such a deficit maybe seen in severe dysphagia or in a patient too weak to drink.

THE ELECTROLYTES

Analysis of extracellular and intracellular fluids reveals a great difference in their electrolyte composition (Fig. 1).

A. Sodium and extracellular fluid.

Extracellular fluid contains much sodium and chloride, appreciable amounts of bicarbonate and very much smaller quantities of the intracellular electrolytes. All these constituents have their functions.

1. *Supply of salts essential for cell life.*

The cells require certain electrolytes to be present in certain concentrations in extracellular fluid. Ringer showed in 1883 that the fluid used for perfusing the isolated frog's

heart must contain exact amounts of sodium, potassium and calcium salts.

2. *Osmotic pressure of body fluids.*

The cells contain proteins and electrolytes in an aqueous medium and the cell envelope acts as a semi-permeable membrane. The osmotic pressure thus created is balanced by the osmotic pressure of extracellular fluid. As the interstitial fluid which bathes the cells contains little protein its osmotic pressure derives from the electrolytes in solution in it. Of these the sodium kations are the most important. This should be remembered as the extracellular electrolyte most often referred to is the anion chloride. This is not because it is more important than sodium but because it is easier to estimate in body fluids. As sodium chloride is the chief salt of extracellular fluid, chloride concentration does provide a fair guide to the sodium concentration in this fluid.

Extracellular fluid osmotic pressure is, therefore, directly related to the concentration of sodium salts dissolved in it, and this is regulated in two ways. First, changes in extracellular osmotic pressure are followed by the passage of water across the cell membrane, which diffuses concentration changes throughout the body fluids. Second, correction of changes in osmotic pressure is effected by the kidney which alters the quantities of water and sodium excreted in the urine.

The following case history demonstrates the efficiency of these mechanisms and how the body will threaten even its existence in the process of preserving the constancy of extracellular osmotic pressure.

Case 1.

For some weeks during the summer of 1945 the midday shade temperature in the South Iraq desert reached 120 deg. F. During this time a soldier of 21 years was seen with a history of progressive weakness for one week, culminating in his collapse shortly before admission. He did not complain of thirst, said he had been drinking tea and squash freely and had passed normal quantities of urine. His eyes were sunken, the skin inelastic and cool and the systolic blood pressure was 50 mm.Hg. When he sat up he fainted. The oral temperature was 99 deg. F. The striking feature of this patient was that though he had been drinking freely he was in severe oligaemic shock. The reason was that the climatic conditions demanded the evaporation of large volumes of sensible sweat. Thirst had prompted him to drink but nothing had reminded him to replace the salt he was losing. The fall of the extracellalular sodium concentration had resulted in loss of water to the cells and increased excretion of water in the urine. Together these processes had preserved the osmotic pressure, but at the expense of a dangerous depletion of extracellular fluid volume.

This specific depletion is the chief feature of sodium deficiency and when the reduction in volume is sufficient the blood pressure will fall and signs of subcutaneous dehydration appear—an inelastic skin and a pinched face.

In surgical practice it is rare to see a pure deficiency of sodium because it is almost impossible to make a patient sodium deficient by deprivation of sodium. Sodium deficiency in surgical patients is almost always due to loss of gastro-intestinal secretions by vomiting, diarrhoea, fistulous discharges or gastric suction. As the sodium in gastro-intestinal secretions is in aqueous solution water must also be lost in these cases and they show mixed deficiencies of sodium and water. Case 4 provides a good illustration of this. A full and clear description of water and salt depletion is given by Marriott (1950).

3. *Acid-base balance.*

Mammalian cells cannot tolerate wide variations in the reaction of body fluids. Provided there is normal renal function, acid-base balance is preserved but in the few surgical patients with impaired renal function this matter needs careful attention.

B. Potassium and intracellular fluid.

Eight years ago little was known about intracellular metabolism and few clinicians recognised that the body could be affected by a deficiency of potassium, the principal intracellular kation. In 1946 Darrow and Govan showed that in infants with gastro-enteritis who were given parenteral potassium chloride as well as sodium chloride the mortality rate was substantially reduced; they proved that much potassium had been lost in the stools. Since then potassium has been intensively studied but many aspects of potassium metabolism are not yet fully understood. A summary of present knowledge is here attempted.

A normal diet supplies more than enough potassium, chiefly in meat, bread and vegetables: one pint of cows' milk contains 1.0 g. of potassium, about one third of the daily adult intake. After absorption, potassium circulates in extracellular fluid at a concentration of 15—20mg. per 100 ml., but in cell fluid a concentration of about 580 mg. per 100 ml. is maintained. Most intracellular potassium is in ionic form and participates

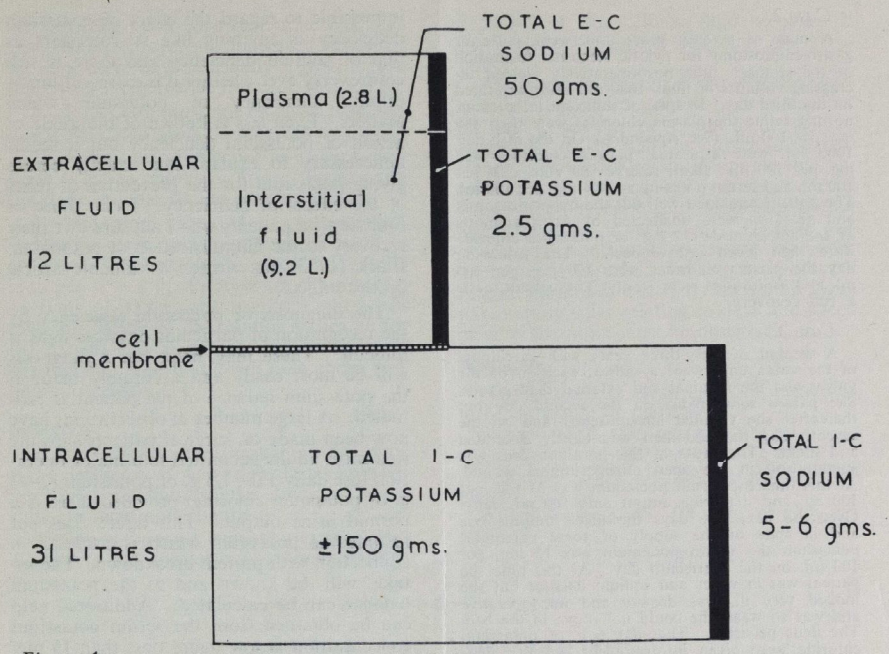


Figure 1.

Diagrammatic representation of the distribution of sodium and potassium in extracellular and intracellular fluids. The volumes given for these fluids are those for an adult man of 70 kg.

in many of the enzyme systems of the cells. One of the probable effects of potassium deficiency is interference with the action of these enzymes, resulting in impaired cell function.

There are several ways in which surgical patients may develop a deficiency of potassium:—

1. After operation potassium is not usually taken until oral feeding is recommenced. During this time urinary loss continues because the kidneys of a sick person do not effectively conserve potassium when intake is reduced, and the adreno-cortical response to operation increases the loss. About one-third of the potassium lost is associated with protein breakdown, but the rest is free potassium which leaves the cell to take the place of extracellular potassium lost in the urine.

2. Parenteral saline fluids are often given. If an excess of salt is infused this sodium enters the cells and displaces potassium, which is lost in the urine.

3. The potassium content of gastro-intestinal juices is about twice the plasma concentration, so vomiting or gastric suction will cause additional potassium loss.

4. Previous malnutrition — not uncommon in obstructive disease of the alimentary tract—makes a post-operative potassium deficiency more likely.

The majority of surgical patients begin to eat 2—3 days after operation and the potassium in a normal diet soon repairs any deficiency. If feeding cannot be started as soon as this, as so often happens in abdominal surgery, it should be remembered that potassium is leaving the body and not being replaced. The following case histories suggest that a steady loss of this kind can be harmful.

Case 2.

A man of seventy years underwent posterior gastro-enterostomy for pyloric stenosis. Aspiration of the stomach tube post-operatively yielded increasing volumes of fluid, 1600 ml. being aspirated on the third day. In spite of sufficient intravenous normal saline the plasma chlorides were then 480 mg. per 100 ml. (See Appendix.) On the fifth day 1000 ml. were aspirated, plasma chlorides=455 mg. per 100 ml., alkali reserve=89 vols. CO_2 per 100 ml. and serum potassium=14.4 mg. per 100 ml. The patient remained well but the hypochloraemia and alkalosis were unaffected by extra amounts of sodium chloride. 2.7 g. of potassium chloride were then given intravenously. The following day the plasma chlorides were 570 mg. per 100 ml. and aspirations were scanty. The patient made a full recovery.

Case 3.

A woman of sixty-three years with carcinoma of the vulva underwent a radical excision of the vulva and the inguinal and external iliac glands. She passed some flatus on the second day but thereafter she vomited intermittently and on the seventh day the abdomen was tightly distended and silent. The cause of this paralytic ileus was suppuration in the open retroperitoneal wound. At this time the serum potassium was 21 mg. per 100 ml. and the urine output only 500 ml. daily. Over the next few days the urine output rose and in spite of the supply of some parenteral potassium the serum potassium was 13 mg. per 100 ml. on the fourteenth day. At this time the patient was in water and sodium balance but she looked very ill, was drowsy and uncooperative and was so weak she could not move in the bed. The ileus persisted. That day 6 g. of potassium chloride were given intravenously and this dose was repeated on the following day, when the patient already felt and looked better. The next day the bowels were opened, the patient was bright and could move about the bed and take a light diet. Thereafter her progress was satisfactory.

Among the conditions with which potassium deficiency appeared to be associated in these patients were a persistent hypochloraemia with alkalosis which did not respond to normal saline, persistent gastric stasis and paralytic ileus, muscle weakness and prostration. It is certain that these patients were potassium deficient in that they had lost potassium in urine and gastro-intestinal fluid and had not had it replaced and they both had low serum potassium values. It is equally clear that the signs mentioned rapidly improved when potassium was given. The effect in the second patient was particularly impressive as she had steadily deteriorated until then. A number of authors have described these signs in association with potassium deficiency (for example, Lans, Stein and Meyer, 1952) and it is probably correct to accept them as due to this deficiency. Nevertheless it is still impossible to regard the effect of potassium deficiency as anything like so consistent as that of sodium deficiency and there is still controversy over whether it is extra- or intra-cellular deficiency of potassium which matters. Even less is known of the mode of action of potassium deficiency but it seems unnecessary to explain this exactly before giving potassium for the prevention or relief of the effects of deficiency. I can think of four surgical patients who I am sure owe their recovery to the administration of potassium. Black (1953) has written a valuable article on the subject.

The diagnosis of potassium deficiency by the recognition of particular physical signs is difficult. These may help, but a diagnosis will be most easily and accurately made if the potassium balance of the patient is estimated. A large number of observations have now been made on surgical patients showing that most adults submitted to a major operation lose daily 1.0—1.5 g. of potassium (2—3 g. of potassium chloride) provided there is a normal urine output. This figure does not include the potassium which is excreted in connection with protein breakdown. The intake will be known and so the potassium balance can be calculated. Additional help can be obtained from the serum potassium concentration, a low figure (less than 15 mg. per 100 ml.) indicating potassium deficiency. A normal serum potassium does not necessarily mean that the potassium balance is normal, for the extracellular potassium can remain normal for some time after an intracellular deficiency is established. Case 3 illustrates this point for there was only a slight fall in serum potassium concentration yet calculation of the balance showed a serious total potassium deficiency. An electrocardiogram will sometimes show an abnormal tracing but the serum potassium is usually low before this change is seen.

Having emphasised the importance of potassium metabolism it is most necessary to emphasise the dangers of indiscriminate potassium administration. Potassium given by mouth is safe but potassium given parenterally too fast in too high a dose can stop the heart. There are therefore four unbreakable rules for parenteral potassium administration—

1. There must be proper grounds for believing a deficiency of potassium to exist. A low serum potassium is generally reliable evidence but it is not always desirable to wait for this—the knowledge that urine has been freely excreted and no potassium given for three or more days is usually a good reason for giving maintenance doses of potassium.

2. Potassium must not be given parenterally when it can properly be given by mouth.

3. Potassium should not be given unless there is a free output of urine. In an adult the daily volume should exceed 800 ml.

4. Not more than 0.5 g. of potassium should be given parenterally to an adult in an hour. The best way to give this quantity is to put 1.5—2 g. of potassium chloride (7.5—10 ml. of 20 per cent. solution) into a pint (540 ml.) bottle of the solution indicated for the patient and to set the drip at 40 drops per minute. The bottle will take about four hours to empty.

Summary.

Water is distributed throughout the body and a deficiency of water dehydrates both extracellular and intracellular fluids. The results are thirst and oliguria.

Sodium is the most important extracellular electrolyte and deficiency produces a specific depletion of extracellular fluid volume. If the depletion is severe, oligaemic shock results.

Potassium is the chief intracellular electrolyte. If potassium is lost from extracellular fluid potassium moves out of the cells to repair the deficit and an intracellular deficiency is produced which, if appreciable, interferes with normal cell working. Renal conservation is poor, and potassium output after operation is increased. There is evidence that continued potassium loss after operation is harmful. Potassium is best replaced by mouth but if it has to be given parenterally rules relating to dose and speed of administration must be observed.

Appendix.

Normal range of electrolyte concentrations in blood serum or plasma—

Sodium=315—335 mg. per 100 ml.

Potassium=15—20 mg. per 100 ml.

Chlorides=570—615 mg. per 100 ml. (as NaCl).

Alkali Reserve=55—75 vols. of CO_2 per 100 ml.

(To be concluded)

LETTERS TO THE EDITOR

BATTLES LONG AGO

Sir,

As I was a student at the hospital from 1888-92 I was much interested in the article "Bart.'s in 1893" of the April number of the *Journal*.

Especially in the football at that time as I was a member of the Association football eleven in the years immediately preceding it. Perhaps your readers might like to hear something of the latter when we were more fortunate. We were rather a scratch lot and like the rugby a bit handicapped by some of our men also playing for other clubs. However we did emerge as something of a team in cup ties and held the Hospital Cup for three years beginning with the season 1888-89. In addition we were runners-up for the London Amateur Association Cup in one of those years, being beaten in the final by the Arsenal, playing at the Oval. Previously we met Millwall Athletic in the semi-final whom we defeated after a replay.

Perhaps it would have been better to leave it at that and boast that the old hospital had beaten a member of the League.

Honesty compels one to admit that these two clubs were in an early stage of their careers and at that time played as amateurs, shortly afterwards changing to professional.

My memory of the final dwells rather more upon the picturesque side than upon the actual football on that occasion. It was made something of an event. Imagine two of the old time horse buses rolling into our dignified square to convey double the number of students they would normally hold to the Oval and you get the picture. Though they may have stopped once or twice on the way they did eventually reach their destination as we knew from the noise they achieved. Though we lost the game we believe a happy time was had by all. Somewhere or other eleven silver medals exist given to us at a presentation by Pa Jackson, a well-known figure then in Association circles and I believe the founder of the Corinthians. Good health be to our present clubs.

Yours truly,

F. J. Dixon.

BART.'S SPORT

Dear Sir,

Your Editorial for May and Mr. Castle's letter inevitably sadden those middle-aged and elderly Bart.'s men who remember the spirit and the play of the well-trained and hard-hitting teams of over 20 years ago.

Mr. Castle is indeed right when he suggests that hard work can be combined with hard play. The late Professor Woollard taught that there is an aristocracy of both mind and body combined in some men. This was certainly evident at Cambridge just after World War I when 40 per cent of the 'blues' were scholars. There were also many good games players who although only achieving second class Tripos honours were much

in demand for such famous civil services as that in the Sudan, because of their qualities of character, their sense of fair play and good humour moulded on the sports field. The Sudan came to be known as a country of Blacks ruled by Blues.

I think the remedy lies much in the hands of the students' selection board (whatever it is called) probably more so than the efforts of the captains of the Clubs. In recent years we have lost men of the required calibre whom we used to attract. A nucleus of University blues, or those very near this standard, would attract their friends and others of a like nature and in time tradition would become established again.

It used to be possible to pass the primary F.R.C.S., win an entrance scholarship and take a successful part in a championship final within 10 days, and it must be so to-day.

Baron Pierre de Coubertin, the founder of the modern Olympic Games, laid it down that "The important thing is not winning but taking part. The essential thing in life is not conquering but fighting well." Indeed that old knave Falstaff (Henry IV) had much the same idea when in one of his rants he said, "Will you tell me, Master Shallow, how to choose a man? Care I for the limbs, the thewes, the stature, bulk and big assemblance of a man! Give me his spirit, Master Shallow."

So let us hope that among our 700 students there will arise many spirited young men to realise the value and the delights that can be obtained from physical discipline and corporate endeavour in team games, and by so doing save us from any future and depressing editorials that savour of 'Ichabod'.

H. B. STALLARD.

"W.G."

Dear Sir,

Your first leader in the May number reminds me of an amusing story about "W.G.", told me by a friend.

Her father, a Mr. Loewenstam, was an artist interested in all forms of art, but he had no use whatever for sport. One evening in the nineties he came home and told his family that, as he was passing Lord's, the people were coming out. He said to his neighbour on the bus: "What an awful waste of time all these people spending hours watching a cricket match." The reply was: "Well, perhaps I don't see eye to eye with you in that matter. You see my name's Grace." "Mine's Loewenstam" was the immediate response and then he wondered why the family went into fits of laughter.

Yours faithfully,

N. S. FINZI.

Cobham, Surrey.

A WORTHY SYMBOL

Sir,

Not the least interesting feature of your admirable Coronation number is the photograph (page 137) of Miss Isabel Armitage, Sister Surgery (with her Staff Nurse, Miss Garnett).

Housemen and dressers of the first decade of the century will recall with pride and affection this fine figure of authority, vigour and kindness—the commanding voice and the noble profile; to our large district of poverty and distress she *was* St. Bartholomew's—a worthy symbol, a gracious and ready help.

Yours, etc.,

REGINALD MORSHEAD.

Steyning, Sussex.

TED THE TWISTER

Yesterday I am walking down Harley Street, which is much frequented by croakers of all sorts and I meet up with Ted the Twister. He is called Ted the Twister not so much for his skill in evading difficult situations but because he twists people's arms and legs, sometimes straight or sometimes crooked as the case may be. We talk of this and that and he says 'I have a lucky escape'. This by no means surprises me but I affect both interest and surprise. 'Yes' says he, 'I am in Wimpole Street yesterday and there rushes down the road on a motor bicycle a guy with a passenger guy on the back. The bicycle hits a brick and off shoots the passenger and lies very still in the road. The driving guy is maybe deaf and doesn't notice, and goes away. So I join the crowd and a doll near me says 'Look his head is bent round the wrong way' and straight away faints. 'I leave her to lay where she falls' says Ted. 'for she is homely in the extreme. and I look at the passenger and see that what the doll says about his head is true. This seems unnatural to me, so I twist his head right way round after much effort, but it gives a crack and the guy stops breathing. So I get back in the crowd which is more interested in the doll than in the guy and wait to see what goes on next. What goes on next is an ambulance, and a brisk young interne hops out and undresses the crooked passenger, and when they take off his overcoat I see that it had been buttoned on back part before to keep out the draughts, so my twisting had not been so good for him. So I slips off round the corner into Harley Street before you can say orthopaedics, which is a long word at that.'

Ted the Twister is now on leave in another part of the country until he hears that the coroner decides Death from Natural Causes.

G.B.

ON SOAP

By R. M. B. MACKENNA

ALL too often in clinical medicine it is the apparently simple question asked by the intelligent patient which falls on the solar plexus of one's ignorance with breath-taking force. To many of us the innocent enquiry: "What soap shall I use, doctor?" comes into this category.

This matter of soap isn't as easy as the more elementary text books and the advertisements in the pulp magazines would have us believe; in fact, the bigger the text book the more chary the author seems to be of evolving a water-tight, short definition; he may commence with a brief statement to the effect that soap is formed by the combination of a fatty acid with an alkali, but then hastily begins adding caveats concerning insoluble metallic soaps and details about aluminium and zinc stearates and other matters which need not concern us here.

Harry (1948) states that ordinary toilet and household soaps are "sodium soaps," whilst shaving soaps and creams and shampoos are "potassium soaps"; the latter are made by the action of potassium hydroxide on a mixture of fats or fatty acids, and the former by the activities of sodium hydroxide. When sodium soaps are made, the glycerin, which is also formed, is removed and a "soap stock" is prepared. For household soaps, colouring, preservatives, perfume and sometimes sodium silicate are added. For toilet soap the stock is dried to reduce the water content to about 14 per cent., perfume is added and the soap is milled (i.e. passed between rollers) and plodded so as to obtain the desired physical properties, including lathering efficiency. To overcome the difficulty of obtaining a good lather in hard water 15-25 per cent. coconut or palm kernel oils are used; the very few people who become "allergic to toilet soap," are usually sensitive to products (e.g. salts of lauric acid) derived from these oils; occasionally sensitisation to perfume, colour or other additives occurs.

Super-fatted soaps contain an excess of fats, the purpose being to replace with a thin layer of emollient the sebum removed from the skin by washing, thus keeping the horny layer of epidermis supple.

Shaving soaps and creams have to provide an adequate, long-lasting lather, and potassium stearate in conjunction with saponified coconut oil is very frequently used by the manufacturers to achieve this. An excess of fatty acid is used in their formulation as this ensures that there will be no free alkali to damage the skin.

Liquid soap shampoos may be formed of potassium-coconut oil soaps which lather well but which may irritate some people's skins (see above), or may be formed by a mixture of saponified coconut, olive or other oils.

Green soft soap was made from olive oil and potash, but the B.P. now allows suitable vegetable oils (or the fatty acids derived therefrom) and sodium or potassium hydroxide to be used in its manufacture; Hebra's spirit soap, thousands of gallons of which must have been prescribed for scurfy heads, consisted of equal parts of potash (soft) soap, spirit of lavender and rectified spirit; nowadays, spirit, saponis kalini (Hebra) made according to the B.P.C. 1949, contains 650 grammes potash soap, 3.1 ml. oil of lavender, and spirit (which, in practice, is industrial spirit) to 1 litre.

Many women do not like soap shampoos; they complain, particularly in areas where the water is "hard," that unless they rinse their hair excessively after washing, curds of soap remain clinging to the hair, which tends to lose its lustre. To overcome this and other difficulties the modern soap-less shampoos were introduced; one of the earliest which is still in much demand, is based on a derivative of triethanolamine: it is excellent for women or men with seborrhoea (i.e. for those having an abundant secretion of sebum, who state "I have to wash my hair frequently for it goes greasy if I don't"), but is too degreasing for those who have a scanty secretion of sebum, and if much used by these persons, fragility and splitting of the hair may be noted. Other modern shampoos contain the so-called but incorrectly named "sulphonated fatty alcohols," of which sodium lauryl sulphate is popular; it is sold under various names, particularly as a powder shampoo: probably, as sold, it is less de-greasing than triethanolamine; Harry states that one-fifth of an ounce of the powder is sufficient for a shampoo; one of the manufacturers' headaches is to add sufficient bulk of other powder to this tiny amount to make the customer feel she is

getting her money's worth. Cream shampoos are a recent innovation: they are supposed to be less de-greasing than ordinary soap-less preparations.

In the Skin Department we were rather intrigued with the possibilities of cream shampoos; also we were anxious that certain of our patients should not employ proprietary shampoos which just possibly might react adversely with some lotion or ointment which we had prescribed. The Dispensary prepared a very satisfactory cream shampoo, having the following formula (the manufacturing cost is 4d. per ounce):—

℞ Borax...	1	per cent.
Lanolin	3	,, ,,
Lanette Wax S.X. ...	2	,, ,,
Water	20	,, ,,
Glycerin of Starch ...	14	,, ,,
Sulphonated "Lorol" Paste	60	,, ,,

Sig.: Lanolin Shampoo Cream.

The best soap flakes are sodium soaps having a water content of about 10 per cent.

Various medicaments, e.g. thymol, may be incorporated in spirit shampoos. Drugs may also be incorporated in hard (tablet) soaps, but it has been taught that these are of little benefit as the drugs are of necessity much diluted and their action very transient: this rather sweeping view may need revision, as Gordon and Unsworth have proved that scabies may be both prevented and cured by the use of hard soap containing 5—10 per cent. tetra-ethylthiuram monosulphide.

Now what about the patient whose innocent question produced the foregoing excursion into deep lathers?

Briefly — and rather dogmatically, for others might disagree — the fairly normal members of *homo sapiens* may be divided into three types: those with greasy skins ("I have to wash my hair often"), those with somewhat dry skins ("I have to use brilliantine to keep my hair fixed"), and those whose output of sebum is not too little and not too much. Representatives of the first category can use with satisfaction any of the toilet soaps which are available, and need not necessarily use superfatted soaps. Their skin resists well the somewhat stronger action of potassium soaps which, unless specially prepared, are usually regarded as being "harder on the skin" than sodium soaps. Persons with dry skins prefer superfatted soaps, and if they cannot find something satisfactory in the usual range can be asked to employ "baby soaps," or others made for delicate skins such as Midgley's basic superfatted soap, Albion Simple Soap, etc. (There are others, and apologies are required because exigencies of space forbid their mention).

For the greasy, sometimes scurfy, scalp, spirit shampoos, green soft soap, triethanolamine and "sulphonated fatty alcohol" shampoos are usually satisfactory. For dry scalps, a liquid soap shampoo or a cream shampoo are reasonable. The hair of a greasy scalp is unlikely to be damaged by washing with an adequate shampoo once every five or seven days.

In general, psoriasis, small indolent patches of seborrhoeic dermatitis, acne vulgaris, and pityriasis capitis (dandruff) are the only cutaneous maladies in which the patient should be encouraged to wash the affected areas. Others, particularly eczema, can be kept going merrily for months by a good daily wash. Carbolic soap, excellent though it is for many persons, and the most satisfactory of all for removing "B.O.", can be very usefully employed by malingerers suffering from occupational dermatitis who want to keep their eruption florid.

"Do I wash myself too much, doctor?" The answer depends on your skin—oily, normal, or dry—on the soap you use, the type of water available, and the heat of your bath. Few skins were made to withstand two very hot baths a day, and if you have to immerse yourself twice daily a shower is quicker, uses less water, and has fewer potentialities of causing damage. You can't confuse the issue by adding bath salts, detergents or antiseptics to a shower. Nevertheless, in U.S.A., so-called "bath pruritus" is on the increase and there are many more cases here than are recognised. If you go to the tropics you are more likely to develop prickly heat by over-washing than by the reverse.

"Is soap dangerous, doctor?" No. We have a very great deal for which to thank the soap - manufacturers. The incidence of trouble due to soap is negligible when one considers the millions of times it is used in this country every day. If one brand of soap dries your skin too much, many other brands will suit you; your chemist is well qualified to advise you.

Acknowledgments: I have to thank Mr. J. R. Elliott, Pharmacist to the Hospital, and Dr. V. R. Wheatley, for their helpful comments when this essay was being written.
References: GORDON, R. M. and UNSWORTH, K. (1944). Ann. Trop. Med. Parasit., 38, 207. HARRY R. G. (1948). The Principles and Practise of Modern Cosmetics; Vol. 2; Cosmetic materials (1948), London; Leonard Hill Ltd.

SPORT

RUGGER CLUB

Results:

v. Berkshire Wanderers away—lost 13-3.
v. Metropolitan Police home—won 11-3.

Middlesex Seven-a-side Competition:

Round 2 v. Tabor—won 27-0.
Round 3 v. Pinner—won 13-0.
Round 4 v. Old Millhillians—won 8-5.
Round 5 v. Gala (at Twickenham)—lost 6-5.

The annual general meeting of the Rugby Football Club was held in the recreation room, Charterhouse, on 4th May, and the following Officers were elected for the coming season:

President, Dr. E. F. Scowen. Vice-Presidents, Mr. I. W. Cope, Mr. F. C. W. Capps, Prof. Sir J. P. Ross, Mr. D. B. Fraser, Dr. G. Ellis, Dr. C. F. Harris, Dr. N. C. Oswald, Mr. W. D. Coltart, Prof. A. J. E. Cave, Mr. E. G. Tuckwell (elected at the A.G.M.). Captain, E. F. D. Gawne (re-elected). Vice-Captain, D. W. Roche. Treasurer, P. J. Burrows. Secretary, D. A. Lammiman. Hon. Fixture Secretary, Mr. J. W. Cope. Publicity Manager, W. B. Castle.

The Annual Dinner of the Rugby Football Club was held at "Ye Olde Cocke Tavern", Fleet Street. There was a large attendance by the members of the Club. Dr. E. F. Scowen was in the chair and performed in his usual inimitable manner. Mr. E. G. Tuckwell proposed the health of the Club, and the Club Captain Mr. E. F. D. Gawne replied.

GOLF CLUB

At the Annual General Meeting, P. Sleight was elected Captain and R. B. Deering as Secretary.

v. King's College Hospital

On March 18th, at Sundridge Park, the team started the season off well, winning by 3-1. R. B. Deering and B. Wheeler had convincing wins. Dr. McIlroy and P. Sleight halved their matches.

v. Guy's

At Sundridge Park, a depleted Bart.'s side was no match for a very strong Guy's team, and lost 5-1. Our only winner was B. Wheeler.

R. B. Deering and P. Sleight have so far this season played regularly for London University Blasters.

Colours for the 1952 season have been awarded to C. J. R. Elliot, R. Draper, P. Sleight, P. Ford and R. B. Deering.

CRICKET

1st XI v. St. Thomas's Hospital, on April 25th—lost.
St. Thomas's Hospital 178-6 dec. (Winton 4-63).
Bart.'s 83 (Lawson 31).

1st XI v. London House, on May 3rd—lost.
Bart.'s 103 (Ford 26).
London House 104-9 (Rosborough 3-21).

1st XI v. R.A.M.C. on May 9th—lost.
Bart.'s 121 (Hodgson 45, Rycroft 26).
R.A.M.C. 122-3 (Chinnery 2-35).

1st XI v. Hampstead, on May 10th—lost.
Hampstead 258-5 dec. (Rosborough 4-76).
Bart.'s 137 (Nicholson 53, Ford 51).

1st XI v. Romany, on May 17th—lost.
Romany 258-1 declared.
Bart.'s 103. (Nicholson 25, Morley 24).

Oxford Tour. 1st XI. v. Balliol College, on May 23rd—drawn.
Bart.'s 162 (Fox 55, Rycroft 30).
Balliol College 82-9. (Winton 5-16, Foy 3-21).

1st XI v. Radcliffe Infirmary, on May 24th—drawn.
Bart.'s 149 (Rycroft 61, Ford 35, Hodgson 25)
Radcliffe Infirmary 111-8 (Ford 3-22).

2nd XI v. Erith Town, on May 10th—lost.
Erith Town 156-6 declared.
Bart.'s 56.

2nd XI v. Royal Free Hospital, on May 16th—lost.
Royal Free 118.
Bart.'s 98 (Ellis 42 n.o.)

BOAT CLUB

At Chiswick Regatta the hospital was represented by a coxwainless light four rowing in the Junior Senior event, for oarsmen who have never won a senior event. They beat Quinton B.C. by four lengths in the first heat and in the semi-final lost to Royal Air Force (Benson) R.C. by three-quarters of a length.

At Walton the next week, in a similar event, they had better fortune.

In the first heat the Hospital beat Ibis R.C. by four lengths; in the semi-final they beat Thames Tradesmen R.C. by three lengths and went on to win the event by beating Midland Bank R.C. by two and three-quarter lengths.

This is the first open event to be won by the Hospital for two years.

Crew: J. M. Gray, bow, steers; 2, C. N. Hudson; 3, J. F. Pigott; D. H. Black, stroke. Coach, T. Edwards of 1st and 3rd Trinity B.C. and L.R.C.

This crew hopes to race up river later in the season.

SQUASH CLUB

The Donaldson Cup for 1953 was won by P. Mitchell, who beat the captain, J. Murrell, 9-0, 9-7, 9-3 in the final.

The match was not as exciting as last year's final, though it was not as one-sided as the score suggests. Clearly both players were stale and had lost their touch after the heavy season. Mitchell took service and easily won the first game before Murrell had settled down. Then the latter, playing better, took a 7-5 lead in the next, but two delightful drop shots brought Mitchell level. After this he never looked back. He went on to win because he varied his game, using the side walls and short balls effectively while Murrell was content to defend.

It was pleasing to note that only four lets were given despite the strain imposed upon the players. Mr. Donald Fraser later presented the Cup to the winner.

M.D.

SAILING CLUB

The Sailing Club continues to flourish as an integral part of the United Hospitals Sailing Club. It is the largest individual hospital club, has a high proportion of helmsmen and has several members regularly racing for U.H.S.C. against other clubs. Membership continues to increase and new members, preclinical particularly, are most welcome. Details can be obtained from any member.

The annual two day regatta was held at Burnham on the 4th and 5th of June in ideal weather. Sixteen helmsmen competed for the Commodore's Trophy which was won by E. J. Hill. The ladies' race was won by Miss A. C. M. Wickham. A most successful innovation this year was the seamanship race, a test primarily of boat handling, which was won by H. V. Blake.

Results:

Commodore's Trophy: 1st, E. J. Hill; 2nd, M. E. B. Hayes; 3rd, J. T. Snow.

Ladies' Race: 1st, Miss A. C. M. Wickham; 2nd, Miss P. M. Jones; 3rd, Miss B. A. Jepson.

Seamanship Race: 1st, H. V. Blake; 2nd, M. E. B. Hayes; 3rd, A. Snart.

The Firefly racing dinghy having been fitted out by members is being raced regularly on the Brent reservoir with the London University Sailing Club. Its more general use has resulted in a definite improvement in the standard of helmsmanship, which was reflected in the excellent racing enjoyed during the regatta.

ATHLETIC CLUB

The Athletic Club started the season with an urgent need for new members — fortunately several were forthcoming from Charterhouse, and they have formed the nucleus of the team. We are still sadly lacking in runners for the longer distances, e.g. 1 mile and 3 miles, and the all-round standard in the field events could be improved.

The results of the matches to date are:

Wednesday, May 6th, at Ladywell
1. Guy's Hospital
2. Bart's
3. Westminster Hospital

Saturday, May 16th, at Colliers Wood
1. Bart's
2. Chelsea Polytechnic

Wednesday, May 20th, at Norbury
1. Southgate Harriers
2. Bart's
3. Westminster Bank

The 70th Annual Sports were held at Chislehurst on Saturday, 6th June. The weather was kind to us for the second successive year, but the Coronation celebrations, the Derby and various Rowing and Sailing Regattas probably accounted for the spectators being fewer in number than on previous occasions.

Mr. D. B. Fraser controlled the afternoon's proceedings admirably, and we are very grateful to Mrs. Fraser for so graciously presenting the trophies. Once again the members of the Staff supported us magnificently and we thank them all most sincerely for their invaluable assistance. Mr. White and his ground staff had done an excellent job in preparing the track, which was, as usual, in first class condition; and Mrs. White, Miss Bott and her willing assistants worked heroically behind the scenes to produce the teas. We are greatly indebted to them all for making the day such an enjoyable one.

SPORTS DAY RESULTS

3 Miles:
1. D. M. Stainton-Ellis. 15 mins. 49.8 secs.
2. J. A. Stainton-Ellis.

1 Mile:
1. D. M. Stainton-Ellis. 4 mins. 37.6 secs.
2. C. Charlton.

880 Yards:
1. J. A. Stainton-Ellis. 2 mins. 5.4 secs.
2. D. M. Stainton-Ellis.

440 Yards:
1. A. S. Wint. 54.4 secs.
2. A. H. MacDonald.

220 Yards:
1. A. S. Wint. 23.6 secs.
2. L. Pringle.

100 Yards:
1. L. Pringle. 10.6 secs.
2. P. McDonald.

120 Yards Hurdles:
1. A. S. Wint. 16 secs.
2. A. S. Tabor.

120 Yards Handicap:
1. D. A. Lammiman. 12.4 secs.
2. P. McDonald.

High Jump:
1. B. W. Badley. 5 ft. 6¾ ins.
2. D. A. Lammiman.

Long Jump:
1. P. McDonald. 20 ft. 4¾ ins.
2. B. W. Badley.

Pole Vault:
1. J. T. Snow. 7 ft. 11 ins.
2. B. W. Badley.

Weight:
1. D. F. Craggs. 38 ft. 8 ins. (Record)
2. J. C. Craggs.

Javelin:
1. L. Cohen. 123 ft. 10 ins.
2. D. Rosborough.

Discus:
1. D. A. Lammiman. 86 ft. 6 ins.
2. P. McDonald.

"Housemen's 100":
1. Dr. B. D. Lascelles. 10.4 secs.
2. Dr. A. E. Dormer.

Inter-Firm Relay:
1. Clinical. 1 min. 35 secs.
2. Preclinical B.

The following appointments to the medical staff have been made with effect from the dates indicated:

GYNAECOLOGICAL AND OBSTETRICAL DEPARTMENT
Junior Registrar—Mr. N. Gourlay (vice Struthers) from 1.9.53.

PATHOLOGICAL DEPARTMENT
Junior Registrar—Mr. P. J. A. Butcher from 1.7.53.

DEPARTMENT OF ANAESTHESIA (Hill End)
Registrar—Mr. T. B. Boulton (vice Jackson) from date to be arranged.

EXAMINATION RESULTS

UNIVERSITY OF LONDON

FINAL M.B., B.S. EXAMINATION FOR MEDICAL DEGREES April, 1953

Honours

Crosfill, M. L. (Distinguished in Obstetrics and Gynaecology)
Hodgson, M. J. (Distinguished in Medicine)
Jones, B. S. (Distinguished in Obstetrics and Gynaecology)
Knipe, P. (Distinguished in Surgery)
Warburton, T. H. M. (Distinguished in App. Pharm. and Thera.)

Pass

Biddell, P. B.	Fieldus, P. L.	Langdon-Herring, L.	Roberts, T. M. F.
Bird, G. C.	Geldart, R. E. M.	Lewis, B.	Ryan, A. M.
Brooks, E. F.	Glassett, M. C.	McKerrow, M. B.	Ryan, H. S. S.
Brown, I. P.	Gray, J. M.	Mercer, M. H.	Shere, S.
Brown, J.	Gretton, A. H.	Moffat, D. B.	Southgate, B. A.
Bunting, J. S.	Hall, J. M.	Morgan, D. T. G.	Stather-Dunne, M. T.
Caldwell, A. M.	Hall, T. E.	Mules, R. J.	Stephenson, J. W.
Castell, E. O.	Hill, D. A.	Newill, R. G. D.	Storey, V. C.
Chia, A. K.	Hopkins, J. S.	Parker, R. B.	Thomas, B. D.
Chitham, R. G.	Husainee, M. M.	Paterson, I. S.	Thomas, D. H. C.
Clarke, D. J. A.	Ivens, H. P. H.	Pearsons, D. E.	Thomas, P. I.
Davies, A. P.	Kaan, N.	Porteous, C. J.	Vickery, C. M.
Davies, G.	King, P. A. H.	Pugh, M. A.	Whittard, B. R.
Dunger, G. T.	Lacey, S. M.	Rimmer, R. K.	Wilson, M. S.

SUPPLEMENTARY PASS LIST

Part I

Adam, R. M.	Cudkowicz, M. R.	McAdam, B. N.	Rimmer, A. H. M.
Andrewes, D. A.	Davies, M. B.	Mackay, A.	Scott, H. G.
Boomla, D. F.	Fisher, F. M.	McLean, I. E. D.	Smith, E. P.
Brazenor, E. L. F.	France, G.	Martin, R. M.	Staunton, M. H.
Cairns, J. E.	Hill, E. J.	Matheson, P.	Thompson, S. G.
Casson, A. J.	Hyland, R. K.	Mears, G. W. E.	Whitting, H. W.
Cochrane, J. G.	Iles, D. S.	Morlock, R.	Wilkinson, D.
Cour-Palais, A. J.	Keet, S. I.	Prior, I. J.	Wint, A. S.
			Wyner, S. E. A.

Part II

Bloom, M.	Evans, M.	Scott, H. G.	Shaw, D. M.
Thomas, H. A. J.			

Part III

Bloom, M.	Davies, J. R. E.	McAdam, B. N.	Marshall, L. J.
Boomla, D. F.	Davies, M. B.	McLean, I. E. D.	Taylor, G. I.
Brown, J. R.	Evans, M.	Marker, H. R.	Ullmaun, H. A.

Part IV

Boomla, D. F.	Goode, J. H.	Marker, H. R.	Thomas, G. E.
Brown, J. R.	Hick, B. D.	Scott, H. G.	Thomas, H. A. J.
Davies, M. B.	McAdam, B. N.	Taylor, G. I.	

CONJOINT BOARD FINAL EXAMINATION April, 1953

Pathology

Adam, R. M.	Godwin, M. H. G.	Martin, R. M.	Walker, L.
Carrick, D. J. E. L.	Hill, E. J.	Mears, M. E.	Zilliacus, J. O.
Davies, J. R. E.	Jones, A. R.	Nainby-Luxmoore, R. C.	

Medicine

Biddell, P. B.	Caiger, V. G.	Ryan, H. S. S.	Taylor, G. I.
Brown, I. P.	Castell, E. O.	Shere, S.	
Brown, J.	Lacey, S. M.	Stephenson, J. W.	

Surgery

Biddell, P. B.	Dunger, G. T.	Marker, H. R.	Taylor, G. I.
Brown, J.	Eminson, B. I. F.	Mules, R. J.	Thomas, P. I.
Caldwell, A. M.	Geldart, R. E. M.	Penn, M. J. W.	Warburton, T. H. M.
Castell, E. O.	Hick, B. D.	Stephenson, J. W.	Watmough, G. C.

Midwifery

Caldwell, A. M.	Marker, H. R.	Ryan, H. S. S.	Taylor, G. I.
Chia, A. K.	Mules, R. J.	Shere, S.	Warburton, T. H. M.
Geldart, R. E. M.			

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

Biddell, P. B.	Chia, A. K.	Marker, H. R.	Thomas, P. I.
Caldwell, A. M.	Geldart, R. E. M.	Stephenson, J. W.	Warburton, T. H. M.
Castell, E. O.	Lacey, S. M.	Taylor, G. I.	Watmough, G. C.

UNIVERSITY OF LONDON SPECIAL SECOND EXAMINATION FOR MEDICAL DEGREES March, 1953

Arthur, J. K.
Balhetchet, M. S.
Bedford, M. A.
Bekenn, P. J.
Bolton, T. W.
Burrage, M. V.
Clissold, E.
Coleman, D. V.
Elliott, D. H.
Evans, J.
Evans, R. G.
Ford, P. G. T.
Gillett, G. B.
Gould, R. A.
Grant, C. B. T.
Hayes, M. E. B.
Hecht, B.
Hunter, C. J. W.
Kielty, M. G.
Lloyd, D. B.
McGill, B. S.
Macvie, S. I.
Millard, F. J. C.
Nash, F. J.
Nye, E. R.
Ormerod, T. P.
Pigott, J. F. G.
Plumb, M. E.
Pringle, L.
Roberts, I.
Scharff, E. A.
Shacklock, H. I.
Weinstock, D.
Worthy, J. A. R.

OBITUARY

We announce with regret the death of the following Bart's men:—

D. V. M. Adams, on Jan. 16 Qualified 1898
E. C. Bradford, on Mar. 24, Qualified 1914
P. N. Cook, on Apr. 15. Qualified 1916
F. W. Eldridge-Green, on Apr. 17, Qualified 1887
W. Jobson Horne, on Mar. 7. Qualified 1892
N. H. Joy, on Jan. 20. Qualified 1898
J. C. C. Langford, on Jan. 16, Qualified 1925
R. Pickard, on Feb. 9. Qualified 1889

RECENT PAPERS BY BART.'S MEN

ABRAHAMS, Sir Adolphe. Chronic constipation. *Practitioner*, 170, Mar., 1953, pp. 266-272.
. The simplicity and profundity of rheumatism. *Med. Press*, Mar. 18th, 1953, pp. 256-9.

ADRIAN, E. D. Address of the president, at the anniversary meeting, Dec. 1st, 1952. *Proc. R. Soc.*, Series A, 216, Jan. 7th, 1952, pp. 5-15.

BATES, D. V., see LAWTHER, P. J. and ——.

*BEATTIE, J. Miscarriage. (Refresher course for general practitioners.) *Brit. Med. J.*, Feb. 21st, 1953, pp. 447-449.

*BETT, W. R. The Lawson Tait of America: Joseph Price (1853-1911). *Med. Press*, Jan. 7th, 1953, p. 19.

——. M. J. B. Orfila (1787-1853). *Med. Press.*, Mar. 18th, 1953, p. 259.

——. The preparation of medical papers for publication: tools, short-cuts, and pitfalls. *J. Okla. Med. Ass.*, 45, 1952, pp. 422-3.

*——. Sir Hans Sloane, 1660-1753. *Alchemist*, Jan. 17th, 1953, pp. 17-19.

——. Sir Leander Starr Jameson (1853-1917). Truant from medicine. *(Med. Press*, Feb. 11th, 1953, pp. 132-133.

*BOYD, A. M., (and others). Supportive therapy on improved type of dextran. *Lancet*, Jan. 10th, 1953, pp. 59-63.

*BROWN, D. E. Meredith. X-ray therapy and carcinoma of the bronchus. *Brit. J. Radiol*, 25, Sept., 1952, pp. 472-475.

CATES, J. E. Clinical diabetes insipidus. *J. Endocrin*, 9, Jan., 1953, pp. xii-xv.

*CHOLMELEY, J. A. Elmslie's operation for the calcaneus foot. *J. Bone Jt. Surg.*, 35B, Feb., 1953, pp. 46-49.

CHRISTIE, R. V., see MCILROY, M. B. and ——.

CUNNINGHAM, G. J., and NICOL, C. S. An unusual case of carcinoma of the pelvis. *Urol. cutan. Rev.*, 56, 1952, p. 81.

——, (and others). Pulmonary re-action to barium sulphate in rats. *Arch. Path.*, 54, 1952, p. 430.

*DAVIES, J. A. Lloyd. Primary actinomycosis of the breast. *Brit. J. Surg.*, 38, Jan., 1951, pp. 378-381.

*——. Some aspects of catheterization in retention of urine. *Brit. Med. J.*, Jan. 31st, 1953, pp. 257-8.

*DESMARAIS, M. H. L. Value of intra-articular injections in osteo-arthritis. *Ann. Rheum. Dis.*, 11, Dec., 1952, pp. 277-281.

*D'SILVA, J. L., and PARTINGTON, M. W. The effect of ultra-violet light on the skin and haemoglobin of patients treated with iron. *Ann. Physical Med.*, 1, April, 1952, pp. 56-60.

*DONALDSON, M. The value of radiotherapy in gynaecology. *Med. Press*, Jan. 21st, 1953, pp. 52-54.

*EVANS, Frankis T., (and others). Effect of pseudo-cholinesterase level on the action of succinylcholine in man. *Brit. Med. J.*, Jan. 17th, 1953, pp. 136-8.

——. Spinal analgesia for the occasional anaesthetist. *Med. Press*, March 4th, 1953, pp. 207-210.

*FALLIS, L. S. and BARRON, J. The Billroth I gastrectomy. *J. Okla. Med. Ass.*, Sept., 1952.

*——, and ——. Gastric and jejunal aliment action with fine polyethylene tubes. *A.M.A. Arch. Surg.*, 65, Sept., 1952, pp. 373-380.

*FINER, B. L., and PARTINGTON, M. W. Pethidine and the triple response. *Brit. Med. J.*, Feb. 23rd, 1953, p. 431.

FISK, G. R. Osteopoikilosis (Familial Disseminated Osteosclerosis). *Proc. R. Soc. Med.*, 46, Feb., 1953, pp. 103-105.

GARROD, L. P. The sensitivity of bacillus anthracis to antibiotics. *Antibiotics and Chemotherapy*, 2, Dec., 1952, pp. 689-692.

*GLENISTER, T. W. Embryology of the Emperor Penguin. *Nature*, 171, Feb., 1953, p. 357.

GRAY, P. W. S., see EVANS, Frankis T., and others.

HADFIELD, G., (and others). The effect of cortisone on the regeneration of skeletal muscle after injury. *J. Bone Jt. Surg.*, 35B, Feb., 1953, pp. 125-130.

*——. Research in the College. "Introduction," and "Department of Pathology." *Ann. R.C.S.*, 12, Jan., 1953, pp. 14-15 and 24-6.

HARTRIDGE, H. Chromatic aberration and the polychromatic theory. *Brit. Med. Bull.*, 9, 1953, pp. 31-31.

*HODGSON-JONES, I. S., and WHEATLEY, V. R. Methods for the collection and estimation of small amounts of sebum. *Biochem. J.*, 52. 1952, pp. 460-4.

*——, MacKenna, R. M. B., and Wheatley, V. R. The study of human sebaceous activity. *Acta derm-venereol, Stockh.*, 32, 1952, pp. 155-160.

Horder, Rt. Hon. Lord. Freedom in medicine. *J. Int. Coll. Surg.*, 18, Nov., 1952, pp. 799-804.

*Hunter, R. A. Confusional psychosis with residualorganic cerebral impairment following isoniazid therapy. *Lancet*, Nov. 15th, 1952, p. 960.

Innes, G. S. Instrumental and technical notes. A slide rule for calculating the size of an object from the size of its shadow on an X-ray film. *Brit. J. Radiol.*, 26, March, 1953, p. 158.

Jones, F. Avery. The management of complications of peptic ulcer. *Med. J. Aust.*, Jan. 17th, 1953, pp. 49-54.

——, (and others). The treatment and prognosis of acute perforated peptic ulcer. *Brit. Med. J.*, Jan. 17th, 1953, pp. 122-127.

*Jopling, W. H., (and others). Toxic amblyopia caused by TB3: A case record. *Trans. Roy. Soc. Hyg. and Trop. Med.*, 46, 1952, pp. 656-657.

*Keynes, Geoffrey L. Thymus. *Annals. R.C.S.*, 12, Feb., 1953, pp. 88-95.

Kinmonth, J. B. Injuries of the hand. *Practitioner*, 170, Feb., 1953, pp. 150-158.

*Lawther, P. J., and Bates, D. V. A method for the determination of nitrous oxide in blood. *Clin. Sci.*, 12, Feb., 1953, pp. 91-5.

*Lehmann, H., (and others). Response in dogs to relaxants derived from succinic acid and choline. *Brit. Med. J.*, Jan. 17th, 1953, pp. 134-6.

——, see also Evans, Frankis T., and others.

*McIlroy, M. B. The physical properties of normal lungs removed after death. *Thorax*, 7, 1952, pp. 285-290.

*——, and Christie, R. V. A post-mortem study of the visco-elastic properties of normal lungs. *Thorax*, 7, Dec., 1952, pp. 291-294.

*——, and Christie, R. V. A post-mortem study of the visco-elastic properties of the lungs in emphysema. *Thorax*, 7, Dec., 1952, pp. 295-298.

MacKenna, R. M. B., Wheatley, V. R., and Wormall, A. Some constituents of the unsaponifiable matter of human sebum. *Biochem. J.*, 52, 1952, pp. 161-168.

——, see also Hodgson-Jones, I. S., and others.

Marshall, A. J. The unilateral endometrial reaction in the giant-fruit-bat (Pteropus giganteus Brünnick). *J. Endocrin.*, 9, Jan., 1953, pp. 42-44.

Morgan, C. Naunton, and others. The anal canal and rectum. *Austral. N.Z.J. Surg.*, 21, Feb., 1952, pp. 161-172.

*Nicol, C. S. The treatment of neurosyphilis. *Postgrad. Med. J.*, 29, Jan., 1953, pp. 27-33.

——, see also Cunningham, G. J., and ——.

Noon, C., (and others). Simultaneous aortic and axillary embolism. *Lancet*, Jan. 24th, 1953, pp. 170-172.

*Ostlere, G. S. The history of trichlorethylene anaesthesia. *Anaesthesia*, 8, Jan., 1953, pp. 21-25.

*Oswald, N. C., Pneumonia, Lobar. *Brit. Encycl. Med. Pract.*, 2nd Edit., 10, 1952, pp. 102-122.

Parkinson, T. Pregnancy complicated by mitral stenosis and pulmonary tuberculosis treated by mitral valvotomy. *Proc. R. Soc. Med.*, 46, Jan., 1953, pp. 48-9.

Partington, M. W. The vasodilator response of rabbits' skin to ultra-violet light. *J. Physiol.*, 119, Oct., 1952, 17P.

——, see also D'Silva, J. L., and ——; and Finer, B. L., and ——.

*Philips, R. Neuroblastoma. *Ann*, R.C.S., 12. Jan., 1953, pp. 29-48.

Roberts, G. Fulton. Rh Immunisation and testing. *Med. Press*, Jan 14th, 1953, pp. 30-2.

*Roberts, J. M. Anatomical methods of investigating pulmonary segmentation. *Brit. Encycl. Med. Pract. Interim Supplement*, 124, Jan., 1953.

Russell, B., and Thorne, N. A. A tablet-indentification box. (New invention.) *Lancet*, Dec. 27th, 1952, p. 1254.

*Scowen, E. F. Exophthalmos, Malignant. *Surgical Progress*, 1952, pp. 60-70.

* Thyroid gland diseases. *Brit. Encycl. Med. Pract.*, 12, 1952, pp. 73-97.

Silk, E., see Evans, Frankis T., and others; and Lehmann, H., and others.

Stone, K. The treatment of sciatica. *Practitioner*, 170, Feb., 1953, pp. 197-9.

*Story, P. Stimulation of haemolysis by penicillin. *J. Path and Bact.*, 65, Jan., 1953, pp. 61-66.

*Theobald, G. W. Sympathetic nerves and eclampsia. *Brit. Med. J.*, Feb. 21st, 1953, pp. 422-427.

*Thorne, N. A., (and others). Tetanus successfully treated with gallamine triethiodide. *Brit. Med. J.*, Dec. 13th, 1952, pp. 1291-1293.

——, see also Russell, B. and ——.

Tupper, R. L. F., Watts, R. W. E., and Wormall, A. Observations on the zinc in the eggs of the domestic hen. *J. Physiol*, 119, Jan., 1953, 13P—14P.

Verney, E. B., (and others). Recent work on the localization of the osmoreceptors. *J. Endocrin*, 9, Jan., 1953, pp. ii-iii.

Walker, Kenneth. Medicine's poor relations. *Med. World*, 78, Jan., 1953, pp. 81-85.

*Watkins, W. M., and Wormall, A. The action *in vitro* and *in vivo*, of some nitrogen mustards on Haemolytic complement. *Biochem. J.*, 52, 1952, pp. 365-377.

*——, and Wormall, A. The immunological properties of proteins treated with Di-2-chloroe-thylmethylamine. *Biochem. J.*, 51, 1952, pp. 577-583.

Watts, R. W. E., see Tupper, R. L. F., and others.

Wheatley, V. R., see Hodgson-Jones, I. S., and others; and MacKenna, R. M. B., and others.

Wormall, A., see Watkins, W. M., and ——; MacKenna, R. M. B., and others; and Tupper, R. L. F., and others.

Young, F. H. The present status of lung resection for pulmonary tuberculosis. *Brit Med. J.*, Feb. 7th, 1953, pp. 287-291.

——, (and others). The results of collapse and conservative therapy in pulmonary tuberculosis. *Brompton Hosp. Rep.*, 21, 1952, pp. 1-103.

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

A Student's First Impressions...

"THERE is something very solemn and depressing about the first entrance upon the study of medicine. The white faces of the sick that fill the long row of beds in the hospital wards saddened me, and produced a feeling of awe-stricken sympathy. The dreadful scenes in the operating theatre—for this was before the days of ether—were a great shock to my sensibilities, though I did not faint, as students occasionally do. When I first entered the room where medical students were seated at a table with a skeleton hanging over it, and bones lying about, I was deeply impressed, and more disposed to moralize upon mortality than to take up the task in osteology which lay before me. It took but a short time to wear off this earliest impression. I had my way in the world to make, and meant to follow it faithfully . . ."

Oliver Wendell Holmes (1809-1894)

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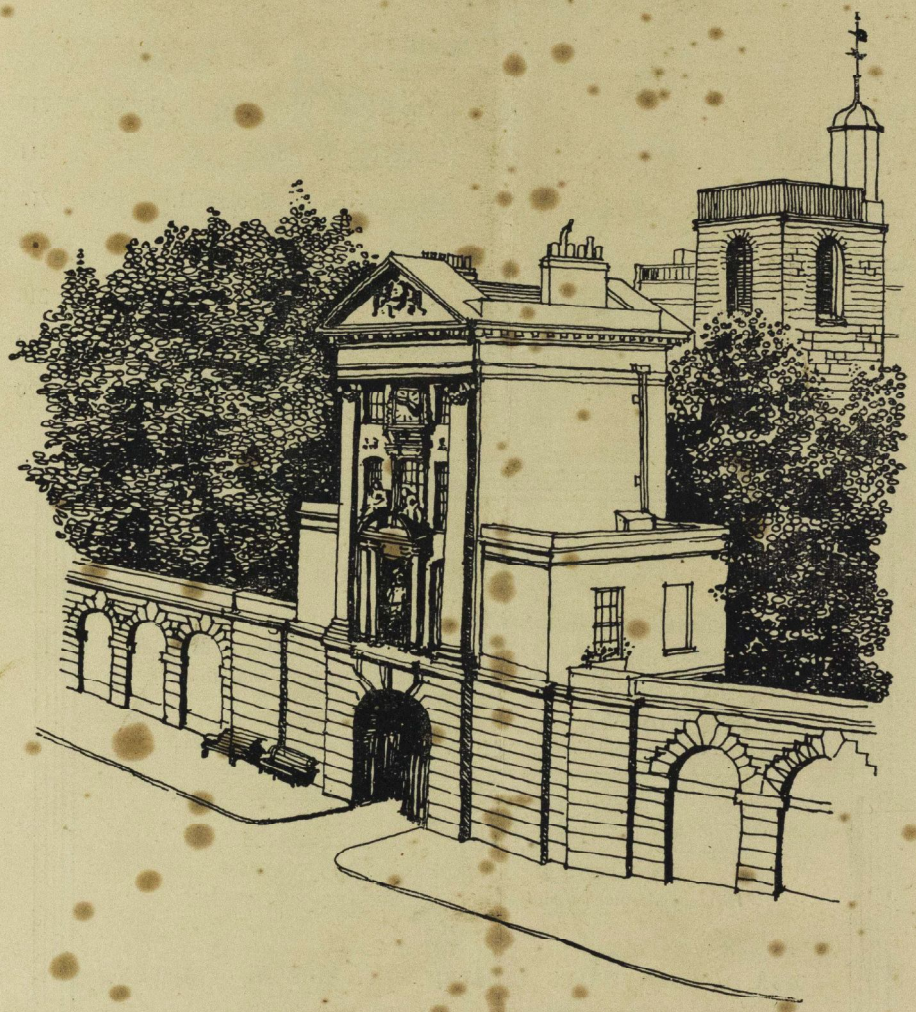
ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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August, 1953

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LVII. **AUGUST 1953** **No. 8**

EDITORIAL

"That great dust heap called History."
A. Birrell.

The General Post Office building borrows undeserved glamour from a Roman fortification projecting into its basements. Even the charms of the dissecting rooms may have been increased for some of us by the Carthusian cell preserved somewhere beneath. But these priceless if awkward monuments must embarrass their modern and unromantic owners, for like rare congenital defects they are hidden from all but the specialist and the most persistently curious.

Nineveh and Troy stand layers deep, as the *Illustrated London News* and the scientific literature of the railway bookstall constantly remind us. But, half as old as time though they may be, such cities knew no progress, no history like ours—only a senseless cycle of sack and rebuilding, of Nehemiahs following Nebuchadnezzars *ad nauseam*. Even so, to go East and dig a little in the great dust heap called history is still a favourite pastime of modern man. The tomb of Tut-ankh-amen and the graves of perished civilisations have a charm which seems denied his own. The Londoner really does appreciate history but he prefers it by the Nile, or at least on Salisbury Plain.

Rome lies a mere 12 or 18 feet below Giltspur Street. Sixteen centuries of London dirt relieved only by Boadicea, the Fire and the Blitz, have nothing on the hill cities of the Hittites. But in London, at least, the map hasn't been rolled up. Rahere's medieval script may be hardly recognisable in its twentieth-century type, but it reads much as it did in 1123. The chiselled letters of Londinium still show, if brokenly, through the street plan of modern London.

An old Bart.'s doctor recently met, remembers the frock-coated, muck-covered surgeons of the eighties. A contemporary student believes he has discovered a lock of hair of the author of *Religio Medici*. Mr. Keynes recounted only in last month's *Journal* how while scrubbing up one day at Bart.'s a fellow surgeon produced from his pocket a book of Sylvius' which Fabricius had owned and given to his pupil Will Harvey in Padua. These are no dust heaps, they are a part of the living tissue of our own story.

Hardly anywhere else in London does history so break the surface of the twentieth century as in the twin sites of St. Bartholomew's Hospital and the Charterhouse. What other non-ecclesiastical site has a record of continuous use for the same purpose so long as ours—perhaps the Tower and London Bridge? Where else can the spirit of the Middle Ages be savoured as richly as where the three Carthusian Priors and their monks pitted their integrity against the despotic opportunism of Henry VIII and earned that terrible martyrdom in the dungeons of Newgate?

Unlike the gross romanticism of the old Merchant Taylors' building opposite, the front of the College Hall contrasts little, save in its newness, with the ethos of the place.

But inside, this continuity is rudely broken and the cheap taste and drab uniformity of a machine age sterilise the atmosphere. Only one portrait of Abernethy—welcome relief—acknowledges our parentage. No word, no hint records that we have anything in common with the past, with the two schools that stood there, or the members of the purest and simplest religious order in Christendom, who for two centuries worked, worshipped and trod the Great Cloister round the same great lawn.

When the new wards go up beside the Norman choir of Rahere's priory church and its lovely fragment of fifteenth-century cloister—now delightfully occupied by an infant school—will they respect the old, will the two new sides of the cloister garth match the original, or will Bart.'s the Great receive yet another architectural rough handling ?

Our buildings only exist because of the men who made them and have used them. Now, in their turn, they make us by the innumerable subtle influences they convey. Ignore them we may try, but spoil them and we cut at our very roots.

Say, What's Shepherd's Pie?

The lunch queue has recently heard the gentle enquiry, "Say, what's Shepherd's Pie?", a question that no Englishman has ever dared to ask. And in the wards we have seen a better and brighter ophthalmoscope. The explanation is the visit to the hospital of a number of American medical students, whose good-nature has made them very welcome.

These men have come over to see something of English medicine. Their impression is that we spend more time in the direct examination of patients, and less in laboratory tests. It seems too that the English Nursing Sister is a more powerful person than the New World equivalent.

The Americans have also been seeing a great deal of England outside the Hospital. It is admirably spirited to rush down to Cornwall and back on a short week-end.

R. G. Hogarth

We very much regret that in our last issue we wrote of Robert George Hogarth as still alive a few days after his death. We mentioned him as a member of the Hospital XIs of the years 1888-91 who for those three seasons held the London Amateur Cup. He also played for the Corinthians, London Caledonians and Wolverhampton Wanderers, and won the amateur long-jump championship of Great Britain in 1890. But it was not only on the playing field that he was distinguished. He became president of the B.M.A. and for surgical work an honorary LL.D. of Edinburgh. His first contribution to medical literature was a paper on the "Treatment of Cut Throat," and he published in 1948 memoirs entitled "The Trent and I Go Wandering By."

Hot Heads and Baronets

Peterborough of the *Daily Telegraph* is usually nothing if not urbane, so it was with more than a slight shock that on the usual perfunctory glance through his column a few days after the Coronation one read the following verse.

"The cry goes up from several million hearts,
With such a knight who gives a damn for Barts.?"

Accustomed complacency reeled while the brain raced in search of some explanation for this extraordinary abuse. Surely such eminently restrained public men as Sir Gordon Richards or Sir John Hunt could never have provoked such a *cri de coeur*. More likely some consultant or other at the Middlesex had received a Coronation Honour and the young men there had got over-excited about it.

But an editorial eye soon found the catch. For Bart.'s read Barts., which as every layman knows is the plural of the short for Baronet. The context explained the rest and brought swift relief. Only somebody's

K.B.E.—a television star's—was being celebrated in verse at one of those select little parties to which Peterborough is always being asked.

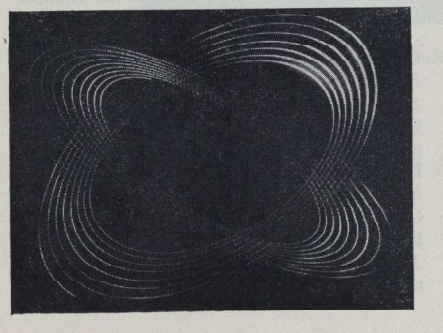
The story recalls an incident of a recent View Day. The Treasurer had just made his usual rhetorical interrogation in a female ward, when a patient, not long admitted in an allegedly intoxicated condition, shattered the respectful silence by coming to with the grateful cry—"God bless Guy's!"

General Practice

For Subalterns to be trained exclusively by staff officers or the education of solicitors to be totally in the hands of barristers-at-law would be a manifest absurdity. How then do we accept a situation in which the country's G.P.'s are trained exclusively by specialists? The new College of General Practitioners which will do so much to improve our standards of general medicine has published a report on this problem in the *B.M.J.* (July 4th). The authors represent the best and best informed G.P.'s in the country, among them Dr. G. F. Abercrombie who opened our eyes a little in a most stimulating lecture last month. In their view the attitudes of mind required in hospital and general practice are different and both need appropriate emphasis in basic medical education. Like anatomy without dissection, lectures are not enough. They publish an analysis of the teaching of medical students by general practitioners done throughout the British Isles today. Of twenty-eight schools, fourteen already arrange visits to practitioners. Only three do less than Bart.'s and only two as little.

An Unknown Medical Student

Nobody attempted to destroy this suggestive *chiaroscuro* or what-have-you when it



was shown in an exhibition of otherwise conventional photography on View Day. Whether it is related to the Coronation Ball or Dr. Strauss' Diasthetic Scale we are not informed, but we are told by Graham Thompson that it is in fact the photographic record of the moving end of an illuminated pendulum.

A New Abernethy Letter

Shortly after Mr. Thornton's biography of John Abernethy was published a new letter written by the virtual founder of the Medical College came to light. It is addressed to Mr. J. Utting, Surgeon, Long Stretton, Norfolk. The postmark is illegible, it is undated, and does not bear the address from which it was written. It reads as follows:

Dear Sir,

I have not more than 5 Minutes time to reply to your Letter—yet I write immediately on the Receipt of it rather than suffer a Delay of 24 hours to elapse. I much fear that the case which you have under your Care is a carbuncle: if so it will be known by the following signs—a thickening of the skin which makes it resemble brawn, beneath it an extensive suppuration diffused rather than collected, or a sloughy state of the cellular substance. The appearance of the skin, which you describe adjacent to the opening is like that which one would expect in Carbuncle. So are the progress of the Complaint, the attending fever and the situation of it.

If it be a Carbuncle the only way of treating it that I know of is to make one or more free Incisions through the thicken'd skin to the seat of the Matter or the diseased cellular Membrane.

If the abscess or Disease subjacent to the thickened skin extend quite across the Neck two or 3 longitudinal Incisions will be required, for the Disease will spread and the fever continue and increase til these Diseased Parts have a way by which they may make their Exit and which will not occur spontaneously if the Disease pursues the usual course.

Support also the Patient's constitution. If you can procure it read Broomfield's *Surgical Observations;* it contains remarks on this complaint. I shall be very glad to hear of your success: if your Patient recovers you ought to claim some Credit for 'tis a doubtfull complaint.

Excuse this scrawl you know the cause of it—and Believe your sincere friend

J. Abernethy.

It is interesting for students brought up in the age of penicillin when a carbuncle rates not much higher than a boil to see the concern which Abernethy shows for Mr. Utting's patient. The remark "*if* your Patient recovers . . ." reveals the seriousness of a condition which until quite recently all too often ended in a fatal septicaemia. Broomfield's *Surgical Observations* was quite a well-known surgical treatise in Abernethy's time, but nothing is known of Mr. J. Utting.

The owner of this newly revealed Abernethy letter is himself well worthy of note in the *Journal*. He is Dr. G. E. Deacon who lives, like so many Bart.'s men, near Norwich. He won the Bentley (Surgical) way back in Victorian times—in 1885. He might well have become a surgical specialist, but instead returned to Hethersett in Norfolk to take over his ailing father's practice. He used his great ability to build up one of the finest general practices in Norfolk, which he continued until the age of 65.

During this time he developed his interests in growing roses and daffodils, and since his retirement he has kept these up to the present day. He is well-known to every nurseryman in Norfolk, is considered to be the greatest expert in this country upon the diseases of roses, and is still consulted by rose growers throughout the land, who send him specimens for identification. He became President of the Rose Society and was awarded their Gold Medal for his outstanding work on the diseases of roses.

With our thanks to Dr. Deacon for sending us this Abernethy letter we would like to couple our best wishes for his continued good health.

Atomic Warfare

How easily and quietly science fiction becomes casually accepted reality. The *Nursing Mirror* has produced a one-and-ninepenny pamphlet on the prevention of injuries and treatment of casualties in atomic warfare, reprints of five lectures given at the R.N. Medical School, Alverstoke. It is written logically, and unusually well produced, illustrated with graphs and diagrams and photos, and as readable as an American textbook.

For radiation illness there is little specific treatment. Rest, control of infection and good nursing are the important things. The principles are evolved from experience after we had bombed Hiroshima and Nagasaki, killing over 100,000 people. If there is any difficulty in reading the pamphlet, it is because one's thoughts wander, searching for explanations of the real cause of this illness.

On Your Marks

Our photo is more than a period piece, even if it does provoke musings on changes in sporting fashion. It was taken by Philip Gosse, in 1900, at a match between the United Hospitals and Dublin University. The two rather well-dressed supporters are none other than "Dropsy" Drysdale and Holburt Waring, and the most business-like of the half-milers, third from the camera, is also a Bart.'s man and the winner in 2 min. 1 sec., H. E. Graham. The athlete on his immediate left would seem to have prejudiced his chances from the start.

The next year saw a striking tussle between Guy's and Bart.'s at the United Hospital Sports, of which we show a handsome memorial lent us by the kindness of Mrs. Glenny Gibb. Guy's started their score by getting first and second in the 100 yards, and Bart.'s immediately replied by winning the half-mile, and soon the mile with Graham. Guy's then took the 220 and the ¼, and Bart.'s the weight and the hammer with throws of 35 ft. 9¼ in. and 110 ft. Last of all came the three miles which was to decide whether we

were to beat or draw with Guy's. Six started, and after two laps only J. G. Gibb and the holder, a Thomas's man, were running. Half a mile from home Gibb strode away to an easy win. The report in the *Journal* adds, enthusiastically, "the attendance was good and the weather perfect"—all this and the shield too.

The fine silver medal awarded in those days as first prize by the U.H.A.C. shows an interesting symbolic group representing, we can only suppose, sport and medicine against a background of British power and prosperity. At any rate the Bart.'s arms are appropriately represented on top.

Reproduced by kind permission of Mrs. J. Glenny Gibb.

One Man's Meat

A student of this hospital has swallowed a live gold fish. Neither was this accidental; he was not lapping thirstily at the fountain, but he was attending a cocktail party. The fish, as every Englishman would expect, was washed down with white wine. There are interesting possibilities of embolism, and people will have to be careful in the interpretation of any swishing murmur that they may detect. We feel sure that the larger textbooks will now list the gold-fish as a common parasite.

Wix Prize

Congratulations to Duncan Thomas on winning the Wix Prize with a 30,000-word illustrated essay on Thomas Vicary and his works. Vicary was almost our second founder, for whatever Henry VIII's claims to that honour may be, it was Vicary who, as the first resident governor to the refounded House of the Poore at Smithfield, served it for fifteen years like a second Rahere.

Traditionally, the Wix Prize essay is published in the *Journal*, but we are no longer sufficient for the *magna opera* of recent years. The fascinating and often original work that has been done recently on men such as Lopez, Tom Smith and Vicary,

deserves better than to be filed and probably forgotten in manuscript. We look forward to printing a brief sketch from Duncan Thomas, but we sigh for the spacious days of the Bart.'s Reports.

Next year's subject 'The Life and Works of Louis Pasteur' being more catholic than usual, should draw more entrants into this competition. It will also suggest a change of approach, a need for review rather than research. It will put a premium on fireside cerebration rather than hours spent in the gloom of the Brit. Mus. Lib.

Congratulations

To Dr. N. E. Waterfield, gazetted a Deputy Lieutenant of Surrey.

To Dr. E. D. Adrian, O.M., P.R.S., Master of Trinity College, Cambridge, awarded the gold Albert Medal of the Royal Society of Arts for 1953 "for outstanding contributions to neurophysiology."

To Prof. E. G. D. Murray, O.B.E., F.R.S.C., of McGill University, Montreal, awarded the Flavilla Medal of the Royal Society of Canada for 1953 "for original research of special and conspicuous merit in the biological sciences." Also for his appointment to the National Research Council of Canada.

To Dr. H. C. Maurice Williams, elected Chairman of the Council of the Royal Sanitary Institute.

To Dr. R. A. Shooter, appointed to the University Readership in Bacteriology tenable at Bart.'s.

Tenth Decennial Club

The Tenth Decennial Club will hold its annual dinner on Wednesday, October 14, at the Washington Hotel, Curzon Street, at 7.0. p.m. for 7.30 p.m. The last dinner was a great success, fifty-one members attending it, and it is hoped that this year's dinner will be an even greater success. The number fifty-one is well above the average attendance for Decennial Clubs.

Change of Address

Mr. G. L. Keynes' London address is now 120 Regent's Park Road, N.W.1.

Journal

Contributors who wish to remain anonymous are asked to send their names and addresses to the Editor on a separate sheet.

SO TO SPEAK . . .

An English Opinion, 1536.

I am now at a little unyversitie named Glasco where I study and practise physyk for the sustentacyon of my lyving. —"*Glasco belongs to me.*"

An Everest Cure ?

Over 17,000 ft. one ceases to think of the opposite sex and men who rarely read anything but crime stories crave for the classics. *Doctor on Everest expedition.*

IN SPAIN ONCE

In the late afternoon they came to the old city, and there they decided to spend the night. They could have gone on driving, but they were hot and tired, and ahead the hotels were uncertain. Mr. Smith decided not to risk it. Indeed, Mr. Smith never risked anything.

"I don't suppose we'll find anything Ritzy", Mr. Smith said, "but we'll get some little place that will do for the night."

"Aye, that's all right by me", Jo said. Jo was Mr. Smith's brother-in-law, and seldom spoke, except to agree with someone else's suggestion, or to complain mildly that the whole of the rest of the world was not England. He was glad now to be on the way back to Manchester, where no one suggested that he should look at cathedrals, or sleep with fleas in his bed. Mrs. Smith had gone on to Barcelona by train.

They found a hotel, and the girl took them upstairs to show them their room. "Not bad considering." Mr. Smith said in his cheerful, slightly reproving voice.

At seven o'clock they came down and sat at the supper table. They had washed, and were now cooler. Mr. Smith was happy, and pleased with himself. "Two hundred miles of those roads in a day. Nothing to be ashamed of."

"Aye," Jo said.

There was a swish of the beaded curtain as the girl ran in through the doorway. "Miss," Mr. Smith shouted. "Senorita". She paused and stared at him. This man was ugly, with his paunch, and his bald head, but he was a foreigner, and therefore rich.

"Cena," Mr. Smith said, "Yes. Si. Cena, supper. Got any supper?"

He always felt that if only he could speak loudly he would be understood. The girl said supper would be at nine o'clock.

"Oh," he said, and groaned, "Oh Lord save us, that nonsense again!"

The girl laughed. The stranger was being funny. With his shiny head he looked like a baby.

"Cena ahora. I want supper right now. Me hungry," Mr. Smith said.

Jo took a bag of sweets from his pocket. They were sticky and dirty. The girl watched him, laughing. "Want one Bill?" he asked, "You aren't going to get any supper."

Mr. Smith groaned, and took a sweet. "Here," he said, "Give her a sweet. I've GOT to have supper NOW."

Jo held out the sticky bag of sweets to the girl. She smiled, and looked puzzled. "Take one," he said, and jerked his hand towards her. She hesitated, and then darted forward, and took the whole bag from him. She held it, laughing.

"Hi! You cheeky little piece!" Mr. Smith said, and caught her hand. For a moment, the fat Englishman forgot his plump respectability, and stood poised, flushed with aggressive life. The girl stared back at him, uncertain, wondering if the rich man was angry.

A man came in, suddenly, at that very moment. He walked over to the girl, and pushed her back, shouting at her. "Ere, what's the matter", Mr. Smith said. "We're only having a bit of fun."

"Bit of fun", the man said scornfully, "I know what you mean by bit of fun. Leave alone."

"Careful", Mr. Smith said, "You can't talk to me like that."

The man turned on him angrily. "Leave alone, rich man", he shouted.

The Spaniard spoke to the girl, quickly and fiercely, and she shouted back at him, beginning to cry. The man stormed out.

As suddenly, the room was quiet and still again, except for the girl sniffing. "Well, what a nasty temper", Mr. Smith said, "I didn't mean to do any harm, I'm sure."

"Aye," said Jo.

* * *

It was getting dark. They had eaten a good dinner, and drunk a bottle of black wine. It was nearly ten o'clock, but Mr. Smith and Jo had no thoughts of bed. The city was coming to life. Men took off their straw hats, and went bare headed.

They walked into the narrow streets, where the children play like animals in the dirt. There was a great bustle of people moving in one direction. They followed to see what

was happening, and they came to a square, one side of which had been boarded off by a rough tier of wooden seats. An old woman was selling tickets. They paid, and went in. They saw now that the whole of the square was closed by a wooden barricade where each street entered. A small tree grew in the middle of the square. Ladders leant against it, and ropes hung from its lower branches. Two or three lights swung from a wire stretched between the houses.

People were crowding into the seats. A man arrived with a drum, and another with a horn. This was the band, and the music started. "Eh, ever hear anything like that?" Mr. Smith said. The girl from the hotel was sitting in front with some of her friends, all talking eagerly. The lights, agitated by the wind, would suddenly illuminate a window, a group of people. Some young men were down in the square. They talked to each other quietly. They would glance up at the windows above them.

There was a blast on the horn, and a long roll on the drum. A bull walked into the square. "Oo", said Mr. Smith, "a bull fight." There was a cry from the young men, and they ran toward the nearest barricade. The bull stopped though, and the men turned. It was a black animal, massively built, and as it stood there brooding, it stamped one of its feet, and its muscles rippled, catching the light.

A man came towards it. He was dancing on his toes, an unarmed man taunting a bull. The music played in sympathy. Mr. Smith heard the man shouting at the animal, taunting it. No one knew what the bull would do. Then it put its head down. The man hesitated. He had left the safety of the tree, and if the animal charged, he would have to run fast. He looked up at the seats, and then walked on, towards the bull.

Then it charged. The light was dancing in the square, dark shapes of houses. There was a shriek from the crowd. The man had no hope. He turned, but the bull was on him, tossed him. There was a beauty in the bull. The man fell sideways, sprang to his feet, but the bull turned its neck and was on him again, pinning him down. The swaying light, a few leaves against the light, the dark powerful fury of the bull. There was no music now.

A man came down the tree and was shouting at the bull, doubled up shouting. The bull saw, and charged him. He sprang to the tree and was safe.

The wounded man was on one knee. His shirt was dark with blood. Two men carried him to the gate, taking him between them, as if he were drunk. Mr. Smith was too short sighted to recognize him. "Poor lad", he said, "he should not have done it." Some women had run out after the wounded man. The bull was standing by the tree, quite still.

* * *

Afterwards, when Mr. Smith used to tell the story, he never knew quite how to end it. He did not know whether the man had died. It made a better story to say that the man had died.

OBITUARY

We announce with regret the deaths of the following Bart.'s men:

A. L. Ormerod, in March (*qualified* 1897).

R. G. Hogarth, on June 29 (*qualified* 1891).

WATER AND ELECTROLYTE BALANCE IN SURGICAL PATIENTS—II

by P. F. Jones, F.R.C.S.

Surgical patients who require specific attention to their fluid and electrolyte exchange will be found in one of two large groups. In the first are patients who are unable to take food and drink by mouth and who need maintenance of water and electrolyte balance for a time. In these patients all losses must be accurately measured and replaced by appropriate fluids. In the second group are patients who present with abnormalities of water and electrolyte balance which need correction. An estimate of the nature and extent of these abnormalities must be made before they can be repaired. In all these patients it is necessary to decide what fluids should be given and by what route, but the needs of the two groups are generally different and they are best considered separately.

Group 1—The maintenance of water and electrolyte balance after operation

The majority of patients in this group will have had a laparotomy and be temporarily unable to eat or drink. At the time of operation they are in a normal metabolic state and their post-operative management entails the maintenance of water and electrolyte balance until they can feed naturally.

Their management is based on the responses of the body to surgical operations. First, there is the general effect of any operation on the body—the endocrine response to stress. Second, there is the local effect of an abdominal operation which, taking the form of an intestinal paralysis of variable length, makes full oral feeding undesirable for as long as it lasts.

The chief feature of the endocrine response to an operation under general anaesthesia is an increased rate of secretion of adrenal cortical and pituitary antidiuretic hormones. The result is a smaller urinary output and increase in extracellular fluid volume together with a fall in the sodium and rise in the potassium losses in the urine. Retention of water lasts for 24—48 hours, retention of salt for 3—4 days. During this time, body fat is burned to produce energy and ketosis is prevented by the conversion of protein to carbohydrate. By the third or fourth day water, sodium and potassium excretion has usually returned to normal and the local reaction to abdominal surgery has subsided, as indicated by the passage of flatus per rectum. Moore and Ball (1952) and Wilkinson et al. (1949 and 1950) give further details of these changes.

(*a*) *The first three post-operative days.*

These observations show that complicated parenteral feeding is out of place at this time. Sodium is conserved, potassium loss for 2 to 3 days is not harmful, water alone is needed. At first this should not be given by mouth and, until there is active peristalsis, water is generally best given per rectum. Figure 2 is a chart typical of a patient receiving rectal tap water after a gastric operation. Nearly three litres of water daily were given by this route on three consecutive days. It shows the low urine output immediately after operation and the subsequent diuresis which proved that the water given per rectum had been absorbed. Success with this route depends on dripping in a hypotonic solution—tap water or 1/5 normal saline sufficiently slowly to prevent production of the desire to defaecate. The patient should be sedated. The rectum should be recognised as a convenient route for giving the fluid most post-operative patients need, which is water, for the right length of time, which is until flatus passes.

There are a few patients for whom a rectal drip is not correct maintenance therapy. It is clearly inappropriate for those undergoing surgery on the colon or rectum. Patients who will need parenteral fluids for more than 3 days, *e.g.*, those who have had a major intestinal resection or patients with general peritonitis, should receive 5% dextrose solution intravenously from the first. Finally, gastro-intestinal juice may be lost by vomiting, gastro-intestinal suction or fistula. Whenever the volume of juice lost in 24 hours exceeds 500 ml. it should be replaced by an equal volume of Hartmann's solution given intravenously or subcutaneously. This solution is preferable to normal saline for this purpose.

On one or other of these regimes most patients will reach the end of the first 3 days taking nourishment by mouth, or about to do so. Those few still in need of parenteral feeding should be carefully reviewed.

(*b*) *After the third post-operative day.*

If maintenance therapy has been properly carried out patients should at this stage be in water balance. The urine output should be over one litre daily and analyses of serum sodium and chloride should be normal. The serum potassium is usually within normal limits, although some potassium will have been lost from the cells.

On the fourth day a biochemical base-line should be established by estimating the serum chlorides, alkali reserve, blood urea and plasma proteins and, if possible, the serum sodium and potassium.

Water losses will continue to be computed from the insensible, urinary and extra-renal losses for the 24 hours. From this time 4—6 g. of sodium chloride will be lost in the urine each day and there is no need to give more salt than this unless there are extra-renal losses. It is wise not to attempt to replace the potassium lost during the first three days but from the fourth day the potassium excreted cannot be disregarded. Analyses show that at this time the loss of potassium in the urine averages 1.0—1.5 g. per day. This is contained in 3.0 g. of potassium chloride and half the dose is conveniently given in the morning, the other half in the evening. The loss of gastro-intestinal secretions will be managed in the same way as before except that 1.0 g. of potassium chloride should now be added to

It is wise to transfuse one pint of blood on alternate days so long as parenteral feeding continues. There is no doubt of the value of this blood and a normal haemoglobin concentration is no contra-indication to its use.

A word must be said about the arithmetic on which maintenance therapy depends. It is a simple matter to keep a patient in water balance provided good fluid intake and output charts are kept and allowance is made for insensible water loss. Sodium intake can be calculated from the fact that each pint (540 ml.) bottle of normal saline contains almost 5.0 g. of sodium chloride whilst there is 1.0 g. of this salt in a pint of "dextrose-saline."* Output can be measured fairly accurately by estimating the urinary chlorides and assuming that each litre of gastro-intestinal fluid removed contains 6.0 g. of sodium chloride. The potassium balance is more of an approximation as it is not possible, at present, for most laboratories to make daily estimates of the urinary potassium concentration. Enough facts have been provided, however, to allow a useful estimate to be made of potassium output. None of the ordinary transfusion fluids contains potassium save whole stored blood which may contain the equivalent of 0.5 g. of potassium chloride per pint and Hartmann's solution which contains 0.2 g. of potassium chloride per pint.

If the principle of the replacement of measured losses is adhered to no serious abnormality of water or electrolyte balance should develop. Nevertheless, it is a valuable check to estimate, on alternate days, the serum sodium, potassium and chlorides, the alkali reserve and the blood urea. These values should be kept as near to the normal as possible. A fall in the serum sodium when the sodium balance is apparently correct usually means that potassium, not sodium, is needed. (See Case 2.)

The urinary chloride concentration is sometimes used as a method of control of maintenance therapy but its value is limited. The post-operative sodium retention causes misleadingly low readings for some days. Later, chlorides may be present in the urine, during saline infusion, although the patient is still deficient of sodium. After the fifth day, however, a persistently low urinary chloride concentration (1—2 g. per litre) suggests a real sodium deficiency. If the water and electrolyte balances are being carefully maintained this should not happen.

Group 2—The correction of water and electrolyte imbalance

In this group are the patients who, when first seen, have an established abnormality of water and electrolyte exchange caused by their disease, and also those patients who develop abnormalities of electrolyte metabolism in the course of treatment. For such deficiencies to develop there must be either inadequate intake or abnormal loss of water and electrolytes.

To recognise these patients special attention must be given to the history. Details

* "Dextrose-saline" is 4% glucose and 0.19% sodium chloride in water.

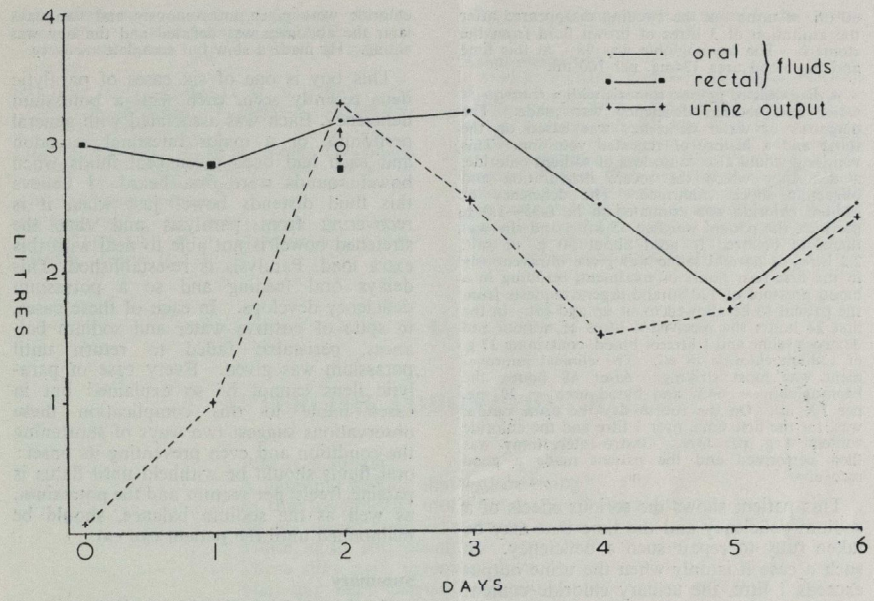


Figure 2.—Graph of the intake and output of fluids of a woman of 66 years who underwent gastro-jejunostomy for pyloric stenosis. "O" on the second post-operative day represents 600 ml. of fluid taken orally, in addition to nearly 3 litres of tap water given per rectum. That day she passed flatus and ate normally thereafter.

of excessive loss of secretions must be particularly sought. Scrutiny of the history may reveal the continued passage of normal quantities of urine by a patient who cannot eat; this should suggest the possibility of a potassium deficiency.

The second method of assessing a patient is the physical examination and special attention will be paid to signs of dehydration, the state of the pulse, the blood pressure, smooth and voluntary muscle power and the volume and chloride content of the urine. Analyses of the serum chlorides, alkali reserve and blood urea should be made and, if possible, the serum sodium and potassium.

Finally, the experience of others can be of great help in estimating the extent of a deficiency. Marriott states that an adult with severe thirst and oliguria has a water deficit of about 4 litres, whilst a patient with a salt deficiency who shows lassitude, a blood pressure less than 90mm. Hg. (systolic) and absence of urinary chlorides requires at least 0.75 g. of sodium chloride per kilo of body weight to restore the salt balance.

Marriott (1950) and Black (1953) should be consulted for a full discussion of this subject. The principles of the assessment and treatment of deficiencies are illustrated by the following two patients, and certain aspects of two important surgical diseases are emphasised.

PYLORIC STENOSIS

Case 4

Mrs. C., aged 31 years, was admitted on account of persistent vomiting. One month previously she had swallowed spirits of salts and 10 days after this had begun to vomit after meals. For a week she had vomited everything taken by mouth and on admission she complained bitterly of thirst. She looked ill, languid and wasted, the eyes were sunken and the skin inelastic. Dark brown fluid frequently filled the mouth. The pulse was barely palpable and the systolic blood pressure was 40mm. Hg. There was a rounded suprapubic swelling, dull to percussion. Catheterisation yielded only

60 ml. of urine but the swelling disappeared after the aspiration of 3 litres of brown fluid from the stomach. The haemoglobin was 98% at this time and the blood urea 124mg. per 100 ml.

A diagnosis of pyloric stenosis with a consequent water and sodium deficiency was made. The diagnosis of water deficiency was based on the thirst and a history of repeated vomiting. This vomiting would also cause loss of sodium chloride, a deficiency which the severe dehydration and oligaemic shock confirmed. The deficiency of sodium chloride was estimated to be 0.75—1.0 g. per kilo, the patient weighed 55 kilos and she was therefore believed to need about 50 g. of salt. 2.2 litres of normal saline was given intravenously in the first four hours of treatment, resulting in a blood pressure of 120/80 and urgent requests from the patient to be allowed to sit up and eat. In the first 24 hours she received 4 litres of normal and dextrose saline and 1 litre of blood, containing 37 g. of sodium chloride in all. The clinical improvement was most striking. After 48 hours, the haemoglobin = 64% and blood urea = 29 mg. per 100 ml. On the fourth day the urine output was, for the first time, over 1 litre and the chloride content 4 g. per litre. Gastro-enterostomy was then performed and the patient made a good recovery.

This patient shows the serious effects of a sodium deficiency and the time that may be taken fully to repair such a deficiency. In such a case it is only when the urine output exceeds 1 litre, the urinary chloride content is 4.0 g. per litre or more and the serum chlorides are normal that a water and salt deficiency can be considered to be corrected.

Paralytic Ileus

Case 5

Jeffrey H., aged 14 years, had a perforated pelvic appendix removed and for 36 hours after operation was given intravenous dextrose-saline. Bowel sounds were then heard and fluids started by mouth. 1750 ml. were drunk that day and 1450 ml. the next. The following day (fourth) the patient vomited, looked ill and had a distended, silent, painless abdomen which was not tender. The pulse rate was 160 per minute and the blood pressure 82/60 mm. Hg. This hypotension and tachycardia suggested oligaemia and, there being no haemorrhage, the likely cause was a sodium deficiency due to secretion of juices into the distended and paralysed bowel. This was confirmed by the low serum chloride (320 m.g. per 100 ml. as NaCl). Gastric suction and an intravenous drip of normal saline were started, and there was rapid improvement in the general condition. However, 3 days later (seventh) the boy looked ill and paralytic ileus persisted in spite of satisfactory water and sodium balances. It was calculated that much potassium must have been lost in the urine and aspirated fluid and it was decided to give 1.5 g. of potassium chloride slowly intravenously. Some hours later diarrhoea commenced. Next day the serum potassium was found to be very low—10.5 mg. per 100 ml. In the next 36 hours 5.5 g. of potassium chloride were given intravenously and two days later the abdomen was deflated and the boy was eating. He made a slow but complete recovery.

This boy is one of six cases of paralytic ileus recently seen, each with a potassium deficiency. Each was associated with general peritonitis or a major intestinal resection and each had been given oral fluids when bowel sounds were first heard. I believe this fluid distends bowel just when it is recovering from paralysis and that the stretched bowel is not able to deal with this extra load. Paralysis is re-established. This delays oral feeding and so a potassium deficiency develops. In each of these cases, in spite of positive water and sodium balances, peristalsis failed to return until potassium was given. Every case of paralytic ileus cannot be so explained but in cases liable to this complication these observations suggest two ways of shortening the condition and even preventing its onset: oral fluids should be withheld until flatus is passing freely per rectum and the potassium, as well as the sodium balance, should be maintained until the patient can eat.

Summary

Food and drink should be given as soon as possible after an abdominal operation, but not too soon. Wait for flatus.

Water is the chief need of the body in the first three post-operative days. After this period, consider both the sodium and potassium balances. Give only what is needed, for overdosage and underdosage are equally harmful.

The commonest cause of sodium deficiency is excessive loss of gastro-intestinal juices. The commonest cause of potassium deficiency is continued urinary loss from a patient receiving potassium-free fluids. Both losses need specific correction.

Suggested Reading

AVERY JONES, F., & NAUNTON MORGAN, C. (1938). *St. Bartholomew's Hospital Reports. 71*, 83.

BLACK, D. A. K. (1953). *Lancet, I*, 305 and 353.

GAMBLE, J. L. (1947). *Extracellular Fluid.* Cambridge, Mass. One of the first and best detailed accounts of the subject. It repays close study.

LANS, H. S., STEIN, I. F., & MEYER, K. A. (1952). *Surg. Gynec. Obstet. 95*, 321.

MARRIOTT, H. L. (1950). *Water and Salt Depletion.* Springfield, Illinois: Thomas.

MEDICAL RESEARCH COUNCIL MEMORANDUM No. 26 (1952). *The treatment of Acute Dehydration in Infants.* London: Stationery Office. A short and practical account of a subject on which expert advice is specially needed.

MOORE, F. D., & BALL, M. R. (1952). *The Metabolic Response to Surgery.* Springfield, Illinois: Thomas.

TILL, A. S. (1949). P. 38 in *Blood Transfusion*, edited G. L. Keynes. Bristol: John Wright & Sons. This is a good account of the technique of intravenous infusions.

WILKINSON, A. W., BILLING, B. H., NAGY, G., & STEWART, C. P. (1949). *Lancet I*, 640. (1950). *Lancet II*, 135.

All these references will be found in the College Library.

Acknowledgments

I wish to thank Professor Sir James Paterson Ross for his detailed criticisms of the draft of these articles. Mr. W. P. Greenwood, Mr. John Howkins, Mr. J. P. Kinmonth and Mr. Basil H. Page have kindly allowed me to give details of patients who were under their care. The members of the Surgical Journal Club are responsible for stimulating my interest in this subject and have been good enough to let me study and discuss with them a number of their patients. Some particulars of Case 5 are reproduced by kind permission of the Editor of the *British Medical Journal*.

AFTER THE CORONATION BALL

Was it a dream?
A haunting melody that had no being?
In this hard brittle morn the magic of the night
By my numb mind is scorned.
Those lights soft gleaming
Those silks swift sheening
That gay light hearted laughter
Music, compelling movement
Were they around us?
Were we there?
Bewildered, I pause,
Raise my eyes from my narrow room
From the canyon sided street, grey and grimed.
That hall of glass,
Dancing figures
Dancing lights thrown back by dancing river ripples,
Our dancing feet
Trod they on floor of hard reality
Or on the thistle down of fancy's weaving?
Were our steps the shadow patterns of our longing minds
While, elsewhere, our bodies, cold clay, lay slumber bound?
Weeks, weeks, had passed.
In fever pitched excitement to the ball I sped.
And now those hours, six haloed hours,
Which I had held in the hollow of my mind
As treasure to be guarded jealously,
Are spent.
Have gone, have fled,
Never to be relived again.
They cannot be recalled save by memory's command,
My memory that now betrays me.
Wondering, questioning.
Mind's mist hide not that enchanted scene melting it to fantasy.
Let me remember it,
And in remembering redeem reality.

A.A.

THE ROMAN WALL UNDER THE G.P.O.

By Courtesy of the POST OFFICE MAGAZINE

IT is probable that when the Romans invaded this country in A.D. 43 they found that a Celtic settlement had guarded the ferry over the River Thames. A position where the roads to the mineral districts linked with the route to the sea was a natural centre for trade, and Londinium, as the Romans called it, became an important town. Not only had London a useful waterway in the Thames, but there were several smaller rivers, such as the Wallbrook and the Fleet, and many springs.

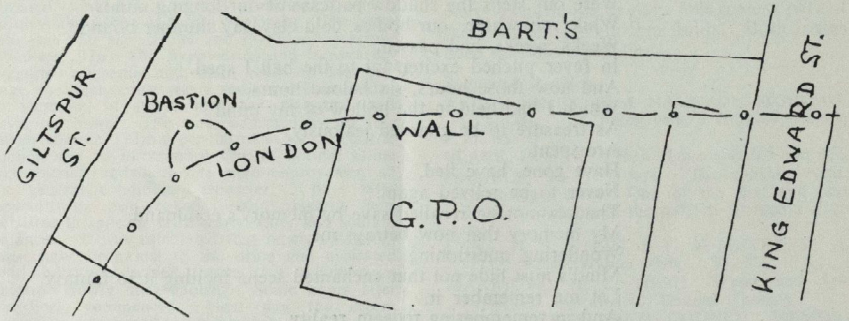
Queen Boadicea sacked London less than 20 years later, but when the Romans again took possession they held the town for centuries. By A.D. 130 they had built strong walls, about two miles in length, to the north, east, and west. (A wall may have been built on the south, then or later, but this cannot be stated with certainty.) The walls as originally built were straight, but at a later period, perhaps two hundred years later, tower-like structures, known as bastions, were added at intervals all the way along.

The area enclosed by the walls was over 300 acres. That does not perhaps seem very large for a town, but it was actually very extensive for the time. There were, of course, larger towns—Rome itself was several times larger—but the London enclosed by the town wall was among the greatest towns outside Italy. It is likely that there were four gates in the London walls in the time of the Romans, and in later days there were several more. Ludgate, Newgate, Aldersgate, Cripplegate, Moorgate, Bishopsgate, Aldgate—their names still survive in the streets of the city we know today, but they are the gates of medieval times.

On the frontiers the Romans had strong fortified towns, chosen for their strategical position. London, though not on a frontier, was so valuable a centre that the Romans seem to have taken special care to guard against its capture. In some places the wall mounted to a height of 20 feet and may in parts have been wider. Outside the wall was a flat piece of ground, about 10 to 15 feet in width, and then a broad ditch, some 5 feet deep, which an enemy would find difficulty in crossing.

When we build now, we go deep into the ground, but when the Romans made their wall in London they usually dug down a few feet only. In the trench so made they generally packed flints tightly in clay. On this foundation was built the actual wall. It was composed of rubble cemented together with mortar and faced with stone, but with double or even triple layers of bricks running through it two or three feet apart. The stones were ragstone which the Romans brought from the North Downs of Kent; they made bricks, sometimes red, but occasionally yellow, about 1½ inches thick and 11½ inches wide. These bricks might be as long as 17 inches. The wall was as thick as 9 feet in some places, and was rarely less than 7 feet thick. The portions that exist today are as hard as iron.

Only comparatively small parts of the wall can now be found, but it is surprising that



A sketch map of the Wall as it passes Bart.'s

any part at all should be standing after all these years. Several fragments of it may be seen in the City. A very interesting portion is preserved in an Inspection Chamber under one of the yards of the General Post Office. Never since Roman times has any building been erected on this site.

The portion under the General Post Office is a corner where the direction of the wall turns from east-west to north-south. Against this corner was built a bastion. We know that this bastion was built later, because the wall is quite complete without the bastion, which had obviously been built leaning against it. The bastions were added to give additional strength. The interior of the bastions was in Roman days filled up with stones, earth, etc. Machines which could throw huge stones at attacking soldiers were placed on the bastions.

There are other points of special interest about the Roman wall under the General Post Office. The original surface was evidently a very wet and uneven spot, and appears to have been subject to frequent flooding. It was difficult to build properly on this sloping ground, and the Romans tried to level it up with rubbish. They also made a much deeper foundation than usual. Instead of a foundation of flint and clay 3 or 4 feet deep, they dug in this place a trench of over 6 feet and filled it with stones, tightly packed and set in clay. Also, a common practice when water was encountered, they pointed the lower part of the wall with pink mortar. In spite of these precautions the wall was found, when excavations were made, to be badly cracked and to be leaning to the west.

This bastion is exceptionally large. It extends 26 feet in front of the wall, whereas most of the other bastions measure less than 20 feet. It is of rubble work, composed of small irregular pieces of stone, the interstices being completely filled with good white mortar.

To reach the wall under the General Post Office we must pass across the yard over which hundreds of red mail-vans are carrying bags of letters. Then we must make a descent of several feet. The base of the wall was, of course, the ground level in Roman days, but owing to the accumulation of layers of debris, the ground level has risen with the years, until the Roman city now lies 12 to 18 feet below the streets of today.

LETTERS TO THE EDITOR

BART.'S SPORT

Dear Sir,

My last visit to the United Hospitals Swimming Club annual gala was just before the war. The other day I discovered it had been revived and I turned up to support the Bart.'s club.

What a change! To my horror there was not a single Bart.'s entrant, and the only Bart.'s spectators I could find were a few nurses who had come to support their own team. This team did very well in the nurses' team race and were unfortunate in being beaten to second place by inches.

Bart.'s held all the challenge cups and won most of the events nearly every year in the thirties.

The standards are certainly no higher now, so can't we stir up a little activity in the hospital once more and at least get some representatives into the United Hospitals Swimming Club annual gala?

Yours faithfully,

T. O. MACKANE.

Dunmow, Essex.

CORONATION BALL

Sir,

The Coronation Ball at the Festival Hall, in the opinion of my friends and myself, proved to be the most enjoyable party for a very long time.

With surprisingly little sound, one blasted oneself through the time barrier, and found oneself in an Old World, where the recognisable inhabitants were perhaps a little thinner on the top—but recognisable.

In no other hospital party of this size are the non-medical staff allowed to join. That they were, on this occasion, gave added pleasure to the evening. The popularity of the dance was proved by the speed with which the tickets were sold.

May I put in a humble plea that this Bart.'s dance, surely more representative than the Students Union dance, may become an annual fixture?

Yours faithfully,

A. J. H. SPAFFORD.

Whitchurch, Oxon.

HARVEY AND HIS BOOKS—II

by G. L. KEYNES

Harvey's third book, *De Generatione Animalium*, has made much less stir in the world than his work on the heart, though in fact it does not fall so very far short in importance in the history of science. Thomas Huxley, it is true, did state that "the *De Generatione* should give Harvey an even greater claim to the veneration of posterity than his better known discovery of the circulation of the blood," but this was an overstatement. Huxley made this statement chiefly because Harvey mentioned in the book the theory of "epigenesis, or the additament of parts budding one out of another," but it has been pointed out that, though Harvey was not a "preformationist," his conception of epigenesis was very much simpler than that conveyed by the modern use of the term.

Harvey, after the publication of his work on the circulation, was continuously occupied in carrying on his scientific investigations by the experimental method, and generation was the subject which mainly interested him. Even during the Civil War and while he was with King Charles in Oxford—even while he was Warden of Merton College—he was much more interested in incubating eggs and making observations on the rutting of the royal stags and their generative organs than in politics or administration. He himself attached great value to his work on the generation of insects and complained bitterly of the destruction of his MSS. by the hooligans who looted his chambers in London. Nevertheless, he showed no eagerness to share with others his observations on the generation of animals, and it was with the greatest difficulty that his friend, Dr. George Ent, persuaded him to allow of its publication. Probably this was partly due to the weariness of his age and infirmities, but Ent overcame his objections by enlarging on the importance of his observations and experiments for the advancement of knowledge, and in the end was given the MS. to deal with as he pleased. Then, as he says in his preface: "Having returned him very many thanks for so high a favour, I took my leave, and departed as another Jason enriched with the Golden Fleece." Ent acknowledged that he had embarked on a hard task "because the Author writes so obscure a Hand (a thing, as we say, common to learned men) as that scarce any man, but who hath bin accustomed thereto, can read it without difficulty."

In order to give an appreciation of Harvey's position in the history of embryology, I cannot do better than quote Dr. Joseph Needham's summary of his views as expressed in *De Generatione*:

1. There can be no doubt that the doctrine *ex ovo omnia* was an advance on all preceding thought.
2. He identified definitely and finally the cicatricula on the yolk membrane as the spot from which the embryo originated.
3. He denied the possibility of generation from excrement and from mud, saying that even vermiparous animals had eggs.
4. He discussed the question of metamorphosis (preformation) and epigenesis and decided plainly for the latter, at any rate for the sanguineous animals.
5. He destroyed once for all the Aristotelian (semen-blood) and Epicurean (semen-semen) theories of early embryogeny.
6. He handled the question of growth and differentiation better than any before, anticipating the ideas of the present century.
7. He settled for good the controversy which had lasted for 2,200 years as to which part of the egg was nutritive and which was formative by demonstrating the unreality of the distinction.
8. He set his predecessors right on a very large number of detailed points such as the nature of the placenta.
9. He made a great step forward in his theory of foetal respiration, though here he did not consolidate the gain.
10. He affirmed that embryonic organs were active and that the embryo did not depend on external aid for its principal physiological functions.

He was certainly wrong in thinking that the infant was born by its own efforts, for evidently he had spent too much time watching chicks hatching by their own efforts. Nevertheless, he made few bad mistakes and

the last three chapters of *De Generatione* constitute one of the first scientific works on obstetrics published in England.

This gives some idea of how much value we are to set upon Harvey's second and last major work, and the book itself is a far more worthy vehicle for his writings than was the earlier and more famous treatise on the circulation.

De Generatione Animalium was published as a handsome quarto in 1651, having been printed at the press of William Dugard. The

EXERCITATIONES
DE
Generatione Animalium.

Quibus accedunt quædam
De Partu: de Membranis ac humoribus Uteri:
& de Conceptione.

AUTORE
GVILIELMO HARVEO
Anglo, in Collegio Medicorum *Londinensium* Anatomes & Chirurgiæ Professore.

LONDINI,
Typis Du-GARDIANIS; impensis *Octaviani Pulleyn* in Cœmeterio *Paulino*.
M. DC. LI.

Frontispiece and Title-page of the first edition of the "De Generatione"

book is well printed, though Dugard was what we should now call an unconventional type! He was really a schoolmaster and, after having held posts at Oundle and elsewhere, was appointed Master of the Merchant Taylors' School in 1644, holding this office until 1661. Soon after coming to London he became a member of the Stationers' Company and set up a private press in the school, where Harvey's book, among others (including Glisson's famous treatise *Anatomia Hepatis*, 1654), must have been printed. But he got into trouble for printing Royalist books including the first edition of the *Eikon Basilike*, 1649, and was ultimately dismissed by the Merchant Taylors in 1661, dying in the following year at the age of 57. It is not known whether he printed books for pleasure or for profit or to what extent he acted as his own compositor and press man, but it is clear that he kept up a high standard in his work, as is shown by the *De Generatione*.

The book is provided with a curious allegorical frontispiece portraying Jove seated on a pedestal and holding in his hand an egg with the legend *ex ovo omnia*, from which are springing animals, insects and plants. The print carries no name either of designer or engraver, but it may be conjectured that it was by Richard Gaywood, a contemporary craftsman of whose work this plate is fairly typical.

Gaywood was a pupil of Hollar, the well-known Czech artist who had been closely associated with Harvey when they both accompanied Lord Arundel on a diplomatic mission to Vienna in 1636. Hollar's name has arisen in connection with another etching representing Harvey himself in old age. The print is very uncommon (I know of only

eight impressions) and when I first became aware of it a few years ago it excited my interest because, however unflattering, it seemed to me to give a life-like and convincing rendering of Harvey's personality. We know that in old age he was not a happy man. He was lonely and disappointed, he was afflicted with various bodily ills, and had suffered the loss of much of his most cherished work. The Commonwealth government was antipathetic to him, and indeed there was little in his life to give him a rosy and contented outlook. All this is vividly expressed in the etching, and it suggests how much we miss in the fine, but somewhat idealised, portrait in the Royal College of Physicians. In reviewing my monograph on *The Portraiture of Harvey* (Royal College of Surgeons, 1949), Dr. Charles Singer, the eminent medical historian, dismissed the print as "an unhappy etching . . . It suggests an irritable punctilious old man suffering from bodily discomforts; obvious among them is a stuffy and very ill-fitting academic dress. This picture, we feel, is perhaps best forgotten, except by iconographic experts." But, after all, the first function of a portrait is to give a truthful impression of the sitter's appearance and personality, and an image cannot be set aside because it is uncomfortable and unflattering. I was, therefore, all the more pleased when evidence suddenly came to hand that this etching possessed all the importance that I had attached to it—perhaps even more. This was in 1950, when the Librarian at Christ Church, Oxford, informed me that he had found among the papers of John Evelyn, the diarist, a letter addressed to him by Dr. Jasper Needham, F.R.S., dated Covent Garden, April 5, 1649. In this letter Needham wrote: "Dr. Harvey's picture is etcht by a friend of mine and should have been added to his work, but that resolution altred: however. I'l send you a proof with your book that you may bind it up with his book *De Generatione*. I'm sure 'tis exactly like him, for I saw him sit for it." Evelyn's copy of the book with the portrait bound up in it is still in his library now housed at Christ Church, and so we have the complete vindication of the opinion that the representation is one of the most important that we have. So many of the Harvey portraits are second or third hand or even worse that we must be glad to possess one of which the authenticity is beyond doubt. I do not maintain that the etching is a very skilful one. It may well be from the hand of Gaywood who has been suggested as the author of the frontispiece, and the artist who made the drawing from the life was perhaps Hollar himself. When Needham wrote that "the resolution altred" he may be indicating that Dr. Ent thought the portrait too truthful and feared that it might give offence to the subject and his family.

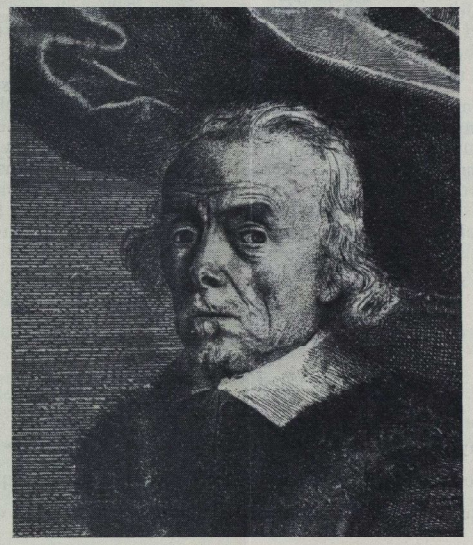
Harvey's *De Generatione Animalium* is not as scarce a book as *De Motu Cordis* and, not being in general estimation so important a work, does not command nearly so high a price in the second-hand book market, but its value is always rising and the demand is fast absorbing the available copies. Again there are a few copies printed on better, thicker paper than the majority, and one copy is of very special interest as it belonged to the author himself. It was Mr. F. C. Pybus, F.R.C.S., of Newcastle upon Tyne, who first recognised, when he saw the book in 1924, that the extensive notes on Aristotle on the fly-leaves were all in Harvey's hand. Naturally he bought the book and it still adorns his library. It contains also the signature of Harvey's nephew, Sir Eliab Harvey, dated 1674, so it probably descended through Harvey's brother Eliab, who died in 1661.

De Generatione was reprinted three times in Holland in 1651, one of these being the pretty Elzevir edition, and the Latin text has been printed eleven times in all, including the collected *Opera* of 1766, which was its last appearance.

As I have already mentioned, an English version of *De Motu Cordis* was published in 1653. The same year also saw an English version of *De Generatione*. Again, the identity of the translator is unknown. It has been attributed to Dr. Martin Llewellyn, who contributed to the volume a short poem to Harvey; but Llewellyn does not claim to be the translator and there is no evidence connecting him with it. It is impossible to *prove* that the English version is not Harvey's own, the Latin version being Ent's; but this is most unlikely. We know that Harvey customarily wrote in Latin or in a mixture of Latin and English, and he would have regarded that language as the proper medium for a learned treatise. It seems to be more likely that the English version was by Ent, whose admiration for Harvey was clearly very great, so that he would grudge no time spent in working for his greater fame.

This English version of *De Generatione* is not a very rare book, but like every other scientific book of historical importance it is getting more and more expensive. Many copies have the additional attraction of an engraved portrait of Harvey executed by William Faithorne, one of the best craftsmen of the seventeenth century, but it is very different from the all too truthful portrait made for the first Latin edition. Faithorne sometimes made his portraits from life, but I should guess that this one was based on the portrait in the Royal College of Physicians. It has the same kind of idealisation, while still being a reasonable likeness, and would obviously be more acceptable to Harvey's family and friends. It is a curious and unexplained fact that a good many copies of the book appear never to have contained the portrait, and no doubt it has been removed by print collectors from a good many others. Another odd fact is that Faithorne's actual copperplate has survived to the present day. Dr. Badcock, whom I have already mentioned, found it in a bookseller's shop in 1923 after searching for it for 41 years. Presumably he had seen a modern impression of the print, and so knew that the plate must be somewhere in existence. We may hope that he died a happy man.

The English version of 1653 has never been reprinted except for the last three chapters *On Birth and Conception*, which were printed in Manchester in 1849. Dr. Robert Willis made a new translation for the *Works* of 1847, and another translation has been made for an American scholar, Professor Meyer, who published a most interesting *Analysis of De Generatione Animalium* in 1936, but his translation has not been printed. Professor Meyer's *Analysis* is, however, an important aid to the understanding and appreciation of Harvey's second great contribution to science. His first, on the circulation of the blood, was incomplete because he could not see, and was unable to imagine, the capillary vessels in the lungs. His second contribution was incomplete because he could not see, and was unable to imagine, the spermatozoon, so that he was unable to elucidate the mystery of fertilisation of the ovum. Had Harvey had a microscope, even the primitive instrument invented not so long afterwards by Leevenhoek, what might he not have done?



William Harvey, from the contemporary etching perhaps drawn by Hollar

To complete briefly my chronicle of Harvey's books I must mention that his *Collected Works* have been printed four times in Latin, the fourth being the splendid volume edited for the College of Physicians by Dr. Mark Akenside in 1766. They have appeared once only in English, all newly translated by Dr. Robert Willis for the Sydenham Society in 1847.

Beyond this, the only printed work was Harvey's report on his post-mortem examination of the old man Thomas Parr, who died at the reputed age of 153 in 1635. The MS. of the report was given by Harvey's nephew Michael to a Dr. John Betts with whose works it was printed in 1669. An abstract also appeared in the Transactions of the Royal Society in the same year.

There is still an unpublished MS. by Harvey among the collections of Sir Hans Sloane in the British Museum, concerned with the muscles and movement. Some extracts were published by Sir George Paget in 1850. Only fourteen of Harvey's letters have survived, and twelve of these, eleven of them written to Lord Fielding in 1636 when Harvey was more or less imprisoned at Treviso, are now in the College of Physicians, to which they were presented by Sir Thomas Barlow, the President, in 1912. The other two letters are in the Bodleian Library and at Sidney Sussex College, Cambridge.

So we reach the end of this account of the writings of one of the great scientific pioneers, the originator of the experimental method, and the fountainhead of all biological science since 1628. It is virtually the story of one small book, since the second was only an appendix to the first, and the third was published almost, it may be said, without the author's consent, this having been so reluctantly given.

It is a remarkable story, and now we are wondering what should be done to ensure that Harvey's monument shall be preserved unharmed in a decaying parish church in Essex. Harvey himself, I fancy, would not be greatly concerned. He had no great opinion of the human race and would not be surprised if they were to forget all about him.

'Generally one may say that it is impossible to learn anything in the Casualty Department except a knowledge of the *facies*, as it is called, which with a smaller experience it would take years to acquire, since it comes of a multiplicity of impressions and the value of this is difficult to overestimate.'

ROBERT BRIDGES, M.B.
St. B. H. Reports 1878.

SPORT

CRICKET

Second Round Cup Match v. K.C.H.

This game, which was played at Chislehurst, was awaited with some interest, since K.C.H. had beaten St. Mary's in the first round—last year's winners. At the first attempt K.C.H. batted, and by lunch were in a strong position with 110 runs for two wickets. But at this stage the rain began and no further play was possible.

At the second attempt, a week later, on Thursday, June 18th, on the K.C.H. ground, Bart.'s won a resounding victory. When the skipper had, as usual, lost the toss, King's mistakenly (as it turned out) decided to bat. The wicket, on a slight slope, looked soft, but the ball came through at a good pace and although never really difficult, the occasional ball did lift. The day was definitely Rosborough's. He bowled down the hill with more accuracy than before this season, and was rewarded by some excellent fielding in the slips. For the first time this season the fielding and catching were exemplary. Foy was quickly put on to bowl at the other end; he took one useful wicket, was turning the ball a lot but just could not hit the stumps—just one of those days since he really was bowling well. Six wickets were down for 34 when Braimbridge took over, bowling leg breaks up the hill. Having got two quick wickets he was equally quickly taken off again. King's then scored 20 runs for the last wicket, thanks to a sensible innings by Coe, and this partnership was only broken by bringing Rosborough on again so that he finished the match with seven wickets for 16 runs out of a total of 66.

Ford and Foy opened, and attacking the bowling from the start, scored 12 before lunch when Ford was out. No rain appeared this time, and after lunch the runs were scored without much difficulty. Nicholson never looked very happy, but Braimbridge and Foy pushed the score along quickly. When Brainbridge was out Roche helped to hit the remaining runs, leaving Foy not out 30, of a total of 68 for three.

K.C.H.

P. Hoogwerf, b Rosborough	6
D. Saunders, c Roche, b Rosborough	0
E. Stephens, c and b Foy	20
J. Harries, b Rosborough	0
R. Rasaretnem, c Braimbridge, b Rosborough	0
N. McIntyre, b Rosborough	4
R. Coe, not out	24
L. Hargrove, c Roche, b Rosborough	1
S. Tulton, st Roche, b Braimbridge	2
P. Brine, b Braimbridge	0
D. Blair, c Battesham, b Rosborough	0
Extras	9
Total	66

Bart.'s

D. Ford, lbw Brine	11
B. Foy, not out	30
J. Nicholson, c McIntyre, b Harries	2
M. Braimbridge, lbw McIntyre	12
D. Roche, not out	11
A. Bloomer	
C. Juniper	
A. Chinnery	
J. Battesham	
F. Winton	
D. Rosborough	
did not bat	
Extras	2
Total (for 3 wickets)	68

	O.	M.	R.	W.
Rosborough	11.3	6	16	7
Ford	3	1	2	0
Foy	13	3	32	1
Braimbridge	5	1	7	2
Winton	2	2	0	0
	O.	M.	R.	W.
Brine	5	0	18	1
Blair	3	0	12	0
Harries	4	0	23	1
McIntyre	3	0	14	1

May 31st, v. Riddell's Rovers, lost.
Riddell's Rovers 123 (Rosborough 5 for 30, Ford 3 for 41, Chinnery 2 for 16). Bart.'s 78 (Freeman 25).

June 6th, v. Middlesex Hospital, lost.
Middlesex Hospital 162 for 8 declared (Rosborough 4 for 34, Ford 2 for 40). Bart.'s 75.

June 7th, v. Finchley, drawn.
Finchley 128 for 8 declared (Bloomer 2 for 29, Ford 2 for 33). Bart.'s 120 for 7 (Foy 41).

June 10th, v. Incogniti, lost.
Bart.'s 60. Incogniti 61 for 3.

June 20th, v. Charing Cross Hospital, won.
Bart.'s 206 for 7 declared (Bloomer 73, Foy 39, Collett 22, Battesham 21 not out). Charing Cross Hospital 113 (Rosborough 7 for 42).

June 21st, v. Putney Eccentrics, lost.
Bart.'s 73. Putney Eccentrics 77 for 4 (Winter 3 for 17, Rosborough 3 for 27).

BOAT CLUB

At the annual general meeting the following elections were made for the ensuing year:—

From the Vice-Presidents, elected to be President—Dr. A. W. Spence; re-elected as Vice-Presidents—Mr. M. Donaldson, Mr. O. S. Tubbs, Prof. L. P. Garrod, Dr. J. P. Hosford, Prof. Wormall, Prof. Franklin, Dr. Coulson, Mr. J. H. M. Ward; elected as Vice-Presidents—Dr. Scowen, Dr. King. Captain—J. F. G. Pigott; Hon. Secretary—C. N. Hudson. Committee—R. L. Rothwell-Jackson, J. M. Gray, C. Dale, J. Rossiter.

Richmond Regatta

A clinker IV was entered in the junior IVs. They won one heat and then lost to Barnes and District R.C.

Kingston Town Regatta

The same IV in the Maiden IVs reached the finals. In the heats they beat Kingston R.C., King's College School B.C., and Barnes and District R.C. In the final they lost by half a length to Neptune R.C.

Crew: 1—D. Simpson, bow; 2—P. Ormerod; 3—R. Doherty; J. Rossiter, stroke; R. L. Rothwell-Jackson, cox.

Marlow Regatta

The Light Four, after winning junior-senior Fours at Walton, entered for the Senior Fours (Wyfold class) at Marlow. This event contains most of the crews entered for the Wyfold Cup and Visitors' Cup at Henley. After Walton, a complete change of order seemed indicated, but a new order in which the whole crew had changed sides was only arrived at a few days before the race. They had a close race with Trinity College, Oxford, who were disqualified in the next round but turned out to be semi-finalists in the Visitors' Cup.

Henley Royal Regatta

After Marlow, the crew trained for 10 days on the Henley Reach for the regatta. The Marlow order was thought likely to be the fastest combination, and under the tuition of "Joe" Bailey considerable progress was made with a full-course trial without pacing crews, producing a time approximately equal to last year's winner's fastest time, made under similar conditions.

It was, therefore, an unfortunate blow from fate that lined Bart.'s up against the Royal Air Force Four, about whose unbeaten record and prodigious training the papers had had so much to say. This Four, at Reading Regatta had won the Senior Fours by a comfortable margin, but were prevented by existing regulations from rowing in the Stewards at Henley, to which class they undoubtedly belonged. It seemed that the best tactics were to row a steady race without being stampeded by the fast Air Force start. Possibly, as a result, the rate of striking was a little low, but the row was as good as any in practice. At all events, Thames Rowing Club in the next round, who tried the opposite tactics of snatching an early lead and holding it, ended up at the finish even further behind than Bart.'s, and the finalists from the other half of the draw could only come in four lengths behind.

To speculate on events if the draw had been different is idle, but it is fairly safe to say that the IV was as fast as the majority of IVs in the event, bar the R.A.F. Credit for this must go to "Joe" Bailey, who found time from the claims of general practice and other clubs to devote to this Four from his hospital.

Crew: C. N. Hudson, bow, steers; 2—J. F. G. Pigott; 3—D. H. Black; J. M. Gray, stroke. Coach—Dr. A. G. S. Bailey, G. and C.C.B.C.

WOMEN'S HOCKEY CLUB

At the Annual General Meeting held on Tuesday, June 9th, and presided over by Professor Wormall, the following new officers were elected for 1953-54:

Captain—S. Mackie
Vice-Captain—J. Wilson
Secretary—A. Tresidder
Match Secretary—S. Balhatchet
Treasurer—S. Thomas
Committee Member—R. Stephenson

Honours were awarded to J. Cree and Colours to E. Garrod.

EXAMINATION RESULTS

UNIVERSITY OF CAMBRIDGE—Final M.B. Examination. Easter Term, 1953.

Part I

Birdwood, G. F. B.	Williams, W. D. W.	Spink, F. R.	Tillyard, S. A.
Masheter, H. C.	Buttery, D. J.	Clarke-Williams, M. J.	
Salmon, J. D.	Nainby-Luxmoore, R. C.	Reed, G. A.	

Part II

Bower, D. B.	Smeed, I. M. P.	Bradford, T. C.	Cowper-Johnson, H. F.
Campbell, D.	Roxburgh, R. A.	Carver, J. B.	Keil, A. McL.
Fitzgerald, M. V. J.	Stevens, J. L.	Hutchinson, R.	Sleight, P.
Penn, M. J. W.	Caiger, V. G.		

CONJOINT BOARD—First Examination. June, 1953.

Anatomy—Morgan, D. R.
Physiology—Morgan, D. R.
Pharmacology

Baker, A. S.	Wyner, S. E. A.	Reynolds, A. B.	Taylor, R. C.
Ivory, P. B. C. B.	Cunningham, G. A. B.	Forget, P. Y. N.	

ROYAL COLLEGE OF SURGEONS—June, 1953.

Subject to the approval of the Council of the Royal College of Surgeons the following are entitled to the **Diploma of Fellow**:—

Agjee, I. A.	White, M. E.	O'Donnell, M. B.	Kane, G. J.
Chatterjee, S. K.	Amesur, N. C.	Whittle, R. J. M.	Pracy, R.
Noon, C. F.	Ghadialy, D. J.	Bagnall, H. J.	

SOCIETY OF APOTHECARIES—Final Examinations. June, 1953.

Pathology
Khurshid, M. N. Smith, G. C.

HOSPITAL APPOINTMENTS

The following appointments to the Medical Staff will take effect from the dates indicated:—

Casualty Physician Part-time Senior Registrar ...	Dr. I. P. M. MacDougall (vice McIlroy) from 1.9.53.
Dr. Cullinan's firm Registrar	Dr. R. C. King from 1.9.53 (vice Foster Cooper).
Cardiological Department Senior Registrars (part-time)	Dr. R. S. Duff from 1.8.53 Dr. B. G. Wells for six months from 1.8.53.
Pathological Department Junior Demonstrator ...	Dr. H. J. Wyatt from 1.10.53.
Department of Anaesthesia Senior Resident	Mr. J. R. W. McIntyre (vice Boulton) from 1.7.53.
Resident Senior House Officer (Junior Registrar)	Mr. W. R. Daniel (vice McIntyre) from 1.8.53.
Children's Department Senior Registrar	Dr. R. C. Roxburgh (vice Millichap) for one year from 1.10.53.
Junior Registrar	Miss B. P. Melhuish (vice Slack) for one year from 16.6.53.
Pathological Department Senior Registrar	Mr. D. A. Dawson (vice Story) for one year from 1.10.53.
Casualty Department Registrar	Mr. C. F. Noon (vice Nicholson) for one year from 1.7.53.
Mr. Corbett's firm Junior Registrar	Mr. A. R. W. Williamson (vice Grant) for one year from 1.7.53.
Dental Department House Surgeon	Mr. H. M. Alty (vice Hooper) for six months from 1.7.53.

HOUSE APPOINTMENTS

July 1st, 1953, to December 31st, 1953.

Dr. G. Bourne	A. N. Lamplugh
Dr. R. Bodley Scott	M. J. Hodgson
Dr. E. R. Cullinan	E. D. R. Campbell
Dr. K. O. Black	L. Langdon
Dr. A. W. Spence	P. J. Barber
Dr. N. C. Oswald	J. H. Fairley
Dr. E. F. Scowen	D. B. L. Skeggs
Dr. W. E. Gibb	M. V. J. Fitzgerald
Prof. R. V. Christie	Miss J. Cook
Dr. G. W. Hayward	P. Sleight
Mr. J. B. Hume	G. I. Small
Mr. A. H. Hunt	C. J. Porteous
Mr. R. S. Corbett	W. M. Beatley
Mr. A. W. Badenoch	M. A. Pugh
Mr. J. P. Hosford	C. J. R. Elliott
Mr. E. G. Tuckwell	P. Knipe
Mr. C. Naunton Morgan	H. S. Jones
Mr. D. F. E. Nash	J. G. Ross
Prof. Sir J. P. Ross	K. R. Hughes
Mr. J. B. Kinmonth	M. L. Crosfill

Children's Department—
Dr. C. F. Harris C. V. H. Havard
Dr. A. W. Franklin M. B. McKerrow

E.N.T. Department—
Mr. Capps Mr. Jory A. N. Griffith
Mr. Hogg Mr. Cope J. D. H. Cave

Skin and V.D. Departments—
Dr. Mackenna Dr. Nicol H. I. Lockett

Eye Department—
Mr. Philps Mr. Stallard M. S. Wilson

Gynae and Obs. Departments—
Mr. Shaw J. A. Girling (Midwifery)
Mr. Beattie M. J. A. Davies (Gynaecology)
Mr. Fraser
Mr. Howkins Miss J. M. Hall (Junior H.S.)

Anaesthetists—
J. R. W. McIntyre R. V. Fiddian H. D. Jones

Dental Department—
H. M. Alty

Orthopaedic Department (Accident Service)—
R. G. Chitham

at Hill End Hospital

E.N.T. Department—
J. D. H. Cave A. N. Griffith

Orthopaedic Department—
E. F. Brooks J. S. Hopkins

Thoracic Department—
M. Braimbridge H. T. Davie

Neuro-Surgical Department—
A. B. Lodge

Anaesthetists—
G. P. Greenhalgh (for three months from July 1st, 1953) P. E. Davies

Casualty House Physician—
B. S. Jones

R.M.O. Alexandra Hospital—
H. P. H. Ivens

A temporary exchange of Junior House Officers between Medical and Surgical firms has been arranged. As from July 1st, 1953, for **three months** they will be as under and not as shown on the list:—

Dr. Bourne	C. J. Porteous
Dr. Cullinan	P. Knipe
Dr. Spence	J. G. Ross
Dr. Scowen	M. A. Pugh
Professor Christie	M. J. Crosfill
Mr. Hume	M. J. Hodgson
Mr. Corbett	M. V. J. Fitzgerald
Mr. Hosford	L. Langdon
Mr. Naunton Morgan	J. F. Fairley
Prof. Sir J. P. Ross	P. Sleight

BOOK REVIEWS

MEDICAL HISTORY OF THE SECOND WORLD WAR: Vol. I Medicine and Pathology. By various authors, edited by Sir V. Zachary Cope. H.M. Stationery Office, 1952. pp. 565. Price 50/-.

It would require a whole article at least and not just the 300-400 words I am allowed in order to do justice to this book. It is the first of two clinical volumes, with 16 others, relating to the fighting and civilian services, to follow.

This volume, after a long introductory chapter on general medicine in the Navy, Army, Air Force and Emergency Medical Services, contains 32 others dealing with specific diseases and problems forming the biggest headaches in the first mobile war in history.

Undoubtedly the greatest problem was that of malaria, for with the Japanese conquest of the Dutch East Indies practically the whole world supply of quinine was lost to the Allies. In Burma, in 1942 and 1943, the campaigns were severely curtailed by disease, whole battalions fighting at company strength and artillery regiments reduced to single batteries. It was obviously impossible to fight malaria at its source, and intensive search was undertaken to find a prophylactic and therapeutic drug. From all this work came mepacrine, an outstandingly successful malaria suppressant with practically no toxic effects. Its regular administration was made compulsory, and in SEAC before the end of the war it became a punishable offence for a soldier to catch malaria for the first time, and commanding officers of units with a high malaria rate were speedily called to account.

70 pages are devoted to psychological medicine in the Services, which is no more pages than there ought to be, for between one-third and one-half of all medical invalids of either sex were discharged on psychiatric grounds (118,000 between Sept., 1939, and June, 1944.)

Bart's men who write chapters include Dr. E. R. Cullinan on infective hepatitis, which was world-wide in its distribution, might well have jeopardised the success of El Alamein, and showed a curious predilection for British (but not Australian or New Zealand) Army officers: Dr. C. H. Andrewes on the typhus fevers and influenza (which latter, by contrast with the First World War, needs no more than 3 pages): Dr. R. M. B. MacKenna on dermatology and Dr. A. A. Miles (a former Editor of the *Journal*, incidentally) on hospital infection: and Professor Garrod who concludes the volume with an excellent chapter on penicillin, the exploitation of which was one of the greatest achievements of the war. Not the least difficult problem when penicillin was in short supply was the answer to the question "Who shall have it?" Was it to be withheld from a solitary but probably fatal civilian case of staphylococcal septicaemia when the same amount of the drug would treat 400 cases of septic infection of the hand among fighting-men and war workers?

This is an extremely interesting and handsomely produced book. It provides, moreover, a remarkably painless way of learning a lot of medicine. We look forward to the volume on surgery.

BERKELEY'S HANDBOOK OF MIDWIFERY by Arnold Walker. 14th edition. Cassell & Co., Ltd., pp. 411. Illus. 15/-.

Berkeley's Handbook of Midwifery has nearly half a century behind it, and it is a pleasure to see this veteran brought up to date. The illustrations give it a familiar look but the text is very largely rewritten. Mr. Arnold Walker is informative and lucid without being dogmatic about variations in practice. He covers every aspect of his subject with the midwife's needs in mind, and at 15/- his book is excellent value.

BIOCHEMISTRY IN RELATION TO MEDICINE, by C. W. Carter, and R. H. S. Thompson, D.M. 2nd edition. Longman's, Green, pp. 524. Illus. 30/-.

This good book combines readability with adequate detail and references. It recommends itself as a book of reference to be kept for clinical work, as it treats so clearly both theoretical and practical aspects of tissue and organ function.

The second edition has been considerably expanded to include new work on intermediary metabolism and more emphasis is laid on the role of hormones than previously. Several other chapters have been rewritten and enlarged but in the chapter on carbohydrate metabolism a few mis-statements occur.

The format of this book is of a high standard and a very useful revised bibliography is included.

NUTRITION AND HEALTH, by Sir Robert McCarrison and H. M. Sinclair. Faber & Faber. 12/6.

The first three chapters of this book are based on the Cantor Lectures on nutrition given by Sir Robert in 1936 and which afforded reference for many subsequent writers on nutrition. Two additional chapters on deficiency diseases by the author and a chapter on recent advances in health and nutrition by H. M. Sinclair have been added.

There is a reminder in this book of the dangers of pure science. Apparently a protein hydrolysate was prepared for the starved occupants of Western Europe in 1945. Intravenous administration was difficult and nobody, even in the famine stricken areas, could tolerate it as a drink. There was one exception, this was in a mental hospital in Holland whose insane occupants downed the nauseous fluid with relish.

The matter of Sir Robert's lectures is 'that the greatest single factor in the acquisition and maintenance of health is perfectly constituted food' and his exposition of this thesis is both informative and entertaining.

AIDS TO ANATOMY AND PHYSIOLOGY, by Katharine Armstrong. Bailliere Tindall & Cox. 5th edition, pp. 416. Illus. 6/-.

This is a new editional of an informative and economical little book. The reviewer hopes that in the next one the reversed X-ray on page 274 will disappear.

RADIATIONS AND LIVING CELLS by F. G. Spear. Frontiers of Science Series. Chapman & Hall. 1953. 18/-.

Dr. F. G. Spear has in this book published the lectures he delivers to the candidates for the Diploma in Radiology. It is one of the volumes in the Frontiers of Science Series, filling the gap between a specialist treatise on a subject and an elementary handbook. The book is dedicated to the members of the Hospital Physicists Association but it can be read with profit and enjoyment by Medical Students, candidates for the Radiological Diplomas, and most Radiotherapists.

The action of penetrating radiations on living cells and normal and diseased human tissues, on the skin, the blood, the generative organs is clearly described, as is the effect of whole body irradiation, including knowledge gained with atomic warfare. The book ends with an excellent chapter on the mechanism of the action of penetrating rays on living cells.

The sections are preceded by concise accounts of normal anatomy, the whole being written in simple language, interspersed with short historical anecdotes and vivid comparisons which make the text easy to understand. Then follows an account of the changes induced in the irradiated tissue. There is a full bibliography, but the book itself summarises information spread out in the voluminous world literature.

All who read will be fascinated, and they should note how a difficult subject can be presented so that clarity and accuracy are not sacrificed, the beauty of the English language preserved, and interest maintained to the end.

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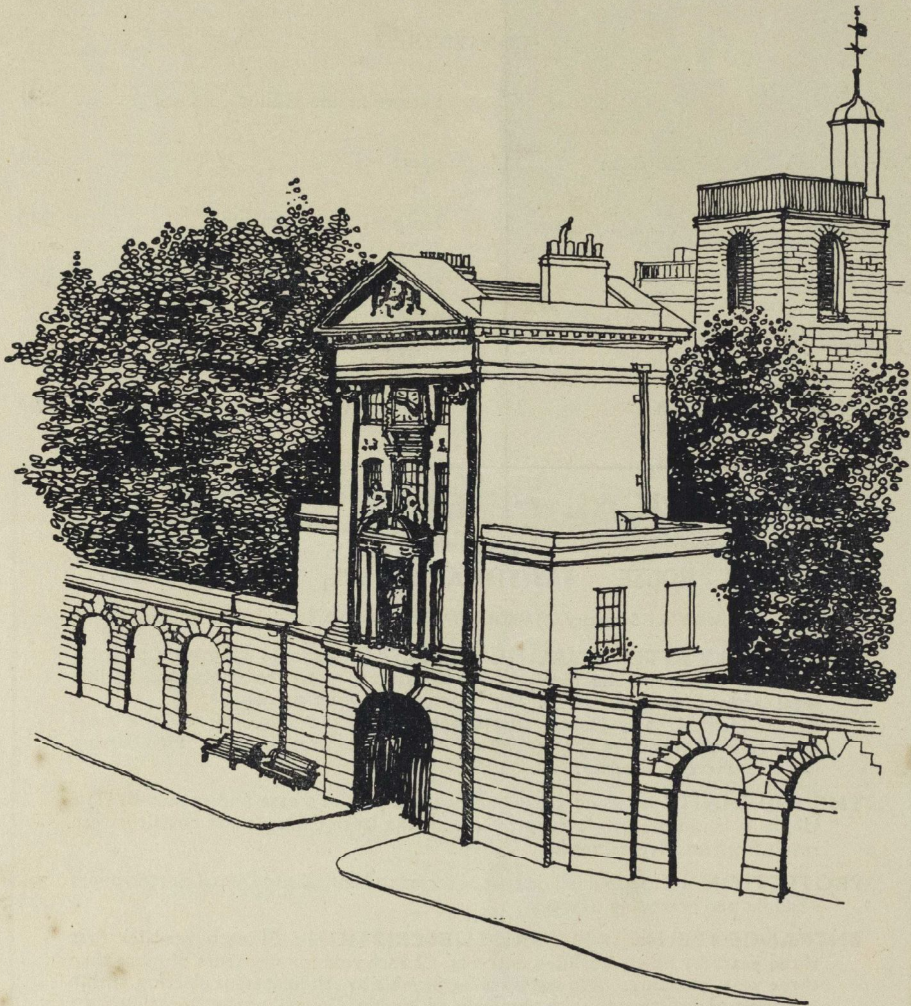
ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Editor: R. E. NOTTIDGE — *Manager:* R. J. KNIGHT.

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September, 1953

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EDITORIAL

Hortensio. *And tell me now, sweet friend, what happy gale*
Blows you to Padua here from old Verona?
Petruchio. *Such wind as scatters young men through the world*
To seek their fortunes farther than at home,
Where small experience grows.

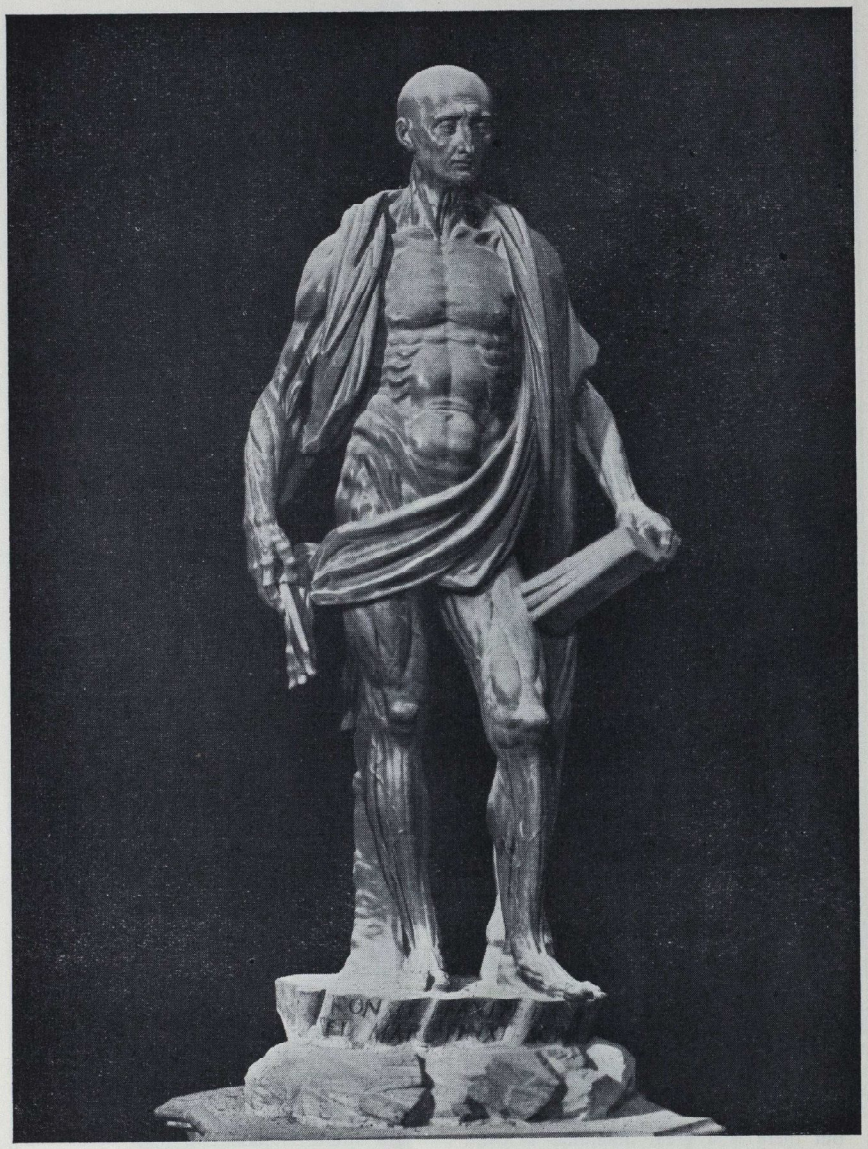
THE TAMING OF THE SHREW.

Langland, who held that "if hevene be on this erthe and ese to any soule it is in cloistere or in scole," was positively no relation at all to that later don who boasted that in ten—or was it twenty—years he'd not been twelve miles out from his University. The one looked back to his college days having moved far through his medieval "field full of folk," the other had neither 'swinked' nor sweated much beyond Trumpington. Where one had got wisdom at a University, the other had just gone bad on one. For men, universities, and learning all thrive best on movement. Perhaps they throve best of all when the scholars who had tired of the cheeseparings or the ale of Oxford could foot it for Cambridge, if not for Paris or even Padua.

This wide view of university education has not entirely been lost. American students can come to Bart.'s even if lack of dollars—or something—prevents any of us returning the compliment. Some of us are fortunate enough to have changed universities in midstream and the obligation of two months in residence at Bart.'s is as valuable as the freedom to spend all the rest of one's spare time away from it. If only because to change one's lodging from one part of a town to another is, in Bacon's phrase, "a great adamant of acquaintance."

But there is a great difference between a school and a university. If someone objects that a medical school never can be a university the answer must be that it can at least be a part of one. There is no need to be provincial just because Padua or Princeton are beyond our reach. A few days at Guy's might teach the best of us a new thing or two and to know how they're thinking at the Royal Free might shake us, but it couldn't do less than make us think as well. A zeal for one's Hospital is certainly a great thing, especially on the playing field but it may be just false perspective anywhere else. One can never be quite sure that Abana and Pharpar are really better than all the rivers of Israel until like Naaman one's tried them.

If we are surprised to know that Stevenson called the doctor "the flower, such as it is, of our civilisation," we can only assume that he was fortunate in his medical advisers. But if on reflection his remark seems a bit of a back-handed compliment we can surely take it that it is civilisation which is chiefly to blame for being a poor weed. At any rate if he isn't generally right about doctors surely he should be. What calling demands and nourishes wide sympathies and an educated mind so much as medical practice? But a medical course, on the contrary, is at the best a narrow basis for education, even for a medical one. It is for this reason that instead of waiting till we're Chief Assistants and can visit Johns Hopkins we must occasionally swallow our pride, renounce our instinctive isolationism and get on a bus to St. Thomas's.



SAINT BARTHOLOMEW BY MARCO D'AGRATE

Saint and Martyr

Visiting Milan Cathedral, a Bart.'s man, Mr. Ogier Ward, came across this splendid statue of our patron and sent us the photo. It should be compared with the Leonardo *Head of Saint Bartholomew* drawn for *The Last Supper*, in another Milan Church, and reproduced in the *Journal* last February. Particular interest attaches to this statue because it shows him with the marks of his martyrdom, flayed and carrying his skin over his shoulders. Michelangelo has painted him in this uncomfortable pose in the Sistine Chapel and there grimly painted his own likeness for the face on the skin. The sculptor here was Marco d'Agrate of Ferrara, born about 1500, when Leonardo's career was at its height and Michelangelo's already begun. This is his main work, but Italian critics are not impressed and with phrases like *crudo accento naturalistico* dismiss its fame as attributable only to its anatomical precision.

In the East window of St. Bart.'s-the-Less and outside St. Bart.'s-the-Great the saint is shown holding his persecutors' weapon. To his medical *protégés* it will seem a wonderfully unsuitable instrument for such a nice dissection.

The July Clinical Pathological Conference

The conference that was held on July 22 showed how greatly people welcome an occasion on which they discover that there is here one whole Medical College.

It was Mr. Hosford's day, and the audience was fascinated by the audacious logic with which he brought order out of what seemed only confusion. We are grateful to Sir James Paterson Ross, the Chairman, in allowing us to see such a difficult case from his own wards.

Perhaps in the next conference we will hear more discussion, as it is not only by listening to correct diagnosis that we learn, but also by hearing reasonable mistakes.

Professor Einstein, Alice, and the Nephrons

This was the title of a talk that Dr. Oliver, a visitor from New York, gave in the Physiology Lecture Theatre on July 13. The audience that came through the rain had been drawn from various corners of London. People from other hospitals seemed to outnumber people from Bart.'s. Most of them, no doubt, had come to hear about nephrons, but not a few had been attracted by the mystery of the title. Some of the more uncouth strangers had perhaps been drawn by the name of Einstein, and there was also a pair that looked remarkably like a walrus and a carpenter.

Dr. Oliver is an expert on the dissection of single nephrons. In this way, he and his colleagues have been able to study the minute anatomy of the kidney in an extra dimension. For instance, it has been possible to withdraw a sample of liquid from a tubule, and then dissect out that tubule and find the level of the puncture. In this way they graphed the course of glucose absorption as the filtrate passes down the tubule.

The lecture was a voyage down the nephron, which Dr. Oliver compared with Alice's voyage down the river. He stressed that he had no theme; he had the mastery of a technique, but this technique had not yet revealed an organised story. But there were many interesting individual observations. He has shown the spiral deposition of amyloid, the existence of aglomerular nephrons, and that in diabetes glycogen is deposited in the more distal tubular cells that are not exposed to glucose in the normal kidney. There is a demonstrable relation between the histological appearance of the mitochondria and functional ability.

Dr. Oliver not only told us what he knew, but he also emphasised how much there is still unknown in the relation of renal structure to renal function, a stimulating contrast to the complacency of so much pathology teaching, that classifies kidney abnormality in terms of one of a small number of alternative Spots. This was an interesting and delightful lecture, and we hope that next time Dr. Oliver is in England, we will be able to hear him again.

The Bartlemas Bun

Winchelsea in the Middle Ages had not only a St. Bartholomew's Hospital but a St. Thomas's as well. Rochester has a St. Bart.'s to this day, it was formerly a Leper House, and Sandwich boasts yet another. The Sandwich Hospital is occupied by sixteen Hospitallers. All are proud of their own twelfth century foundation and just a little defiant about its independent origin. None of them is much below seventy and they live in separate cottages grouped around a charming twelfth or thirteenth century chapel.

On St. Bartholomew's day—Bartlemas to Bart.'s men—otherwise August 24, the young people of Sandwich race round the chapel in

competition for a biscuit stamped with the hospital seal. This, though apparently cooked rather to be kept than to be eaten, is of course the Bartlemas Bun.

We recall that an even hoarier foundation than ourselves scrimmages annually for a pancake. Couldn't some generous Bart.'s man consider endowing a Bartlemas Bun-fight here? We might then recover the Rugger Cup.

Fletcher Engravings

For sale. Complete set Hanslip Fletcher's engravings of S.B.H. Artist's proofs, framed oak. Offers.

Paintings and engravings of Bart.'s by this artist, widely known not least for his pen and ink drawings in the *Sunday Times*, hang in the Clerk's Office.

Three Hospitals' Orchestra

B. B. Reiss writes:

'The Three Hospitals' Orchestra, with great enterprise, gave its second concert within three months in the library of St. Mary's Hospital. Those of us who were at their first performance were already aware that the orchestra would be enjoyable to hear and would give no cause for that apprehension with which one sits through so many amateur productions. We were not disappointed. The standard of individual playing was high and the ensemble was excellent. The strings produced a real singing tone with no hint of scratchiness. The wind section made their entries, on the whole well and if the brass was a little rough at times they gave the requisite colour without spoiling the effects of the whole.

The programme was well balanced. It opened with the "Tragic Overture" by Brahms which was played adequately if not brilliantly. Jean Pouquet then played the concerto in D major for violins and orchestra, Op. 61, by Beethoven. He played sensitively and with no sign of overpowering the orchestra, which gave a very creditable accompaniment. It must be very stimulating to have great soloists like Jean Pouquet to accompany.

After the interval the orchestra played Dvorak's symphony No. 5 in E minor, Op. 95 (From the "New World"). In spite of being a somewhat hackneyed work it was a real pleasure to listen to it. One quite forgot the discomfort of the chairs, the lack of leg room and that it was an amateur orchestra.

Credit for the performance must go to the orchestra, the organising committee, who have put in so much hard work, and to Mr. Norman del Mar, the conductor, who has welded together such a competent and lively instrument. Mr. del Mar never let the reins go throughout the whole evening and one felt he produced all that was in the orchestra—and a little more—but always with charm and vivacity.

A word of admonishment. There are only two or three playing members of the orchestra from Bart.'s and I only recognised three or four Bart.'s faces in the audience. Apart from the financial support, which is badly needed, it makes a big difference to members of the orchestra if both students and staff from their own hospital take an interest in this wholly creditable activity. There must be a large number of people at Bart.'s who enjoy music, and this was a most enjoyable evening.'

Augmented Deodorisation

The *Journal* has received a rather disconcerting booklet from a firm of chlorophyll manufacturers.

Gone are the days when a chloropast devoted its unobstrusive life to photosynthesis. Science has thrust upon it another duty, the task, as the manufacturers put it, of Augmented Deodorisation. This pamphlet has forced us to recognize certain vital social problems which we were previously ignoring. Dentists have for years denied themselves the pleasures of eating onions, but chlorophyll brings them new hope. A man in Southsea exclaims that the product is "the answer to most Dental Surgeon's problems!" No longer, it appears, will the cryptorchidous cat be shunned on the rooftops. Chlorophyll has even solved the social problems of the male goat. A Pekinese who suffers from gastritis and a Sealyham with otitis add their grateful testimonials.

However exaggerated the tone of this advertising may be there seems little doubt that chlorophyll is often effective in reducing smells, though how it does this, whether by direct oxidation or by bacteriostatic action, has yet to be discovered. In *The Lancet* it has been reported that chlorophyll will abolish the smell of carbon disulphide. The skunk, that pretty animal, may yet become a fireside pet.

The Horton Cup

The glass case in the Library where our 'pots' and other details are kept is now dominated by a cup so vast that it could be anything from the Ashes to an Oscar. Actually it isn't either, but is the *Horton Cup* brought back by a Boat Club Four from the Metropolitan Amateur Regatta held at Chiswick in July. This is the premier 'tideway' regatta and the class is junior only to crews entering for 'grand' events.

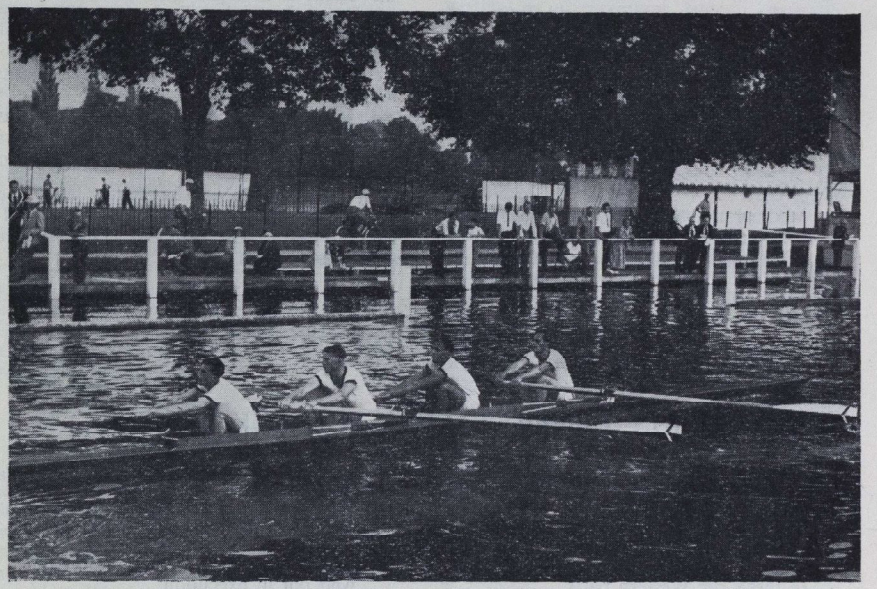
This cup has never been won by a Hospital before and only three times, since 1909 when it was first contested, by a College. It is, as far as is known, the first Open Senior Rowing event ever to be won by this Hospital. As such it is a more than appropriate end to a splendid season's rowing by this Four. They represented the Hospital at Henley, rowed in 16 races and won 10 of them.

We are looking forward eagerly to the United Hospitals' Regatta next term. Well rowed Bart.'s!

Oxford-Bart.'s Association

Passers by on Wimpole Street pavements in the evening of 29 July must have heard the gracious strains of the Skater's Waltz, and, mingling with it, the clink of glasses and the babble of talk.

This year Dr. Strauss again very kindly invited the Oxford-Bart.'s Association to hold its annual party in his rooms. About forty people came, but we were sorry that others were forced to be absent. Sherry, and tomato juice of unknown origin, had been provided in large quantities, and Mrs. Fairley had prepared plates of all sorts of those delicious things that one hopes one will be left holding. The evening was great fun.



THE BART.'S IV. AT HENLEY *Photo: Bushell*

Teaching General Practice

In the absence of any such course at Bart.'s these lectures on General Practice, by G.P.s, will be much appreciated by Bart.'s men. Arranged by the College of General Practitioners, they are held conveniently at 5.45 in the Court Room of the Society of Apothecaries, Blackfriars Lane.

October 8—
"Entry into and setting up in General Practice," by Dr. Geoffrey Barber.

October 13—
"The Family Doctor-Patient Relationship," by Dr. George F. Abercrombie.

October 22—
"The present position and future of general practice," by Dr. John H. Hunt.

November 5—
"Common ailments met in general practice and seldom seen in hospitals," by Dr. Geoffrey Barber.

November 19—
Medical ethics and legal responsibilities of the general practitioner," by Dr. Stephen Hadfield.

November 23—
"The running of a surgery and the doctor's round," by Dr. Ian Watson.

Tenth Decennial Club

The Annual Dinner of the 10th Decennial Club will be held at the Washington Hotel, Curzon Street, on Wednesday, October 14th, at 7 for 7.30 p.m. K. J. Acton Davis will take the Chair. It is hoped that members of the 9th Decennial Club will also come and that there will be a good attendance.

Notices will be sent out in due course.

Change of Address

Lt.-Col. R. B. Seymour Sewell, C.I.E., is now at 139 Huntingdon Road, Cambridge.

Regrets

In "Recent Papers by Bart.'s men" in July, we attributed a paper by Mr. G. J. Hadfield to Prof. G. Hadfield. Our sincere apologies to both of them.

JOHN JEFFERY'S CURE FOR THE GOUT

Recorded by a Bart.'s man, Edward John Spry, M.D. in 1842, *from one who had heard it in the West about* 50 *years before.*

The Gout that bane of human race
In these our Western parts
Which zealous doctors can't displace
With all their learned arts.

Made bold to call on me of late
And seize on each great toe
And that at such severe a rate
I scarce could stand or go.

Thinks I old friend this is not fair
Nor prudent—to be plain—
To pafs the rich who take such care
And visit one so mean.

But since thou art so great a fool
To seize so small a man
I'll take the old John Jeffery's rule
And *starve* thee, if I can.

The pinching scheme I soon contrived
And put in execution,
Viz. just to keep myself alive—
Such was my resolution.

My teeth I used but once a day
And that on pittance small
My drink was chiefly camel* tea
As bitter as the gall.

At length my suffering guts and maw
Began to make a noise
Piping like reeds of wheaten straw
When turned by country boys—

No odds for this I've won the day
And brought my gout so low
That after eight or nine days' stay
I lost my teazing foe.

* *Camomile.*

MIRACLES

Reprinted from the Oxford Medical School Gazette by kind permission of the Editor.

Definition

If you search your mind all day for a definition of a miracle; you will start the day wondering what a miracle is, and end the day wondering what a definition is. I would like to avoid giving any definition, and appeal to generous common sense. That, however, would be woolly-minded.

It can be argued that the word "miracle" is used and that (damn philosophers, damn logivians), it is commonly understood. Yet it may well be that it is commonly used and commonly misunderstood.

The most satisfactory definition is Hume's: "A transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent." The only difficulty with this is to define natural law. The meaning given to natural law is as fundamental to any system of beliefs as the meaning given to "miracle".

Attitudes

To a miracle so defined, there are several possible attitudes. There is also apathy.

The Roman Catholic believes that miracles happen, and that they are explicable as the direct intervention of God. The normal order of things is also ruled by God, and natural law is but part of the continuous miracle of creation. A Jesuit may be intellectual, a Dominican may be mystical, but whatever the approach, the belief requires faith.

Can a scientist accept such a belief? Faith is a strange thing. Often the priest will argue that all men live by faith, that the scientist could not do research without faith in unproved assumptions. Yet the nature of religious faith should not be confused with that of scientific faith. To the priest, God is more than a working hypothesis. Religious faith is essentially unreasonable and that is its glory, as you may see in these words of Sir Thomas Browne:

"As for those wingy Mysteries in Divinity, and airy subtelties in religion, which have unhing'd the brains of better heads, they never stretched the Pia Mater of mine. Methinks there be not impossibilities enough in Religion for an active faith . . ."

The faith that Sir Thomas Browne describes is clearly very different from the sort that inspires the research worker. He, though writing as a protestant layman, probably expressed a glory in faith that is not contrary to the teaching of the Roman Church. Yet the Catholic's faith is not applied haphazard. An event acclaimed as a miracle in the Middle Ages may now be easily explicable, and this discourages anyone from making their religion out of the gaps in science. So today the attitude of Rome towards the miraculous is a cautious one. The Church of Rome is often misrepresented as a band of ignorant and credulous Irish priests. Nothing could be less true. Catholic philosophers and scholars are well aware of the difficulty of understanding the miraculous, and they discourage the dangerous fascination that it has for those who want to find a spectacular proof of God's existence. The attitude is one of cautious acceptance with a wary eye for charlatanism. Only after a most careful medical examination is a cure acclaimed as miraculous. But once the cure has been acclaimed as a miracle, there the matter ends. And it is a dead end. You do not try to analyse the tracings of God's finger in the laboratory. The Church is committed in such an instance to a blind faith, and science is probably repulsed into an angry cynicism. The knick-knack shops move in, and sell their souvenirs.

Secondly, there is the attitude of those who are willing to accept the definition of miracles as a class of possible events, but believe that possible as miracles may be, they simply do not happen. This is the view of many Protestants who find themselves embarrassed by the miracles recorded in the Bible. Miracles may have occurred in the past, but they simply do not happen nowadays. And this view, like many others, is held by reasonable men, and yet is opposed by reasonable men. For it is never possible for anyone to produce such evidence of the miraculous as to demand its acceptance. To quote Hume again:—"There is not to be found, in all history, any miracle attested by a sufficient number of men, of such unquestioned good-sense, education, and learning, as to secure

us against delusions in themselves; of such undoubted integrity, as to place them beyond all suspicion of any design to deceive others; of such credit and reputation in the eyes of mankind, as to have a great deal to lose in case of their being detected in any falsehood: and at the same time attesting facts, performed in such a public manner, and in so celebrated a part of the world, as to render the detection unavoidable."

The third attitude is very near the second one. The second is that miracles can happen but do not happen, and the third is that miracles do not happen because they cannot happen. It is easy to slip from one belief to the other.

The third attitude is that of the bigoted scientist brought up on Kepler's laws, the Law of Gravity, the Binomial Theorem, the Gas Laws, the Law of Multiple Proportions, Ohm's Law, the Inverse Square Law, Galileo's persecution, and a popular account of Relativity; bred also on a lack of philosophical knowledge and a contempt for religion. He defines natural law as what happens, a miracle as something contrary to natural law, and therefore as something that does not happen. He then laughs. He does not give any serious attention to a claimed miracle, he knows without investigating it that it is fantastic nonsense, that miracles have been defined out of existence, and that anyhow science could find a perfectly adequate explanation if it were worth the trouble. Medicine has no concern with the conjuror. The cures that others claim to be miraculous, are, if inexplicable, fraudulent. The facts as well as the theory are denied.

This is not the attitude of every scientist. Such an extreme so-called scientific attitude is as much a dead end as the Roman Catholic's. The scientist throws stones, the priest throws flowers, and neither tries to analyse, reproduce and control the conditions of the alleged miracle. The faith of the Catholic exempts him from the need to investigate the event further, but the unenquiring cynicism of the scientist has no such justification. It is reasonable for the scientist to suppose that everything can be fitted into natural law (although the profound mystery of the natural law remains itself unexplained), but it is not reasonable to suppose that everything that the scientist cannot today explain is a fraud. This is the great heresy, to deny what cannot be explained.

Cures

A belief in miraculous healing is older than Christianity. In the third century B.C., the king of Epirus used to cure those of his subjects who were afflicted with disease of the spleen by the touch of his big toe. No doubt the history of scientific scepticism is as ancient.

To most people the miracles described in the Bible are well known. Typical of many is the following:—"And behold, there came a leper and worshipped him, saying Lord, if thou wilt, thou canst make me clean. And Jesus put forth his hand and touched him, saying: I will; be thou clean. And immediately his leprosy was cleansed."

Not only is it recorded that Jesus performed many miraculous cures, but he gave authority to his disciples in these words: "And these signs shall follow them that believe. In my name shall they cast out devils; they shall speak with new tongues; they shall take up serpents; and if they drink any deadly thing it shall not hurt them; they shall lay their hands on the sick and they shall recover."

Gassner was a priest who sought to use the authority that Jesus had given, and practiced exorcism. The following contemporary account was written by the Cardinal Bishop of Chur in 1774. "The healer sat on a chair, with the patient near him. He took her by the head, then the hand, and demanded the evil thing to come forth immediately, in the name of Jesus. The convulsions came on little by little, and he stilled them in the name of Jesus. After that he produced different spasmodic movements and convulsions in the patient; these he made to last now a longer, now a shorter time, and then through the powerful word 'cesset' he made them disappear. After that the poor Fraülein for about an hour sprawled about, stretched and moved her limbs as he ordered her, till he told her to stand up on the lame foot and walk. The Fraülein took courage, stood up on the ground where she had always limped, and went step by step a little way about the room, but I remarked that she forced herself to do it." Among the critics was a man who said that he saw nothing in it that could not be explained by "electricity . . . magnetism, or some yet unknown physical agency." Thus the scientist vaguely glosses over his ignorance, and passes on.

In modern textbooks of psychiatry there are to be found many cases similar to that of Gassner's "poor Fraülein", and the

explanation offered is that the patients were hysterical, an explanation that the Church would, no doubt, accept. But what is "hysteria"? What is a "functional" disease? A textbook gives the case of a young woman who had lost all power and sensation in one arm. Yet, if a pencil was put into her hand while her attention was distracted, she would write the very words which, a few moments previously, she had been quite unable to write upon request. Similarly, she could use a pair of scissors only if they were slipped surreptitiously into her hand.

Pointing an onion root at a growing plant stimulates cell division. This is so little known that it has not yet been denied as fraudulent or acclaimed as a miracle.

Perhaps, if all the cases were of the kind so far described, and if they were no better substantiated, a scientist would be justified in his belief that science has explained the world. Consider, however, the case of Madame Rouchel, who made a pilgrimage to Lourdes. She was suffering from lupus of the face, and had perforations of the cheek and palate, and extensive lesions of the lips. It is claimed that the perforations were healed instantaneously and perfectly, but that tubercles remained on the nose and cheeks, and the ulcers on the lips remained. There were four witnesses of her condition immediately before the cure, but none of them was a doctor although one was a nurse. She had nevertheless been medically examined eleven days before the cure. The case was submitted to the arbitration of a number of French doctors, but after long deliberation they decided that they could give no answer. Sir Henry Morris wrote about this case in the *British Medical Journal* of 1910. He explained it as a "creative lie", and cited various instances of ingenious fraud that he had met with in ordinary medical practice, and yet the then president of the Royal College of Surgeons wrote in the same journal, "I am prepared . . . to suggest that every now and again a case of true organic disease may, perhaps, be cured by Faith."

The Bureau at Lourdes is willing to give details of many cases similar to that of Madame Rouchel. Before a claim for a miraculous healing is accepted, doctors make a thorough examination of the evidence. The conditions of the investigation are rigorous, but, as Hume pointed out, no evidence can be conclusive.

So what?

To suppose that there are methods of healing unknown to present day medicine is not unjustifiable, and it is possible that these methods are far outside the concepts of present scientific theories. Apathy is a barren attitude, and while the scientist need not accept the religious explanation as proved, he must not reject or ignore the facts for which religion tries to account. No one can tell what the explanation of the seemingly miraculous may be, but so long as something remains to be explained, is not the matter worth investigation?

SO TO SPEAK . . .

The Welfare State?

Infected mothers are eliminated in ante-natal clinics before the baby is born.

—*Bacteriology lecturer.*

Better than Cure

Q. Describe a case of anthrax (wool sorters' disease) and give your treatment, especially in regard to prevention.

A. . . . Preventive treatment. All infected animals must be burnt or buried alive and the wool sorter must be boiled. —*Hard luck!*

OBITUARY

Dr. Mervyn Gordon

C.M.G., C.B.E., D.M., LL.D.Edin., F.R.S.

With the death of Mervyn Henry Gordon, on July 26, one of the outstanding and best-loved figures of the first half of this century at Bart.'s has left us. Few of his contemporaries are still living, but there are many junior colleagues who owe much to his help and example, and for the present generation who never knew him we wish that he should be something more than a name.

The facts of his life can be written simply. He was born on June 22, 1872, the son of Canon H. D. Gordon, rector of Harting, Sussex, educated at Marlborough and Keble College, Oxford, whence he came to Bart.'s, qualifying in 1898, and shortly after that joining the staff of the Pathology Department in which he was to work throughout his life. He succeeded Klein as bacteriologist, and with Andrews sustained the primitive department of those early days, and shared in its direction after the construction of the present building in 1908. He resigned from the staff in 1923, retaining only the title of Consulting Bacteriologist to the hospital, but remained in the department as a full-time and very active research worker until 1939, when he retired to live at Molesey. He married, in 1916, Mildred Olive, daughter of Sir William Power, with whom he lived happily until her death in March of this year.

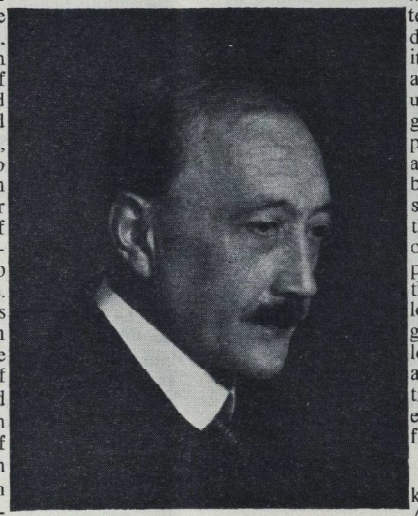


Photo: Stoneham

Of Gordon's achievements in his work there is much more to be said. He was one of the greatest of British bacteriologists of the period when the work of the early pioneers, Koch, Pasteur and others, was being applied and expanded. He was the first investigator in England to take up the study of air-borne "droplet" infection, and some of his work in this connection was done in the House of Commons, where he was given a free hand, after an epidemic of influenza among the members, to make whatever observations he liked not only in the empty Debating Chamber but during sittings of the House. A photograph still exists of smoke pouring out from beneath the benches, the site of the air inlets, when he did a smoke test to determine the direction of air currents; it was small wonder that a policeman in the lobby, unaware of what was going on, was on the point ofsounding the fire alarm. By the use of broth plates he collected salivary streptococci from the mouths of speakers on the Treasury Bench in places as remote from them as the Ladies' Gallery. These studies greatly amplified knowledge of the mechanism and extent of air pollution from the mouth and established new methods for its investigation.

What student does not know that Gordon, with Andrewes and Horder, defined the main classification of streptococci that is used to-day? Or that it was he who established the existence of serological types of the meningococcus? His work on cerebro-spinal fever, which embraced almost every aspect of its epidemiology, diagnosis and specific treatment, is perhaps his foremost achievement. This was in the First World War, when Gordon became a Lt.-Col., R.A.M.C., and was given full authority in all matters concerning this disease in troops, even to the extent (so he related) of issuing an order that a general anaesthetic should be given for all lumbar punctures. For his services in the Army, going back to long before the war, since he was an original member of the Army Pathological Committee, he was made a C.M.G. and a C.B.E. He was elected F.R.S. in 1924.

His last work on bacteria was an attempt to classify haemolytic streptococci serologically which got as far as the definition of three types; it was not until more than ten years later that Griffith, by similar methods, showed that there are about thirty! Gordon was then already turning to the study of viruses which was to occupy the rest of his life. Beginning with his classical study of vaccinia, it continued with work on mumps in which this disease was transmitted to monkeys for the first time, and was interrupted, or so it seemed at first, by the co-operative study known as the "Rose Research on Lymphadenoma." In the end this proved only to be a continuation, because after pursuing and rejecting several other hypotheses, Gordon concluded that lymphadenoma is a virus disease. He demonstrated elementary bodies (i.e. virus particules) in affected tissue; further than this, he treated suspensions of them with the serum of an animal immunised with them, and several physicians observed beneficial effects from treating patients with this "sensitised vaccine." This application of a method originally devised by Bezredka for the preparation of bacterial vaccines, and popularised by Gordon himself at Bart.'s ("sensitised strep. vaccine" was for years credited with almost magic qualities) was something of a shot in the dark, and the fact that work on these lines has not been pursued by others is not altogether surprising but disappointed him. During his last few years of work Gordon concentrated increasingly on the demonstration of "E.B.s" in various morbid tissues, and developed beliefs in the virus origin of rheumatic conditions and malignant disease. There are, of course, certain pitfalls in this purely morphological approach, and confirmation by the newer methods available for virus study has yet to be obtained.

What Gordon was like as a man some of us are fortunate in knowing; for those who never met him no description can do justice to a unique character. He was inexhaustibly kind to everyone, particularly the younger men in his department, who owe to him much of their knowledge and perhaps the whole direction of their careers. He was utterly devoted to his work and pursued it with an infectious enthusiasm. The photograph of him in "Candid Camera" and its expressive caption illustrates this side of him perfectly; it must have been taken at about the time when he had a succession of ideas about the aetiology of lymphadenoma, and in this connection it ought to be placed on record that for a time he amused himself by telling people half seriously that the cause of this disease was "something that turns milk into beer" (a peptonising effect produced somehow by affected tissue incubated in milk). But he will be remembered perhaps longest for his personal qualities as a colleague, above all as a raconteur, and as the author or subject of many stories which are now classic. He had a magnificent sense of humour, a long memory, and the capacity to be frankly abusive or to relate the most shocking incidents with immense emphasis and relish yet without giving the least offence. A purely domestic episode in which he played a central part must not be allowed to be forgotten. One of the monkeys he had used for work on mumps remained in his animal room as a sort of pet, and Gordon always came away from lunch with a banana for it. One day he found the lift stuck between floors and an irate Sir Holburt Waring fuming inside it, whereupon Gordon gaily proffered him the banana through the bars of his temporary cage. Anyone who knew Waring will also know that courage as well as a sense of humour were required for this.

Gordon was so great a man and inspired such affection that he will always be remembered as an outstanding personality of his time. His example of single-mindedness in the pursuit of truth can rarely have been equalled. L.P.G.

We announce with regret the deaths of the following Bart.'s men:

Karl Bremers, July 19th (*Qualified* 1909).
Mervyn Henry Gordon, July 26 (*Qualified* 1898).
Gilbert Holroyd, June 14 (*Qualified* 1903).
John Arthur Oswald Briggs, July 12 (*Qualified* 1896).

LAND OF THE MORNING CALM

by Capt. A. D. MUNRO-FAURE, R.A.M.C.

This article was written just before the cease-fire.

KOREA is a beautiful country—a land of hills with ragged rock outlines and steep boulder-strewn faces, that nourish squat trees and tumble down to the highest paddies—small rectangles and triangles of earth chiselled from the hillside by generations of peasants. Down from these, step by step, come longer and larger fields, irrigated by ingenious water channels, bearing their crops of rice, maize, soya or vegetables. The valleys are gashed by river beds which in the dry season contain docile meandering streams, but in the rains overnight are filled with rushing turbulent waters that sweep pontoons aside like so many matchsticks.

"Gloucester Valley," in autumn, with a deep blue dustless sky—the rocky sides of the defile aglow with reds and browns of dying leaves—the clear stream and the dry yellow mud road winding and twisting along, is a sight not easily forgotten.

I was in Korea for only a short time and avoided alike the winter, when the north wind smacks down from Manchuria like ice—freezing indiscriminately ink, medicines, beer,—and the rains, when the dust roads become rivers of mud and bunkers are washed in and collapse, so perhaps I shall be called biased. Nevertheless, although the country is very uncomfortable and smells none too savoury, few will deny its beauty.

The Commonwealth Division has spent most of the two years of its existence guarding the traditional invasion route to the south—at first behind and later advancing some miles across the Imjin river to hold a line which included "Little Gibraltar," the grim and much fought over hill that dominates the surrounding country—and the Samichon valley down which Genghiz Khan led his invading hordes.

Along this line and separated from the Chinese by distances varying from two hundred to two thousand yards, lie the Commonwealth infantry, dug into the rocky earth, scattered in bunkers behind the crests of hills, living furtive uncomfortable lives. By day movement outside brings down the ugly crack of Chinese mortars or the blast of heavier metal. Night sends out the patrols—through the wire and the minefields—to ambush or in turn be ambushed. For the infantry, Korea means war—make no mistake.

In the Brigade areas, although well within range of the enemy guns (which every now and then demonstrate the fact), life is relatively peaceful and well ordered. Some of the field ambulance sites with their white-washed stone path edges, flagmasts and little gardens would not disgrace base units.

Battle Casualties

The medical support of the fighting troops does much to keep high their morale. If a wounded man reaches the regimental aid post alive, he stands a better chance of living than in any of the major campaigns of the last war—a chance well over 95 per cent. Again this is in part due to the static nature of the war, which has allowed the development of very speedy evacuation and surgery. In fact, the most trying and dangerous stage for the wounded man is the initial trip to the R.A.P. which may take several hours if he has been hit out on patrol.

If a man has been seriously wounded a telephone call will bring up a helicopter in 20 minutes to the R.A.P. and 10 minutes later he will be in the pre-operative or resuscitation section of a M.A.S.H. This rapidity of evacuation has brought its own little problems. No longer does the wounded man get his mug of sweetened tea at the R.A.P. The anaesthetist who sees him at the M.A.S.H. a quarter of an hour later objects to having to empty his stomach. More serious sometimes has been the too liberal use of morphine at forward posts.

The M.A.S.H. (or Mobile Army Surgical Hospital) to which the wounded man is flown if seriously injured or moved by road through the supporting sections of the field ambulances, is roughly equivalent to our C.C.S. (Casualty Clearing Station). Supporting our sector and within a few miles of the front are two such units—one American, the other Norwegian. Here the primary surgery is performed. Wounds are cleaned and dead tissue removed—and injured viscera are removed or repaired. Flesh wounds are left open (unsutured)—to be closed five to eight days later by delayed primary suture (D.P.S.). I had little direct contact with battle casualties, but gained the impression that the work and facilities of the M.A.S.H.s were of a high standard. Certainly resuscitation had reached a fine art. Arterial transfusion was used when warranted and at one M.A.S.H. an artificial kidney was available.

On a few points American surgery differs from the standard British procedure; thus the Americans always perform guillotine amputations.

Penetrating head injuries are flown direct from the R.A.P. to an American neuro-surgical unit. Of interest in this regard was the apparently lower incidence of head injuries among steel-helmeted U.S. troops than among Commonwealth troops with their notorious dislike of tin hats and affection for a variety of ramshackle headgear—from berets and jungle hats to balaclavas and stocking-like affairs perched on the head. The pendulum has swung back from this bare informality, and it is now compulsory to wear steel helmets in the line. Furthermore, the compressed nylon body armour is very popular with the infantry, who have seen how effective it is in stopping the light metal fragments of mortar bombs.

From the M.A.S.H.s, casualties are taken the 50 odd miles back to Seoul in a luxuriously equipped American ambulance train. A man wounded and operated on in the evening is usually moved on the train next day, but those with penetrating abdominal and chest wounds are, of course, held much longer. At Seoul the train is boarded by an R.A.F. doctor of the Casualty Air Evacuation Team (at present David Aubyn) who collects all Commonwealth troops on the train and arranges for them to be moved some miles across Seoul by road to the Britcom Comn. Z Medical Unit, a mixed Commonwealth unit to which I was attached for my stay in Korea. (Comn. Z is now good English for L. of C.*) This unit was not equipped for surgery and acted essentially as a sorting house to decide who should stay and who go—the long stop in the chain of evacuation in Korea; the next stop—Japan—lies 400 miles away, by air.

Battle casualties of any severity or those who require prolonged physiotherapy and rehabilitation are flown out every day or two by Royal Australian Air Force ambulance Dakotas to Iwakuni in Japan. This transport squadron has a magnificent record, and although they have flown many thousands of sorties since the start of the war, no serious accident has occurred.

Leaving Seoul in the morning, patients arrive in Japan about midday, where they board an ambulance launch for the final stage of their journey between the islands of the Inland Sea to the Commonwealth base hospital at Kure, which they reach in the evening.

This evacuation route may sound rather complicated and when functioning under pressure was certainly exhausting for the wounded man—but it stood up very well to the varied demands put on it. In heavy engagements the M.A.S.H.s might receive many hundred casualties daily; there was no time to attend to any except those where immediate surgery was imperative. Others were passed to the evacuation hospitals—large well-staffed American hospitals, such as our neighbour in Seoul. These in turn became saturated after a few days of heavy fighting, and men with minor wounds might then find themselves back in Kure 36 hours after wounding with their field dressings still on. This, of course, was exceptional, and is only mentioned to show how rapidly the many stages of the evacuation chain could be traversed, when necessary.

The base hospital in Kure houses some 1,000 beds and is staffed by British, Australian and Canadian doctors, sisters and orderlies. Integration is the key word. A Canadian (Indian, South African, New Zealand, or, in the early days, Turkish, Belgian, Dutch or French) patient may find himself in a ward with an Australian surgeon and British nursing staff. That it works smoothly is a tribute to all concerned.

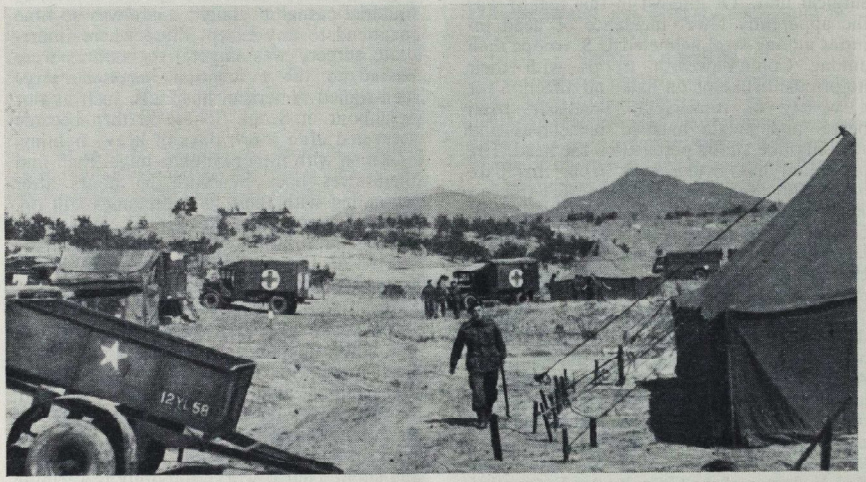
Here D.P.S. and definitive surgery are performed. Patients who will be fit for duty within three months are usually retained in the theatre of war. Those who are more seriously wounded are evacuated to their home countries by air as soon as they are fit to travel. The journey to Lyneham, in Wiltshire, by R.A.F. ambulance Hastings, takes about 10 days.

Those who stay go to a convalescent depot near the hospital—a rehabilitation unit, commanded by a physical medicine specialist and including a number of physiotherapists and P.T. instructors on the staff. Curiously enough most patients like it; the length of stay varies considerably, but probably averages about a month.

* Lines of Communication

Manpower Conservation

So far I have described how the average battle casualty is evacuated. An equally important function is the maintenance of the health and the fighting strength of the division, and there are two important factors peculiar to this campaign which must be stressed. Firstly, the battle line since October, 1951, has been relatively static and is likely to remain so; this has allowed units to sacrifice some of their mobility to achieve greater working efficiency. Secondly, the division is being supported from a base in another land 600 miles away by sea. Troops evacuated to Japan for medical reasons, even minor ones, are often lost to their units for unnecessarily long periods as a result of administrative inertia. Both these factors have led to a modification in the usual functions of standard divisional medical units—in an attempt to keep in Korea all who can possibly be kept. Thus the field ambulances in the line hold a few minor sick for as long as a week, while the field ambulance in reserve has become a sort of hospital—holding as many as a hundred minor sick for periods up to three weeks.



A British Field Ambulance in Korea

Behind the division and just outside the divisional area lies 25 Canadian Field Dressing Station—in huts—with a field surgical team and the divisional psychiatrists (one Canadian, one British) attached. This unit has over a hundred beds. Apart from appendicectomies, repairs of hernias, circumcisions, etc., this unit, in quiet times, carries out D.P.S. on many minor battle casualties, who are taken off the ambulance train from the M.A.S.H.s at Seoul and evacuated some 30 miles forward by road for this purpose!

Thirty miles behind the Canadian F.D.S. and situated in Seoul is the Britcom Comn. Z. Medical Unit—with anything from 70 to 150 patients and with rather a flexible holding policy, depending on the tactical situation. This unit functions as an airhead holding unit, and as a filter trying to hold in Korea all who can possibly be held. It has two great advantages. Firstly, nursing sisters are attached and thus a number of seriously ill patients can be cared for; secondly, there is a large American hospital nearby, where consultant and X-ray services are freely available.

It can be seen then that there are between three and four hundred beds available in Korea itself for treatment of the minor sick of the division.

There is also an excellent rest camp at Inchon—on the coast—where patients can be sent for convalescence. Taking it by and large, men who will be fit for duty within a month are retained in Korea.

Preventive Medicine

The general health of the troops is excellent. Splendidly fed (on a combination of the best of American and British rations) and superbly clothed, the extremes of the environment are to some extent neutralised.

Ear and skin affections in summer are troublesome, but not of serious proportions. The rarity of cold injury in winter is a reflection of the high state of discipline. Unfortunately, the wide-scale provision of heating appliances resulted in a considerable number of serious burns. Road accidents were, however, few, as the poor roads precluded high-speed driving.

Although most diseases known to man (with the notable exception of falciparum malaria) appear to be endemic in Korea—preventive measures have been so successful that no serious outbreak has occurred. Troops are immunised against smallpox, cholera, epidemic typhus, tetanus and enteric fever. Inoculation against Japanese B encephalitis and influenza were discontinued as their efficacy was doubtful. One or two cases of what may possibly have been mild smallpox (and which had perforce to be treated as such) occurred in Commonwealth troops. Early in the campaign a handful of U.S. troops did develop smallpox—some the dread purpura variolosa; all were shown to have been improperly vaccinated. I cannot remember seeing any cases of enteric, and certainly no cases of cholera, typhus or tetanus occurred.

Vivax malaria is endemic in Korea, and was not uncommon—more particularly in troops returning from Korea to Japan where suppresive treatment was not enforced. (Although suitable vectors appear to be present, there is curiously no malaria in Japan.) The striking tendency of vivax malaria to show itself clinically for the first time in the spring, was often seen. Men who could not have been infected later than the previous autumn, and who took no suppresive throughout the winter in Japan, remained well until the warmer weather of April and May when they developed their first clinical attacks. Commonwealth troops in Korea take 100 mgms. paludrine daily for suppression; the Americans take 500 mgms. of chloroquine diphosphate once a week. The methods appeared equally effective. There is no doubt that some cases of proguanil (paludrine) resistant malaria occurred. I do not know if any cases of chloroquine resistance were noted by the Americans. Treatment nearly always included a 10-day course of pamaquin (10 mgms. t.d.s.) which kept the relapse rate satisfactorily low.

Medicine

In a brief survey of this nature, I can only try and give a few impressions of some of the disorders we had to treat.

Tonsillitis, sinusitis and pneumonia were common—the vast majority of the pneumonias being segmental and of the "aspiration" type. The dusty roads of Korea in summer gave rise to a considerable amount of asthmatic bronchitis which was very resistant to treatment—both with antibiotics and antispasmodics. The incidence of pulmonary tuberculosis and of primary pleural effusion was about average in a hospital draining a population of some thirty to forty thousand, despite the very high incidence among both Koreans and Japanese.

Haematemesis and melaena were uncommon despite a high incidence of recurrent dyspepsia among the troops. In the army some criterion has to be adopted before a man can be kept out of the line because of dyspepsia, and the criterion adopted is definite radiological evidence of ulceration. This may be hard on the 30 per cent. or so who are supposed to be missed by X-ray, but there is no alternative if the division is not to melt away. This fact is pointed out to the unfortunates who have normal X-rays, before they sadly return to their units with small sacks of mag. trisil. over their shoulders. The considerable number of barium meals which this entailed amply repaid the time and money spent, as word soon gets around that pains in the stomach are not a passport to Japan and the numbers reporting sick with this complaint fall.

I am firmly convinced—in this age group anyway—that it is impossible to distinguish, from the history, between psychogenic dyspepsia and dyspepsia with ulceration. The majority of men with classical symptoms of ulceration have normal X-rays; conversely, some with pain confidently labelled psychogenic showed ulceration on X-ray.

Many men suffered from joint pains and "rheumatism" in the wet weather, which was not surprising considering the damp holes in which they had to live. For the same reason as the dyspeptics, these had to be dealt with rather harshly. Polyarthritis was fairly common — some cases showing true metastatic gonococcal arthritis (and respond-

ing dramatically to penicillin), but more were of a reactive type—the sensitising infection being presumably streptococcal or, as we suspected in many cases, gonococcal. We did not see any cases following bacillary dysentery, but had a number associated with non-specific urethritis. These cases of rheumatoid type, with acute or sub-acute onset, were not usually progressive and cleared up in three or four months. True rheumatic fever with carditis was very rare.

As might be excepted, cardiovascular disease was rare. However, I can remember the shock suffered by our pathologist in Kure when, on his twenty-eighth birthday, he was called to do an autopsy on a soldier of the same age who had died suddenly—and found the cause of death to be coronary atheroma and thrombosis; it quite damped his spirits for the rest of the day. I must also record the achievement of one M.O. who, when a previously fit 29-year-old Australian reported sick with a rigor, clapped a stethoscope on his chest, heard a rushing noise all over and promptly diagnosed him as having a coarctation of the aorta with ? malaria. The fever did not recur and we were a bit sceptical of the other diagnosis. The rushing noise, however, persisted, and he was sent home to Australia, where the pundits confirmed coarctation of the aorta with subaortic stenosis. Pretty good work, what?

A few cases of vague encephalitides occurred in the summer months, one of which gave positive serological reactions for Jap B encephalitis. This disease, however, is rarely recognised between epidemic years, and although some cases were reported from Tokyo every summer, no epidemic occurred while I was in Japan. Fortunately, we saw no rabies.

Viral hepatitis was the most important single medical cause of long-term absence from units. Cases were sporadic and only one small epidemic was traced—transmission occurring at inoculation three months before the onset of illness. Some 16.9 per cent. of a series of 95 patients with hepatitis were found to have been tattooed during the six months preceding the illness, compared with 7.6 per cent. in a simultaneous control group of 524. Only a few cases occurred in the theatre following transfusion; in most the cause was thought to be water-borne infection with IH virus.

The disease was mild in all except heavy drinkers and those who had previously undergone periods of severe malnutrition (i.e. ex-P.O.W.s). I was privileged to spend a week attached to an American hospital in Japan which dealt exclusively with infective hepatitis and was the scene of a large-scale research project investigating methods of treatment. It has been shown conclusively at this hospital that forced feeding of a 5,000-calorie high protein diet daily from the start of the illness results in recovery approximately one week sooner than if the patient merely eats what he feels like. This is of little practical importance as the labour involved in enforcing this regime is herculean. It was also shown that "ad lib. ambulation" (which means that patients may wander around out of bed if they feel like it) does not retard recovery in any way.

Interesting but uncommon conditions that we encountered included the Stevens-Johnson syndrome and other variations of the ocular-mucous membrane syndrome, sprue, scrub typhus—one of which gave a profuse growth of Proteus from his urine but we never discovered if his serum would agglutinate a suspension made from it—relapsing fever, one case only, and acute labyrinthitis. For the benefit of the medical officer to the students I might add that in two years from a population of between thirty and forty thousand young adults there were no cases of Hodgkin's disease! We were able to use chloroquine diphosphate in amoebic hepatitis, but never did so without emetine, so were unable to assess its true value. Many Americans did not use emetine, regarding it as too toxic—and claimed to get as good results with mepacrine and carbarsone. Like chloroquine, mepacrine is concentrated several hundred times in the cells of the liver, exerting a strongly amoebicidal action. For subsequent treatment of the latent intestinal infection, they relied entirely on carbarsone or other pentavalent arsenicals. The one man we treated this way (plus aspiration of his abscess) fared very well.

The most interesting disease we met was one not previously known to Western medicine, although the Russians and Japanese had described it in Eastern Asia—calling it respectively haemorrhagic typhoso-nephritis and epidemic haemorrhagic fever.

In the winter of 1950-51 Chinese troops entered Korea. In May and June, 1951, we started hearing reports of a disease resembling Weil's disease occuring among American troops. The outbreak had apparently

died out when, in September, the U.N. forces in the west launched a limited offensive to straighten the line. Commonwealth troops crossed the Imjin and took up new positions some miles north of the river—in many cases occupying old Chinese redoubts. Almost at once cases of haemorrhagic fever started coming back and during the next four months we received some 40 cases in Japan.

The cause of the disease is unknown: inoculation of experimental animals has so far failed to reproduce it. The disease only arises along the front in areas where the Chinese have been established; one small outbreak occurred in a laundry some miles back. Cases are sporadic, and it seems likely that an insect vector is concerned in transmission. There are two seasonal peaks—in the spring and the late autumn; in the heat of summer and the cold of winter, the disease dies out.

The typical case shows a very sudden onset. High fever (sometimes with chills), severe frontal headache and profound malaise are accompanied by a peculiar bronze flushing of the face and neck. The chief differential diagnosis at this stage is from streptococcal toxaemia. The high fever persists for five or six days with increasing prostration, and often with the appearance of a few petechiae in areas subjected to minor trauma. By the fourth or fifth day abdominal discomfort and some vomiting develop. The temperature falls by rapid lysis, the vomiting increases and urinary output falls abruptly—with massive haematuria or anuria. Patients are now very ill and difficult to manage, with severe abdominal and lumbar pain, and vomiting precipitated by any interference. Fortunately, the urine flow usually becomes re-established within 24 or 48 hours and output increases so rapidly that dehydration has to be carefully avoided. Improvement soon follows. Within a week the appetite is improving and uraemia and albuminuria fast disappearing. Polyuria with nocturia, and lumbar pain remain troublesome for a further month or so. The urine excreted when flow is re-established is of very low specific gravity, 1003 or 1004, although concentration tests will bring it up to 1010. The ability to concentrate returns slowly and it may be three or four months before a S.G. of 1024 is attained after 18 hours fluid deprivation. Relapses do not occur and recovery in those that survive appears to be complete. The mortality is now very low.

The course described is one of average severity. Milder cases often went unrecognised until albuminuria, nocturia and inability to concentrate the urine developed. Severe cases were attended with more widespread haemorrhage and more prolonged anuria.

Pathologically the disease is characterised in cases that die by widespread haemorrhage into almost all organs—the most severely involved being the renal cortices, adrenals, skin and mucosae, and heart. There is marked capillary fragility. The peripheral blood usually shows a polymorpholeucocytosis, counts as high as 50,000 being common, with many primitive cells of the myeloid series present. Thrombocytopenia is moderate.

There is no specific treatment; all known antibiotics are ineffective. The essential factors in reducing the severity of the disease and the mortality were soon found to be (1) early diagnosis, (2) rapid evacuation to a centre where expert nursing is available, and (3) avoidance of all unnecessary interference. Early in 1952 the U.S. Army sent a magnificently staffed and equipped M.A.S.H. to Korea for the treatment of haemorrhagic fever cases. Since then all Commonwealth troops suspected of having the disease have been flown straight to this M.A.S.H. by helicopter, where they remain until well again. The great accuracy attained in early diagnosis by the R.M.O.s and field ambulance M.O.s, the avoidance of bumpy road travel, quick evacuation to the M.A.S.H., and the excellent attention given there, have all contributed to the fall in mortality.

Bart.'s

No account of this nature, however brief, would be complete without mentioning the names of those distinguished and convivial alumni of the Royal and Ancient who have been banished or who have gravitated to that far-off theatre; my thanks are due to all of them—to Colonel J. E. Snow, O.B.E., who was the first C.O. of the Commonwealth hospital—to Lt.-Col. Peter Brown, M.B.E., till recently O/C Medical Division at the hospital and under whom I was fortunate to work—to Major Desmond Tucker, M.B.E., D.A.D.M.S., of the division to John Ainley-Walker, who gave anaesthetics—and last but not least to Michael (Sam) Gilks, the only M.O. I have known who has squirted a soda-siphon at his A.D.M.S. and got away with it.

LETTERS TO THE EDITOR

1890-1900

Dear Sir,

I was much interested in your Editorial notes in the July number of the Journal.

Under the heading 'Battles Long Ago' you mention the name of three of the members of the Soccer XI representing the Hospital in 1889-90: and also publish a group photograph. Among the names mentioned as being still alive is that of R. G. Hogarth. At the time your notes were written he probably was. It will be a matter of great regret to those remaining veterans who played in the team to know that he died on the 29th June last. A copy of the photograph published in the Journal hung in his Consulting Room up to the time of his death at the age of 85 years. He was up to the end deeply interested in the battles for the Hospital Cup and frequently talked of the struggle to win and retain it.

He played for the Casuals, Corinthians and the London Caledonians, and occasionally for Wolverhampton Wanderers. His interest in football he retained in his later life and for some years was President of the Nottingham Forest Football Club. He was keenly interested in Cricket, being a member of the Committee of Notts County Cricket Club for many years, and was a former President.

S. A. Coulby, the Captain, practised in Nottingham until his death.

Many of the students of decade 1890-1900 will be glad to see the photograph.

Yours truly,

W. T. ROWE

Nottingham.

BART.'S SPORT!

Dear Sir,

I was delighted to see a Bart.'s IV rowing for the Wyfold Cup at Henley Regatta on 1st July. They rowed a very plucky race against a strong R.A.F. crew who only beat them in the second fastest time for this event on that particular day.

They were unlucky to run into such a tough proposition on the first day of the Regatta, as the R.A.F. beat the record for the Wyfold next day and then won the final. Please give them the congratulations of a past member of the Club (1908 vintage) and wish them from me the best of luck next year. Incidentally, when the Inter Hospitals Rowing was revived in 1908, two fours competed instead of one eight.

Yours sincerely,

E. BRUCE ALLNUTT

Farnham, Surrey.

SPORT

ROWING

Kingston Regatta

In the Wyfold Fours the Light Four in the first round beat the University of London B.C., rowing as the *Bloomsbury Bellnotes*, by 1¾ lengths.; In the second heat they beat Kingston R.C. easily. In the semi-final they came up against Molesey B.C. who reached the final of the Wyfold Cup at Henley. After being led off the start by 1½ lengths Bart.'s drew back steadily and were ½ length down, when a pleasure boat drew on to the course.

The race was re-started with about a minute and a half to go. In fifteen strokes Bart.'s had got just ahead, but had got off station, collided and were duly disqualified. Molesey won the final.

Molesey Regatta

Wyfold Fours: In the first round Bart.'s had a bye. In the second round they beat Henley R.C. easily. In the semi-final they met R.A.F. (Benson) R.C. After a minute and a half the crews, rowing level, collided. Bart.'s had to stop rowing, and by the time they were going again were 2 lengths down. R.A.F. won by 2 lengths and also won the final.

Stewards Fours: The four also entered for the Senior Fours, Stewards Class. This is probably the first Grand Class event ever to be entered by the Hospital. In the semi-final they were drawn against London R.C., which was the four which raced in the Stewards Cup at Henley. London obtained a length in the first minute, Bart.'s came back and half-way led by a few feet. Later London drew away to ¾ length, but after the sprint to the finish the verdict was only ½ length after 5½ minutes' rowing. The steering of both crews was erratic, but no collision occurred. In the final London R.C. were disqualified when leading Thames R.C. by ½ length.

Metropolitan Amateur Regatta

Horton Cup for Wyfold Fours: In the first round Bart.'s raced National Provincial Bank R.C. and King's College, London, B.C. Bart.'s had an early lead of 1 length, when the other crews collided. The final verdict was "easily." In the semi-final they raced the same four members of the University of London VIII. Bart.'s were led by ¼ length at the start, drew ahead to 1 length, the other crew closed to ½ length, but Bart.'s drew away to win by ¾ length.

In the final they met the same Molesey B.C. IV. Molesey had an accident after the start and lost some 3 to 4 lengths. Before the final verdict of "easily" was reached this distance had been nearly doubled.

This cup has never been won by a hospital before. Also it is, as far as is known, the first Open Senior Event to be won by this Hospital in any open Regatta anywhere. As such it is an appropriate end to the season's rowing.

The crew has rowed in 16 races, won 10 races, lost 6, in every case to a crew which has won the event or been disqualified in the next round, been beaten by fours from R.A.F. (Benson) R.C. 3 times, beaten the University of London twice, been disqualified once and won the event outright twice.

It has been coached at various times by:

T. Edwards, 1st and 3rd Trinity B.C. and L.R.C.

Dr. A. G. S. Bailey, G. and C.C.B.C. and Leander.

P. N. Carpmael, C.U.B.C., I.C.B.C., Leander and L.R.C.

Crew: C. N. Hudson (Radley & Queens') bow, steers. 2 J. F. G. Pigott (Westminster). 3 D. H. Black (Bedford Modern & R.A.F. (Benson) R.C.). J. M. Gray (Westminster and L.R.C.) stroke.

CRICKET

Semi-Final of the Hospitals Cup

St. Bart.'s v. St. Thomas's

On June 7 Lost

Bart.'s

F. D. C. Ford, c Webb, b Williamson	6
B. N. Foy, c Kittermaster, b Mounfield	36
P. Ryecroft, b Williamson	4
M. Brainbridge, run out	1
J. R. Nicholson, lbw Thomas	18
D. Roche, c Childs, b Thomas	0
A. C. S. Bloomer, c Kittermaster, b Thomas	10
C. P. Juniper, b Mounfield	0
D. Lawson, lbw Thomas	3
F. W. Winton, not out	1
D. Roxborough, c Childs, b Williamson	6
Extras	10
Total	95

St. Thomas's

Kittermaster, b Rosborough	3
Childs, b Rosborough	21
Hartley, b Rosborough	18
Webb, not out	44
Moore, not out	3
Extras	8
Total (for 3 wkts)	97

Past v. Present

On June 7. Present won.

Past

J. T. Harold, b Ford	31
A. Murley, st Roche, b Ford	25
J. Tomlinson, b Rosborough	30
R. Heyland, b Foy	4
R. Gilbert, c Rosborough, b Foy	0
C. T. James, c Juniper, b Foy	0
S. Stephen, not out	51
P. Lucas, b Ford	1
H. Ross, b Bloomer	26
N. Oswald, b Winton	1
J. O'Connell, not out	4
Extras	10
Total (for 9 wks dec.)	183

Present

F. D. C. Ford, st. Murley, b Ross	43
B. N. Foy, c Stephen, b Lucas	17
P. Rycroft, b Tomlinson	5
C. P. Juniper, b Ross	26
J. R. Nicholson, not out	35
D. Roche, b Lucas	23
A. C. S. Bloomer, not out	16
Extras	19
Total (for 5 wkts)	184

1st XI v. Hornsey on July 4. Match lost. Hornsey 165 for 3 declared; St. Bart.'s 141 (Rycroft 74, Bloomer 22).

1st XI v. Hampstead on July 11. Match drawn. Hampstead 200 for 6 declared (Roxborough 3 for 66), (Winton 2 for 39); St. Bart.'s 199 for 9 (Nicholson 62, Rycroft 49, Roche 27).

1st XI v. Brondesbury on July 25. Match won. Brondesbury 107 (Ford 6 for 31, Roxborough 2 for 21); St. Bart.'s 109 for 5 (Rycroft 39, Scott-Brown 43).

1st XI v. R.N.V.R. on July 26 Match lost. R.N.V.R. 141 (Ford 3 for 20, Lucas 3 for 22, Winton 2 for 17); St. Bart.'s 91 (Ford 25).

HOSPITAL APPOINTMENTS

The following appointments to the Medical Staff have been made with effect from the 1st October, 1953:—

Dr. Bourne's firm:

Registrar.—Dr. J. P. D. Thomas (vice Kok) for one year.

Junior Registrar.—Mr. M. W. Partington (vice J. P. D. Thomas) for one year.

RECENT PAPERS BY BART.'S MEN

BANKS, H. S. Treatment of non-tuberculous meningitis. *Proc. Roy. Soc. Med.*, 46, March, 1953, pp. 149-151.

*——. Whooping-cough. *Brit. Med. J.*, March 31, 1951, p. 689.

*BETT, W. R. Alphonse Bertillon (1853-1914). *Med. Press*, April 22, 1953, p. 381.

*——. Medicine and Nursing in the first Elizabethan Era. *Nursing Mirror*, 97, May 22, 1953, iii.

*——. Medicine in the past. *Med. Press*, May 27, 1953, pp. 490-94.

*——. Sir Frederick Treeves, Bart (1853-1923). *Annals. Roy. Coll. Surg.*, 12, March, 1953, pp. 189-193.

*——. Soldier for Science. The story of William Beaumont (1785-1853). *Health Horizon*, Spring, 1953, p. 24.

*BROOKE, B. N. The development of surgery for ulcerative colitis. *Annals. Roy. Coll. Surg.*, 8, 1951, pp. 440-56.

*CHRISTIE, R. V. Dyspnoea in relation to the visco-elastic properties in the lung. *Proc. Roy. Soc. Med.*, 46, May, 1953, pp. 381-386.

*COHEN, E. L. The use of cold in the treatment of cutaneous disorders. *Brit. J. Physical Med.*, 16, March, 1953.

*COPPLESTONE, J. F. The surgery of the sympathetic chain in peripheral vascular disorders. *Tufts Med. J.*, 10, Jan., 1953, pp. 39-46.

*COTES, J. E. Decompression sickness with post-decompression collapse: an account of three cases. *Flying Personnel Research Committee*, 825, April, 1953.

*——, (and GRONOW, D. G. C.). Influence of age and weight upon the incidence of decompression sickness. *Flying Personnel Research Committee*, 795, June, 1952.

*DALRYMPLE-CHAMPNEYS, Sir Weldon. Brucella infections in man and animals in Great Britain: Epidemiology and the future. *Veterinary Record*, 65, Feb., 1953.

*——. Undulant fever (Brucellosis). *Brit. Encycl. Med. Practice*, 2nd Edit., 12, 1952, pp. 423-439.

DAVIES, H. T., and GALBRAITH, H.-J. B. Goitre and hypothyroidism developing during treatment with P.A.S. *Brit. Med. J.*, June 6, 1953, p. 1261.

*DAY, G. Hunterian Society Oration, Feb. 25, 1952.

*DISCOMBE, G. Drug idiosyncrasy and drug sensitization. *Practitioner*, 170, April, 1953, pp. 373-380.

*——. The physiological approach to iron-deficiency anaemia. *Med. Press*, April 8, 1953, pp. 326-331.

*EVANS, Frankis T., and GRAY, P. W. S. Continuous intravenous Thiopentone - flaxedil. *Anaesthesia*, 8, April, 1953, pp. 104-107.

——. Labels for syringes. *Anaesthesia*, 8, April 1953, p. 121.

FLETCHER, E. Diagnosis and treatment of osteo-arthritis. *Med. Press*, March 25, 1953, pp. 273-275.

*FOOTE, R. R. Varicose veins: a survey of the modern surgical approach. *Med. Press*, May 6, 1953, pp. 419-422.

*FRANKLIN, A. White. Modern treatment of anaemia in infants. *Med. Press*, May 20, 1953, pp. 461-465.

GALBRAITH, H.-J. B., see DAVIES, H. T. and ——.

*GARROD, L. P. Combined chemotherapy in bacterial infections. *Brit. Med. J.*, May 2, 1953, pp. 953-957.

*GILLIES, Sir Harold. Plastic surgery. *Med. Press*, 7, May, 1953, pp. 396-402.

GORDON, Mervyn. Pathogensis of Hodgkin's Disease. *Brit. Med. J.*, April 18, 1953, pp. 860-861.

*GOULD, J. Criminal responsibility and the mental defective. *Med. Press*, April 15, 1953, pp. 349-354.

*——. The nature of autohypnosis in the light of clinical experience. *J. Mental Health*, 99, April, 1953, pp. 273-284.

——, (CYRIAX, J., and ——.) Pain in the trunk. *Brit. Med. J.*, May 16, 1953, pp. 1077-1081.

*——. Treatment of delirium, psychosis and coma due to drugs. *Lancet*, March 21, 1953, pp. 570-573.

GRAY, P. W. S., see EVANS, Frankis T. and ——.

HEATHFIELD, K. W. G. ? Post-encephalitic Amyotrophy. *Proc. Roy. Soc. Med.*, 46, March, 1953, p. 197.

HENDERSON, R. S., (and ROUILLARD, L. H.). Types of injury in run-over lower limbs. *Proc. Roy. Soc. Med.*, 46, May, 1953, pp. 350-351.

*HORDER, Rt. Hon. Lord. Medicine in the future. *Med. Press*, May 27, 1953, pp. 498-499.

——. Some crowning achievements of British medicine. *Med. Illus.*, 7, May, 1953, pp. 275-278.

*HUBBLE, D. Familiar cretinism. *Lancet*, June 6, 1953, pp. 1112-1117.

*HUNT, A. H. Double suture-passer. (New inventions.) *Lancet*, May 2, 1953, p. 884.

*HUNTER, R. A., (and MACALPINE, I.). Follow-up study of a case treated in 1910 by "The Freud psycho-analytic method." *Brit. J. Med. Psych.*, 26, 1953, pp. 64-67.

*——. Morceaux de piano et scène primitive. *Revue Française de Psychanalyse*, 16, 1952, p. 319.

*JONES, A. Irradiation sarcoma. *Brit. J. Radiol.*, 26, June, 1953, pp. 273-284.

JONES, F. Avery. The approach to medical research. *Brit. Med. Students J.*, 7, Summer, 1953, pp. 5-6.

*KENNAWAY, Sir Ernest L., and KENNAWAY, N. M. The incidence of cancer in the lung in the coal miners in England and Wales. *Brit. J. Cancer*, 7, March, 1953, pp. 10-18.

*KINMONTH, J. B. Refresher course for general practitioners. Intermittent claudication. *Brit. Med. J.*, June 13, 1953, pp. 1325-1327.

*KNOX, R., and others. Investigation of antituberculosis substances. *Lancet*, March 21, 1953, pp. 573-575.

*LEHMANN, H. The sickle-cell: Not an essentially Negroid feature. *Man*, 5, 1953.

*——, and SILK, E. Succinylmonocholine. *Brit. Med. J.*, April 4, 1953, pp. 767-768.

LEVITT, W. M. Achievement and promise in the radiotherapy of cancer. *Med. Illus.*, 7, May, 1953, pp. 302-308.

*——. The Anaesthetist and liability in negligence. *Anaesthesia*, 8, April, 1953, pp. 74-78.

*LOVELOCK, J. E., and others. Preservation of bull semen at −79° C. *Vetinerary Rec.*, 64, July, 1952.

*——. Resuspension in plasma of human red blood-cells frozen in glycerol. *Lancet*, June 21, 1952, pp. 1238-1239.

MILLICHAP, J. G., (and KIRMAN, B. H.). Nephrotoxic effects of drugs used in treatment of petit mal. *Lancet*, May 30, 1953, pp. 1074-1075.

*NOON, C. The late Sir Holburt Waring (Obituary). *Lancet*, Feb. 28, 1953, p. 448.

*PAYNE, R. T. Submaxillary and sublingual glands diseases. *Brit. Encycl. Med. Pract.*, 2nd Edit., 2, 1952, pp. 603-618.

*POTTER, J. M. Robert Bridges (1844-1930). Medicine as a training for Poetry? *Oxford Med. Sch. Gaz.*, 5, 2, 1953, pp. 74-84.

RADCLIFFE, W. Tuberculosis and the family doctor. *NAPT Bulletin*, April, 1953, pp. 38-39.

*REESE, A. J. M. Bilateral carcinoma of the breast. *Brit. J. Surg.*, 40, March, 1953, pp. 428-433.

RUNDLE, F. F. Surgical aspects of the treatment of peptic ulcer. *Med. J. Australia*, Feb., 28, 1953, pp. 293-297.

*SCOTT, R. Bodley. Treatment of polycythaemia rubia vera. *Brit. Med. J.*, May 23, 1953, pp. 1128-1131.

——. Trends in haematology. *Med. Illus.*, 7, May, 1953, pp. 338-343.

*SELWYN-CLARKE, Sir Selwyn. The Bight of Benin and beyond; some experiences in the Colonial Medical Service. *Lancet*, April 25, 1953, pp. 843-845.

*SHAH, J. M. Sexual impotence in the male—two ominous signs. *J. Pakistan Med. Ass.*, 3, March, 1953.

SILK, E., see LEHMANN, H. and ——.

STALLARD, H. B. Technique of lamellar sclerar resection. *Brit. J. Ophthal.*, 37, April, 1953, pp. 223-228.

*WELLS, B. G. Electrocardiography during anaesthesia. *Anaesthesia*, 8, April, 1953, pp. 99-103.

WICKES, I. G. A history of infant feeding: Parts I and II. *Arch. Dis. Childh.*, 28, April-June, 1953, pp. 151-158, 232-240.

*WILLIAMS, I. G. The Xanthomatoses. *J. Facult. Radiol.*, 4, April, 1953, pp. 235-244.

*WINNICOTT, D. W. Psychoses and child care. *Brit. J. Med. Psychol.*, 26, 1953, pp. 68-74.

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

EXAMINATION RESULTS

UNIVERSITY OF OXFORD

2nd B.M. Examination, Trinity Term, 1953

Medicine, Surgery and Midwifery

Best, R. W. G. P.
Fairley, J. H.
Rewcastle, R. M.
Ross, J. G.

1st B.M. Examination

Anatomy and Physiology

Barnes, J. M.

UNIVERSITY OF LONDON

Examination for the Academic Postgraduate Diploma in Public Health

June, 1953

Sanyal, M. C.

Examination for the Academic Postgraduate Diploma in Tropical Medicine and Hygiene

June, 1953

Jordan, P.

Examination for the Academic Postgraduate Diploma in Medical Radiology (Diagnosis)

July, 1953

Kamdar, K. N.

ROYAL COLLEGE OF SURGEONS

At the Primary Examination held in **January, 1953,** the following were successful:—

Akchurst, A. C.
Griffiths, J. D.
Whiteley, M. M.

CONJOINT BOARD, Final Examination, July, 1953

Pathology
Mellows, J. W. Tillyard, S. A.

Medicine
Dickman, H. R. Hick, B. D.
Eminson, B. I. F. Scott, H. G.
France, G.

Surgery
Green, A. N.

Midwifery
Allan, R. France, G.
Adam, R. M. Mears, M. E.
Caiger, V. G. Scott, H. G.
Carrick, D. J. E. L. Walker, L.

The following students have completed the examination for the **Diplomas M.R.C.S., L.R.C.P.:—**
Caiger, V. G. Hick, B. D.
Dickman, H. R. Scott, H. G.
Eminson, B. I. F.

BOOK REVIEWS

MEDICINE, edited by Garland and Phillips, Macmillan. 2 vols., pp. 2146., illus. Price £6.

This book is a major contribution to medical literature, not only because of its size and the excellence of its contributions, but because of its approach.

A general text-book should not try to usurp the place of the current periodicals in its discussion of therapeutics, or attempt to rival the encyclopaedic information to be found in the best monographs. Its function is to supply a viewpoint on current opinion concisely and with clarity. Many text-books adopt an exclusively mechanistic approach, giving the impression that successful medicine is merely a matter of having enough diagnostic pigeon-holes into which the patients can be popped; their emphasis is on organic abnormalities. The flow of function is forgotten and the magic lantern mentality encouraged. The patient is isolated from his disease. In addition psychology and psychiatry are pushed unceremoniously to the end of the book, where, for the average reader, they remain, unloved and unread.

To remedy this the editors of this book have decided that the patient shall be seen first as a whole, fitting into a place in society. The opening chapters discuss the components of health and how these are modified to produce disease. Mind, body and environment are considered on equal terms.

The editors have been extremely fortunate in finding so many contributors able to write about these subjects so clearly and so well. Even the psychological harlequinade of Ego, Id and Superego appears for once discernible through the fog of verbiage which always surrounds their activities. The chapters on medicine in society and the natural history of disease are a delight to read.

The more conventional sections on systemic disease are written with authority and are easy to consult. They are as good or better than those of most other text-books. More selected references might have been included with advantage. There are additional chapters on aviation and industrial medicine.

The typography is large and clear and the paper is good. The illustrations are adequate and the radiographs excellent. The tables are well spaced and helpful. It is a tiresome economy to rob the first volume of its index. The binding is neat and the book reads easily. Its price should not be allowed to act as a deterent—it is worth every penny.

This book is strongly recommended to all those whose interest in medicine stretches beyond the acquisition of diplomas and especially to those who, in the pursuit of higher knowledge, are lost in the never-never lands of eponymous syndromasia.

PULMONARY TUBERCULOSIS (Third Edition). Pagel, Simmonds and MacDonald. Oxford University Press, pp. 728. Price 84s.

This third edition of Kayne, Pagel and O'Shaughnessy's "Pulmonary Tuberculosis" will become a standard textbook for those engaged in chest medicine and for postgraduate students of the subject.

For the medical student or postgraduate interested in general medicine it will provide a most valuable reference book and the chapter "The Evolution of Tuberculosis in Man" is well worth reading for all. One of the difficulties in the study of pulmonary tuberculosis is an understanding of the positions of the familiar manifestations of this condition in the general pattern of the disease; this chapter and the later one on "Forms of Pulmonary Tuberculosis" provide a clear explanation although the complex pathological arguments in the first of these chapters at times become rather exhausting.

Most chapters contain, as well as references to papers mentioned in the text, a useful additional

bibliography often with very brief but adequate summaries of the papers included.

The text is generously supplied with illustrations but it is unfortunate that the first is a rather untidy line drawing, and surely the disadvantage of the unfamiliarity which most readers have with positive radiographs outweighs the technical difficulties of providing satisfactory negative reproductions? The few radiographs which are in the negative seem quite satisfactory even if one of them, of a normal chest, is rather unnecessary in a book of this type.

As for details; the definition of allergy as the difference between the body's response to a second or later dose of antigen and to the first dose, is attractively simple. Without wishing to underrate the importance of excluding tuberculosis in patients with haemoptysis, is it accurate to-day to say that "true haemoptysis is most commonly due to progressive tuberculosis"? The only typographical error noted was that N. C. Oswald's initials were incorrect in a reference to his work on rat tuberculosis.

A most valuable, well produced and comprehensive book.

AN APPROACH TO CLINICAL SURGERY. G. H. C. Ovens. Churchill, 309 pp., illus. Price 22s. 6d.

This book is designed to help the student on the introductory course approach the patient's bedside with some degree of confidence in his ability to ask the right questions and feel in the right places. One-third of the text is devoted to general principles, and very clearly expressed it is, the rest to special schemes for history taking and examining various regions, all of which amplify the general scheme that opens this section. Space could well have been saved here by careful cutting of repetition. On the whole the photographs are good, but it surely wrong to show late cancer of the breast in photographs without stating that this is a late phenomenon, and that diagnosis must be made earlier, in the stages when treatment will be most successful. A good book, that could be improved by thinning and price cutting.

CLINICAL NEUROLOGY, Elliott, Hughes and Turner, Cassell, pp. 751, illus. Price 42s.

It is obvious that the authors of this new and well written text-book of neurology have given much time and thought to presenting their work so that the student may best understand, and thus know his subject.

In Section I it is seen that physiology is given its correct emphasis in explaining logically the basis of neurological symptons : thus dispelling the confused picture previously presented by the older text-book of physiology and neurology.

The novel idea of getting a surgical colleague to write the section on intra-cranial tumours is long overdue since this is, of course, his rightful domain.

To stress the clinical picture of the less common diseases the inclusion of suitable photographs of these conditions would be a helpful addition.

Advertisements

CONTRACEPTIVE TECHNIQUE

A lecture and demonstration (on living models) on contraceptive technique will be given by Dr. Marie Stopes at the Mothers' Clinic, 108 Whitfield Street, London, W.1, on Thursday, 1st October, at 2.30 p.m., to the medical profession only—practitioners and senior students having passed their midwifery. No fee is charged but tickets must be obtained in advance as space is very limited.

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MEDICAL DEPARTMENT

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