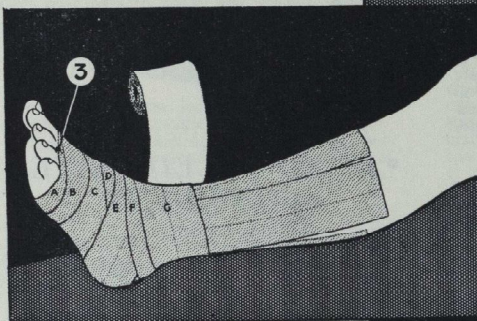
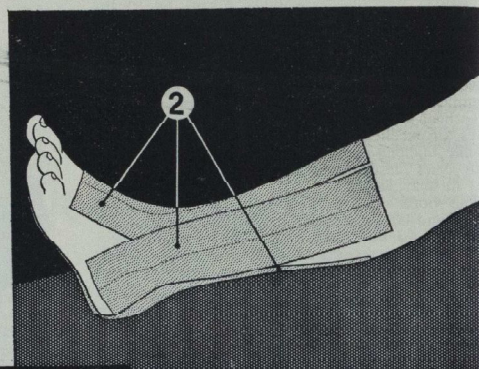


# Elastoplast Bandaging Technique

## IN THE TREATMENT OF Varicose Conditions

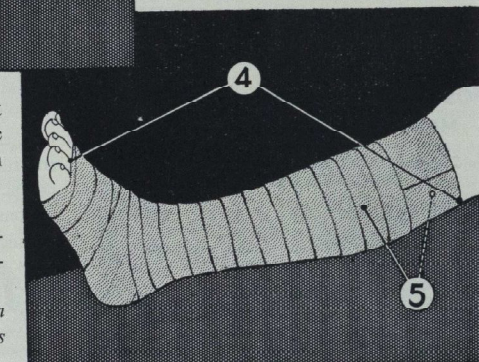
1 The leg should be elevated and the foot kept at a right angle to the leg.

2 If the limb is oedematous, or thin or the skin devitalized, vertical strips of Elastoplast should be applied before bandaging.



3 Commencing at the webs of the toes, take two or three turns around the foot, dependent upon its length, and bandage around ankle, enclosing heel as illustrated.\*

4 Leg should be covered from webs of toes to a point just below the bend of the knee.



5 Turns should overlap by at least half the width of the bandage (the yellow line down the centre of an Elastoplast bandage is a guide).

6 No creases.

7 Firm and even pressure proportionate to the amount of induration and oedema present.

\* Note bandaging may be made from toes upwards or knee downwards as desired.

# Elastoplast

POROUS ADHESIVE BANDAGES

The adhesive mass of Elastoplast is now rendered porous and so permits free evaporation of sweat from the skin. This minimizes the main cause of plaster reaction but the porosity is not sufficient to permit seepage of discharge. The price is unchanged.

When prescribing Elastoplast, add "Porous Adhesive" to your script. Full details from Smith & Nephew Ltd., Welwyn Garden City, Herts., the marketing organisation of T. J. Smith & Nephew Ltd., Hull.

Outside the British Commonwealth Elastoplast & Elastocrepe are known as Tensoplast and Tensocrepe respectively.

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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No. 5

## SING CUCKOO

There are those who spend their lives painting the word DOG on dogs' bowls. A few dogs are very well educated, taking tea on the laps of the dons of Newnham and Girton, chasing intellectual cats up ancient trees with the same petulance with which their mistresses would pursue a misquotation. And yet, not even the very best educated dog can read the word DOG. Neither does the writing of DOG on a dog's bowl seem useful from the owner's point of view, unless he is both absent minded and eats off the floor. Yet people go on doing it, even in Spring.

Other men go on being doctors. Why? There are many good reasons, a very adequate one being that doctors are a little uncertain of their ability to earn a living in any other way. The talent seen at Christmas suggests that some physicians and surgeons might find employment as conjurers, mountebanks, wandering minstrels or singers of comic songs. Others might get taken on as garage hands, for most medical men are fond of cars, and in a good-class garage the bedside manner would be marketable. "Nothing serious Madam, just a little trouble with his gaskets, we'll soon have him fit again." Yet the best and the most usual reason for remaining a doctor is that nothing else in the world seems half so interesting. If the doctor dreams of a change, it is only some day-dream compounded of the familiar images of the imaginary country practice, with roses, Cotswold stone, Cornish cream, and a Scottish salmon river at the bottom of the garden.

It is stranger that medical students go on being medical students. So much of it is like

painting DOG on a dog's bowl, quite useless, committing to memory knowledge that will only ever be applied in an exam and forgetting it once the exam is over, performing long chemical experiments that are neither educational nor interesting. In Spring, it is especially strange that medical students go on being medical students. In Autumn, the dead leaves float in the puddles, and nature is in tune with the medical curriculum. Winter comes, and it is a season for work. The wind blows and the lectures are well attended. But in spring, when *all day* the London sky is a smoky blue, *all day* with a tantalising early morning look about it, that is when temptation comes, the temptation to say casually, "Excuse me Sir, do you need a dresser this afternoon, I was thinking of going to Samarkand?" Or to the South Seas, but not to hold a retractor at a partial gastrectomy. Splendid fantasies of surf and sand go through the mind, of the Pacific booming onto the shore. Or of hills covered with snow just melting, and birch trees dripping in the sun. Then suddenly back to the Ward Round, and "Sorry, what was the question?"

What is there, short of getting out of London, to do in London on a Spring afternoon? One can get a train, and spend the afternoon walking through Epping Forest, or going round Kew, or wandering over Hampstead Heath. Yet there is probably a lecture at twelve o'clock, and a post mortem at one, and a class at two o'clock and exams in June and no more time to go to Hampstead Heath than there is to Samarkand,

### Doctor in the Cinema

In *Doctor in the House* a delightfully fast one was pulled off on the lay public. Who was not charmed by the wanton medical students romping cheerfully and recklessly through its pages? Splendid farce and very original—so everyone thought. And we, relieved and a little pink at being so suddenly exposed and yet not accused, became immediately party to the plot, willing accessories after the fact, sworn never to inform on the real sources of Richard Gordon's originality. And that for us is perhaps the chief humour of the book, for most of its jokes, well told though they are, are as old as Bart's itself.

The film, however, is different—more probable but less true—and consequently in better taste. Four engaging actors managing to look upstanding and professional in spite of short white coats and the background of University College, present us just as we would have wished. The mistress has become the fiancée and moved out to the flat below, though she does still use the bathroom, *Rigor Mortis* is so inhuman that the "tumble" with her is positively respectable and the only dirty bit of work left over from the book is the Dean.

More farce and less "realism" is the mixture and Richard Gordon, with the help of Technicolor, has made a splendid film. The lay public will be more than ever charmed and delighted with him and medicals, with a sigh of relief, will lie back and enjoy him too. The film is not only technically correct, perhaps even when a pre-clinical peers affectionately down an auroscope into a girl's fundi, but some first-rate production and acting has gone into the smaller parts. James Robertson Justice, for one, is the epitome of all surgeons and not only students and chiefs but patients, porters, landladies and others can see themselves critically and comically mirrored.

### Record Review

As this is a feature new to the *Journal*, it may be advisable to state our intentions and indicate the three factors which led to its being started. The last five years have seen rapid advances in recording technique. Long-playing records at 33 $\frac{1}{3}$  and 45 r.p.m. have almost entirely superseded the old heavy fragile discs which play for five minutes only at 78 r.p.m.: the new records are remarkable for their unbreakableness, lightness and

almost complete absence of surface noise. At the same time, the gramophone companies have shown greater initiative in the works recorded than ever before, and it is now possible to buy records of symphonies and operas which one might previously have only heard once or twice in a lifetime.

There is now in the College Hall a fine radiogram together with a collection of records given in memory of the late Paul Burrows: review copies of records will be added to this collection. Moreover, at the present time there is greater interest in music, as shown by the recent formation of the united Hospitals Orchestra and the revival of the Bart's Musical Society, than for some long time past. These two factors, together with the increase in paper supplies for the *Journal*, have prompted this occasional column which we hope will meet with the approval of our readers. We aim, therefore, to introduce the music itself rather than to provide the lengthy sort of analysis found in the music columns of the weeklies.

### View Day

This year, View Day is on May 12. We hope that there will, as ever, be many old Bart's men there revisiting the Hospital, watching the procession and admiring the geraniums, and wandering from ward to ward. For those who are new to the Hospital it should be explained that this is an occasion rather like a school sports day, but even more enjoyable and much less strenuous. To the ancient traditions of this day have been added this year the View Day Ball, an idea in a very proper spirit.

### Abernethian Society

On March 19, Professor Melville Arnott made a special trip from Birmingham to address the Abernethian Society. He had taken as his subject "The Aetiology of Cardiovascular Disease," and he discussed the various problems of the relation of rheumatic and arteriosclerotic heart disease to the patient's environment, employment and social habits. Professor Arnott considered that the stress of modern life was considerably less than the stress of living in a cave and hunting for one's dinner, and that the causative factors in arteriosclerosis were more likely to be sloth and gluttony than stress and strain. This was an extremely interesting talk, delightfully delivered, and

we are very grateful to Professor Arnott for coming such a long way to address us.

### Seeing is Believing

The other evening, an interesting emergency was brought into the Medical Box. The Houseman on duty, despite all the other things that he had to do at the moment, remembered to ring up the College Hall so that anyone who was interested would come over. Within a short time people were arriving at the Box, everyone surprised to see everyone else. According to the nurse who was there, the whole hostel seems to have called in that evening to see the case.

There can be no doubt that people are glad of the opportunity to see such cases, and that it is well worth while sending a message through to College Hall when something interesting comes in.

### My Heart Goes Where the Wild Goose Goes

*J. H. writes:* The advent of the Natural History Society adds yet another to the ever-expanding list of extra-curricular activities at Bart's. The recent formation of this society enables those interested in any facet of natural history to unite and so benefit from each others knowledge. The club already shows great promise under the energetic presidency of Dr. A. J. Marshall, the world's foremost authority on sex hormones of birds!

Lectures and film shows are to be held during the "unfavourable" season, and frequent expeditions to places of interest around London will take place throughout the summer months. Anyone wishing for a healthy ramble is welcomed to join these forays, and perhaps the newcomers to natural history will glean some knowledge from the pundits and also learn a little fieldcraft, so enabling them to obtain more pleasure from the natural things around them.

Notices are posted outside the hospital A.R. and also at Charterhouse, and further information may be obtained from the secretary, Mr. E. R. Nye. Two meetings have already been arranged in April.

### The Junior Osler Club

*J. A. Tait writes:* The purpose of this club is to provide facilities for members of the hospital to hear and discuss papers on any aspect of medical history. Membership is open to all junior members of the hospital.

It is the aim of the club to keep a small and faithful membership rather than a large and shifting one, and that is why it is

expected of members that they shall attend a majority of meetings. Each member should be prepared to read a paper sometime during his membership, for else the club could not exist.

It is not the purpose of the club to draw great audiences by having celebrated speakers, but rather to rely upon our members to write their own papers and read them to and discuss them with the other members of the club.

If there is a noble aim, it is to encourage ourselves to think, to research and to write upon the broader aspects of medicine, and in doing so to gain both knowledge and amusement.

We welcome members who will enter into the spirit of the club by coming to listen to the papers and by reading one themselves.

Notice of meetings, which are usually held on the second Monday in the month, is given on the library door and sometimes on the refectory stairs.

We hope to see new members at any meeting, where they may come to listen without any obligation to read a paper themselves: only if they become frequent attendants will they be expected to take a greater share in the proceedings.

The next meeting of the Junior Osler Club will be on Monday May 10, when R. E. Nottidge will speak on "Medicine and the Crimea."

### A Distinguished Ex-Editor

On another page we print an obituary notice by Dr. Hugh Clegg, Editor of the *B.M.J.*, of his predecessor and fellow Bart's man, Dr. N. G. Horner. Dr. Horner was the ninth Editor of the *Bart's Journal* and held office in 1906-07.

### Rahere Society (Wales)

The Annual Dinner of the Society was held at the Park Hotel, Cardiff, on Saturday, February 20, 1954, when there were over fifty old Bart's men present.

The President, Dr. Cyril Joyce, proposed the toast of Bart's, coupled with that of "Our honoured guests," to which Mr. F. C. Capps and Mr. I. G. Williams responded. The toast of the other guests was proposed by Dr. Colston Williams and responded to by Mr. R. D. Owen and Dr. Arwyn Evans. In accordance with the usual custom Mr. Capps and Mr. Williams were made honorary members of the Society.

For the coming year Dr. P. D. Richards, Barry, and Dr. Ben Thomas, Swansea, were elected President and Vice-President respectively, Dr. F. W. Campbell and Dr. G. Emrys Harries to continue as Honorary Treasurer and Secretary respectively.

Will any Bart's men, associated with Wales, who have not yet been contacted, please communicate with the Honorary Secretary, G. Emrys Harries, The Residence, Cardiff Isolation Hospital, Cardiff.

#### Honours, Appointments, etc.

Mr. Geoffrey Keynes is to receive the honorary degree of Doctor of Laws from Edinburgh University, at the graduation ceremony on July 8 for his distinguished work as a bibliographer and editor.

Mr. E. S. Perkins has been appointed to a university readership in ophthalmology at the Institute of Ophthalmology.

Sir Rudolph Peters is retiring from the Whitley Professorship of Biochemistry at Oxford, at the end of September.

#### Change of Address

William L. Timmins, to Polmenna, Lansdowne Road, Falmouth, Cornwall. Telephone Falmouth 33.

J. R. Beagley, to "Culver," Langford Budville, Nr. Wellington, Somerset.

#### Eleventh Decennial Club

Membership of this club is open to all Bart's graduates who joined the hospital between January, 1915 (not, as was stated in our April issue, January, 1918), and December, 1925.

#### Twelfth Decennial Club (1925-1935)

The club's annual dinner will take place at the Naval and Military Club, 94 Piccadilly, W.1, on Friday, May 14. Members who do not receive a card, or anyone eligible who would like to join, should communicate with W. D. Coltart, 58 Harley House, London, N.W.1.

#### Birth

Lawrance. On March 17, 1954, at St. Bartholomew's Hospital, to Alison (née Mallett) and Kingsley Lawrance, a son, Simon Kingsley.

Brown. On March 25, 1954, at St. Bartholomew's Hospital, to Maria Helena, wife of John R. Brown, a son, David.

#### Journal Appointments

Alan Snart has been appointed to the office of Assistant Editor, and Douglas Chamberlain to that of Assistant Business Manager.

## COLLEGE PRIZES

#### BRACKENBURY SCHOLARSHIP IN MEDICINE

Awarded to G. SCOTT-BROWN.  
Prox. Access.—G. H. Fairley.

#### BURROWS PRIZE

Awarded to G. H. FAIRLEY.  
Prox. Access.—F. E. Garrad, R. C. Taylor.

#### BRACKENBURY SCHOLARSHIP IN SURGERY

Awarded to R. D. CLEMENTS.

#### WILLETT MEDAL

Awarded to R. L. ROTHWELL-JACKSON.  
Prox. Access.—R. D. Clements

#### SKYNNER PRIZE

Awarded to J. P. BRADY, P. I. LINDOP (aeq.).

#### ROXBURGH PRIZE

Awarded to R. M. BUCKLE.  
Prox. Access.—M. A. H. Graham.

#### MATTHEWS DUNCAN MEDAL AND PRIZE

Awarded to A. L. A. REID.  
Prox. Access.—O. M. Cory-Wright.

## ABÉLARD AND HÉLOISE

by R. E. NOTTIDGE

WE'VE forgotten the twelfth century. Harsh and remote, we leave it undisturbed like the memory of an uncomfortable adolescence. If it interests us at all it is not for the tough, intolerant and passionate contemporaries of Rahere, but for Crusader tombs and the shells of Norman castles. But from its apparently bleak plain, there rises, like the spires of Chartres, a story so vivid, so personal and so timeless, in the *Letters of Abélard and Héloïse* that they must be read often again if the records of human experience are not to suffer.

Peter Abélard was born in 1079 the eldest son of a Breton Knight. Unusual ability in letters led him to leave his feudal duties to a brother and join the mêlée of students who flocked from school to school across Europe. Astonishing audacity and incomparable brilliance in debate brought him into direct conflict with his teachers and in his late thirties, having worsted the greatest masters of philosophy and theology of France in open debate, he was Master of the Schools of Paris and one of the best known figures of Western Christendom. Ambition and a searing intelligence were enlarged by yet greater gifts as a teacher and—for the young at least—an unusual personal charm. In their thousands the scholars were so devoted to him that wherever Abélard was there went the Schools. Helen Waddell describes his teaching—'flashing from philosophy to poetry, from poetry to wild jesting: a scholar with the wit of a jongleur and the graces of a *grand seigneur*. His personality, no less than his claim for reason against authority, was an enfranchisement of the human mind.'

Héloïse at seventeen was also famous in Paris, for literacy, let alone wide scholarship like hers, was rare among women in the twelfth century. 'She had a rather lovely face and was unrivalled in the breadth of her literary culture' wrote Abélard years later when recalling the bleak facts of how his pride and lust combined to cause her ruin and his fall. But what had begun as his lust became their mutual and overmastering passion. 'No stage of love' he

writes 'was omitted by us in our cupidity. . . . The less experienced we were in these joys the more ardently we persisted in them and the less satiety did they bring us.'

Such abandon courted discovery. His scholars suspected it first from the change that came over his teaching, and soon the pair were in flight for Brittany. In order to possess her the more completely, but against her better judgment, Abélard forced a secret marriage on her and then returned to Paris to recover his reputation for scholarly continence by greater discretion, aided by the confidence that she was his for ever. But the secret was blurred out. To save his reputation Héloïse swore that she was but his mistress (*sic*), but her family became violent and Abélard sent her out of Paris to a convent for safety. Assuming that having tired of her, Abélard was now putting her conveniently away, her relatives sought their revenge by hiring ruffians who surprised him asleep and castrated him. There was a rough sense of decency about the Middle Ages and all Paris was up in arms. But it can have been of small account to Abélard, nursing his pride and his wounds, that the mob seized some of the mutilators and not only exacted a tooth for a tooth but put out their eyes as well.

'Plunged in so wretched a contrition' he writes 'it was the confusion of shame rather than the devotion of conversion that drove me to the retirement of the cloister.' For his own part, brought so rudely and finally to his senses, he saw and tried to accept the crude appropriateness of his punishment. But it seems to us blindly criminal that he should then send to Héloïse, a girl not yet 20, and order her to take the veil. But to this course she willingly agreed. Their tragedy seemed to them to be final. It was only left to forget and be forgotten in the rigorous consolations of the religious life.

But Abélard, however mutilated, was still Abélard. Feeling that God had set him free for yet greater things, he determined, he says, to become a philosopher of God rather than of the world. Resented for this very singlemindedness by the easy

going monks of St. Denys, he was sent back to his students. But his old enemies of the Schools were waiting for him. His theological teaching was brilliant and speculative, and notwithstanding its reverence, it gave them weapons with which to complete his downfall. At Soissons in 1121 he was forced by a Council to burn his writings and branded a heretic. The conviction was later quashed, but the damage could not be undone. This blow almost overwhelmed Abélard, his mind seemed to stagger under it. It is hard now to realise the medieval stigma of heresy, it could ruin any career, and to a teacher of theology it was fatal. Perhaps the greatest intellect of his century, Abélard, until he was nearly forty, had lived for philosophy and scholarship alone, and even then—as we shall see in the *Letters*—Héloïse's tremendous appeal had been to his mind as well as his body. It was in his mind that he was supremely vulnerable. 'God who judgest equity with what gall then, with what bitterness of mind did I, wretch that I was, challenge thee, did I finally accuse thee . . . Since to the former I had come through my own fault, but to this so open a violence, a sincere intent and love of our Faith had brought me which compelled me to write.'

He fled his monastery but he could not escape his scholars. In hundreds they came to share the wilderness where he was seeking solace and to build him an oratory. But his nerve was almost shattered, 'as often as I heard that any gathering of ecclesiastical persons had assembled, I imagined it to be purposing my condemnation.' Certainly as long as he was alive Abélard could not be overlooked, and being offered the Abbacy of St. Gildas in his native Brittany, he fled France. It was a terrible alternative, an indication of the fear which had possessed him. On a desolate headland over the Atlantic he sought to reform his monks to the ideal of the religious life to which the influence of the Cluniac and the sterner Cistercian revivals had restored the monasteries of most Europe. At last after nine years of tremendous efforts he fled again, this time from the murderous intentions of his monks.

But it was at St. Gildas that he heard again of Héloïse. A lawsuit had deprived her community of its property and with her sisters she was cast out and defenceless. How he heard we don't know, but he posted

straight across France back to Paris. Finding Héloïse and the nuns with her, he gave them his own oratory near Troyes, dedicated to the Paraclete the Comforter—and there helped them to found a new, if poverty stricken, community, of which Héloïse became the Abbess.

It was after this while Héloïse was at the Paraclete and Abélard at St. Gildas that the *Letters* were written. Nothing can take the place of reading them. Certainly they are often difficult. No twelfth-century document is likely to be without its problems of interpretation and authenticity. But in these pages, before the tragedy of their predicament and the intensity of their feelings, the intervening years evaporate; Abélard and Héloïse belong to no single century.

Without the *Letters* the story as told above is misleading. The forces, intimate and subtle, which moved them both would be unsuspected. Above all, in the *Letters*, Héloïse herself appears. At this time, about a dozen years after their marriage and separation, she was still young and an Abbess with a great reputation even more for sanctity than for learning. 'The bishops loved her as a daughter, the abbots as a sister, the laity as a mother. All alike marvelled at her piety, her prudence and, in all things, the incomparable meekness of her patience.' But as she writes to Abélard she is essentially a woman, and totally his lover. 'To her lord, nay father, to her husband, nay brother; his handmaid, nay daughter, his wife, nay sister: to ABELARD, HELOÏSE. Although this is an Abbess writing to a brother Abbot for letters of spiritual direction, there is no pretence, not even to the language of religion; the barriers are down and Héloïse is passionately reproaching her lover for neglect and begging for news of him. 'When in time past thou soughtest me out for temporal pleasures, thou insitedst me with endless letters, and by frequent songs did set thy Héloïse on the lips of all men.' She asks and will expect no more than letters, but she ruthlessly pours out to him all the bitterness of her overmastering longings, the agony of separation, the emptiness, the contradiction and the hypocrisy of her monastic profession and her fears and suspicions that he may no longer love her or may not know that everything she is and does is for him alone. She reminds him of how she came to the

monastic life 'not by religious devotion but by thy command alone . . . that I might show thee to be the one possessor both of my body and of my mind.' Whatever others may think of her sanctity she wants him to know that all the rigours and penances of her life are offered to him, a lifelong expiation for the injury to him of which she was herself the unwilling agent. 'Oh . . . that I may be able in some measure to recompense by the long contrition of penitence that punishment of the wound inflicted on thee . . . and in this way to satisfy thee at least, if not God.' For God she has only terrible reproaches. She has done nothing for Him and with terrible logic she will expect nothing from Him. 'For what repentance of sins is that, however great the mortification of the body, when the mind still retains the same will to sin and burns with its old desires.' Although she believes God too well ever to say it, Abélard is her god, her only offence is against him and it is everything to her that he accept her expiation.

Her offence, she says, was to consent to their marriage. This she had done everything she could to avoid. She had known that it could only cause harm and she avers that to have been Abélard's mistress was more desirable to her than to have been made Augustus' Empress. The injury which it had caused him had been both his mutilation and his loss of honour as a Philosopher. She here reveals unconsciously that their relationship had been by no means solely carnal. They had shared a great ideal of a life devoted to Philosophy and they had recognised that their very love was its greatest contradiction. In this perhaps is the secret of the story's pathos. Abélard in the grip of passion had determined to force Héloïse to a secret marriage and to base his reputation as a Philosopher on a lie. Héloïse—purer spirit—saw that for his sake their eventual separation was inevitable and that their love must be transmuted to something spiritual. She had surrendered willingly to him at first, but now her love showed her that in fostering Abélard's passion she was destroying his real greatness. Abélard's remorseful account confirms this: 'You know how shamefully my passion had completely sacrificed our bodies. Respect neither for God nor decency, even on those days when the Passion of Our Lord was being so solemnly commemorated, deterred

me from wallowing in the mire. When you objected to it yourself and resisted with all your might and tried to dissuade me from it, I frequently forced your consent (for after all you were the weaker) by threats and blows. I was bound to you by the ardour of such desire that I forced these wretched pleasures which we can no longer mention without shame before God and myself.'

The ultimate tragedy of the story lies in this, that when years after in the *Letters*, Abélard, chastened by his sorrows, offers to her that very spiritual union which she had wanted and once fought for, she cannot accept it. She has longed too much for the old and now impossible relationship and her love of Abélard is destroying her own soul. Perhaps she has ceased to love Abélard altogether and is now only loving her own love.

Abélard, who has come to love God, writes to her full of grief and tenderness. 'Sister once dear in the world now dearest in Christ. . . . Hold Him ever Sister as thy true spouse . . . He truly loved thee and not I . . . We are one in Christ. We are one flesh by the law of marriage. Whatever you have I regard as mine. Now Christ is yours because you have become His spouse . . . It is in your strength at His side that I place my hope, so as to obtain through your prayer what I cannot obtain through my own.' As Gilson says, 'What more total, more intimate union, what union higher and more worthy of Héloïse' great soul could Abélard have offered her? . . . He is giving her his soul to be ransomed by her sufferings.' He can no longer fight himself against the flesh. But she can suffer and struggle on for them both. She alone can be victorious. She must be victorious for him.

We have nothing to suggest that Héloïse ever relented. She died twenty years after him, a great Abbess. We can only hear still ringing in our ears that unforgettable dialogue: 'My heart was not my own but yours. But now more than ever if it is not with you it is nowhere. For without you it cannot anywhere exist. So I pray you, let my poor heart be happy with you.' And Abélard's reply: 'He truly loved thee and not I . . . Hold Him ever as thy true spouse . . . In your strength at His side I place my hope.'

## N. G. HORNER

by HUGH CLEGG

NORMAN GERALD HORNER, who died on March 7, at the age of 72, was editor of *St. Bartholomew's Hospital Journal* from 1906 to 1907, and of the *British Medical Journal* from 1928 to 1946. He was at different times also assistant editor of the *Hospital* and of the *Lancet*. When he joined the staff of the *B.M.J.*, in 1917, he had thus already had a wide experience in medical journalism, an experience he handed on to many colleagues in this small specialty, to their great benefit.

Horner's father was a general practitioner in Tonbridge and medical officer to Tonbridge School, where Horner was educated before going to Caius College, Cambridge. After taking the Natural Sciences Tripos in 1902, he went to Bart's, qualifying in 1906. After a term as house surgeon at the Westminster Hospital, Horner returned to Bart's to become house physician to his godfather, Sir Norman Moore, the historian of the hospital, whose interest in medical history Horner inherited—an interest which unfortunately he later had to put on one side because of the close and unremitting toil of editing a weekly medical journal. During the 1914-18 war, Horner took a temporary commission in the R.A.M.C., and, partly because of changes in the *Lancet* staff, he seized the opportunity to join the *B.M.J.* in 1917, and became for many years the right-hand man of that great editor, Sir Dawson Williams, whom he succeeded in 1928. Horner took the Cambridge M.B., B.Ch. in 1910 and proceeded M.D. in 1922 with a thesis on the growth of the general practitioner in England, which may still be read with profit. The Royal Colleges honoured him by making him F.R.C.P. and F.R.C.S., tributes which he valued above anything else.

During the last years of his office Dawson Williams was a sick man, and the stresses and strains of this must have been felt in an editorial office which was in any event understaffed. To take over in these circumstances was difficult enough, and on top of this sickness played havoc in the small staff Horner gathered round him between 1928 and 1931, three of his medical sub-editors falling by the wayside during this period. Though conditions became more stable after 1931, the smallness of the staff made it difficult either

for them or for the editor to "sit and think," the routine of putting the *B.M.J.* "to bed" each week absorbing most of their time and energy. Yet in spite of this a large number of important changes in the management and printing of the *B.M.J.* were effected between 1934 and 1937, when it assumed its present appearance. The war brought its own problems, and one of them was the destruction of the *B.M.J.*'s printers in the air-raid of May 10, 1941; but we went to press in time that week with an issue which Horner happily christened "The Phoenix Number."

The development of the *B.M.J.* and its associated special journals during Horner's editorship has been recorded in the obituary notices already published. The life of an editor is bound up with the journal he serves, and this was especially true of Horner. He was an extremely sensitive and reserved man. He had a distrust of enthusiasm and novelty, and brought to bear upon his task a number of highly valuable qualities which showed themselves in the *B.M.J.* over the years. He was scrupulously fair to his colleagues and his contributors, and was never deceived by the occasional pomposities of the eminent. A master of the English language, he insisted that his juniors should know the exact meanings of the words they used. Horner would enjoy a discussion—if it was not too long—on the semi-colon and the hyphen; and the day would inevitably come when he would ask you if you knew how the Fowlers defined "wing" in the *Concise Oxford Dictionary*: "One of the limbs or organs by which the flight of a bird, bat, insect, angel, etc., is effected . . ." He understood the printer's side of the business, and would urge his staff to spend time in the composing room so that they could, for example, understand just what a last-minute alteration in a line of type meant. The minutiae of the craft fascinated him. He had a quick wit, which occasionally found its way into the *B.M.J.* as when, for instance, he put the cross-head "Repeal of the Corn Laws" over the reported discussion on chiropody at one of the B.M.A. Annual Meetings. During the war a man was brought before a magistrate because he was alleged to have said "Heil



Hitler" in a pub. It was finally accepted that what he really said was "To hell with Hitler." "That just shows you," Horner remarked, "the importance of keeping your vowels open." This was at his club, the Savile, a place as sacred to him as Bart's and Cambridge and the *B.M.J.* At his club his office reserve vanished and his wit sparkled; one felt that there he was really happy. At heart, and indeed in manner, he ever remained an Edwardian.

The last years of his life were overshadowed by ill health and other personal misfortunes. He had a detachment of the retina of one eye in 1940, and thereafter he was never really well. Not long after retirement he had the first of a series of cardiovascular attacks, and for the last year or two of his life he was in hospital, bearing his growing disabilities with the fortitude of a Stoic. Horner was a good man whom life dealt some rather unkind blows.

## MEDICINE IN AMERICA

by MILES ATKINSON

WHEN the Editor asked me to write an article of about 2,000 words on Medicine in America—past and present, training and practice, with particular emphasis on medicine, surgery and psychiatry and a few other things—I replied that (1) I was totally unqualified for the task; (2) anyhow it was impossible; and (3) No. To which he replied thanking me most courteously, suggesting that a photograph (of a hospital, not of me) would add interest, and requesting that I have the article on his desk by January. There seemed little point in beating one's air-mail stamps against so polished a brick wall—the only result would be this anyway, so here it is, far from specifications and an ill-favoured thing, Sirs, but mine own.

**Historical.** Until the early part of this century, American medicine was in a pretty parlous state and becoming more parlous year by year. There were a few good medical schools, but for the most part they were plain bad. Anyone with an M.D. degree could start one, and anyone with the necessary number of dollars could get a degree. Thus the few well-trained men were swamped by a mass of poorly trained men turned out by the "diploma mills," and the general standard of medical care was scandalously low. Moreover, possession of an M.D. (there was then, and indeed is to-day, no lower degree in medicine in this country) entitled the possessor to practise any and all forms of medicine and surgery without let or hindrance, as of course in theory it still does. The result was that, particularly in the field of surgery, catastrophes, mutilations and unnecessary operations were commonplace. Gravely disturbed by this progressive deterioration in medical competence, the newly formed Rockefeller Foundation decided that something must be done, and in 1910 despatched Dr. Abraham Flexner to Europe to study conditions there. On his return he wrote the famous Flexner Report, which changed the whole aspect of medical education in America. It may indeed be said to have been the direct cause of the truly prodigious strides which have been made by American medicine in the past forty years. Nowadays, medical schools have to be licensed; hospital staffs

are supervised for standard of work by the American College of Surgeons and the American College of Physicians; Specialty Boards have been set up to grant diplomas in all the major specialties as well as in internal medicine and general surgery. These diplomas correspond to the English higher qualifications, and without one an applicant cannot be appointed to the staff of any of the major hospitals in the large cities. Thus has the face of American medicine changed, and the responsibility for it may be laid to the credit of that very remarkable man, the father of modern American medicine, Dr. Abraham Flexner. To-day, American medicine will bear comparison with that of any other country, and in technical competence, at least, is probably the leader. But there are a few flies in the amber, nevertheless.

**Student Training.** Training for medicine is a much more extended process in America than in England. Normally a youngster "graduates" from high school at age 18. He then goes to college (a university) for four years, where, if he already knows he is going in for medicine, he takes a "pre-med" course. That is to say, instead of "electing" to take an arts course, he takes a science course, a procedure which has been the object of considerable criticism in a recent report of a survey of medical education, as being vocational training rather than education. Undoubtedly, the humanities are out of fashion, but it is rather dismaying to find how ignorant is the average American medical student of literature and languages, ancient or modern. Latin is Greek to him; the plays of Shakespeare as unknown as those of Aristophanes; the poetry of Shelley as that of Ecclesiastes. Great paintings abound, but being housed in art galleries rather than movie houses are not seen by him. His music comes from a juke box. He has no time for the arts, there is so much to do to become a doctor—and it must be confessed that any inclination is, well, not encouraged. And if it is like this in the green tree . . . ? Recently an eminent physician in this country (lucky for him he was eminent or he would have been strung up from the nearest lamp post) castigated his brethren as

by and large the most ignorant group of professional men he knew of, so this is not just the captious criticism of an emigré. Admittedly, medicine is a demanding mistress, but with eight years available for her study, it would seem that a little time could be spared for an introduction to the humanities.

Enough. Thus prepared, or unprepared, our artless hero goes forth to four years' training at a medical school. The first two years consist of "basic sciences" (anatomy, physiology and biochemistry) with an occasional touch of clinical work interspersed to add, as Pool Bah puts it, "an air of verisimilitude to an otherwise bald and unconvincing narrative." Such a glimpse into the practical application of what appeals to most students as dull theory is a good idea. Indeed, I have sometimes wondered—only once before aloud, and it produced such a devastating response that I have never ventured it again until now—if we do not teach medicine the wrong way around. Anatomy and physiology make much more sense when they can be given a clinical application, or so it seems to me, so why not teach clinical medicine first and put on the scientific frills later? But back to my assignment, which is to be descriptive.

The second two years are given over to clinical work, with a good deal more talk and less practice, more lectures and less bedside training, than in England; thus more training in the science of medicine and less in the art. In fact, the student gets very little training in the art of medicine. In hospital, he too often sees the patient regarded and investigated by his elders less as a whole human being than as a conglomeration of more or less unrelated parts, and treated politely but nonetheless firmly as a number in the registry. Naturally, when later he embarks upon the private practice of medicine, in which we still indulge in America, he carries with him and puts to use not only the precepts which he has been taught, but the practices which he has learned and which are often more mercenary than humane. I will illustrate what I mean later on. First, let me finish training our man.

**Internships and Residencies.** At the age of twenty-six, or thereabouts, if he flunks no examinations, our student has hung upon him the gown of a Doctor of Medicine and receives a handsome diploma to put in a frame for later display. This entitles him to

be called Doctor, but it does not entitle him to practise. For this he has to pass an examination in the state in which he proposes to practise, and then obtain a license to practise from the licensing board of the state. This license has to be renewed yearly. Having obtained a license in one state, he can obtain one in many others by reciprocity. However, this is not possible in *all* states. Some, the more popular ones with a large medical population, are "choosy" and make their licensing regulations correspondingly stiff; Florida, for instance. So that a license to practise in one state does not entitle you to practise anywhere in the United States. Some easement of this rather cumbersome arrangement, which stems from jealously guarded states' rights (the right to autonomy in government of each individual state), has in recent years been brought about by the institution of what is called a National Board of Licensure. Most states, though not all even yet, accept the certificate of this board as a license to practise, and consequently most newly qualified men take their "National Boards," and do this immediately on qualification.

For foreign graduates, a license is becoming more and more difficult to acquire. Some years ago it was possible for a graduate of an accepted medical school in an accepted foreign country to obtain a license to practise in many states by reciprocity. I did in New York State. Then, with the increasing influx of German doctors following Hitler's seizure of power, the regulations were changed and all applicants for a license had to pass the state board examinations, which became progressively more difficult. Now, I hear, *no* foreign graduate can be licensed in New York, so many have come in. But the regulations in each state are different, and anyone thinking of coming to this country to practise should make very sure before he embarks that he will be allowed to, or allowed to where he wants to. He must also be prepared to become an American citizen.

To return to our new-born doctor. Having qualified and passed his licensing boards, he sets out to find what we used to call a house job, an internship in this country. This he may obtain in the hospital in which he was trained, or more probably in some other hospital, seeing that applicants for posts in the larger teaching hospitals are many and the vacancies obviously limited. If his aim is general practice, he will seek a rotating

internship, working in medicine, surgery and obstetrics for four months each.

If his aim is to specialise, he will seek a residency (house) appointment in the department of his choice, applying to the hospital and chief on whom he has set his eye and hopes, and usually to one or two others as well, just in case. Here he will work for three years (in some places and in some specialties more), the first year as a junior intern (junior H.S.) and attending courses in the advanced "basic sciences" related to his department, the second year as senior intern (senior H.S.) doing clinical work, the third year six months each as junior and senior resident (registrar) when he has considerable responsibility for patients under his chief or chiefs. He has then fulfilled the residency requirements of the "boards," and now has to serve a period of time in actual practice, under supervision, in his specialty before becoming eligible to take the examination. Having passed this, our man becomes, in his early thirties at earliest, a full-fledged specialist. In individual cases, the training period may be further prolonged, for one, two or even more years, if the trainee wishes, and is acceptable for, and can afford to take, a Fellowship, during which time he will undertake a piece of research and write a thesis. Last stage of all in this eventful history, an appointment to the staff of a hospital and perhaps the faculty of a university, comes somewhat earlier than that described by Jacques, though sometimes not so very much. It is quite usual in this country for men to depart into general practice, earn some money, and then return to do a three-year residency, get their boards, and set up in specialty practice. It is thus not uncommon for the resident staff to be senior in years to some of the junior members of the attending (visiting) staff.

**Hospital Staffs.** And herein lies another great difference between English practice and American, the size of the hospital staffs. Here they are much larger. Consequently, apart from the chiefs, individual status is less significant. In the major departments of large medical centres, let us consider the department of surgery as an example, the staff is something like this: At the top is the chief, who is nowadays usually full time, though is sometimes permitted to practise privately in any spare time he may have, and who is Professor of Surgery in the university. Next

come four attending surgeons who have part-time posts, each taking charge of the in-patient service for three months each year, one of them ranking as clinical professor and the other three as associate clinical professors. After these come a varying number of associate attending, and a still larger number of assistant attending surgeons, all of whom probably hold university posts as assistant clinical professors, or as instructors, who are the lowest form of university life. An assistant surgeon, therefore, is really pretty small beer and in no way comparable to assistant surgeon in a large English hospital, and clinical professorships of one grade or another are a dime a dozen. Further, appointments, other than that of chief, are usually on a yearly basis, so that there is no security of tenure and consequently staffs tend to be in a constant state of flux, at least in the lower echelons. However, this state of affairs has its compensations, in that promotion is not by seniority but by merit, though in some part, it must be admitted, by favour. It bears some resemblance to the game of snakes and ladders—you can skip a whole lot of rungs and arrive rapidly at a quite exalted position if you are capable, know the ropes, and get on the right side of the powers-that-be. You can equally abruptly meet a snake and slide down to the bottom and out of the back door. A good deal depends upon your political ability and know-how.

The hospitals themselves tend to be large, like their staffs, and impressive. In the big cities the trend is to build large medical centres in which are contained hospital and medical school. The one illustrated is Cornell University Medical School and the New York Hospital, incidentally the oldest hospital in New York City; it was chartered in 1771 by George III. Associated with it is a large hospital recently erected, Memorial Hospital, for the treatment and investigation of cancer, while alongside is the Rockefeller Institute for Medical Research. There are other similar agglomerations of medical schools and institutions in New York and all over the country. One wonders where the money comes from to build them, but somehow or another from somewhere or another it is found.

Virtually all hospitals, except for a few municipal hospitals, have both ward and private accommodations in the same building and the same operating rooms are used for all patients. Payment for hospital services

is on a sliding scale—ward, semi-private and private. For medical services, fees are by arrangement with the attending doctor, except for ward patients who pay only for accommodation. An increasing proportion of the population is covered against hospital costs by medical insurance—private, not national—known as the Blue Cross Plan, and there is also a Blue Shield Plan, less popular, which covers the patient up to a certain sum for medical and surgical fees while in hospital. In addition, many private insurance companies issue health and accident policies,

the satisfactoriness of which, from the standpoint of the patient, depends upon the standing of the insurance company—some are not too scrupulous. This steady increase in insurance coverage has produced an equally steady decrease in the ward population, so that the finding of sufficient clinical material for teaching purposes is becoming something of a problem.

This ends my allotted 2,000 words, and I have not even started on the discussion of methods for which I was asked. Well, you can't put a quart into a pint pot.

## II

**The Practice of Medicine.** Before I start on this section, which will contain some criticism, I want to make it clear beyond a peradventure that what I say comes from my own personal observations and experiences in practice, hospital and private, in New York City. And New York, remember, is like nowhere else in the world. It is dirty, noisy, beautiful, soaring, raving, ranting, singing, laughing, selfish, dishonest, generous, kindly; it is a heterogeneous hodge-podge of all nations, all creeds, all colours; it is hateful, it is lovely; it has everything, it has nothing; you live in it for twelve months and wonder how on earth you stood it; you go away for one month and can't wait to get back. It is typical of nowhere except New York, certainly not of America—if anything could be typical of this vast diversity.

And what has all this to do with the practice of medicine, you may ask. This, that medicine is concerned with people, and the people of New York City are very largely the people with whom my medicine is concerned. I practise in a very specialised city. Moreover, I too am highly specialised. I am the worst form of specialist, the specialist within a specialty, who is supposed to know a great deal about one very small piece of medicine. For these reasons, my observations may be way out of line. However, I think, and hope, that the distortion which might be induced by a parochial viewpoint is to some extent offset by the fact that I see in consultation patients from all over the country, and in consequence learn a good deal about doctors and methods elsewhere. I just want to give the warning—New York City is not America, and my experiences may be exceptional.

In general, the practice of medicine, using the word as a very collective noun, in its technical aspect differs little from that in England. In technical competence, the majority of doctors are well trained and conscientious and probably have a higher general standard than in any other country. The top-flight men are as good as they come. Where many, even of the top-flighters, fall down is in their impersonal attitude. And this is very strange when one considers the lush growth of psychiatry in this country in the last twenty years, and the re-discovery of, and enthusiasm for, psychosomatic disorders. The lingo of the psycho-analyst is bandied happily about by press, stage and radio, not to mention in everyday conversation, and patients will open the interview with the remark, "Of course, I may be psychosomatic, but . . ."! It's as common as a touch of cancer! But I digress.

To return to the impersonal attitude, which is deeply resented by many patients, let me give an example. I wanted help on a difficult problem of diagnosis, and sent the patient to one of the outstanding physicians in this city. This is what the patient told me later. Upon making her appointment, she was sent a twelve-page questionnaire, the questions in which probed her present complaints, her whole past medical history, every system, was in the fullest sense comprehensive, and was, so it said, to be filled out in detail. The patient, being conscientious and wanting to help, complied, in detail. It kept her out of mischief over a full week-end. On the appointed day she arrived at the doctor's office, clutching her precious document in her little hot hand, and entered a door beside

which was a battery of names. Just inside was a lab where she left some blood and urine in passing, and was sent on to a large grey admitting office where sat many large grey secretaries and small grey typists at grey metal business desks, surrounded by grey metal filing cabinets. Each secretary had the name of her particular doctor placarded on her desk. Somewhat non-plussed, and wondering if by some mischance she had been spirited off to Wall Street, she enquired for, and was directed very pleasantly to, the desk of her man, so to speak, where the precious document was taken from her and despatched she knew not where. Then after a short wait in a large, spotless and characterless grey-walled waiting room, she was carried off by a large, spotless and apparently equally characterless nurse to a large, spotless and characterless grey-walled examination room where she was told to undress, put on a gown and lie down on the couch. There, as she put it, "clothed in white samite, mystic, wonderful, I sat for twenty minutes on an exceedingly hard table and waited for the entrance of, well, I wondered if it would be God or an International Business Machine"! It was neither. What entered was a very pleasant, courteous, urbane man, who met thus for the first time his patient, by then somewhat ill at ease and resentful. "I am not particularly bashful," she said to me, "but I do prefer, when meeting a strange man, any man, for the first time, to have my clothes on, if only briefly!" And there she sat, uncomfortably, for some twenty minutes more, while he went through her document with great care, asked a few, surprisingly few, questions, and later dictated, in the presence of the patient, voluminous notes of his findings and opinion to his secretary who was seated at the foot of the examining table. "Talk about Patience sitting on a monument," said the patient to me later. However, the examination had been meticulous and complete, the technical investigations asked for were faultless and not excessive, the final opinion was considered, reasoned and reasonable. My consultant friend got to know everything *except* his patient. She has seen him twice since, and never yet has been clothed and in his consulting room. And she knows his secretary, his nurses, the doormen, and his choice of neckties all better, she says, than she knows him. I should, of course, have warned her, or, perhaps better, have sent her to someone else, but I wanted

Dr. X's opinion. I got it, and I'm glad. I got hers, and I'm even gladder. "Next time I see him, I'm going to *tell* him!" said she. I have often wondered how she phrased it.

I cannot reconcile myself to his method, yet with variations in details it is very common. I cannot believe that it is the way to practise good medicine. It smacks too much of the production line, its efficiency is too un-human. And I cannot agree with the philosophy that there should be no concealment of facts and findings from the patient, that it is all right to discuss the case in his presence, dictate findings, even send him a copy of the report. The patient has no background of training or experience against which to set the facts presented to him. In consequence, he is often thrown into turmoil over the insignificant or inconsequential, while remaining obstinately indifferent to the crux of his problem.

"Tests." Another common practice, and one I think to be deplored, is to demand as a routine the "complete laboratory work-up" before the case will even be considered, as is insisted upon by so many visiting men in hospital here. It is surely bad training for a resident so to emphasise the lab bench at the expense of the sick bed. It fosters reliance on the test at the expense of clinical judgment. It also wastes a vast amount of laboratory time and material, and it is a major factor in the increasing cost of medical care. Necessary investigations, yes; routine investigations, no.

I well remember the occasion when an outstanding clinician was called in consultation to one of the large medical centres for an opinion. On arrival he was confronted by the complete house staff and a large assortment of attending staff and ushered into the staff room. There, in solemn conclave, they gave him the history, they gave him the physical findings, they told him what they had done and they told him what the patient had done. Finally, they handed him a bulky file, saying, "And you'd like, no doubt, to see the lab reports." Very quietly he said, "You know, I think I'd really rather see the patient."

**The Abuse of Power.** When I was a student there was precious little in the way of specific treatment available for medical conditions. Mercury for syphilis, quinine for malaria, iron for chlorosis, and that was about it. For the rest, the patient recovered thanks to a sound constitution and good



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nursing care, or he didn't. Nowadays, with the enormous advances in the understanding of disease, the miraculous works of the chemists, and the discovery of penicillin and other antibiotics, things are very different. We have at disposal specific drugs for many diseases, and in particular the outlook on infection has been completely changed. Unfortunately, the ready availability in this country of antibiotics in great variety, coupled with the high-pressure advertising of the large drug firms, has led to a great and lamentable abuse. They are used for everything from corns to cancer, and if one doesn't do the trick, you try another, and another, more or less indiscriminately, and usually without a bacteriological diagnosis. It appears to be almost routine practice to treat the common cold with a "shot" of penicillin followed up by aureomycin. People even walk in off the street to ask for it—"I have a terrible cold. Will you give me a shot of penicillin?"—and are deeply offended if you refuse. The situation is almost as bad inside hospital as outside—constantly antibiotics are given before a diagnosis has been made, a practice which often makes a diagnosis impossible and at times conceals a grave pathological process. And, of course, if antibiotics fail, which seems almost inconceivable, you can try the anti-histamines (very popular) or vitamin B-12

(please, someone, find vitamin B-13 quickly). If still the patient ails, he is presumably beyond the help of man or medicine, and indeed is often told so. "I've done all I can for you; you'll just have to learn to live with it!" At least, that is what the patients tell me.

I feel sure that one great reason for this poor judgment and lack of discrimination lies in the training of the student, which emphasises the lab and the x-ray room, rather than the bedside. "Tests" are the easy way to practise medicine. Develop a test, throw the burden on a machine or a technician, and you eliminate the bother of thinking. And it comforts the patient of to-day who has been trained to a profound confidence in the infallibility of the machine. "Couldn't I have an x-ray, doctor?" So it has come to be that diagnosis is widely regarded as being no more arduous a task than doing the right tests, and treatment the relatively simple matter of selecting the right drugs. Clinical picture plus tests plus drugs equals cure. The equation is as simple as that. And obviously, the more tests you do, the greater your chance of hitting off the right one.

Please don't misunderstand me. There are plenty of first-class physicians in this country, there is plenty of excellent medicine practised. I wouldn't be surprised if the general standard were higher here than anywhere else

in the world. What I am trying to bring out is that, in contrast to this, there is also a great deal of sloppy work, thinly disguised as scientific, and a rather wide disregard for, or lack of understanding of, the feelings of the individual.

**Surgery.** This country is full of highly trained, highly competent surgeons. I have the impression that the standard of competence and the proportion of top-flight men is higher in surgery than in medicine. This is perhaps not surprising. Manual and mechanical dexterity makes great appeal to the American temperament. However that may be, the standard of surgical endeavour is very high, and has been for many years. The names of the Mayos, Halsted, Harvey Cushing, to mention only the dead and thus avoid invidious discrimination, are as well known on the eastern side of the Atlantic as on this.

Nevertheless, among the general run of American surgeons to-day, it would seem that sometimes competence outruns discretion. Perhaps surgery to-day is too safe. Perhaps technical advances have outstripped wisdom, as in the field of nuclear physics. Anesthesia can be so varied to the individual case, the antibiotics can provide so efficient an umbrella against infection, the control of post-operative shock is so much better understood, not to mention the many improvements in actual operative procedure itself, that operations of the first magnitude can be undertaken by surgeons whose experience falls far short of their operative facility. The result is rather frequently a tendency to reach for the knife before all the pros and cons have been weighed. Knife-happy, a friend of mine felicitously phrases it. I am thinking particularly of the surgery of cancer, where it often seems that more thought is given to what is surgically possible than to what is humanly best, to post-operative survival rather than to post-operative living. Mutilation can be too high a price to pay for life, and the trouble is that too often the patient does not realise this until afterwards, when it is too late. It is part of the surgeon's obligation to consider the future, not only of his operation, but of his patient.

The following case, though not strictly surgical, is a good example of what I mean. A woman with tuberculosis was given streptomycin, which, after a short time, caused a vestibular disturbance with also some tinnitus and hearing loss. The drug was, there-

fore, stopped, the disturbance subsided and the hearing returned to normal. A year or so later she developed renal tuberculosis, and the urologist, knowing the story, nevertheless, ordered streptomycin again. Again the same disturbance of the eighth nerve occurred, and he was asked if the streptomycin might not be stopped. "Certainly not," said he. "We have to cure her kidney condition and I don't care if she is deaf afterwards. Better deaf and dizzy than dead!" So the drug was continued, the patient went totally deaf in both ears and became so ataxic that she could not walk without help—and has remained so ever since. The result is that her husband, who had a good job, had to give it up to look after his wife; she can do nothing; both are on relief; and she says, "What will happen to me if he should die? Much better I should have died." That was a mutilating operation if ever there was one, and without the help even of a knife. The example could be multiplied—the child with an acute ear infection, meningitis, encephalitis, brain abscess, saved by antibiotics and multiple operations to survive as an imbecile and wreck the lives of her parents; the singer who was persuaded with much difficulty to have a laryngectomy and who, when he realised fully what had happened, attempted suicide and finished in a sanatorium. And so on. Sometimes I can't help thinking we are too darned clever. I don't suppose for a moment that such thoughtless catastrophes are confined to the U.S.A., but I do think they are facilitated by an unlimited supply of antibiotics.

Again I have digressed, and instead of describing, have been moralising. Surgery in the U.S.A. is done in operating rooms, not theatres, and in a large hospital they are to be found in large numbers, a whole floor or more, all very handsome and sumptuously equipped. Even small country hospitals usually run to two operating rooms at least. Equipment is of the first order, and since the same rooms are used for private patients and for ward patients, instruments are supplied by the hospital for all patients. The surgeon is thus relieved of having to provide his own instruments for his private work. Perhaps, nowadays with National Health Service, this is the case in England also—in my day it was not so. Anybody want any instruments?

We work at a more leisurely pace than we used to in England. We start early. The first

case is scheduled usually for 8 a.m., but we like to stop about 5 p.m., except for emergencies, of course, and special circumstances. We don't have long lists; we don't run cases rapidly one on top of another, but have a quiet rest and chat in between; no one man ordinarily does more than two or three operations at a time; and the average speed of operating is slower. If they could have seen D'Arcy (Sir D'Arcy Power) do an appendix in eight minutes! One should not take extreme examples, but I am still not used to the slow pace at which things move in the operating rooms. The neuro-surgeons are the slowest. Once, when a neuro-surgical patient died after being on the table for some nine or ten hours, the neurologist was asked if he knew what had been the cause of death. "Starvation, I would think," he replied.

**Psychiatry.** Psychiatric medicine has become very popular in this country in the past few years. It would appear that most of those concerned with the creative arts—the novelists, the playwrights, the actors and actresses—and also many of the business and advertising executives, suffer from neurotic illness. At least they seem to require analysis in large numbers, so that there are not nearly enough psycho-analysts to meet the demand. The situation for the less well-heeled is considerably worse, clinics where low cost or free treatment is available being few and far between. Neurosis, in short, is a very unfortunate disease for the ordinary person to have—either he can't afford treatment or he can't get treatment. Yet there would seem to be a very great need, even allowing that the business has, like antibiotics, been overdone. In consequence, many young men, and many men not so young, are taking up psychiatry as a specialty, even though the training is long and the requirements for a diploma many. However, the ultimate financial reward is considerable.

"Psychosomatic"—I cannot leave the subject of psychiatry without saying a little something more about this fascinating word (you will remember I mentioned it earlier). Psychosomatic medicine is widely regarded,

apparently, by non-medical folk as a discovery of the past few years—and it would seem at times that even some medical men have the same feeling. Anyhow, the adjective is batted about very haphazardly, by the public as connoting any illness which cannot be cured by operation or some simple drug treatment, by the doctors as descriptive of an illness whose organic origin cannot be determined. And the interesting thing is that as soon as anybody, patient or doctor, says "psychosomatic," he promptly forgets all about soma and remembers only psyche. Which is very nice for the psychiatrists but a bit tough for everybody else.

However, the current emphasis on emotionally determined illness, even though it may have been abused, has had its good features. It has made people aware of the widespread nature of the problem. It is gradually converting the die-hard sceptics, lay and professional, to a grudging acceptance of the fact that man is not made of bone and muscle alone. And it is educating the profession to the possibility of, and necessity for, finding positive evidence in making a psychiatric diagnosis, as against the older negative fashion of saying in a derogatory tone, "Oh! functional," when you were unable to make an organic diagnosis.

Anyone who reads this article and who knows America will appreciate what a sketchy account I have given of medical conditions here. Obviously, that had to be so. Two thousand words! He may also say that I have been unduly critical. If I have given that impression, I must apologise to American medicine, for the achievements of which I have the highest regard. Let me repeat—the best American medicine is unsurpassed. It is entirely comparable with the best medicine as practised in England or anywhere else. But my job was to talk about differences—differences in organisation, in teaching, in practise between this country and England as I knew it (and remember please, in case I have seemed in places very out of date, that that was nearly twenty years ago). To do that, I had to be critical.

## THE NEW SARCOMA (CLAMP'S DISEASE)

by NQONG

"C/o lump in buttock. Kindly examine and do the needful." Dr. Hax's letter to Mr. Dogmer Bludgeon's out-patient clinic was at least brief. It was 6 p.m. on September 15th, 1964, and Lanes-Clamp, the Senior Registrar, automatically waved Mrs. Jenkins towards the couch. He had been a senior registrar for twelve years and it was beginning to tell on him. He was fed up with this clinic which had been in session since 9 a.m. But it was his bread-and-butter. Hadn't the Government, in its wisdom, satisfied at the same time both the redundant senior registrars and the great out-patient public? Each patient had been allotted an official thirty minutes, and the senior registrars had been kept on to cope with the extra work. This decision a few years earlier had come just in time to avert another and more serious crisis. The consultants, who had mostly become part-time farmers, had decided, in a strange fit of unity, and for reasons largely connected with the great income-tax problem, to work for only six months in the year. Dogmer was due back next week, thought Clamp; the old boy would be looking just like a navy: all weather-beaten and sunburnt after getting in the harvest. His hands wouldn't be fit to be seen in the theatre for a week or more; and he would be so out of practice that he would hash up everything. It was always the same: just as he got efficient at his job again, his six months would be up, and he would be away into the country, like a bat out of hell.

Mrs. Jenkins's lump was hard and attached to the deeper structures of the buttock. Clamp thought he could feel also a smaller mass in a similar situation on the other side. Some strange voice told him to X-Ray her chest, and this showed a mass of secondary deposits. How strange! There had been a case just like this a year or so ago; those lumps had turned out to be sarcomas and, although no other growths had been located at the time, the poor woman had died within a few months with numerous metastases. He had other reasons for remembering that case. During the operation that terrible old theatre lamp had fallen down on the patient, and that old goat of a judge had held the episode

responsible for the metastases, and had awarded her widower £20,000 damages. No wonder the football pools were getting less popular! What a good thing there was the Medical Defence Union; even if the subscription was now £10!

Clamp, with his now vast surgical out-patient experience (he had been doing four whole days a week at various hospitals for seven years), reflected on the recent increase in the incidence of sarcomas. There had been several recently—mostly in the buttock, now that he came to consider the matter—and he recalled a colleague commenting on it too: so perhaps his was no freak experience. But two cases of bilateral buttock sarcoma were worth writing up! This idea cheered him up a little; for it was becoming increasingly difficult in the purely clinical field to find anything original to write about; not that that seemed to deter people; and the journals were now twice as numerous as twenty years ago. He would try the *Lancet*: now that it was published twice weekly, the waiting list—for a senior registrar—oughtn't to be more than a couple of years. But perhaps the G.P.s would like to know about these sarcomas. If they would buy it, it should be out in a month or so in either the "British Journal of General Practice" or the "Annals of the Royal College of General Practitioners." Then there was always the *B.M.J.*; but no one quite knew these days who it catered for. He wondered despondently whether it was worth it after all. Publication didn't get you jobs these days because there weren't any jobs. The consultants were leading such healthy lives, and, anticipating longevity, had persuaded the Government to raise their retiring age to seventy. Certainly there were fewer of their obituaries in the *B.M.J.*, and Clamp's recent and disturbing impression had been that in those columns consultants and senior registrars were running pretty much neck-and-neck.

As the months passed, Clamp's fears were confirmed. These curious sarcomas became more and more frequent; it was almost as if the G.P.s were hatching some macabre plot. The tumours were usually in one or both buttocks, but were sometimes in the

quadriceps; and a few were at other sites, such as the deltoid muscle. Even old Dogmer admitted their new incidence just before he vanished again, and surgeons in general were getting alarmed. A few scattered reports were now coming in from the United States.

Clamp, who took medical progress for granted, was shaken. Recent advances in the chemotherapy of some forms of malignant disease had been outstanding, and disease in general had continued to retreat before the chemists. But what flukes there were nevertheless! He had been amazed at the way in which Penicillin, despite all the gloomy prognostications of the bacteriological Jeremiahs, had continued to tower over all the newer antibiotics, which came and went in turn, usually after producing some ghastly and unthought-of complication. But he must admit that the latest one certainly looked like surviving its preliminary trials by the Submarinamycin Subcommittee of the M.R.C. Even that nasty outbreak of Bornholm Disease in the Chipping Sodbury region seemed to be responding pretty promptly to this "Viruscram" that they keep plugging on the radio and T.V.

It was only when the chemists had started working as pathologists that the mysteries of malignant disease had really started to come to light. That chap who held the

Imperial Tobacco chair of Bronchial Oncology at the Royal Neoplasia Hospital was the boy! It had certainly cost the tobacconists millions to get the answer to their worry: but money pays dividends in Medicine! Whereas the evidence now was that—in mice at any rate—it prolonged natural life, some poor fools used to think that cigarette smoke was an important factor in the genesis of lung cancer. It was now known that it was really the combination of the cigarette smoke (or certain industrial smokes) with this strange mould that had become so much more common in our towns. It was remarkable that no one before Clutterbuck had thought of staining sputum with one of these fluorescent dyes: the mycelia were otherwise so difficult to demonstrate.

Moulds!! By God! Hadn't some Egyptian at their Institute of Revolutionary Pathology claimed to have produced sarcomas in jerboas with Penicillin? That was a year or two back, at a meeting of the Section of Experimental Pathology of the Medical branch of the United Nations. The translation through Clamp's earphones had not been very clear, but he thought the chap had said that there was a long latent period—perhaps twenty years in a man's life. Everyone in the bar afterwards had laughed.

## RECORD REVIEW

by S. P. LOCK

### BEETHOVEN SONATAS

In D major Op. 10, No. 3, and in C major Op. 53 (Waldstein). Kurt Applebaum (piano). Nixa WLP 5044.

It was an excellent idea to record these particular sonatas together on one disc. Not only is their intrinsic worth high, but comparison of the two is a fascinating study of the evolution of the composer's style.

Whatever boorish things Beethoven may have said about the circle of noblemen and their wives who sought his company in Vienna, their influence on his life and work was considerable. The Opus 10 sonatas, three in all, are dedicated to the Countesse de Browne, the wife of an officer in the Russian army, to whom he had already inscribed the dedications of three string trios.

Similarly the sonata in C, Op. 53, was dedicated to Count Waldstein and has since always gone by this name. The Count, an Austrian nobleman eight years Beethoven's senior, had been responsible for Beethoven's admission to Viennese society: indeed the composer had previously expressed his gratitude by the composition of eight variations for piano duet on a theme of the counts.

The sonata itself is remarkable for the first movement, which is at once powerful and brilliant. Originally, the critics complained that the sonata was too long. Beethoven was noted for paying little attention to the opinions of his detractors, but on this occasion he detached the slow movement, which is now the *Andante favori* in F,

and wrote the present, shorter, slow movement. The last movement into which this andante leads without a break, is a masterly study in variation form on a theme which in lesser hands could have been absurdly trite.

Kurt Applebaum gives an excellent uncentric reading of both works. True, some passages are blurred by overpedalling and the pace in the first movement flags in passages, but this is amply compensated by the artist's conception of the works as architectural wholes. There is no condescension towards the earlier piece and his technique is fully adequate to the demands of the *Waldstein* sonata. The recording itself is first rate.

#### SIX ITALIAN OPERATIC OVERTURES

**Donizetti:** Ov. *Don Pasquale* and *The Daughter of the Regiment*.

**Rossini:** Ov. *The Barber of Seville* and *William Tell*.

**Verdi:** Ov. *The Force of Destiny* and *Aida*. Orchestra of the Berlin Städtische Oper cond. A. Rother. Nixa ULP 9057.

The earliest overtures were usually elaborate fanfares to draw attention to the beginning of the entertainment. Later composers provided a *pot-pourri* of the tunes of the opera, partly because they were unwilling

to compose an original piece which would be drowned by the audiences' chatter, and partly also because they wished to impress the melodies on the subconscious minds of their hearers. All the overtures on this record, with the exception of the *Barber of Seville*, are based on themes heard later in the same opera. But, save possibly the *Force of Destiny*, none are more than simple statements of these themes.

Individually, these overtures are too well known to require separate consideration, for they are often played separately in the concert hall while the operas themselves have all—with the exception of the *Daughter of the Regiment*—been performed in London within the last year.

One requirement for this *genre* is lively playing with rhythmic flexibility, i.e. certain passages are retarded or played more quickly within the basic tempo. The playing of the Berlin Orchestra is certainly accurate and, except for the heavy tutti passages in the *Force of Destiny* overture, well recorded, but it lacks the rhythmic freedom to be found in the smallest Italian orchestra. However, it is good to have these delightful pieces together on one disc, and there is the added advantage of an impeccably silent surface. The performance of the *Aida* prelude is noteworthy for its grace and delicacy.

## A CASE OF RENAL PARENCHYMAL NEPHROCALCINOSIS

by J. S. MURRELL

Parenchymal nephrocalcinosis occurring as an isolated condition is rare. Most of the cases reported in the literature are associated with other evidence of disturbed calcium metabolism elsewhere in the body and in addition in most cases it has been possible to ascribe a cause. The chief interest in this case lies in the fact that no cause could be found and that investigations revealed no lesions in other tissues.

### Aetiology and Pathology

The term Parenchymal Nephrocalcinosis implies the microscopic deposition of calcium salts in the kidney substance as distinct from the formation of gross renal calculi.

The chief causes of the condition, which may or may not be associated with "metastatic" calcification elsewhere in the body, are alkalosis following excessive vomiting or ingestion of alkalis, hyperparathyroidism, severe osteoporosis from trauma or prolonged immobilisation in bed, osteomyelitis, lytic osseous metastases as from breast carcinoma or lymphomas, renal rickets, renal acidosis resulting from tubular damage and insufficiency, and "idiopathic hypercalcaemia." They all produce essentially the same histological appearance, almost without exception the calcium deposition being limited to the distal convoluted tubules. The calcium is deposited directly in the epithelial cells, more particularly within their nuclei. Cellular debris may be desquamated into the tubular lumen as calcareous casts. It is stated that when the lesion is restricted to the cortex, it rarely interferes with renal function and it is only when casts amalgamate to obstruct urinary flow in the collecting tubules that function is impaired. In other words nephrocalcinosis is primarily a complication of an existing general condition rather than a cause of trouble in itself.

### History of Present Condition

Mrs. B was a housewife, aged 60, and was admitted to Bart's under the care of Dr. Cullinan. She had always been quite well until 1945 when, after hearing some bad news, she fainted and suffered a blow from a door handle in the region of her right kidney. On passing urine for the first time after this incident she noticed it con-

tained a considerable quantity of blood. The haematuria persisted for a week and then cleared up quite suddenly with bed-rest as the only treatment. During this time she was well, and complained of no other symptoms. A ruptured kidney was diagnosed, but no investigations were carried out.

In 1948, Mrs. B complained of rather frequent but mild headache for the first time, and this was worse in the mornings. In July, 1952, she had a recurrence of her haematuria, lasting this time for eight days and coming on suddenly with no constitutional disturbance. It again cleared up spontaneously with rest in bed. A short time following this attack she had a moderate degree of exertional dyspnoea and swelling of the ankles, lasting for three months. She has had no return of these symptoms since.

In October, 1952, she was admitted for investigation to the Groote Schoor Hospital in Cape Town. Here, her blood pressure was found to be 250/140, there was some cardiac enlargement but no signs of congestive failure, her fundi showed bilateral papilloedema and soft exudates. Her urine contained albumen, a few red cells and pus cells, and the culture was sterile. Her blood urea was 70 mgm. per cent., serum Ca 10.3 mgm. per cent. and serum alkaline phosphatase 4.5 K.A.u. An x-ray of the abdomen showed bilateral renal calcification and a diagnosis of malignant hypertension and nephrocalcinosis was made. She was discharged on a light, low-salt, low protein diet with instructions to lead a quiet life and she has adhered to this regime ever since.

Since that time her general condition has been good, although, more recently, her headaches have increased in severity and frequency. There has also been some slight visual deterioration and several attacks of dizziness. Her appetite is good, she has no indigestion, and she has lost some weight on her diet. She has had no cough, no dyspnoea or swelling of the ankles. She has no micturition symptoms.

**Past History:** Radium menopause following menorrhagia three years ago.

**Family History:** Nil relevant.

**Social History:** Her husband is a retired business man and she is well able to lead a quiet life.

### Condition on Examination

Fit looking woman. No anaemia. Weight: 8 st. 5 lb. Fundi showed arteriosclerotic narrowing of arteries and occasional patches of hard exudate. There was slight left-sided papilloedema.

**C.V.S.:** Blood pressure, 220/130. No signs of congestive failure. Heart not clinically enlarged. 1st Sound duplicated at the apex: aortic 2nd Sound accentuated. No ankle or sacral oedema.

**Abdomen:** Tenderness in both renal angles. Right kidney palpable.  
**C.V.S., R.S.:** Normal.

## LETTERS TO THE EDITOR

### STUDENT TRAVEL

Dear Sir,

Prof. Wormall, in his letter on medical education (January, 1954, issue of the *Journal*), states that the maximum benefit from study abroad is usually derived after two years' post-graduate experience in this country. Even accepting this, should it disqualify those who wish to travel and study abroad while still undergraduates?

The student, with wide interests but small experience, will benefit greatly from meeting other students and teachers abroad, discussing medical problems with them and observing different methods and ideas in hospital practice or surgical technique, for example.

The post-graduate will travel abroad to carry out some particular research and, holding an appointment at the hospital, will spend most of his time observing his own special interest.

The student who is free to move from department to department, cannot fail but to widen his medical experience. The two visits are both valuable, but not strictly comparable.

Yours sincerely,

GEOFFREY DAWRANT.

Abernethian Room.

### BART'S

Sir,

I read the article by Dr. Crichton Starkey with interest and pleasure—after nearly forty years' absence I came back to Bart's—this time as a patient and I was able to look at the Square from a ward window.

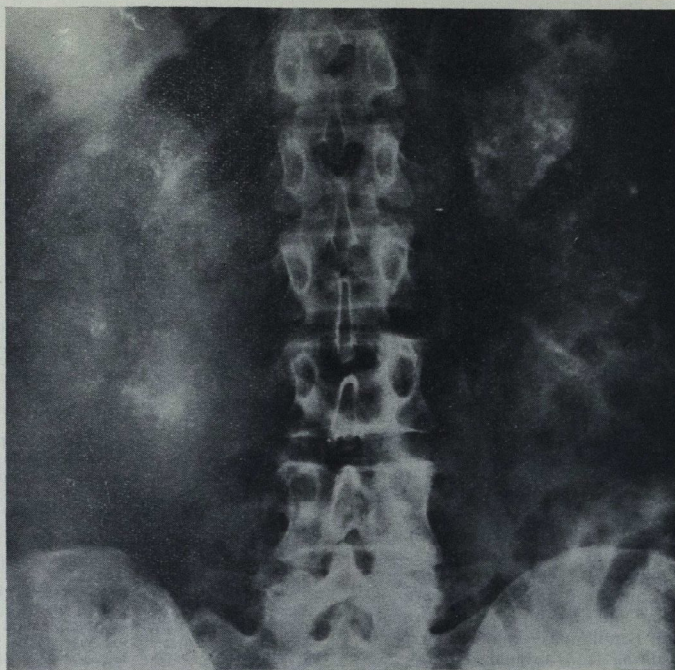
Apart from motor cars parked, things have not changed much—minor changes, perhaps. One does not see students in white coats sitting by the fountain waiting the arrival of the chiefs for the afternoon ward rounds—but it is still the Bart's of which one is so proud to be a perpetual member.

This leads me to my point: Recently I had the opportunity of visiting another hospital to be present at an operation on one of my patients.

The operation over, I adjourned to the disrobing room with the surgeon and anaesthetist for coffee and cigarette. The conversation turned to Bart's, and my friends said that they could always tell a Bart's man—I asked them the reason and the answer I received was: "You tell us you are during the first few minutes of conversation.

B. LYNDON SKEGGS.

Stevenage.



Renal Calcification. X-ray on December 7, 1953.

Urine: Sp. gr. 1010. Albumen present (medium cloud), Esbach 2 gm./litre.

#### Investigations

The following investigations were carried out in an attempt to find: (i) A cause for the nephrocalcinosis. (ii) The state of the renal function. (iii) The state of her cardio-vascular system.

(i) X-rays of skeleton showed a normal calcium content and no cystic areas. Kidneys showed bilateral renal calcification.

#### Blood Chemistry:—

Serum Cl (as NaCl) ...	620 mgm. per cent.
.. Na ...	320 mgm. per cent.
.. K ...	17.5 mgm. per cent.
.. Ca ...	10.3 mgm. per cent.
.. Alkali reserve 53 nil Co <sub>2</sub> /100 ml.	
.. inorganic phosphate 2.6 mgm. per cent.	
.. alkaline phosphatase 10.0 K-A Units	
24 hr. excretion of 17 ketosteroids—5.4 mgm./day.	
24 hr. calcium output (on normal diet)—120 mgm.	
24 hr. inorganic phosphate output (as P)—650 mgm.	

Urine (CS.U): A few white cells, very occasional red cells: culture yielded pure growth of staph albus (coagulase neg.).

(ii) Blood Urea—52 mgm. per cent.

Water Concentration Test.—Total passed 1,700 ml. urine. Sp. gr. fixed at 1.010 in all specimens.

Water Elimination Test.—1,300 ml. water given: only 160 ml. passed in 15 hrs. Urea Clearance. These were 21 per cent. and 16 per cent. of normal.

I.V.P. showed bilaterally poor secretion.

(iii) Hb. 92 per cent. W.b.c.s. 5,700 ESR 44 mm./hr.

E.C.G. showed left ventricular hypertrophy.

#### Discussion

Investigations show that there is considerable impairment of renal function, associated with a mild degree of malignant hypertension and it is of interest to consider which was present first. The history of traumatic haematuria implies a previously damaged kidney which in turn suggests that the nephrocalcinosis may have been in existence before that event. Whatever caused the nephrocalcinosis may also have damaged the kidneys sufficiently to cause the severe grade

of malignant hypertension diagnosed a year ago. But since then, contrary to the usual course of primary malignant hypertension, the condition has become less severe. It seems, then, that no continuous damage is being done to the kidneys and that they have recovered to some extent from what they have already suffered.

Most of the causes of parenchymal nephrocalcinosis, which have been listed, can be ruled out on the grounds of history alone. Two attractive possibilities are hyperparathyroidism and renal tubular insufficiency, both of which can be treated. The former, if due to an adenoma, can be treated by surgical removal, and the latter which acts by causing renal acidosis, is amenable to alkali therapy.

A diagnosis of the commoner hyperparathyroidism is ruled out because of the normal skeletal X-rays, normal serum calcium and alkaline phosphatase, and normal calcium excretion.

Allbright (1952) reports nephrocalcinosis occurring in renal acidosis resulting from tubular insufficiency. The mechanism is that calcium (and potassium) is used as a base for excreting excess acid, resulting in a fall in the serum calcium level and an increase in urinary calcium. The parathyroids react by hyperplasia and osteomalacia may occur. The aetiology of the original kidney pathology is obscure, although Allbright found long-standing low grade urinary infection in two of his cases. Against such a diagnosis in this case is the normal serum chlorides, blood alkali reserve,

*My thanks are due to Dr. Cullinan for his permission to report this case and to Dr. King for his assistance and advice in its preparation.*

#### OBITUARY

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

BRITAIN, Herbert Alfred, on March 4, aged 50. Qualified 1926.

HILL, Frederick Theophilus, M.C., on January 29. Qualified 1913.

JONES, Martin Llewelyn, on March 23. Qualified 1893.

LYON-SMITH, George Lyon, on February 28, aged 61. Qualified 1918.

POCOCK, William Agard, aged 66. Qualified with Fellowship in 1917. Died in South Africa, exact date unknown.

serum potassium and 24 hour calcium output.

Flocks (1940) found that hypercalcaemia is very common in patients with kidney stones and attributed the fact to a primary defect in metabolism whereby the kidneys excrete an increased amount of calcium for any given level of calcium in the blood. Allbright cites this as a possible cause of nephrocalcinosis and notes that it is occasionally associated with a low-grade staphylococcal pyelo-nephritis. There is nothing to support the diagnosis in this case. A mild staphylococcal urinary infection was found on two occasions in this patient but it appears to have no significance as an aetiological agent.

#### Conclusion

1. A case of parenchymal nephrocalcinosis associated with impairment of renal function and malignant hypertension is reported.

2. In view of the failure to discover the aetiology of the condition no specific treatment was indicated and Mrs. B. was advised to continue with her low salt, low protein diet and to lead a quiet life. Arrangements were made to have her urinary infection treated on her return home.

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## AN EIGHTEENTH CENTURY BART'S SURGEON

by SIR WELDON DALRYMPLE-CHAMPNEYS, Bt.

In my drawing room there hangs a fine portrait (reproduced here) of Edward Greene by Rigaud and dated 1720. The painting of the face, wig, kerchief and hands is particularly good, but the subject of the illustration showing in the book which he holds open in his hand may not at first sight be so clear and in fact my father-in-law, Colonel Arthur Spencer Pratt, C.B., C.M.G., Edward Greene's descendant, always believed that it represented a shell and always referred to his ancestor as "the old conchologist." It seems certain, however, that the true nature of the object depicted is a median section of the brain as is shown by comparison with a portrait of Edward's son, Thomas Welles Greene, also in our possession and also by Rigaud, in which he is depicted holding in his hand a book open at a picture of an undoubted human skull. This conclusion, arrived at unfortunately only after my father-in-law's death, led me to make enquiries about the father and son and brought to light the following facts which may be of interest to Bart's men.

Edward Greene was "born on 22nd November, 1659, the son of John Greene, citizen and merchant-tailor of London, defunct, apprenticed to Henry Boone, Surgeon, for seven years on 14th March, 1675/6, and admitted a Freeman of the Barber-Surgeons Company on 3rd April, 1683" (unpublished records of the Barbers Company). According to Young's Annals of the Barber-Surgeons of London (1890, p. 11), Edward Greene (here spelled Green) was Second Warden of the Company in 1709, Prime Warden in 1710, and Master of the Company in 1711.

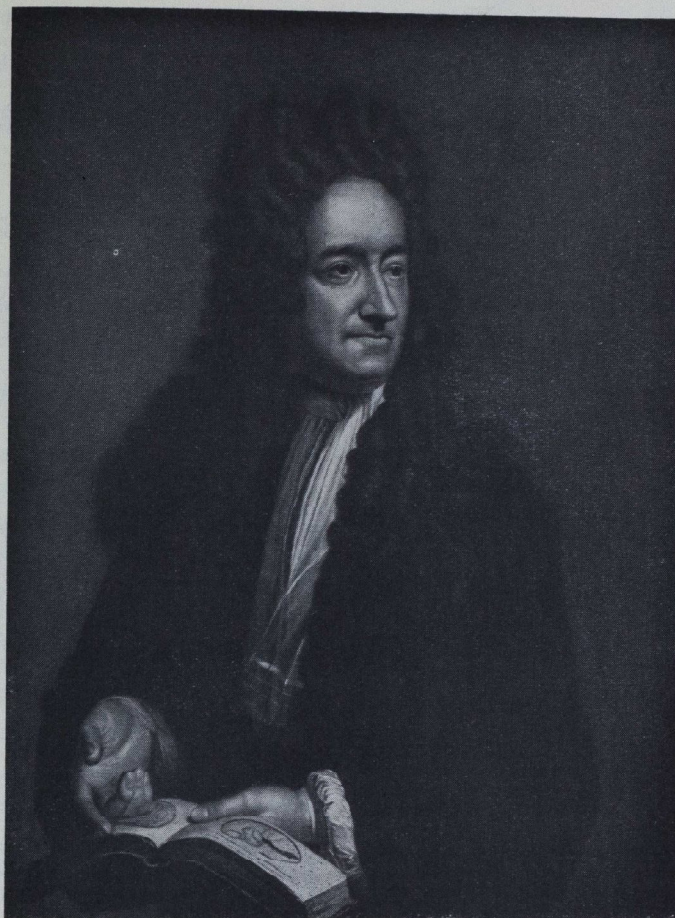
Edward Greene was elected Assistant Surgeon to St. Bartholomew's Hospital on 4th November, 1698, and Surgeon on 9th November, 1710. (Sir Norman Moore's History of St. Bartholomew's 1918. Vol. 2, p. 631. Sir Norman remarks here that "In his time, September 12, 1724, it was resolved that the surgeons should have 6s. 8d. for every operation for stone"). Apart from this there appear to be only two minor references to Edward Greene in the Hospital's records, both in the Minutes, viz.:—

"14th February, 1715/16. A scarf to be provided for Mr. Greene, Surgeon."

"28th March, 1724. Mr. Greene, Senior, one of the Surgeons of this Hospital is desired to agree upon the best terms he can with Mr. Baynes, the keeper of the Cold Bath, for the use of that Bath for such of the Poor Patients of the Hospital as may want it."

This last reference may incidentally be of some interest. As I have said Thomas Welles Greene, Edward's son, who, according to an inscription by his mother in the family bible "was borne at halfe an hour after six a clocke on Wednesday morning: August: 29 1688" was, it seems certain from his portrait, a surgeon like his father, but no record of him can be found either at the Royal College of Surgeons or at the Hospital. All the same it is tempting to speculate whether the reference on 28th March, 1724, to "Mr. Greene, Senior" may not allude to the presence in the hospital of his son Thomas who would at that time be 36 years of age and might perhaps have been assisting his father in an unofficial capacity? However this is mere speculation and though I shall return to Thomas presently some more must first be said about his father.

Edward Greene married about 1686/7 Elizabeth Welles (of whom we have a charming oval portrait) niece and heiress of Thomas Welles of the Hoo, Great Gaddesden, Hertfordshire, a house which still exists but greatly reduced and altered from its former state. The word "Hoo" or "Hough" means a high place and was the name of an ancient Saxon family who owned large estates in Hertfordshire and Bedfordshire in the time of Canute. The principal seats of this family were at Luton Hoo and Kingston Hoo, and their custom was to add their family name of Hoo to any property of importance belonging to them. Records shew that "Gaddesden Hoo" was already in the possession of the Welles family in the latter part of the 15th century and in 1561 the name of Thomas Welles appears in the list of freeholders in Gaddesden Magna. In 1625 when Charles I forced a loan from the



Edward Greene, 1720. By Rigaud.

gentry of Hertfordshire another Thomas Welles contributed £10.

Now Elizabeth Welles was not only a considerable heiress but she was also the senior descendant in the female line of the Dukes of Bridgewater whose great house Ashridge lies about four miles from The Hoo as the crow flies, and when the dukedom went into abeyance with the death of the third Duke, "The Father of Inland Navigation," in 1803, my father-in-law's grandfather became the

rightful heir and could probably have had the dukedom called out of abeyance in his favour. Elizabeth died on September 12, 1723, aged 63.

Edward Greene died on January 14, 1727, and Thomas Welles Greene, his eldest son, was master of The Hoo from this date until 1745 when he died without issue, and was succeeded by his nephew Henry Greene. Besides The Hoo, Great Gaddesden, the Greene family had considerable property in

Westminster, including most of the land on which now stands Smith Square, as well as several small streets running out of it. At the time of the Commonwealth, the east

*I am most indebted to Mr. W. R. Le Fanu, Librarian of the Royal College of Surgeons of England, and to Mr. Carus Wilson, Clerk to the Governors of St. Bartholomew's Hospital, for the valuable information they have given me regarding Edward Greene.*

## SPORTS NEWS

### FOOTBALL

**Semi-final of United Hospitals Cup v. U.C.H. (away). Lost 1-3 (Gould).**

This game was played on March 1 on a ground at Shenley, in Hertfordshire. It had snowed during the night, and though the snow had melted it had left a rather heavy, muddy pitch. The Bart's team was not at full strength, because of injuries, but a last-minute substitution brought in M. Philips at centre forward to add to the forward line what the sports writers in the Sunday papers speak of as "punch."

The play was fast and very even from the kick-off. Gould and Pilkington combined cleverly as usual to make a fast moving left wing, while Philips's sudden bursts of speed in the centre were a constant source of anxiety to the opposing defence. U.C.H. scored first after 20 minutes, but shortly afterwards there was a mix-up outside the U.C.H. goal and Gould flicked the ball into the net to make it one all. This remained the score until half-time and, as the referee said afterwards, at that stage it was anybody's game.

After the resumption it became gradually evident that the pace was beginning to tell on the Bart's team rather more than upon U.C.H., whose average proportions seemed rather larger. They now had a slight superiority in mid-field, but with Ford effectively blocking the centre they could make little headway until eventually a chance shot ran just inside the post and beyond the reach of Hobbs. Shortly before the end Lee, their inside forward, added a third.

The game was interesting to watch, play constantly varying from the skilful to the robust, and was remarkable for four rather uninspiring goals and a result which was depressing for us.

Perhaps next year . . . .

### HOCKEY CLUB

**Senior Cup Match (2nd Round) v. the London Hospital. February 17.**

Having a bye in the First Round, Bart's met the London Hospital in the Second Round for the Hospital Cup. The match started with a quick break away by the London, which resulted in a goal. Thereafter, until half-time, the play was very even, with Bart's having, perhaps, more of the ball, but no further score took place at either end. In the second half, play was much more fluid and lively, swinging from end to end of the field, with both teams attacking persistently. From one of these attacks the London scored their second goal, after a scuffle round the goalmouth. This was quickly followed by a good Bart's for-

window of St. Margaret's Church, Westminster, was removed and buried for safety by a member of the Greene family, being replaced after the Restoration.

ward movement, with cross-passing, which culminated in a goal from the left wing by Chalk. After this, although Bart's attacked hard, and resisted the continuous pressure of the London forwards, neither side could get the ball into the net for any further score.

Team: H. Whitting; D. J. Buttery, R. I. D. Simpson; C. B. T. Grant, E. J. Batterham (capt.), J. A. Tait; P. V. Rycroft, I. G. Tait, J. W. Mellows, A. S. Tabor, P. H. Chalk.

**Junior Cup Match (2nd Round) v. St. Mary's Hospital. Lost 3-0. February 27.**

Bart's opened the game with a dangerous attack and throughout the first half held the initiative. Attacking most of the time, the forwards were unlucky not to score on several occasions. There was no score by either side at half-time. The second half was played at the same very fast pace as the first had been. Although St. Mary's attacks were all successfully resisted, Bart's still did not manage to get a goal. It was not until extra time that the first goal was scored—by St. Mary's—and, as often happens in extra time, this was followed by two more.

Team: B. Hecht (capt.); H. T. Shacklock, D. B. Hennessy; P. Bliss, R. White, A. L. A. Reid; R. P. Doherty, H. V. Blake, J. B. Dawson, J. C. T. Church, A. P. Marks.

### WOMEN'S HOCKEY CLUB

**January 16—v. St. Thomas's Hospital.**

Won, 3-2.

**January 23—v. King's College Hospital.**

Won, 12-0.

**February 13—v. King's College Hospital.**

Won, 11-0 (Semi-finals, Inter-Hospital Cup).

**February 20—v. Lensbury.**

Lost, 2-9.

**March 10—v. St. Thomas's Hospital.**

Won, 3-0 (Finals, Inter-Hospital Cup).

The club has rounded off a very successful season by winning the Inter-Hospital Cup for the first time. Each year since it started in 1950, this competition has been won by the Royal Free Hospital. In a fast game played on St. Mary's ground, Bart's took the initiative by scoring twice in the first half. In the second half St. Thomas's attacked persistently, and came very near to scoring on several occasions. The team would like to thank all those who came down to encourage and support them.

Team: N. Funnell, A. Woolf, A. Tresidder, E. Garrod, J. Cree, S. Macvic (captain), J. Wilson, J. Wetherall, S. Balhatchet, P. Lindop, J. Swallow.

## BOOK REVIEWS

**MODERN TRENDS IN DERMATOLOGY** by R. M. B. MacKenna. Second series. 338 pp. Butterworth. Price 63s.

During the last five years advances in the field of dermatology have been so rapid that a further volume embracing some of the latest trends, though covering an entirely new range, is much needed as a complementary volume to the first series.

Under the editorship of Dr. MacKenna, 23 contributors, each an authority on his own subject, have maintained the already high standard set in the first series. In his introduction he quotes the statement "La vraie science et le vrai étude de l'homme c'est l'homme" (attributed to Pierre Charron) to remind us of the importance of the adaptation of man to his environment and the preventative aspects of disease. Professor Banks emphasises this in the opening chapter with a brief survey of the social and industrial problems that have occurred in Great Britain in previous centuries. This is followed by Dr. Macalpine's chapter on psychiatry. She begins with a critical survey of research into psychosomatic aspects of cutaneous disease and goes on to discuss questions of method and treatment, outlining those trends she considers promising in this field. Thereafter, we turn to an orderly consideration of anatomy, physiology, functional pathology and treatment embracing a diversity of topics, including the functional significance of nerve terminals in the skin; the reaction of skin to injury and its anti-body production; cytodiagnostics. Cutaneous tuberculosis, sarcoid and leprosy receive due consideration with reference to immunology and histopathology, and the important problem of allergy is also discussed. The role of cortisone and ACTH in dermatology is surveyed, emphasis being laid on the combined use of systemic administration and external treatment of skin lesions. There is also a discussion on the clinical application of beta ray therapy, which though at the moment largely in a state of experiment, promises much in a limited field.

At the end of each chapter there is a comprehensive list of references amplifying much of the text which has necessarily been condensed in some places. The book is well illustrated and there are many excellent coloured plates. D. F.

**JOSEPH BARCROFT, 1872-1947**, by Kenneth J. Franklin. Oxford: Blackwell Scientific Publications, pp. 379, illus. Price 37s. 6d.

Few people are prophets at home. This did not apply to Sir Joseph Barcroft, F.R.S. It is, however, perhaps even now not sufficiently realised in this country, how widespread and international his reputation was quite early in his life. His studies on the properties of haemoglobin and of the oxygen dissociation curves of blood were immediately accepted as classic. His work on the physiology of the embryo also found immediate recognition. As a research worker, his most impressive faculty seems to have been the ability to plan his experiments. He fulfilled and almost anticipated Fisher's strict requirements for a "Design of Experiments." Thus it was possible for him to sort out and arrange in a proper order all those observations which are so often lost to workers who regard the results of their experiments merely as an isolated item and create thereby more confusion than enlightenment. As so often

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happens, such ability was closely linked with the power to describe researches with simplicity and lucidity.

Professor Franklin's book relates in a very convincing and pleasant manner how such a personality developed. He also adds the background of a Quaker upbringing and of a happy and well-balanced family life which provided the atmosphere, making it possible for Barcroft to become one of the outstanding men in his field. The many personal anecdotes and stories are not only pleasing to those who came under Barcroft's direct influence but also complete the picture for those who have never met him. In that connection, it should be mentioned that the photographs are extremely well chosen, and particularly so the one which makes the dust-cover so attractive.

It is of topical interest that Barcroft's exploits were the foundation upon which the conquest of Everest was built. He was an experienced and keen mountaineer, and Bart's men will be pleased to learn that "Alpinism" was one of a course of advanced lectures in physiology which he gave in the physiology laboratory of St. Bartholomew's Hospital in 1921. Incidentally, his mountaineering expeditions in the interest of science brought Barcroft into an intimate contact with many outstanding physiologists of foreign countries. It is a melancholy thought that such close contacts have become so unhappily scarce since the end of the First World War.

To sum up, this is a most pleasant book, written with consummate skill and one that the reviewer could not put down until he had finished.

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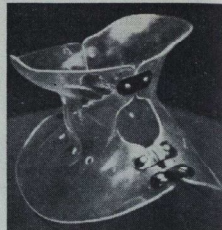
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# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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No. 6

## GODS, WITH CARE

On a day in the last century, in a year when the English were still the great pilferers and travellers of the world, a man bought some curios to take home with him. He was in India, and being an educated and cultured man, was interested in Eastern religions. The packing case that he took home was labelled "Gods, with Care." Is it possible to think of anything more ironical?

The Images of one civilization or of one generation are not always the Images of the next. It is not only the religious Images that change, but the civic Images. The Image of the State changes from one age to the next, patriotic songs once popular now seem in bad taste, and we turn palaces into museums. So the big Images change and decay (not all of them but some of them), and the small Images too can begin to rot.

Among the small and personal Images that the Victorians revered was the figure of the Doctor. He dressed in black, his hair was grey and his hat was well brushed, he smiled, but he never laughed. He spoke little, but what he said was infallible. He could do little, but what he did was accepted as a potent rite. He stood by the sick child and pulled out his watch and felt the pulse, and the mother held her breath. He walked across the sick room, erect, silent, black-coated, revered. That was the Image.

And now what's happened to the Image? Is it gone into a packing case, lost in the pages of sentimental three-volume novels? Anyhow, the Image has gone, and quite right too. What ever ground the doctor of today expects to stand on, the ground is not a pedestal.

Some sort of Image is replacing the old Image of the Doctor. Certainly no one now believes in medical infallibility, and some people perhaps pick up their smattering of

medical knowledge by reading the lay reports. The picture that grows up is partly built haphazard, by novels such as *The Citadel*, by articles in the *Readers Digest*, by a film like *Doctor in the House*. Everything about medicine and the medical profession, everything from the most trivial things to the most important things, is shouted out to the public. Women's magazines run palpitating features on what it is like to marry a doctor, and learned journals that lie about in Common Rooms discuss whether the doctor is the servant of the State or of the Individual.

There are other things, too, that build the Image of the Doctor; there is what the individual doctor says to the individual patient, and what the individual patient thinks of the individual doctor, and this, as it always has been, is what is most important. Nowadays though, the patient wants to know what medicine can do, and he is not willing to accept the treatment as a great mystery. The extremely difficult problem for the doctor is to know how much to tell the patient. Faith and confidence are vital parts of treatment, and if the doctor is sometimes uncertain as to whether what he is doing is right, is the patient to be invited to share the uncertainty? The prognosis may be bad, and how much is the patient to be told? This perhaps, is one of the things that students would like to hear discussed more frequently. When one takes blood for an E.S.R. and the patient lies back, and says "thank you, I feel better already," the problem of knowledge and faith and how the two go together or don't go together, is real.

The new Image, the pessimists say, will be of the Doctor in his consulting room as a mechanic in a filling station. The pessimists, perhaps, are wrong.

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### Oddly Enough

How the young gentlemen of Bart's came to wear long white coats reads like a chapter from Paul Jennings with illustrations by Ronald Scarle.

In 1939 the familiar white coats disappeared. It was of course understood that they were less expendable than a utility suit and in any case it seems that the Government requisitioned them for officer's messes (or ski troops or something). A small number, which were thought unsuitable cover for messmen, remained in use on the surgical firms—the green firm being the one dignified exception.

Now the deepest conviction common to students of medicine is that nothing can be more damaging to a promising career or more harmful to one's patients than to be mistaken by them for a wine waiter or anything like. But dressers always bore their indignity well—it could only last for three months anyway. However it lately became known that—oddly enough for aesthetic reasons—all were to be required to wear short white coats for every possible contact with patients.

A large meeting of students was held and although most of the business consisted of points of order (at one time the chairman shouted, "Anything's in order!") the feeling was quite clearly, "down with bar tenders." This sentiment was passed to the Dean, who evidently felt that the governing body was the authority concerned. The governors so fully appreciated the risks involved to both patients and staff in any confusion between barmen and students that the order was at once given for white coats to be worn long.

That students are the same everywhere is shown by news from St. Thomas's that the young men there have petitioned the Dean to be allowed to wear *short* white coats. Housemen wear them (but that is irrelevant) and as the Dean was informed students in shirtsleeves are sometimes mistaken for barmen.

### Please Explain

Few people are as tidy as they might be, and it is not surprising that whoever owns a Roman sarcophagus should leave it lying around. True, it weighs several tons, and is hewn of solid rock, not the sort of thing to blow out of the window. There it is, dust covered, on the stairs on the way up to the

Pathology Museum. We do not believe that it is put there for decoration, in the way that a hotelier might display a gigantic Chinese (Birmingham) vase, or a pot of palms. It must be where it is because someone was trying to carry it upstairs, and decided to wait until tomorrow.

### Cambridge—Bart's Dinner

The 64th Annual Dinner of the Cambridge Graduates Club of St. Bartholomew's Hospital, was held on Friday, April 2, in the august and beautiful surroundings of the Library of the Royal College of Surgeons, by kind permission of the President and Council. Dr. F. H. Young was in the Chair, and 114 members and guests were present.

The chef served a dinner to satisfy the most fastidious of gourmets, but not sufficient, perhaps, to satiate such renowned gourmands as the Captain of the Rugby Club, who entered into an unholy alliance with his waiter. Dr. Young pledged the toasts of "The Queen" and "The Club", and then Mr. John Beattie, in the wittiest speech of the evening, welcomed the Guests. Among them were Lord Horder, looking exactly as he has done for the last 20 years at least, and Dr. Norman Smith from the Ministry of Health. Then came a trio of Oxford men, Dr. Aldren Turner, Mr. Tuckwell and Mr. Donald Fraser. Of all Oxford men Mr. Beattie said that they were the only students he knew who were able to reverse the normal examiner-candidate relationship: of Mr. Fraser in particular he was the only man to pass through the Oxford birth canal unscathed. Other guests included Sir James Paterson Ross, Dr. Geoffrey Bourne, Dr. Avery Jones, Mr. Laurence Plewis, "coming at last," as Mr. Beattie put it, "and little by little to Eric Scowen". Many were the other private guests, and all very welcome, too.

Dr. Norman Smith replied for the guests, and Dr. Neville Oswald proposed the health of the Chairman, who then confessed, rather proudly, to being the only Chairman who had been struck off the Register. At this startling admission attention quickened all round, but to everyone's disappointment the cause was no more than a clerical error.

The untiring efforts of the Secretaries were acknowledged in the last few drops at the bottom of the glass, and then Sir Alan Moore gave us once again the story of Hairy Rouchy who was covered all over with long black hair. Dr. Spence was heard to mur-



SUMMER IN THE SQUARE

mur "Cushing's", but he was wrong, for Hairy Rouchy was finally turned into a beautiful princess. But then, fairies don't come into the National Formulary. On this dreamy note a most enjoyable evening ended.

### Easter Music by the Madrigal Society

*R.S. writes:—*

The wide musical interest of the members of this enthusiastic little Choir includes church music. They showed this when a section of the Society (nine voices) gave an excellent performance of two Easter Carols, from the Oxford Book, during Evensong in the Chapel on April 25.

The first carol "Mary's Wandering" is a dialogue in music between Mary, who is searching for her son, who has been taken, and Peter. This was given a reverent, graceful and perfectly balanced performance. The words were unusually audible and the singing full of expression, the quality remained true in the forte phrases; altogether undoubtedly the finest singing we have yet had from this choir.

"Easter Eggs", a lively Russian Easter Folk song, lost none of the lightness and poise of the first carol but had an added enthusiastic crispness. It was quite obvious that the singers understood what they were singing and were watching the conductor and giving his interpretation.

Although the efforts of the small choir must here receive every praise, some criticism must be offered. We should like more quality in the voices which only comes with constant practice, also a little more polish in pronunciation and the sounding of consonants would have enhanced the admirable expression which they gave us. Altogether the performance was a very fine effort and we should like to hear this choir in our Chapel on many other occasions.

The Madrigal Society is open to all nurses and students. It requires of its members enthusiasm to turn up regularly for practices in the Nurses' small sitting room on Mondays at 8.45 p.m. Some previous choir singing and good music reading is desirable, but not essential. There are absolutely no obli-

gations for the first attendance, subsequently each member is required to find 2/6 to help with the cost of music, etc. Tea is provided at each rehearsal. The Society is to give a Summer concert of Madrigals and Folk Songs under the title "Sing a Merry Madrigal."

### Congratulations

Stephen Lock, an ex-editor of this journal, has become engaged to Miss Shirley Walker. Miss Walker read Music at Girton, and Dr. Lock is now our Music Correspondent. We shall look forward to inspired work from him.

### Mountains

On the last weekend in April, the Bart's Alpine Club went to Wales. The party numbered six men of climbing experience, and three novices. The supplies included a leg of mutton, which, after being dropped on the floor here and there, was eventually made into an enormous pile of enormous sandwiches. The journey both ways was made by car, and thanks is due to those who so generously provided the transport.

The party stayed at Ynys Ettws, which is a stone-built climbing hut, a pleasant place with the air of a farm house. It has a big tiled kitchen and heavy tables. There is a battery of electricity meters, and the place is admirably supplied with heat and light and hot water, no hard living.

On the Saturday, the club set out for Llwydd, which is a mountain in the same range as Snowdon. The day was fine and the country looking splendid. One felt sorry for those who were spending the morning in Out Patients, two hundred odd miles away. Of the climb itself, there are various ways of looking at it. For everyone it was an exhilarating and thoroughly enjoyable day. Parts of the climb were what the experienced

called interesting, and what the inexperienced called nothing at all (and hoped that the rope would hold). Parts of the climb were what the experienced called a little thin, and what the inexperienced called bare rock without a handhold. Parts the experts called exposed, and the inexperienced looked down at an infinity of space. It is not true that the inexperienced swallowed air. The top was reached after about six hours climbing, and the party came down by the path.

The men who were climbing for the first time were very grateful to those who helped them so patiently and gave them confidence.

At Pen-y-Pass there is a pub. There are some comfortable chairs, and the girl who serves there has little knowledge of English, but knows what is meant by Shandy.

On the Sunday some of the party got up early and went to church. The sermon was on fear. There was only time for a half-day's climbing, but those who were still sufficiently fresh enjoyed several short climbs.

The cars drove through North Wales in the evening on the journey back to Bart's, and that lovely country was part of the weekend's enjoyment: the Midlands were passed through in the dark.

### News of Bart's Men

Professor Hadfield has been given the degree of F.R.C.S.

Brevet-Colonel H. D. Chalke has been awarded the first Mitchiner Medal for outstanding service over many years in improving the health of the army.

Mr. D. W. E. Thomas has been given the degree of F.R.C.S.

Dr. G. F. Francis has been appointed to the University Readership in Biochemistry.

Mr. Seymour Philips has been made an Honorary Member of the Ophthalmological Societies of Australia and New Zealand.

### JOURNAL APPOINTMENTS

The post of Assistant Editor will be vacant at the end of this month. Will anyone interested in filling the part please inform the Editor by June 14th.

## THE MISUSE OF ANTIBIOTICS

by L. P. GARROD

*Based, more or less, on an address to the Hunterian Society, March 15th, 1954.*

Any pronouncement by a bacteriologist on a clinical subject must be prefaced—even nowadays\*—by something like an apology. The mere laboratory worker may or may not know a fair amount of clinical medicine, but what he does not know—or at least has not known for a number of years depending on his seniority—is clinical responsibility. He may be well versed in the theory of a subject, but it is quite another matter to be faced with a seriously ill patient who, regardless of any other consideration, must be actively treated forthwith. If the mere theorist were faced for once with such a problem, perhaps in a relative or a friend of his own, he might well do one of those things in the way of antibiotic treatment which he condemns in others as hasty, ill-considered, wasteful, or even positively dangerous. In these circumstances what may prove to have been misuse is nevertheless more excusable than the indiscriminate and unnecessary prescription of antibiotics, often for trivial conditions, which according to some American authorities accounts for 95 per cent of an annual consumption of several hundred tons in that country.

Any use is obviously misuse which does more harm than good. It takes some time to learn that an antibiotic can do harm, but all of them can, and each in a different way.

**Penicillin.** It used to be the boast of penicillin that it was unique in being completely non-toxic: prodigious doses could be given without fear of any ill effect. This is still true as regards most patients, but quite a number have now died within a few minutes of and as a direct result of an injection, and it has been said that this drug has supplanted therapeutic serum as the commonest cause of fatal anaphylactic shock. These are patients who have become sensitized to it by previous administration, and the surest preventive of these disasters is to restrict the

use of penicillin to those who really need it, so that the proportion of sensitized people in the population shall at least remain low. It should also be given with the utmost caution, if at all, to patients with a history of previous reactions, and particularly in asthmatics.

**Streptomycin.** Sensitivity to this drug can also occur, but the greatest danger from its use is that of damage to the eighth nerve. This is a risk which has to be faced when streptomycin is imperatively indicated for treating tuberculosis, the more acute forms of which may demand the larger doses usually responsible for this damage. It is a risk which should never be taken without adequate reason, and most of the streptomycin used for conditions other than tuberculosis is given without adequate reason. Pharmaceutical houses which have boosted penicillin-streptomycin combinations as superior to penicillin itself for a variety of purposes other than the few of which this is really true, must take a large share of the blame for this.

**Chloramphenicol.** It took several years to discover that this drug can produce marrow aplasia which is usually fatal. There are still widely divergent views on the frequency of this complication: it has even been stated, from a not altogether unbiased source, that it occurs no more frequently in patients taking this drug than in the population as a whole. We at St. Bartholomew's, having had three cases, two of them fatal, among an estimated total of 1,200 patients† given the drug, are not inclined to accept this optimistic view. Two of these patients had prolonged courses, and one of them two short courses some time after the application of chloramphenicol cream for eczema, which may have been a sensitizing factor. Excessive doses and prolonged, and perhaps repeated, administration should certainly be avoided.

\* The attitude of the clinician to the laboratory has become somewhat more receptive of late.

† I am indebted to Mr. Elliott for the information that the total amount of chloramphenicol purchased by the Dispensary between July, 1949, and July, 1952 (none has been purchased since), was 17,407 gm., and of chloramphenicol palmitate 290 gm. Small amounts were obtained from the Ministry of Health before July, 1949. The estimate of 1,200 patients is based on an average course totalling 15 gm.

but whether chloramphenicol should be used at all except for such urgent indications as *H. influenzae* meningitis and typhoid fever (perhaps the only serious conditions in which no other drug is as good) is a matter for individual decision.

**The Tetracyclines.** It has now become fashionable to call aureomycin chlortetracycline (doubtless more descriptive, but cumbersome), and terramycin oxytetracycline; we also now have plain tetracycline (achromycin), which is the same molecule without either the chlorine atom or the OH group attached to it.

These very similar substances have not so far been incriminated as the cause of serious damage to any organ, except that excessive doses by the intravenous as well as the alimentary route may produce focal hepatic necrosis. On the other hand, apparently by virtue of their greater capacity to suppress the normal flora of the alimentary tract, their use very commonly leads to "superinfection." This term refers to the development during treatment of a fresh infection caused by an organism resistant to the drug employed. Two species commonly produce this. *Candida (Monilia) albicans*, which gives rise to thrush, sometimes involving the bronchi as well as the mouth, and soreness round the anus, and *Staphylococcus pyogenes* (resistant, of course, to the antibiotic used and most others) which can cause bronchitis and even pneumonia, or a very acute enteritis which in debilitated patients can be rapidly fatal.

Some of the patients who have died of the last-named condition have been given the antibiotic producing it for no better reasons than as a prophylactic in connection with abdominal operations. Minor forms of these superinfections are common; they should be watched for and the course of treatment terminated before more and serious harm results.

There is another form of misuse of these antibiotics which is peculiar to hospital practice, and was brought to my notice by Dr. R. B. Terry. When a nurse is ill, it is natural for everything possible to be done to hasten her recovery, and when she has nothing more than some minor septic infection, and the laboratory reports that her staphylococcus is resistant to penicillin but sensitive to terramycin, it is almost a reflex to prescribe terramycin forthwith, even (so I am told) if the lesion is evidently clearing

up very satisfactorily on its own account. There is a very strong reason, to which so far as I know public attention has never been drawn, why the newer antibiotics should not be prescribed unnecessarily for a nurse. Staphylococci resistant to these as well as to penicillin are the biggest menace on the present horizon; they cause the superinfections already referred to, and have been seen to cause various other septic complications in hospital patients with disastrous results. When such an infection exists in a ward, nurses who are nasal carriers of the staphylococcus are known to be largely responsible for disseminating it. Treatment of the nurse herself may lead to the acquisition of resistance by a staphylococcus which she carries or with which she is infected, and thus establish a new strain which may subsequently cause serious trouble in her ward.

**Erythromycin** is for the time being the answer to this problem, since staphylococci resistant to all other antibiotics are still highly sensitive to it. Unfortunately resistance to this new drug can also be acquired with remarkable facility. Hence a reprehensible form of misuse in the future may be indiscriminate prescription of erythromycin leading to the establishment of a staphylococcal population resistant to this antibiotic as well. It might be the last of the series; who knows?

There are many other ways in which antibiotics can be misused. Chief among these is perhaps their prescription for conditions which are trivial, or insusceptible to them, or, like the common cold, both. Another is to continue their administration for weeks or months for the benefit of such a thing as a urinary tract infection, when in fact they will cure it within a week or less if they are ever to do so at all. Among patients who have died of marrow aplasia following chloramphenicol these were the indications and mode of use in quite a number. To pay with one's life for such doubtful benefits is asking altogether too much.

Another mistake, apparently more common in the United States than over here, is to worship at the altar of a hypothetical synergism, and use two or more antibiotics together when a single one will do as well or better. Tuberculosis and enterococcal endocarditis are the only unequivocal indications for combined treatment. On the other hand, certain drug combinations are actually

antagonistic, as has clearly been shown for penicillin and aureomycin in the treatment of pneumococcal meningitis.

It is possible to use the right drug but to fail in providing the right conditions necessary for its success. These may concern dosage or duration of treatment, route of administration, or some other equally ordinary consideration. A special example of this is concerned with the relation of pH to the activity of streptomycin. This antibiotic is much more active in an alkaline than an acid medium, and it finds this everywhere in the body except in the urinary tract. Streptomycin is the most rapidly acting of all urinary antiseptics: only 3 or 4 0.5 gm. doses may cure a long-standing infection if the organism is sensitive. But such a result is unlikely to be achieved unless the urine is first rendered constantly alkaline (as judged by testing the reaction of the first morning specimen) by giving adequate doses of sodium bicarbonate.

Finally, a special form of misuse is misguided prophylaxis. Surgeons who regularly try to protect their patients against post-operative chest complications with penicillin may achieve some success, but when such infections do nevertheless occur—and they do—they are much more difficult to treat. Parenteral antibiotic cover for abdominal operations is doubtfully justifiable, especially

in view of what can be done by way of intestinal disinfection by the mouth: for operations on the stomach it seems even less necessary than for those on the lower bowel, and a recent American report of fatal enteritis following streptomycin and penicillin given as cover for gastrectomy seems to support this view. It is doubtful whether prophylactic penicillin ought to be given for anything but a highly complicated labour, in view of the facility with which it will usually control subsequent uterine infection, if any. A now classic case in this hospital illustrates the risk of overdoing prophylaxis in connection with dental extraction: the patient was given two million units a day for two days before the first extractions as well as during and after them, and promptly developed an endocarditis due evidently to the only surviving streptococcus in his mouth, which was 200 times more resistant than the one responsible for his previous attack. He would have been better off if the first dose had been given not two days but two minutes before operation.

This account of failures and disasters presents a quite unrepresentative picture of antibiotic treatment generally, but it is only intended to emphasize that more judicious and thoughtful use may eliminate from a record of otherwise unexampled success some of the more unfortunate features which still exist in it.

## FLORENCE NIGHTINGALE CENTENARY CONCERT

IN THE ROYAL ALBERT HALL

THURSDAY, JUNE 3, 1954 AT 7.30 P.M.

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## HISTORIES GALORE

by J. R.

### *Some Experiences at Sea*

MANY Bart's men have put to sea (G. L. Alexander—1953—*B.M.J.*, Page 1216, "If in a refined medical gathering one mentions that one is in the Colonial Service (as I used to be), or a ship's surgeon (as I am now), there is a distinct drop in the temperature"), and from time to time written accounts, factual and otherwise about their experiences. One of the most famous, *Doctor at Sea*, by Richard Gordon, will be read and considered authoritative by the ill-advised many, but every ship's surgeon or doctor obtains experiences entirely different from those of his colleagues, and hence almost all written accounts contain something of interest to those either intending to, or practising in that much-romanticised field of the profession.

Some six months ago (pace Dr. Thorn of St. George's, *B.M.J.*, October 3 and 31, 1953, "Sweated Doctors," "The present house officers are conspicuous by their lack of enthusiasm to do anything outside their contracts"), I was a very much overworked house officer in a country hospital. There I gained the experience that enabled me to face any kind of medical or surgical situation emergency or otherwise. Having admitted some six hundred and fifty patients, and treated numerous thousands of casualty outpatients, I found myself in that mental state which demands imperatively a change of employment, and having discovered that one of my predecessors had gone to sea to recover, I followed suit. Numerous offers were made me, one to sail to Japan the day after I applied, but I took a liking to an offer of a maiden voyage on a new ship, which in addition to calling at Antwerp, Rotterdam and Hamburg for cargo, carried passengers from London, to Las Palmas, Cape Town, Port Elizabeth, East London, Durban, Lourenco Marques and Beira in Portuguese East Africa.

A maiden voyage on a ship such as the one to which I was seconded is spent in a round of cocktail parties and dinners, meeting Belgians, Dutch, Germans, South Africans and Portuguese, apart from many of one's own countrymen associated with

shipping, cargo or passengers. The ship herself was worthy of description. She was the latest in up-to-date ship-building, being one of four of her class produced on the Tyne. She had a beauty all her own, fine lines, clean in appearance, and was the last word in comfort for both crew and passengers. Her complement consisted of approximately one hundred and fifty Indians from the Malabar Coast, Bengal and Bombay, and fifty European whites, the officers, apprentices and quartermasters, who hailed from every part of the British Isles, but with a definite bias towards north of the border. She was new, I was new, and that is probably what appealed to me most.

Aboard there were two hospitals, one for passengers and white crew, and the other over the poop for the Indians. The passengers' hospital consisted of two wards, each of two beds, spacious, and self-contained with lavatories, bathrooms and lockers. Air-conditioning was fitted throughout the ship. An emergency operating table and special lighting, as well as oxygen, instruments and clothing were all available. The surgery was well fitted out, with the standard equipment laid down by the Board of Trade, but in addition I was given *carte blanche* to buy whatever drugs and appliances I thought desirable. I listed some seventy odd drugs and other requirements, and with the exception of Heparin and Pethidine all were supplied (Pethidine is required on licence, our suppliers did not possess one). It is a lesson in itself to work out systematically the likely needs of a voyage. In addition to the surgery proper, there was a passengers' waiting room, and a cabin for the doctor, across the ceiling of which a girder was plainly marked "*Certified to accommodate one seaman.*"

On arrival to take-over I was met by the "*locum tenens*," a naturalised Dutchman, who at one time in his career was Professor of Medicine at Surabaya. After an interesting chat, he initiated me very quickly into my responsibilities, and left me to it. Much of his wisdom I often recall in his estimation of personalities aboard, and insight into national characteristics. He knew many of the now

outstanding personalities of the East Indies when they were of a much more minor stature, reflecting the truth of Brutus' remark "He then unto the ladder turns his back. Looks to the clouds, Scorning the base degrees by which he did ascend."

My first "blood" was a patient, an Indian seaman, who suffered an epileptic attack right out of the blue. I had forgotten most of my Hindustani, and to obtain an accurate history was virtually impossible. To act and produce a result quickly is often fundamental, especially so when in the presence of orientals unbeknown, and generally making so much noise and hullabaloo that unless one is quick things get rapidly out of hand. A paraldehyde injection, suitably disposed of immediate difficulties, and in a quieter moment a fuller examination in search of the cause produced the best results. Then followed a pneumonia, and a series of happy dental extractions, which enabled me to become accepted by the Indian crew. Conducting a surgery amongst different nationalities, different classes, from the very rich to the very poor, makes greater demands upon the doctor than can possibly be in the case of the average general practice in the British Isles. The female members of the aristocracy and upper classes were often preceded a full ten minutes by their male spouses ensuring they were not obliged to wait before seeing the doctor.

During the next six months, my total number of visits rose to over 2,750. During my first voyage with passengers many things became clear to me, and I began to appreciate much more the difference between hospital and private or general practice, and the vastly different atmosphere and conditions appertaining to medicine at sea. I felt that I had much more in common with the practitioner of twenty-five or perhaps fifty years ago, without subsidiary means of diagnosis and much more dependent upon observation and clinical examination. Again, to secure a cure before the passengers' disembarkation and loss into the "unknown" fields of medicine of South Africa, Nyasaland, Beuanaland, and the Rhodesias, was a far loftier ethical concept, and certainly more satisfying than knowing one would wave good-bye to one's chronics.

The doctor at sea is up against a host of prejudices. It seems that in the past, and even in the present, these jobs are sometimes

occupied by men whose main interest appears to be in the tax-free liquor, or easy access to dangerous drugs. But I believe that more doctors die at sea from drunkenness and morphia according to fable, than ever came out of medical schools. Just as a sailor cannot go to sea without a ship, so a doctor cannot remain much of a doctor without patients, and life on a small ship can lead to boredom. On the other hand, living constantly with one's patients can be very trying, but it does at least enable them to sum up the character, although not necessarily the ability of the man to whom they entrust their lives. Little do passengers know that for certain illnesses one may have a better chance of survival aboard a ship, for there is practically no time lag, "*A Doctor Lives in the House.*" To make a ship a better place for securing early treatment is a feasible proposition. It does not require a great deal from the modern doctor, except that he should know his job.

In due course a programme of work slowly evolved itself, a set time for the crew, followed by a period entirely for the passengers. To this I added a consultation period so that passengers who made the request could see me at odd times, usually at their convenience. How a doctor earns his reputation for the first few patients to request a consultation, I frankly do not know. I suppose it depends upon the impression he makes socially, although many of my patients came from recommendations, from members of the crew, and white officers, and I'd like to think . . . the Captain. Once the ball began to roll there was literally no stopping it. The number of visits logged in one day has been as many as twenty-eight, and a visit may mean anything from dressing a minor laceration to a full general-cum-neurological examination. I found a lot of undisclosed or uncovered disease treated at home, and I'm sorry to say a fair amount of iatrogenic medicine. The standard of medicine in England must I am sure be higher than anywhere else in the world, and whatever the drawbacks of the N.H.S. it is preferable to the system practised in South Africa, Portuguese Territory, The Rhodesias, and if I'm to believe my American patients, that of the U.S.A. as well. The passengers although composed chiefly of English origin, also comprised Swiss, French, German, Boer and other nationalities.

I made a practise in time of taking full notes in much the same way as in my student days at the bedside. Copies of these notes, a doctor's letter, prescriptions and instructions where necessary were given to the patient. I was surprised (although one should never be surprised by anything in medicine—with apologies to Mr. Donald Fraser from whom I borrowed this aphorism) to find many of my patients coming to see me with the sole object of having a diagnosis confirmed. The odd thing being that the original diagnosis was often made by men of repute, delicacy forbidding me to mention the names of the great in this context. It tickled my vanity at first, finding myself confirming, (I never had occasion to dispute!) the diagnoses of our great contemporaries. In effect I was sitting in judgment. It did not prevent me from succeeding in treatment where they had failed. And I put this down to the fact that I had the patient for fairly long periods, close by me so to speak, where I could encourage, and discuss the treatment being used. I found in time that extra study was necessary to possess the necessary prolix explaining causation and treatment. In fact every afternoon from two to four was set aside expressly for this purpose, enabling me, really, to study my patients. Treatment that would be laborious, inconvenient, and even tedious on shore, can become interesting, nay, even fascinating for the patient on a ship. At one time recently I ran a little physiotherapy clinic, for effusions, tennis elbow, painful arc syndrome, chronic backache, and prolapsed intervertebral disc, treatment being given twice a day for seven days a week, an ideal state of affairs for most of these orthopaedic conditions.

It is strange, how, even at sea, one finds the same disease cropping up in bunches. On the first voyage several cases of myxoedema and tonsillitis, on the second, two ureteric colics within a week of each other, and two passengers with renal calculus seeking treatment with pot-cit, at the same time. A pulse of 50 with vomiting, diarrhoea and some guarding can be quite a nightmare, especially with ill-looking patients. Needless to say I held my hand, albeit preparing the emergency operating table, and awaiting gale weather, as classically all operations are said to be done in a hurricane. Another thing discovered, was never to rely upon the

patient taking medicines at stated times, or foul-tasting medicines they'd avoid if they could. A dose of castor-oil on the spot, can some-times enhance one's powers of healing, and I don't suppose many can boast having made a countess take drams three, there and then.

In difficult situations, I have often heard the echoes of my teachers' voices, not always with results beneficial to the patient. Even now I can recall the intonation of voice used by one of my teachers when emphasising that Potassium Iodide is specific for bone pain. I used it, and spent the night drinking tea with my patient as he suffered the effects of severe respiratory mucosal secretion. Moreover he was in severe pain necessitating morphia and phenobarbitone for twenty-four hours until the effects of my first medicine wore off. For all that, had I paid more heed to Dr. Harris on the natural history of tonsillitis, or its treatment, I would have saved many an anguished moment wondering why I wasn't getting quick response to therapy. On one occasion, failing to achieve a reduction in temperature in a child with acute Follicular Tonsillitis, an Oxford scientist noted for certain discoveries endeavoured to culture the organism at fault on blood (mine)—gelatine (the galley's). No other medium being available. We hoped from microscopic appearances alone to discover the responsible organism, as the supply of antibiotics was limited in variety, and I was getting pretty desperate with the child's temperature over 103 degrees F. We failed to determine the melting point of our medium, which melted in the warm hiding place we'd found for it at two thirty in the morning in the Engine-room. Without any change in treatment the child's temperature became normal within six hours of our taking the swab.

I came away to sea, to recover, to have a holiday, and I realise now that a sea voyage on a ship of this kind is indeed a holiday, free from cares . . . for the passengers. Ships differ of course, but it has rarely been a holiday for me. There are thousands of doctors on shore but there is only one on a ship, and his duties are not finished when the ship docks, for he still remains the ship's doctor, and make no mistake about it, he definitely isn't a passenger.

Humanum est errare.

## ON TOOTHPASTE

by D. W.

NO CHEMICAL medicaments, other than soaps, have made such a profound impact on our everyday habits as have toothpastes. The historical details—traditionally the prerequisite of scientific essays—will not be discussed in this survey, which is intended to be a mild critical analysis of the toothpaste trend in recent years.

Toothpaste in its primitive form was nothing more than a tooth beautifier and cleanser. To-day, such modest aspirations are a thing of the past and dentifrices have become a focal attraction for the attentions of chemists, clinicians, industrialists, and the inevitable shop-keeper. A glance at any daily newspaper shows the magnitude of the investments in the production of this commodity.

The classical prescription for a toothpaste includes an abrasive, such as chalk, a detergent such as hard soap and an antiseptic. The addition of colouring, sweetening and flavouring agents assist in the palatability and saleability of the finished article. However, the quest for preventives and cures for dental diseases, together with the desire for enhanced dental comeliness, has led to the appearance in the chemist's shop of a range of toothcleaning materials which presume to achieve all of these objectives. There is no doubt about the financial success of the manufacturers, but the clinical gain to the user is somewhat debatable.

The introduction of specific remedies is the most significant change in the make-up of present-day dentifrices. Many of these have been subjected to extensive clinical investigations, especially in America. The ammonium-ion factor is an example of research applied to oral hygiene. The liberation of these ions is said to counteract the acidity of the mouth and so annul the activities of acidophil bacteria. This theory might well be true and practicable *in vitro*; but can an agent, brought into contact with a mouth full of saliva and so immediately diluted and indeed washed away, be of appreciable use in combating organisms which inhabit the mouth twenty-four hours a day? Any drug which could exert an effect for a whole day and night by being applied merely for a few minutes (usually seconds) would put the modern antibiotics to shame.

Chlorophyll, for all its wonderful attributes, has the same limitations in practice. This green goddess of nature was intended to be the answer to the maiden's prayer for sweet, alluring breath. The policeman on his beat may be fooled by the non-alcoholic breath of the otherwise alcoholic 2 a.m. motorist, but one can hardly believe that the hardy saprophytes round the gums are as easily deluded. An interesting effect of chlorophyll's obliteration of oral fetor is the veil which it casts over the overt evidence of oral and possibly alimentary and respiratory pathology. For the same reason that morphia should not be given to undiagnosed abdominal pain, chlorophyll is not a wise remedy for undiagnosed fetor oris. Nevertheless, one must admit that green is a very novel colour for a toothpaste.

Antiseptics have long been used on the assumption that tooth and gum infections can be combated by casual, infrequent use in the mouth. The only antiseptics which can have such an effect are not the type that a prudent manufacturer would incorporate in his preparation, for our conscientious tooth-brusher is not likely to continue to use a paste which causes sloughing of his mucous membranes. Fortunately, penicillin just missed being the wonder drug of dentifrices, an innovation contemplated by our colleagues across the seas, otherwise the already over-worked allergists would be spending a great proportion of their time treating penicillin glossitis, and the organisms in the fauces would have a glorious opportunity for acclimatisation.

The so-called cosmetic toothpastes have found some degree of favour in the feminine toilet kit. Unfortunately, the pigment often works so well that the confused young lady does not know when her gums are just pigmented or really inflamed as a result of disease—a veritable doctor's dilemma.

What, then, is the solution to the toothpaste problem? Specific therapy seems to be too transient for good effect, deodorants and pigments can be deceptive, and antiseptics in adequate strengths too harmful to the soft tissues. Perhaps the safest and possibly the most efficacious approach is to regard a toothpaste (or toothpowder) as a useful

adjunct to the action of the brush, making the work of the brush more effective by dissolving debris round the teeth and gums and thus helping to keep the teeth clean, and the mouth healthy.

## PRACTICE IN THE NINETIES

by JAMES MALPAS

"SOME General Experiences in Clinical Medicine. How to Cure the 'Common Cold'." This title would arouse interest especially if written upon an old envelope dated 1890 found in a remote corner of the Library. The papers proved to be the experiences of Dr. J. Kingston Barton, and although no sure remedy for the common cold was given, some of Dr. Barton's experiences of practice about the turn of the last century may be of interest.

Spacious days, assuredly, when you could advise a patient that it was only possible for him to be cured of his hay fever by "going on board a yacht and staying well out to sea"; and how regrettably rare nowadays are the occasions when it is possible to discover that a combination of strawberries and champagne are bad for hay fever! Dr. Barton mentions the use of quinine, menthol, coffee which he tried with varied success in the treatment of asthma and hay fever. He also recounts how one of his patients found he could stop his asthmatic attacks by sucking a "bull's eye sweet," something which in its original form has passed from the friendly pharmacopeia of the sweet shop of those days.

There are many references to dust. The tar spraying of roads is very much one of the benefits of this century; before then dust covered passenger and pedestrian alike, crept into houses, and could not be escaped "even at the seaside." In consequence many ills seem to be ascribed to it.

Every age of medicine brings a fresh wave of charlatans. He writes of "The foreign masseurs who come to this country are simply unqualified practitioners competing unfairly with the legally qualified medical men of England. It is absurd that the practitioners of massage get higher fees than many young struggling doctors can hope to aspire to. These men profess to cure every disease

Does the outlook for the producers of super toothpastes seem a little dimmer now? Well, if you have any toothpaste shares you want to get rid of, I'll buy them!

by their special systems 'vibrating' or otherwise, and if they succeed in a few nervous individuals of the rich and upper classes one soon hears of them getting higher fees than the leading consultants in London." Dr. Barton does not mention how much it cost to have your appendix abscess "vibrated," but he mentions the dangers of being massaged before a diagnosis has been made.

It is brought home very forcibly what it was like to practise in the days before the advent of chemotherapy as we know it. In his notes on the common cold he says: "All cases of cold, pleurisy and pneumonia begin with the same signs of chill. If simple care be taken early the most serious disease can undoubtedly be cut short. . . . Neglect of this in the first few days after means weeks of treatment to bring the germs of the coccal infection that have run riot in the respiratory system into subjection."

Referring to the management of chronic disease he says: "Some patients in their nervousness do unduly force their doctors to try treatment especially of a novel or new-fangled style. But a philosophic patient is often a safer guide to himself than a strange physician." By way of example, he takes the management of chronic heart disease. "The question of exercise in chronic heart disease is also one that leads to disappointment when curtailment by the doctor is enforced, where the patient has tested by experience that he can take much more exercise than at first sight seemed likely."

These papers dealing with a wide variety of medical topics give the impression that Dr. Barton was a practical man (except possibly as far as the yacht treatment is concerned) who kept himself aware of all possibilities of treatment, and was making a continual attempt to find the best methods.

## THE SACK'EM UP MEN

by RICHARD L. HEWER

A paper read to the Junior Osler Club in February, 1954

"THERE is no person, let his situation in life be what it may, whom if I were disposed to dissect I could not obtain. The law only enhances the price and does not prevent the exhumation." Thus spoke Sir Astley Paston Cooper, president of the Royal College of Surgeons. The words were uttered in the early 1820's in an age when practically all dissections were performed illegally, when gangs of desperadoes made a living by exhuming recently buried corpses and when murder itself was committed so that bodies could be obtained for dissection. The antiquity of the law had encouraged the activities of lawless men—the Resurrectionists—who made it their business to procure fresh anatomical material for the medical schools. It is the purpose of this article to give a brief account of the rise and fall of "resurrectionism" with as many relevant anecdotes as space may allow.

In 1540 the United Company of Barbers and Surgeons was permitted "the bodies of floure condemned persons yerely for anatomies." This is the first mention of legalised dissection in England. Upon the Beadles of the Barber's Company fell the onerous duty of fetching the bodies of malefactors from the gibbet. It was a duty involving considerable risk. The history of public executions from about 1540 onwards contain many instances of fights and riots over the bodies of criminals. The riot was usually instigated by the hangman himself who objected to giving away bodies when he could sell them to individual surgeons for large sums of money. As the coach containing the corpse was being driven away an attack would be made by "friends of the family"! A tug of war would often result—the body being split into many pieces.

Until about 1700 the United Company enjoyed a complete monopoly, being the only institution teaching anatomy and surgery. Later, schools of anatomy sprang up at the big London hospitals—notably Bart's and Thomas's. Bart's men will learn with interest that in 1695 a formal complaint was made against "The breeding soe many illiterate and unskillful pretenders to chyrurgery att St. Thomas's Hospital . . .!"

Private anatomy schools also appeared at the beginning of the eighteenth century. In 1730 Nourse of Bart's delivered anatomical lectures at London House in Aldersgate Street where he employed Percivall Pott as prosector.

No licence was required to open an anatomy school but it must be emphasized that there was *no legal supply of anatomical material*. Competition between the medical centres at London, Dublin and Edinburgh became very fierce—each centre realising the importance of dissection in the attainment of anatomical knowledge. However, dissection could not be performed without corpses and the law made no provision for the supply of such corpses. Thus was the soil ready for the development of resurrectionism.

There were two distinct classes of resurrectionists. Firstly the respectable resurrectionists—these were mainly surgeons and their friends who were basically law abiding citizens committing occasional lawless acts. These men were motivated solely by the desire to obtain human material for dissection. Secondly the resurrectionists proper. These depraved individuals systematically stole bodies solely for the sake of pecuniary advancement. It should be noted that the second group gradually superseded the former and by 1750 it was a brave surgeon who would venture into a graveyard at night.

### "Respectable Resurrectionists"

Let us first consider the respectable resurrectionists, not forgetting that they desired simply the advancement of knowledge and that in the doing of their lawless acts they selflessly risked their lives and freedom.

Andrew Versaluis, the father of anatomy, in 1536 procured the first human skeleton by stealing the remains of a hanged and roasted thief outside the wall of Louvain. The important discoveries of Harvey, Willis, Hunter, Bell and Jenner were all made by men whose practical knowledge of anatomy can only have come from the dissection of bodies stolen by themselves.

There is the story of Robert Liston, Professor of clinical surgery at University College, London, and how he joined forces with

Crouch, a notorious London resurrectionist, to snatch the head of a hydrocephalic boy. A country lad with an enormously enlarged head was buried in an exposed cemetery on the shores of the Firth of Forth. Many attempts at abduction had been made but these had all been foiled by trustworthy grave watchers. One evening at dusk two well dressed gentlemen drove up in a dogcart to the chief hostelry of the little burgh, alighted and entered the inn. They spent half an hour chatting pleasantly with the landlord. The landlord told, with some relish, of the constant vigil kept by relays of watchers and the invasion by spies and scoundrels seeking opportunities to desecrate the grave. He had a vivid imagination for he likened the village to Troy with a decomposing body instead of a beautiful woman as the prize coveted by the besiegers. Soon the travellers arose and indicated their intention of taking a stroll around the village. The two travellers made straight for the graveyard. Working with feverish haste they carried out the exhumation. One shed his travelling garb and assumed the guise of a liveried servant. He bore the body to the dogcart whilst his companion waited in hiding behind the hedgerow. After "the servant's" return the two travellers sauntered back to the inn to have another drink with the landlord. As they were leaving in the cart the travellers told the landlord that he had better "sit tight on the boy with the big head." The unsuspecting landlord said that he would do that.

Liston and Crouch had rifled a grave which had baffled the ingenuity of the most practical Scottish body snatchers. Remarkable indeed that an alliance between the first surgeon in Europe with one of the most unprincipled and unmitigated scoundrels that ever lived should be so successful. Who, today, could imagine the surgeons of St. Bartholomew's Hospital leading nocturnal ghouling expeditions to the local cemeteries?

#### The Resurrectionists Proper

These men were social outcasts of no integrity whose spare time occupations included housebreaking and robbery of all sorts.

Bodies sold in toto constituted the main source of income of these men. However, teeth were always in demand and it is recorded that one wretch extracted enough teeth in a certain vault to earn him the neat sum of £60. Resurrectionists haunted

Peninsula battlefields removing the teeth of slain soldiers.

From about 1750 to 1830 these men were the sole source of corpses. They held the whip hand over the teachers of anatomy and could force them to acquiesce to their demands. Should the teacher object he would be subjected to manifold indignities. The dissection room would be raided and the bodies mutilated, making them useless for dissection. Supposed relatives of the corpses would clamour at the door demanding identification parades and the police would be told that bodies were to be found at the school.

Occasionally a brave man would resist the unscrupulous resurrectionists. One such was Joshua Brookes—the best practical anatomist in London. One day he refused to pay the sum required for a particular corpse. At each end of the street in which Brookes's school was located a badly decomposed body was placed. Late at night two young debutantes stumbled over one of the bodies! Only police interference saved the anatomist from the fury of the mob.

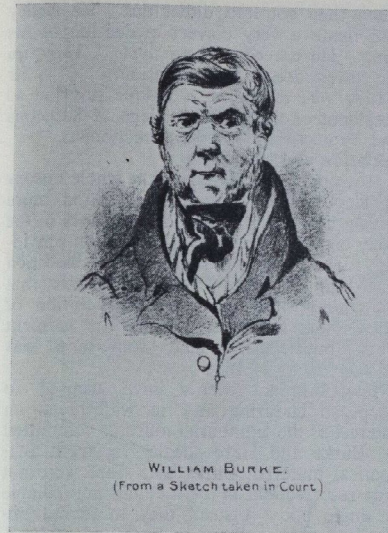
#### The Resurrectionists' Methods

We must now turn to the details of the resurrectionists' methods. The exact technique was a closely guarded secret but the account given below is probably substantially accurate.

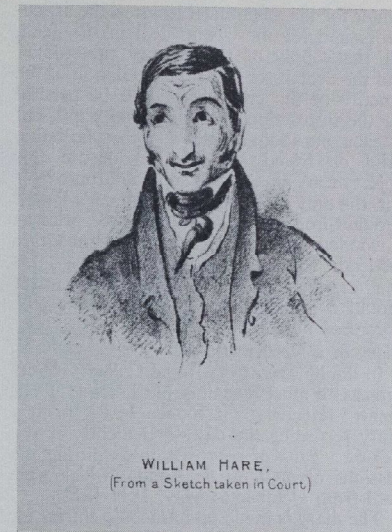
Initially there would be a daylight reconnaissance of the graves by the wives of the resurrectionists. They would masquerade as relatives of the deceased and would express their grief by cutting any concealed trip wires there might be around the grave.

The exhumation itself was always carried out at night. The time chosen on dark winter nights was from six to eight o'clock—at which latter hour the churchyard watch was set and the city police commenced their night rounds.

A hole was dug down to the head of the coffin, a canvas sheet being stretched around the margins of the hole to receive the earth and to prevent any of it spoiling the smooth uniformity of the grass. The digging was done with a short flat dagger-shaped implement of wood to avoid the noise of iron striking stone. On reaching the coffin two broad iron hooks under the lid, pulled forcibly up with a rope, broke off a sufficient portion of the lid to allow the body to be dragged out. Sacking was heaped over the hole to deaden the sound of cracking wood.



WILLIAM BURKE.  
(From a Sketch taken in Court.)



WILLIAM HARE.  
(From a Sketch taken in Court.)

The body was stripped of grave-clothes and was secured in a sack. The surface of the ground was carefully restored to its original condition. The whole process could be completed in an hour, even though the grave might be six feet deep, because the soil was loose and the digging was done by frequent relays of active men.

Getting the body over the churchyard wall was usually easily done, and once in the street the carrier of a sack drew little attention. A favourite method was for two men to support the corpse between them as if he were a drunkard—again, such a common sight attracted little attention.

Bodies were not always obtained from graves. Corpses would be collected from bereaved households by snatchers disguised as undertakers. Many undertakers were not beyond bribery and would allow the contents of coffins lying in the chapel of rest to be replaced by a sack of soil. John Taylor—a notorious resurrectionist was indicted at the London Sessions on April, 21, 1831, with Thomas Martin, an undertaker, for having stolen the body of an old man named Gardiner from Bart's.

Another resurrectionist had a subject almost literally fall into his hands. He was walking along the road when a passer-by col-

lapsed on the ground. The resurrectionist at once knelt and raised the man to a sitting position but saw immediately that life was extinct. With commendable presence of mind he raised his voice in loud lamentations "Oh, my poor cousin. Oh, my dear, dear cousin. Help, he's dying!" With many expressions of concern and sympathy he was assisted to the hospital with the body. The House Surgeon broke the sad news that the patient was dead to the "relative." The "relative" was then allowed to remove the body.

#### Protection of Corpses

It is of interest to study the methods adopted by the public to foil the snatchers. Spring guns were set in many cemeteries but as mentioned earlier the female confederates were exceedingly efficient at disconnecting the trip wires. Bereaved relatives often placed such objects as flowers or shells on the grave so that any disturbance could be noted. In some cemeteries houses were built in which bodies were kept until putrefaction had set in, thus making them useless for dissection.

Security was sometimes sought by burial in iron coffins. The merits of these are set forth in the following advertisement:—"Many hundreds of dead bodies will be dragged from their wooden coffins this

winter for the anatomical lectures, the articulators and for those who deal in the dead, for the supply of the country practitioner and the Scotch schools. The violation of the sanctity of the grave is said to be needful for the instruction of the medical pupil, but let each one about to inter a mother, husband, child or friend say—shall I devote this object of my affection to such a purpose? If not, the only safe coffin is Bridgman's Patent wrought-iron one charged the same price as a wooden one and is a superior substitute for lead." For brevity, clarity and logic this announcement of Mr. Bridgman's wares should commend itself to the present purveyors of publicity.

#### Diary of a Resurrectionist

In the library of the Royal College of Surgeons is a most revealing but horrible document. It consists of sixteen leaves from a diary recording the daily and nightly activities of a gang of resurrectionists during the sessions of anatomy in London which were held from October to May, 1811-1812.

The diary is made up of laconic entries for each day.

*Friday, 29th.* All went out and got 3. Jack, Ben and me got 2 at Bethnal Green, Bill and Dan 1 at Bart's. All deposited at Bart's.

*Tuesday, 3rd.* Went to look out and brought shovels from Bart's. Did not go out that night. Butler and me come home drunk.

*Tuesday, 10th.* Intoxicated all day. All went out and got 5 at Bunhill Row. Jack almost buried.

*Saturday, 14th.* Went to Bart's. Pack 4 and sent them to Edinburgh.

The diary is especially valuable because it gives the names of individuals receiving stolen bodies. This is imposing and includes Joshua Brookes, Sir Charles Bell, Sir Astley Cooper and Edward Stanley, surgeon to St. Bartholomew's Hospital.

#### Sir Astley Cooper

It will be impossible to give an account of the history of resurrectionism without mentioning Sir Astley Paston Cooper. He was the patron of the resurrectionists.

Sir Astley was the most noted surgeon in London during the early eighteen hundreds. He was a pioneer in the surgery of the great vessels and of the ear. Sir Astley owed much of his success to his precise anatomical knowledge—obtained by the dissection of stolen corpses. A close association with resurrectionist desperadoes thus became essential. His position of influence frequently enabled him to be of use to the snatchers

when they got into difficulties. Sir Astley had made a very correct evaluation of his gang. He describes them thus: "They are the lowest dregs of degradation. . . ." Sir Astley was indeed in a unique position as President of the Royal College of Surgeons and Protector of the Resurrectionists.

#### Initiation of Legislation

It would be impossible in the whole history of English law to find a condition more incongruous than that held by doctors in the early eighteen hundreds. Legislation providing for a supply of corpses for dissection was long overdue. It was obvious that something more than mere desecration of graves was required to rouse the indolent Tory politicians. That something was murder.

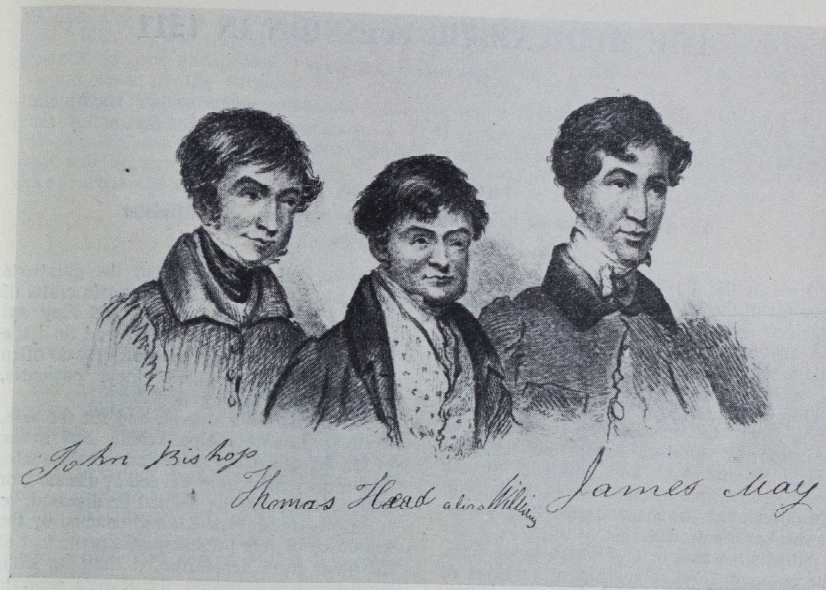
Few criminal events have aroused so deep, so enduring and so widespread an interest as the Edinburgh murders committed by Burke and Hare—dealers in fresh anatomical material. Burke and Hare were not true resurrectionists for they did not exhume a single body. Instead they murdered imbeciles, street-walkers, widows and orphans. Their career lasted exactly one year.

The last of the West Port tragedies was the murder of a poor old woman named Docherty. The body of a little old woman was discovered under a mass of straw in Burke's house. Consternation was universal. Burke was hanged and Hare died in misery.

The most important result of the murder from the medical point of view was that legislation was initiated for the purpose of legitimately securing subjects for dissection. Public sentiment at last forced Parliament to action. A public committee with Mr. Warburton as chairman was appointed to enquire into the study of anatomy and the best methods of obtaining dissection materials. Witnesses included Astley Cooper, Brodie, Abernethy, Brookes and Wakeley.

In 1829 Warburton introduced his Bill, which, unbelievably, received strenuous opposition from the surgeons. *The Lancet* dubbed it a "Bill for preventing country surgeons from studying anatomy." After a stormy passage in the Commons it was wrecked in the Lords.

Meanwhile the public were becoming restless. Grave robberies were given much publicity and every assault was construed as an attempt at "burking." Wakely's thunderous editorials did much to move the Government. One further stimulus was needed.



*The Trial of the Smithfield Murderers*

That stimulus came most opportunely in November, 1831—the discovery of foul and bloody murder on the portals of Westminster itself.

The murderers this time were Bishop and Williams. Many of their crimes were committed in Smithfield—almost at the gates of Bart's. It must suffice to relate briefly the crime that sent them to the gallows.

Bishop and Williams were in The Bell Tavern in Smithfield on Thursday, November 3, 1831. Williams got into conversation with an Italian boy named Carlo Ferrari and persuaded him to go home with them, promising profitable employment. The boy was given a night cap containing rum and laudanum. The unconscious boy was then drowned in a well at the end of the garden.

The next day Bishop and Williams had some difficulty in disposing of the body. Eventually the anatomy demonstrator at King's School offered nine guineas. On inspecting the corpse he immediately sus-

pected foul play. He produced a £50 note and told the pair to wait whilst he changed it. A quarter of an hour later Mr. Mayo, professor of anatomy, entered the room followed by a police inspector and several constables.

After exhaustive investigations it transpired that Bishop and Williams had between them exhumed many hundreds of bodies and murdered over twenty people. They were hanged on December 5, 1831.

Warburton's second Anatomy Act became law in 1832. Thus ended the reign of the resurrectionists who automatically became redundant with the advent of legalised dissection.

The story of resurrectionism involves every facet of human nature and experience. It is a stage on which noble blood meets sludge and where the most respectable society men work hand in glove with complete social outcasts. Science does indeed make strange bed-fellows.

*The Author wishes to thank the Librarian of the Wellcome Historical Library, who supplied the illustrations to this article. The pictures of Burke and Hare are from the "History of Burke and Hare," by G. MacGregor (1884), and that of the Smithfield murderers is taken from the "History of the London Burkers" (1832).*

## THE MEDICAL PROFESSION IN 1511

by CARRUTHERS CORFIELD

*Among the New Romney records is the following document which shows vividly the position of the Profession at that date. It is a proclamation by the Barons of the Cinque Ports in the third year of the reign of King Henry VIII.*

### PROCLAMATION

#### An Act that Persons beinge no Common Surgions, may Minister Outwarde Medicines.

WHERE in the Parliament holden at Westminster in the III yere of the Kyng's moste gracious reigne, amongst othere thynges for the advoiding of sorceries, witchcraft, and othere inconveniencies, it was enacted that no person within the cite of London nor within VII miles of the same, shulde take upon hym to exercise and occupie as phisition or surgion, except he be fyrst examined approved and admitted by the bysshop of London, and othere, under and upon certeyne peynes and penalties in the same Act mentioned.

Sithens the makynge of which sayde Acte, the company and fellowship of surgions of London, minding onely their owne luces, and nothyng the profyte or ease of the diseased or patient, have sued, troubled and vexed divers honest persons, as well men as women, whom god hath endued with the knowledge of the nature, kynde and operation of certeyne herbes, rootes and waters, and the administering of them to such as ben peyned with customal diseases: as women's sore, a pin, and the webbe in the eye, uncomes of handes, scaldings, burninges, sore mouthes, stone strangury, saucelin, and morfew, and such othere like diseases: and yet the sayde persons have not taken anythyng for their peynes, or cunningge, but have ministered the same to the poore people onely for neyghbourhood and goddes sake, and of pitie and charitie.

And it is now well known, that the surgions admitted, wyll do no cure to any persone, but where they shall knowe to be rewarded with a greater summe or reward than the cure extendeth unto, for in case they woulde minister their cunningge to sore people unrewarded, there shulde not so many rotte and perishe to death for lacke of helpe

It would seem that a dim view was taken of the surgion of that day, who, minding

of surgery as dayly do: but the greatteste parte of the persones of the sayde craftes of surgions have small cunningge yet they wyl take great summes of money, and do lyttle therefor, and by reason thereof, they do often tymes empaire and hurt their pacientes, rather than do them good.

In consideration wherof, and for the ease, comfort, succour, helpe, reliefe, and helthe of the Kyng's poore subjectes, inhabitauntes of this his realme, now peyned or diseased, or that hereafter shalbe peyned or diseased, be it ordeyned, establyshed, and enacted by the authority of this present parliament, that at all times from hensforthe, it shall be lefull to every person beyng the Kyng's subjecte havynge knowledge and experience of the nature of herbes, rootes and waters, or of the operation of the same by speculation or practise, within any parte of the realme of Englande, or within any other the Kyng's Dominions, to practise, use, and minister in and to any outward sore, uncome, wounde, apostemations, outwarde swellynge or disease, any herbe or herbes, oyntment, bathes, pultes, and emplasters, accordyng to their cunningge, experience and knowledge in any of the diseases, sores and maladies before sayde, and all other like to the same, or drynkes for the stone strangury, or agues, without sute, vexation, trouble, penaltie or losse of their goodes; the foresayde statute in the foresayde III yere of the Kyng's moste gracious reigne, or any other acte, ordinaunce, or statute to the contrary herof hertofore made in any wise not withstandinge.

#### GOD SAVE THE KING.

Thos. Berthelet, regis impressor  
excudit cum privilegio ad imprimendum solum.

more their own luces did not give honest treatment to the cases of stone strangury.

saucelim, and morfew, uncomes or apostemations which neglect caused many of their pacientes to rotte and perish.

Some even of the surgions had small cunningge yet they were not averse to takynge great summes of money!

So the Act was framed to give encouragement and licence to those cunningge in the use of herbes who would succour the Kyng's

subjects and inhabitants without fee or reward though I expect if they received no lucre they welcomed payment in kind. Sithens those days the pacientes, whether plebian or ducal, have the protection of the National Insurance Act whereby the phisitions by neglecting to minister to their outward sores, pins or webbe in the eye may have their lucre seriously depleted.

## CHILDREN IN HOSPITAL

a review by W. R. P. BOURNE

The *Journal* was invited last month to a private showing of *A Two-year-old goes to Hospital*. This is a scientific film record made and distributed by James Robertson, of the Tavistock Institute of Human Relations, 2, Beaumont Street, London, W.1; 1953. 45 minutes. B. and W. sound at 16 l.p.s.; a guide is provided with the film, which is intended for exhibition to professional groups only, and should be followed by a discussion.

This is an experimental film made in an attempt to obtain an objective record of the experiences and reactions of a small child when she leaves her mother's care for the first time to undergo the repair of an umbilical hernia in hospital. The subject was selected at random from the surgical waiting list, and the film consists of an all-too-brief introduction to the child happy in her home surroundings, followed by a detailed record of her major ordeals in hospital supported by regular daily time samples designed to show her mental and emotional state on the successive days of her stay. The record was made by an observer with a hand camera who was constantly with the child, but apparently caused remarkably little disturbance in the experimental situation, and the excellent pictorial record is supported by a purely descriptive spoken commentary. The film is intended to provide material for subsequent discussion by groups interested in different aspects of child care and behaviour, rather than as an argument of any sort in its own right.

In view of the relatively simple methods used, the film seems an excellent technical achievement, and a notable demonstration

of the results that can be obtained in this medium in this type of work. It should prove of considerable interest to those specialists in psychology, infant welfare, and hospital administration for whom it is apparently intended, though one fears that as usual, it is least likely to reach those among the unconverted who would benefit most by it.

The main criticism from a student point of view, is that the strictly objective approach, while essential for the scientific approach, will limit the value of the film for audiences without experience of the issues involved in child care, so that some of the instructive value of the film is lost. It may be argued that the implications of the film should be brought out in discussion afterwards; none the less, all the issues raised in the film are unlikely to be recalled in an impromptu discussion, while the method is a clumsy one for use with large or inexperienced audiences. Perhaps, now that Mr. Robertson has attempted to arouse our elders to debate, he will include some exposition of the issues raised in their debate in his next film, and produce something of more positive value to the uninstructed? There is an urgent need in some quarters for good documentary films expounding the proper treatment of children for, very often, very many of us do not quite realise all we are doing when we take a child of two away from home, and some of us urgently need to be told.

Meanwhile, this is a most interesting study of the fate of one small girl in the grip of emotions Hollywood has apparently never discovered.

## SCARLET GERANIUMS

by A. B.

I wonder who started the tradition  
Of geraniums on View Day  
All round the Square.  
Did they make suggestions  
At some board meeting  
Of a method of making  
The Square look gay?  
And someone said "Geraniums  
Are just what is needed.  
Scarlet geraniums  
Against the grey."  
For forty years and over  
They dug round the tree roots  
And guarded the plants  
With tender care  
So that in the morning,  
View Day morning,  
There are scarlet geraniums  
All round the Square.  
Once a group of students  
Tried to vary it  
With violet in the fountain  
For a contrast there;  
But, by the afternoon  
Tradition had defeated them  
With scarlet geraniums  
All round the square.



## SO TO SPEAK . . . .

### Bite and Bark

And this X-ray shows you a canine lying doggo.

*A Systematic Lecturer*

### Start this End

I thought I saw a dog with a very long tail, but it was a turkey.

*A Physician at Speed*

### Mind Your Sermon

Misuse or overuse of the normal vocal cords. 1) Habitual: Clergymen . . . .

*French's Index, on causes of Hoarseness*

## CARDIAC CATHETERIZATION

by J. M. S. KNOTT and G. SIMON

THE technique of Cardiac Catheterization has, in recent years, become one of considerable importance in the diagnosis of cardiac and pulmonary diseases. It has now become a well-recognised method of investigation and its development has run parallel with considerable advances in surgical technique. The passing of a catheter into the chambers of the heart would suggest that it is a dramatic procedure but every student should try to see a cardiac catheterization even if only to see how little the patient is disturbed by the manœuvre. It is important to realise that the technique is not one to be used by the general practitioner or the enthusiastic specialist who may consider that cardiac catheterization is just another method of investigation which he must acquire. The whole technique of cardiac catheterization and the subsequent analysis of the blood samples obtained involves the combined efforts of a team of investigators. Even when such a team is available, it is important that there should be definite indications for the use of this technique as there is a small but real incidence of complications and dangers. It must be stressed that this is not an investigation which should be used on a patient merely out of academic interest.

The introduction of a catheter into the right side of the heart, and the removal of blood samples for gas analysis has been the aim of the physiologist for many years. The first successful cardiac catheterization was reported in the literature by Forssmann in 1929. Since that time, the technique has been used extensively all over the world, Courmand and Ranges being the early exponents in the U.S.A., and McMichael in this country.

### The Cardiac Catheter

The catheter which is used for cardiac catheterization is similar to a ureteric catheter, but the walls are more rigid and the lumen is wider. The most satisfactory catheters are made at present in the United States. An important feature of their design is the maintenance of a curve at their distal end, which enables them to pass the curves which are encountered in their passage through the heart.

### Method of Introduction

The patient is usually sedated so that he is in what is described as the "Basal" state. This is particularly important in children and the more excitable adult patient, as the whole experience, including the apparatus, X-ray screen, etc., is frightening to the average patient. The antecubital fossa of the left arm is carefully cleaned and protected with sterile towels, etc. The whole procedure should be made as aseptic as possible to prevent avoidable sepsis and thrombosis in the arm veins. An incision is made into the skin and a suitable vein is isolated. A suitable vein is one that is of sufficient bore to accommodate the catheter, and is also running up the inside of the arm, so that the catheter will pass upwards and across into the thorax easily. Two ligatures are placed round the vein and the distal one is tied to prevent bleeding when the vein is opened. The vein wall is then incised and the catheter introduced and attached to the saline drip. The catheter is then pushed onwards along the vein while its progress is watched under the X-ray screen. Normally, it will pass through into the Pulmonary Artery (*Fig 1*). In view of the possible onset of venous spasm later in the procedure, it is important to introduce the catheter as far as possible in the correct direction and take the necessary samples and pressure recordings as the catheter is slowly withdrawn. Once venous spasm has appeared, it is usually only possible to withdraw the catheter, and is quite impossible to push it on further.

When the Catheter has been introduced as far as possible, two procedures are quickly carried out.

- (a) The measurement of the pressure.
- (b) The withdrawal of blood samples.

In the earlier days of cardiac catheterization, the pressures were measured in mean pressures in simple saline manometers. Since that time, more accurate pressure recording instruments have been introduced.

Samples of blood are obtained from the various heart chambers for analysis of their oxygen content on the Haldane or Van Slyke gas analysis apparatus. A syringe containing liquid paraffin and a small amount of

Heparin is attached to the catheter and filled with blood. All samples should be taken in duplicate to check the accuracy of the gas analysis.

#### Difficulties of the Method

##### 1. Failure to reach the required chamber or vessel.

The procedure as described above sounds very simple, but occasionally there are difficulties. The catheter may go up into the neck or across the neck, out into an anomalous pulmonary vein via the superior vena cava or down an anomalous venous channel. When the catheter is seen to have passed in the wrong direction, the only procedure is to withdraw it a short distance and with much patience try to reintroduce it, at the same time altering the direction of the curved tip.

##### 2. Venous Spasm.

This is a troublesome difficulty and may prevent the procedure being successful. It can be prevented by adequate infiltration of the local anaesthetic around the vein prior to the introduction of the catheter. Once venous spasm has set in, the catheter cannot be advanced further, and the operator must wait with patience in the hope that it will pass off in a few minutes.

#### Dangers and Complications

It is important to realise that although cardiac catheterization is a relatively safe procedure, it is a procedure that should not be applied to a patient without definite indications. There are several complications which may follow cardiac catheterization.

##### 1. Venous thrombosis.

There is often a small area of thrombosis of the arm vein. This is of no significance and usually resolves spontaneously.

##### 2. Irregularities of Heart Rhythm.

The passage of the catheter through the right side of the heart often leads to the production of temporary irregularities of heart rhythm, particularly when the catheter is lying in the region of the tricuspid valve. If and when this does occur, the catheter should be withdrawn back in to the right auricle.

##### 3. Febrile Reactions.

It is important to keep the procedure as aseptic as possible, both with regard to the catheter itself, and also the operative field. Careful attention to these details reduces the incidence of febrile reactions, although it is

customary to give the patient Penicillin cover subsequent to the catheterization to deal with any possible sepsis. Atrial Septal Defect.

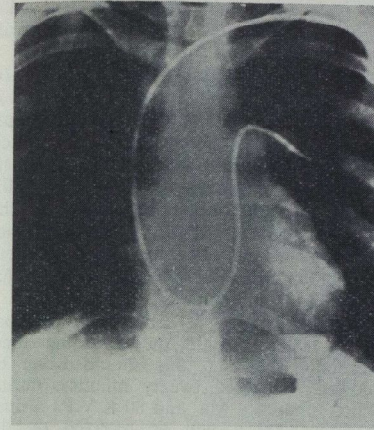
#### Information Obtained from Cardiac Catheterization

##### 1. Blood Gas Analysis.

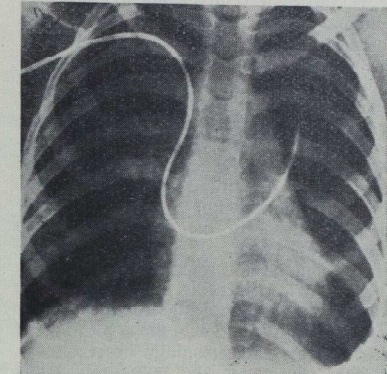
The oxygen content of the venous blood from the right side of the heart has been the quest of the physiologist for many years, as it has been the missing factor in calculating the cardiac output in man. With a knowledge of the oxygen content of the blood in the Pulmonary Artery, the oxygen content of arterial blood, and the oxygen uptake in a given time, it is possible to estimate the cardiac output by applying the Fick principle. This is dependent on the fact that, knowing the quantity of oxygen per unit of blood taken up by the lungs and the oxygen consumption in a given time, then the volume of blood which has taken part in this gas exchange in the lungs can be calculated.

During recent years, with the advance of cardiac surgery, an accurate clinical diagnosis of congenital heart disease has become of importance. The cardiac catheterisation technique has helped in the diagnosis by providing samples of blood for analysis of their oxygen content, and recording pressures in the heart chambers and great vessels.

The blood in the Superior Vena Cava, Right Auricle, Right Ventricle and Pulmonary Artery, has a low oxygen content as the blood is venous blood containing 10-16 volumes per cent of oxygen. In normal persons, there is a range of volumes for blood oxygen content in these sites, depending chiefly on the incompleteness of the mixing of the venous blood, especially in the Superior Vena Cava and Right Auricle. Arterial blood can be obtained by puncturing an artery, and in the normal person has an oxygen content of 18-21 volumes per cent. With a knowledge of their ranges of variation, it is possible to determine by cardiac catheterization whether there has been a shunt of arterial blood across to the right side of the heart. It is important to analyse the blood samples with no preconceived idea as to what the oxygen content should be, as the results are otherwise liable to misinterpretation. In ideal conditions, the persons who are responsible for the blood gas analysis should have no clinical details of the patients.



Cardiac Catheter in the Left Pulmonary Artery. (Fig. 1)



Catheter passing through an A-V Septal Defect. (Fig. 2)

A simple example of the results of blood gas analysis is shown in Table 1. These figures show that there has been a shunt of highly oxygenated arterial blood from the left to right auricle, which is evidence of an A-V Septal Defect.

It is of considerable importance to know the pressures in the various heart chambers. With a simple saline manometer, only the mean pressure is recorded, but with the more accurate methods, a figure for the systolic and

diastolic pressures can be measured. The normal pressures recorded are approximately shown in Table 2.

A simple example showing the importance of pressure measurements is that of Pulmonary Stenosis, in which there is a raised pressure in the Right Ventricle, which drops suddenly as the catheter is passed through the narrow Pulmonary valve into the Pulmonary Artery. In such a case, the pressures were as in Table 3.

BLOOD SAMPLE TAKEN FROM:	OXYGEN CONTENT IN VOLUME %
Superior Vena Cava	16.1
Right Auricle	20.6
Right Ventricle	20.4
Pulmonary Artery	20.2

Table 1

SITE OF CATHETER	PRESSURE IN MM./HG.
Superior Vena Cava	1-3
Right Auricle	0-1
Right Ventricle	20-30/0-5
Pulmonary Artery	20-30/5-10

Table 2

SITE OF CATHETER	PRESSURE IN CMS./SALINE
Right Ventricle	17
Pulmonary Artery	10

Table 3

### 3. *The Site of the Catheter Tip.*

In the normal patient the catheter will pass from the superior vena cava to the right auricle, the right ventricle and out into the pulmonary artery. Sometimes the catheter will pass through any abnormal communications between the heart chambers. For example, it may pass via an atrial septal defect from the right to the left auricle and out into the pulmonary vein (*Fig. 2*) or from the right to the left ventricle in an Interventricular Septal Defect. These abnormal routes should be noticed during the screening of the patient and, if a film is taken, provide good proof of the existence of such abnormal openings.

The technique of cardiac catheterization is, therefore, of considerable importance in the diagnosis of congenital abnormalities of the heart. In recent years, with the application of cardiac surgery to rheumatic heart disease, the right ventricular and pulmonary artery pressures have been measured as a possible guide to the correct selection of patients suitable for Mitral Valvulotomy. Provided the necessary team is available and the real indications for the procedure are observed cardiac catheterization can be a valuable technique in the investigation of cardiac abnormalities.

## II

After the radio-opaque catheter has been introduced into the vein, its progress is followed on the fluorescent screen. Knowledge of the exact position and direction of its curved tip is thus accessible to the cardiologist as he guides it into the appropriate heart chamber or great vessel. The exact position from which pressure readings and blood samples are taken is also determined from the X-ray appearances.

Because the manipulation of the catheter may be a relatively prolonged business, it is essential to ensure that the patient does not receive a harmful dose of X-rays during the fluoroscopy. It is, therefore, important to adhere to the following strict principles.

Cardiac catheterization should not be undertaken until a fortnight has elapsed since any previous prolonged X-ray screening of the patient. Many of these cardiac cases present difficulties of X-ray diagnosis, so that

This article is based on one written by Dr. Knott and Dr. Simon, published in *Radiography*, October 1953. We wish to thank the Editor of *Radiography* for allowing this revised version to be printed.

in the course of preliminary examinations the patient may have already received a lot of X-rays. The effect of these, however, will have worn off after a fortnight.

During the catheterization, the amount of X-rays received by the patient should be cut to a minimum. A filter of 1 mm. of aluminium should cover the emerging beam, which should be confined to a small area by adjustment of the diaphragm controls. The milliamperes should be reduced nearly to the point at which visibility of the catheter becomes difficult. For very small children, 1—2 milliamperes will often be sufficient; for adults, 2—3 milliamperes.

A special clock in series with the foot switch will summate the screening time. Generally speaking, this should never be allowed to exceed twenty minutes, during which time, at 3 Ma. and 80 K.V.P., a dose of about 200 r. will be received on the patient's back. This safe limit of twenty minutes will allow ample time for successful catheterization in the majority of cases.

Radiographs are taken whenever a permanent record of the position of the catheter is required, e.g., to show the position where a change occurs from high to low pressure in pulmonary valve stenosis, or to record peculiar positions of the catheter if it passes through a patent septum or enters an anomalous artery or vein. Such occasional radiographs will not add materially to the total dose of X-rays, and the permissible screening time need not be reduced on this account.

The comfort of the patient should be ensured with warm blankets, etc. The safety of the operators is ensured if they wear a lead-rubber apron of  $\frac{1}{2}$ —1 mm. lead equivalent, and keep their hands away from proximity to the primary X-ray beam. The occasional student or post-graduate observer runs no risk from the X-rays and need not wear a lead-rubber apron.

The catheter is very clearly seen on the fluorescent screen and, with its tip in the heart or great vessels, it is a sight well worth a visit. A striking feature of this spectacular and at times very valuable examination is the obvious lack of any discomfort for the patient.

## HACKENBRUCH

by R. B. P.

Herr HACKENBRUCH, your solitary claim  
To join the immortals in the hall of fame  
Is this discovery about the skin:—  
That when you stick an anæsthetic in,  
The local area becoming numb  
Is diamond-shaped—what you would call a "rhomb".  
I cannot feel this epoch-making find  
Has very much enlarged the human mind,  
Or that it gives good grounds for taking on  
Herr HACKENBRUCH within the Pantheon  
That anæsthesia should so oddly spread  
That just an ace of diamonds goes dead  
Anatomists no doubt will soon explain  
And fluttered dove-cotes settle down again.  
Meanwhile, young surgeon, pause ere you begin  
A local operation on the skin:  
First reconnoitre carefully the site  
To get the point of your injection right;;  
Next (as George Robey said), Halt, Hearken, Look!  
Then cut the diamond of HACKENBRUCH.

## NOTE-BOOK

by PENRY ROWLAND

### The Bully of Much Bluffing

A police call soon after midnight.  
Doctor was taken to the cold cells by a constable in all the majesty and weight of Law and Order.

"Well, we've managed to get 'im at last, Doctor."

"Who is it?"

"Why, we call 'im the Village Bully, sir. He has been holding up Much Bluffing for weeks, demanding food with threats of violence."

"Then you had better come in and stand by, constable."

There on a plain wooden form sat a shivering, weasened old man, obviously very ill.

"This man doesn't fit the description. Tall, with military chest and bearing—hectoring manner, usually carries a cudgel."

"So he had when we found him, sir, and caught 'im in his hide-out; but look here, sir!"

On the table was a heap of rubbish, crumpled corrugated paper, bits of cardboard, crushed empty tins and kettles, and filthy old rags as packing.

The whole of this had been stuffed into his ragged shirt, jacket and corduroys.

Two policemen had been sent to arrest him in his blackthorn thicket.

There had been no attempt at resistance. Diagnosis: Exposure, starvation, terminal pulmonary tuberculosis. Died a few days later.

### Concerning the dosage of Methylene Blue

"Patient ready, Mr. Anæsthetist?"

"Yes." Cystoscope inserted.

"Shall I inject the stuff now, sir?"

"No. Wait till I have the right urethral orifice in vision. . . . Right! Put it in."

Within a minute the scanty excretion was dark blue, then almost black. The whole of the bladder became "cyanotic." Surgeon says "Patient is blue inside. What about

the rest of her?" Anaesthetist leaps up and begins artificial respiration. The Sister throws orders right and left and calls for cardiac stimulants. "Wait," says the surgeon, "the pulse in the bladder wall is quite regular and unchanged. Mr. Jones, will you please go into the next room and work out the dose given." In three minutes he is back pop-eyed. "hundred times the maximum dose, I'm afraid." "That's all right. They give it in quantity for Bilharzia infestation and, I believe, there are no bad results known in Egypt. Carry on, please, Mr. Anaesthetist. Sister, please send to the ward and ask them to double screen a path to the corner bed. See that the patient is entirely covered before

the porters come in—face and all. Is the heart all right?" "Yes, normal pulse and breathing."

For the three full days patient was deeply blue—Right ureter secretion was almost black and left renal secretion brilliant blue. Then slow lightening. The only treatment, removal of looking glass, covering hands, warning nurses to see and say nothing and keep out all visitors, and enough dope to reduce inquisitiveness on part of the patient.

Sequel—patient went out of Hospital in a couple of months without any renal symptoms after a year and a half of "TB kidney," and did not know of her blue stage. Repeat in any similar case?

## BIRTH OF A NATION

by BENJAMIN HECHT

*The Editor asked for this article to be written, and persuaded Mr. Hecht to write it. Although much of the period of history with which it deals is still controversial, the Editor believes that it will interest readers of the Journal to have an account of the years that led to the formation of the State of Israel, written by a former member of Hagana, who is now a student at Bart's.*

To attempt to recount the history of the birth of a state, the causative factors, the results, and my personal thoughts and impressions to boot, is, of course, entirely beyond the scope of an article such as this. So I shall pick at random a number of topics, and enlarge upon these, in the hope that by so doing I shall be able to convey a state of mind, rather than an account of history.

To begin with, a short historical resumé is necessary. The State of Israel is the product of the visions of a few great dreamers, practical men at the same time; the result, too, of a period of awakening of intense nationalism all over the world, but especially in the European continent; and lastly, the result of centuries of searching for a solution to one of the most urgent human problems throughout the last two thousand years. That Israel came about is due, in part, to an aggravation of external pressure necessitating urgent solution of the problem, and to a twist of history which brought the victorious armies of the British Commonwealth to Palestine during World War I. At the end of this war

the Balfour Declaration was made promising the establishment of a national home in Palestine under the auspices of a British Mandate of the country to world Jewry. This opened the doors of the country to whoever felt like going there. The majority of the population in the country at the outbreak of World War II were immigrants who went out there in the thirties. Palestine in 1918 was an underpopulated country, grossly infested with malaria, existing on the yields of primitive agriculture. The inhabitants of the country at the time were what is broadly termed Arab, consisting of the descendants of the conquerors of the country under the Khalif Omar, mixed with Turkish, Syrian, Greek and a variety of other ethnological entities. In addition, there existed a much smaller Jewish community which is said to be directly descended from the original population before the exile enforced by Rome.

The events that took place after November 29, 1947, the date of the United Nations Declaration, can be summarised by saying that it was followed by a local war at first,

with the later armed invasion by seven Arab States who declared war on the newly created State of Israel on May 15, 1948, the date the British officially relinquished the mandate. This was done in an attempt to reverse the decision of the United Nations by force of arms. It did not succeed, and the attempt ended by a complete victory for the newly born State.

But who was the army that fought this war on the Israel side? No army is just made out of the blue. Its nucleus consisted of Hagana. Hagana was the name, whose translation is "Defence," which was given to the armed force which was created by the Jewish population of the country to protect itself against the ravages of the numerous and savage small wars that had been waged repeatedly throughout the period of the mandate by the Arabs against the Jews. The need for it as a measure of self defence had become apparent during the first of these "troubles" when the official security forces of the country had broken down. It was highly illegal to belong to Hagana. Yet practically every male member of the population as well as many of the fair sex belonged to it as a matter of course. My father belonged to it, I belonged to it, my brothers and sisters, had I had any, would have belonged to it. All my friends belonged to it, though none, of course, knew at the time that the other belonged. For the organisation of this force was, for obvious reasons, highly secret, few of us knowing more than a handful of the others. Arms were obtained by purchase, theft or any other means, and small arms were manufactured by us. The Israeli version of the sten gun was the standard equipment. Arms were often supplied by the security forces in an attempt to strengthen Hagana during one of those periods when the Arabs happened to be the "culprits." This was done unofficially, but often quite openly. Nevertheless, we were still badly armed. How badly armed we only discovered at the outbreak of our war when we had to meet badly organised, but superbly armed, invaders.

In June, 1946, I was demobilised from the British Navy in which I had served as a volunteer during the World War. I returned to Palestine, and it was not long afterwards that I joined Hagana. Nobody asked me to join, for that rarely happened. I made a few enquiries, dropped a few hints where I thought

they would be appreciated, with the result that one day I was invited to a dark room in the building of the largest health clinic in Jerusalem, where I met, sitting behind a screen, three mysterious voices. At the end of the "interspeak" I was sworn in by means of a very matter-of-fact oath, which one would hardly associate with an underground organisation. Security enquiries about me had, apparently, been made earlier. To this day I don't know who the three voices were. I never had any doubt as to whether what I was doing was right. I had seen quite a bit of war and fighting the previous four years, enough to cure me from any possible taste for it for a life time. But, like everyone else, I was convinced it was the only way, and that in a country as turbulent as ours any solution that would ultimately come, would bring some violence with it. We might just as well be prepared to hold our own when violence came.

How did we train? At that time, of course, most of us were "outlaws" on a part-time basis. Only a very small staff of permanent officers existed. Training took place on the bleak hillsides and mountains surrounding Jerusalem. We went out in parties of seven to ten, ostensibly hiking during the week-end. Training centred on individual field-craft, and not until we were highly proficient in this did we advance to other things. In training for hand-to-hand fighting, sticks took the place of more lethal implements. Arms, you must remember, were as precious as life, and not until very late and very tried, did we train in their use. They then were given us in some outlying settlement where they were kept buried for fear of discovery, and where usually only one or two of the settlers knew of their whereabouts. Discovery meant long prison sentences, and at one time almost certain death sentences. The strain of a life like that soon began to tell. There was little need to caution us to secrecy, for we were wondering every minute of the day when we would be discovered, and whether the person we had just talked to was not a police spy. Not until very much later, after the war had started in earnest and I transferred to full-time illegal soldering, did even my own parents know of my activities, and I could only assume from some of my father's absences that he too was engaged in the same way. Only in this way was it possible to build up Hagana, and to have it

ready to fight a full-scale war if and when the need arose, as it very soon did. Security was as close to perfect as it could be.

The period between the end of the World War and the beginning of our own war was marked by much violence in the country. Everyone knows of the bomb outrages and killings that went on almost continuously. The perpetrator of most of these deeds was Ezel, which was the abbreviation given to the name of a small but violently militant group, formed during the troubles in the late thirties by the cession of a number of members of Hagana who did not agree with Hagana's policy. For the policy of Hagana, then, as always, was implied in its name, "Defence." Ezel, however, believed in attack. At their peak they amounted to some three thousand. It was they who usually perpetrated the so-called "terrorist outrages." There was also a group of some three hundred members called the Stern Gang, which consisted of glorified criminals whose specialty was bank robbery by daylight, and who called themselves "Fighters for the Freedom of Israel." Hagana rarely carried out any of these acts of violence except on the few occasions where it was considered absolutely necessary. Such an occasion arose, for instance, when the British Army built a radar station to detect illegal immigrants' ships as they were approaching the coast. These carried refugees escaped from the hell of Hitler's Europe. Palestine was a country to which international law gave them legal right of entry. The station had to be destroyed. But never did Hagana carry out any wanton bombing or killing for its own sake, for this was repugnant to all in the country, except the few fanatics who we, like every nation, were unfortunate enough to have in our midst. Later on, when terrorism obviously became beyond the power of any one to cope with, we were at last told to take the most serious step of all, which we had tried to avoid by any means, and fight against our own people. This, I think, was the most unpleasant duty Hagana was ever asked to perform. Thus units of Hagana often went to dismantle bombs and land mines planted by Ezel under buildings and British army barracks. Our men and women were often killed and wounded in the process.

Hagana was in existence for many years before the second World War. After the war, however, there came a valuable addition in

the form of the scores of thousands of our men, who like myself, had served with the Allied forces, and especially the British Army, Navy, and Air Force, often in front-line units. These were the first members of Hagana to have received training in units larger than a section or occasionally a platoon. They were people trained in the use of machine guns, tanks, planes, ships, etc. The officers among them were a valuable addition to the cadre of Hagana officers, and to this day many of the senior officers of the Israeli army are former officers of the Jewish Brigade Group, and the like. It was largely due to them that when the mandate, and with it the need for secrecy, ended, Hagana was able to put large units in the field. If I were asked to summarise my impression of the period after the World War I would say that, above all, I was impressed with the complete unanimity of the population in its support for Hagana, and the crystal clearness with which we all knew what we were doing and why. I also remember the pronounced conviction pervading Hagana from top to bottom, that human life was precious, whatever uniform or passport it happened to belong to, and that above all it must be spared. There was, for most of the time, a complete lack of hatred for the security forces whose task we understood well, and many of whom we often met socially. To this effect it must be said that never did Hagana, individually or as a whole, regard terrorism other than with abhorrence and disgust. Pronouncements to this effect, made by the recognised leaders of the community at the time, were quite genuinely meant and expressed the opinion of the large majority of the population. On the personal level I can say that never did I consciously associate with any member of the terrorist groups, socially or otherwise, for it would have been quite unthinkable to do so. However, the one step Hagana was never prepared to take, and rightly so, was to cause their "hanging by the neck until they are dead," by betraying them to the authorities, for in the first place they were ultimately still our men and women even if misled, and secondly, more killing would have been caused, as civil war could probably not have been avoided. Suffice it to say that far from condoning their action, shortly after the State had been established, they were, in one day, put behind bars, lock stock and barrel, a thing which the security

forces of the mandate had not succeeded in doing for years. They were not released until they undertook to "come above ground" forthwith.

Why all this violence? In the first place, the war in Europe had ended. Bewildered Israelis and bewildered world Jewry discovered that some six million Jews had perished under Hitler. "This must never happen again," was the leitmotif. A few hundred thousand had been left in Europe. We all remember the ghastly pictures of concentration camp inmates, emaciated to the very bones. They were physical wrecks, as well as mental ones, and they had to be helped immediately. The only country prepared to take them was Palestine, where we could help and rehabilitate these human shells. But they were not allowed to come. British policy in Palestine was apprehensive lest the Arab majority in the country would rebel. Middle East oil and strategic considerations were at stake, for Palestine's Arabs were strongly supported by forty million others. The motive was understandable and clear. Equally clear to us was the need to fight if necessary to save the remnant that was still, months after the end of the war, rotting away in camps in Europe. The Government flouted the terms of the Balfour Declaration, and the terms of the mandate granted by the League of Nations, by refusing admission to these refugees. Moral law was on our side, so was international law, which had previously condemned the policy of the Government.

Secondly, the history of the mandate had been marred by one guerilla war after the other, with the security forces quite incapable of maintaining law and order. This state of affairs could not continue. Life was insecure, and had been so, off and on, since 1929. The British Government, too, had become aware of the impossibility of carrying on in this manner, and had appointed the 16th Commission of Enquiry, Anglo-American this time, to propose a solution. The Foreign Secretary pledged his word that he would abide by a unanimous decision of this commission. The unanimous recommendation was: Partition of the country as the only practical solution. Whitehall then declared itself unwilling to carry out this recommendation. At the time any solution which would have respected our rights as a homogeneous entity would have been acceptable to us.

Having gone back on its promise, little hope could still be entertained for a peaceful solution emanating from London. So, when matters grew even worse, and Britain handed the problem to the U.N. for solution, and the latter recommended partition as well, asking Britain to facilitate a peaceful transition, which she refused, we were prepared to fight if necessary, whoever would be involved. For around us was a camp of armed Arab countries, behind us the sea, and across it Europe, where the drama of the "Jewish problem" had been played for two thousand years, in all its well-known, ugly forms. Come what might, this problem had to be solved once and for all, and Israel was the only practical solution. Not only was our existence in the very country itself threatened, but so was the life of every Jew in the countries which did not like him or want him. What else is there to do but fight when your back is against the wall?

And so, violence on a large scale began, on November 30, 1947, with the mandate still six months to run. Ezel, by that time, had become quite indiscriminate, and sometimes killed many of our men, together with quite innocent British soldiers.

As with most things in our country, the violence started with a huge bang. Somebody threw a hand grenade, then somebody blew up a cinema, which shook Jerusalem to the core. Elsewhere in the country Arab gangs attacked cross-country buses, and so on. All Hagana immediately went on full-time basis. Arms were incredibly scarce. In the whole of Jerusalem we had one 3-inch mortar and four 2-inch mortars. These were carted around on vans from point to point for months, and a few rounds fired at every point to give the impression that we were better armed than we were. At first Hagana fought at night only, for night covers inferior numbers and hides lack of arms. When an operation was planned in one part of Jerusalem arms were gathered for it from all the other parts. These were then transferred by various means, including groups of girls who carried the dismembered weapons through Jerusalem under their skirts. This then, was the disposition of forces at the beginning. Not till long after the end of the mandate six months later were we to be armed in a better way.

It all looks slightly ridiculous and impossible when seen in retrospect, and I am some-

times surprised to remember that it really was so. Every able-bodied man between the ages of sixteen and sixty-five was stationed directly on the front line, sometimes five of them to one rifle and two home-made hand grenades. Palmach, the equivalent of the Commandos, which had been trained by General Wingate of Burma fame when he served in Palestine, had at one time half its strength made up with women. Such was the dearth in manpower, equalled only by dearth in arms.

Throughout the fighting, and until they left the country on May 15, 1948, six months after the fighting had started, the British army was there. Many a soldier had quite an understandable grudge against us, and who could blame him when his mate had been shot at, or killed in an explosion? Naturally, the distinction between Hagana and Ezel did not always bother him much. So, in a country which was trigger happy, a few misjudged triggers were pulled. On the other hand, there were some incidents of gross intervention by larger units, for no obvious reasons, and sometimes we found ourselves involved in a running fight with two opponents instead of the one we had started with, only because some nervous sentry had perhaps fired a shot which had prompted whole units to empty their weapons. However, the official policy, even if sometimes not observed, was strict neutrality. It sometimes took a form such as this: I was commanding the guard of a convoy of armoured buses carrying civilians, when the leading bus ran on to a land mine, and the whole convoy came to a halt on the narrow road, not more than a hundred yards from an Arab stronghold, in one of the Arab suburbs of Jerusalem through which these convoys had to go. I deployed the unit in the neighbouring fields so as to cover the buses, while the passengers were transferred. Some British army armoured cars happened along and took up position near by. Shooting started from within the monastery which was the Arab stronghold. The armoured cars trained their Bren guns on the monastery, warning us not to reply. They then emptied several magazines into the monastery, with which we were naturally very pleased. But just so as to maintain their neutrality they turned their guns round and let us have a few bursts as well, luckily and perhaps purposely badly aimed, for we escaped without serious casualties. But this

was neutrality interpreted rather liberally. We were less fortunate at other times.

Six months after the fighting had started the last British soldiers left the country. The day was marked by the Declaration of the State of Israel, as well as by the full-scale invasion of the country by the regular armies of Transjordan, Egypt, Iraq, Syria and the Lebanon. The war had started in earnest. We won, but it had cost us dearly. We now have our country, but the price we paid lies buried in its soil.

To-day, Israel is established, and on normal relations with all countries except its former enemies. The remnant of our people from Europe have come and are at peace at last. Half a million other refugees have come from other countries, doubling the population of the country within three years. A large proportion of the former Arab inhabitants of the country escaped it in the wake of the retreating armies of the invaders, and thus one of the most terrible by-products of modern warfare, the refugees, come into being. A portion of the blame for these lies at the feet of Arab atrocity-propaganda, which made those relatively simple and credulous people leave their homes and fly. This propaganda could, however, not have been so successful were it not for two cases of atrocities, with completely superfluous violence and cruelty actually being committed. This was not justifiable, and it was completely unnecessary, but people will in the heat of battle do things which they would not dream of doing otherwise. There still is, in Israel, a considerable Arab minority. The problem of dealing with minorities is a new one for us, for hitherto it has been we who provided the minority. Economically, the Arabs are probably as well off as anybody else in the country. Politically they are represented in Parliament in the same way as any other group of equal numbers. Geographically many of them live in the border areas, and our dilemma is: Can we trust them, or dare we trust them? For in the face of continuous open threats for a "second round" by our former enemies do they not provide a potential fifth column? These problems are far from solved. Doubtless we have our part to play in the final settlement of the refugees, and a solution can be found to that only if there is the will to settle them in the countries to which they have fled, for at the moment they are a convenient political pawn, which they would cease being once

resettled. But on the other hand, about four hundred thousand of our new immigrants are fled from exactly those countries to which the Arab refugees have gone.

Some three thousand people are leaving Israel every year. Many of these are new immigrants who cannot stand the pace of life there, for it is the hard creative life of a pioneering community. Many have not been able to adjust themselves. And many are disappointed idealists who found Israel not what they expected it to be. Especially amongst

the latter there are those people who came to the country many years ago. But when taking in so many in such short time, one could not expect everybody to like it. The main thing is, that the country is open to all comers, and that none has to stand abuse or injury for lack of a better place to go. Now, all we want is peace to live and develop the country, to provide a decent home for any that come here or may still want to come. For that was, after all, what all the fighting and bloodshed was for.

## SPILSBURY AND MINCEMEAT

a review by R. OGIER WARD

**THE MAN WHO NEVER WAS**, by Ewen Montagu, O.B.E. pp. 144. Evans Bros. Ltd., London, 1953.

This story deals with Intelligence and Morbid Anatomy. The former will be found a complex subject by those readers who have not been trained in that branch of Security for it abounds strange terms, code names such as Husky and Torch, name abbreviations such as D.N.I. and F.O.S. and allusions to Cover Targets official and supposed. The latter is given in a particularly grim form but will be straightforward for doctors and students and for Bart's men of particular interest because Sir Bernard Spilsbury was called upon to play a very important part.

Probably many have already read Operation Heartbreak. The Man who Never Was is the veritable cadaver of a man to whom is dedicated that tragic and very beautiful story by the late Lord Norwich. That book and this one tells of the unknown man who lived and died in these islands and then, in a sense lived again and by so doing rendered service of incalculable value to his countrymen and to men of the U.S.A. who were fighting to reclaim Europe from Hitler.

Lieutenant-Commander Montagu, O.B.E., was one of a Committee associated with Security affecting intended Allied operations. The problem which they set themselves was to deceive the Germans as to the Allies' plans in 1943, at a moment when the conquest of N. Africa was completed and "The soft under-belly of Europe was exposed" Sicily was the obvious objective and their aim was to divert the attention of the German

Staff to other areas. In this they proved completely successful.

They saw the first signs of the value of their scheme called "Mince meat" when the South coast of Sicily was captured with comparatively few losses. The Germans had been induced to believe that the main Allied attack was to be against Western Greece. They felt so sure of this that Rommel was flown to Greece to take command there whence he had to be hurriedly recalled to command in Italy, new coast defences had been set up there, mine fields laid, naval vessels transferred, and a complete armoured division moved across Europe. But even before these important facts were known, our General Staff had been able to signal to the Prime Minister (then in America) "Mince meat swallowed whole".

But it was not until many months after the end of the war that the planners got their full reward. Then captured documents proved that their plan had met with absolute success. It was effected by the floating ashore near Huelva in Southern Spain of a body which was apparently that of a British Officer carrying a secret letter to General Alexander which gave in a friendly informal fashion hints that the next move was to be by General Wilson from Alexandria against Greece. The Spaniards who found the body were fully convinced that the officer had come into the sea from a crashed aeroplane—actually the body had been launched from a submarine. It had been kept in cold storage until plans were complete and the operational moment appropriate, also the tides and wind.

Spilsbury's advice was sought on several occasions, particularly to learn if a corpse

found in the sea or on the shore wearing a Mae West safety belt would be accepted as having fallen from an aeroplane, or if suspicion would be aroused when it was seen that he was carrying highly secret documents. Spilsbury was able to give complete assurance against this, thus making the scheme practicable. The fact that death had actually been due to pneumonia after exposure was clearly helpful so that Spilsbury felt able to say, "the fact that this man died before immersion in the sea could only be determined by a pathologist of my experience and there aren't any in Spain".

Absolute secrecy was of vital importance and the trust placed in Spilsbury was fully justified for he gave all possible help yet never asked why the information was being

sought nor what the enquirer proposed to do. When returning from Africa after the war was over, I had a reunion with Spilsbury, by which time the events were long passed, he never mentioned to me what might by then have been considered a very interesting story. And so it came about that after the Spanish and German staffs including Hitler and satisfied themselves as to the identity of the body (there were plenty of proofs, identity disc. of course, unpaid bills, love letters and a photo of his fiancée) and that there was no deception, the documents were returned to our consul and so to England. This unknown man was buried with full military honours at Huelva under the name of Major Martin, Royal Marines.

## LETTERS TO THE EDITOR

### THE ORIGIN OF DREAMS

Dear Sir,

Men have always been interested in dreams, and many fanciful, far-fetched, and unprovable interpretations of them have been given, ranging from the materialistic speck of cheese to involved flights of psychology.

As regards the former, this may, in the present instance, be ruled out, because, after a very substantial lunch of tender cockerel yesterday, I had omitted dinner, and had merely had three dry biscuits and a cup of Sanatogen before retiring.

I slept well from 11.15 p.m. onwards, but finally dreamt that I was desperately trying to bring together my collar, and push a stud through the ends. Many dreams seem to have a distorted reference to the events of the day, and this item of my dream seems to be an obvious echo of a story told to me that evening by my host, a retired dentist, about a very wealthy, but mean, man, who, on resuming his collar after leaving the dentist's chair, spent several minutes in a finally successful hunt for a missing stud.

The second remembered item of my dream was even more vivid. I was in a large room, and was joining in a search for a bee which buzzed intermittently. Finally, it came so close that I tried in my dream to brush it away, thinking that it might have got under the bedclothes. I thereupon awoke, and after a short silence, heard the sound again, it proving to be—not an effort of the unconscious to rid one of a bee in one's bonnet; not a throw-back to hearing, as a foetus, the rumbling of sigmoid borburygui, or the closer pulsations of the uterine artery—but the gentle snoring of my wife, who has a cold! It was 2.30 a.m.

This second item in the dream seems exceptionally interesting as showing that an external event can pierce through to the sleeping mind, give a content to a dream, and cause the sleeping reason to try to find an explanation, even if an incorrect

one, for the external event!

Of course, this presupposes that my wife's snoring is an external event, and that they are not both mere ideas in my mind. But one must assume something. Even science assumes that the objects of its investigation are there.

ALEX. E. ROCHE.

71, Harley Street, W.1.

### PRIEST AND PHYSICIAN

Sir,

It is long since I have read such a brilliant article in the St. Bartholomew's Journal as that written by Mr. F. G. Steiner. This does not imply that the columns of your journal are usually dull. It means rather that the said article is of an exceptionally high order, much above the level of the customary contribution to a hospital magazine.

I have failed to find the author's name in the Medical Directory so I must assume that he is not a medical man, despite his knowledge of the history of medicine. He writes: "Medicine will soon cross some of the barely perceptible lines which still separate it from domains hitherto relegated to religious experience." Mr. Steiner probably has his own reasons for making this statement, but at present there are few signs of the Western psychologists venturing into this area of the human mind. Rather does the Western psychologist prefer to deny the existence of any higher regions of the mind and to continue his scavenging work in the mind's basement (vide the whole of Freudian literature).

That is why I personally find the ancient psychological systems of the East, such as that of Patanjali, much more helpful, profound and inspiring than those of the West.

Yours faithfully,

KENNETH WALKER.

149 Harley Street,  
London, W.1.

### HOGARTH AND BART'S

Dear Sir,

I have read with much interest the article by James Tait in the April Number of the Bart's Journal, and as Chairman of the Archives Committee who have for many years taken a keen interest in the Art treasures belonging to the Hospital, would like to thank him for so vividly bringing the Hogarth Pictures on the Staircase in the Great Hall, to the notice of your readers.

As Mr. Tait says, when William Hogarth painted the pictures about 1736 he requested they should not be varnished. When in 1934 the pictures had become so dark, mainly from the accumulation of London dirt, that it was decided to clean them, we found in addition to the dirt several coats of varnish. There is little doubt that had the pictures never been varnished the paint would long ago have become bone dry and much of it would have flaked off. Due to the protection of these varnishes the paintings underneath were found to be in excellent condition and to conserve the picture they were, after cleaning, again treated with a thin coat of new varnish.

I think that William Hogarth became a Governor and benefactor of St. Bartholomew's Hospital for the same reason that he became a friend of Captain Coram, a Governor and great benefactor of the Foundling Hospital, because he was a man of generosity and had great sympathy for poor and suffering humanity.

He was a pugnacious man, as is clearly displayed in his self-portrait with his old English dog, in the National possession. Because he was annoyed that the art patrons of his day collected practically exclusively the Old Masters, Hogarth in turn produced several pictures in the Grand Manner to

show that he was as good. That he was, is clearly shown by the two belonging to the Hospital. During his early life there were few contemporary artists worth patronising, but Hogarth should certainly not have been neglected.

As one concerned with the examining and assessing of paintings as such, it is not, I think, when Hogarth is imitating the Old Masters that he is at his best. He is an exceptionally fine painter when following his natural bent, painting those remarkable series of pictures showing human frailties and charming conversational interiors. He knew as well as anyone the quality of paint and how to put it on canvas. He is undoubtedly the first of our painters who were wholly English both in subject and in portraiture. He was the leader of the great array of portrait painters for which this country in the 18th and early 19th century became so rightly renowned.

What joy he must have had in painting "The Shrimp Girl", a delightfully free sketch; the "Marriage a la Mode" and the "Calais Gate", all in the National Gallery; "The Rake's Progress" in Marriage" at Camberwell; "The March to Finchley"—Foundling Hospital; and the masterly portrait of his friend Captain Coram—Foundling Hospital—a *tour de force* of English Portraiture. The artist said of this portrait "it was one he painted with most pleasure and in which he particularly wished to excel."

I believe it is probable that both the portrait of Captain Coram and the picture of "The March to Finchley" will be on loan in the next Winter Exhibition at the Royal Academy for all to see.

Yours faithfully,

ALEC MARTIN.

Christie's.

## EXAMINATION RESULTS

### UNIVERSITY OF OXFORD

#### 2nd B.M. Examination

#### Hilary Term

#### General Pathology and Bacteriology

Viner, J.

#### Forensic Medicine and Public Health

Dingle, H. R.

Mitchell, P. J.

#### Special and Clinical Pathology

Dingle, H. R.

Fairley, G. H.

Wickham, A. C. M.

Fairley, G. H.

### UNIVERSITY OF CAMBRIDGE

Dingle, A. G. M.Ch.

#### L.M.S.S.A.

#### Final Examination, January, 1954

Midwifery . . . . . Heyes, F.

#### Final Examination, March, 1954

Medicine . . . . . \*Halabi, N. S.

\*Diploma Conferred.

2nd April, 1954.

### COLLEGE PRIZES

The Bentley Prize has been awarded to R. L. Hewer.

## OBITUARY

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

**Charles, Clifford Pendrill**, on March 17th, aged 74. (Qualified 1907.)

**Soames, Ralph Martin**, on March 16th, aged 71. (Qualified 1910.)

## SPORTS REPORTS

*Reports should be sent to the Editor by the first day of the month preceding publication.*

### RUGGER

#### Seven-a-Side Tournament

The last of the season's rugby programme at Chislehurst on April 10 attracted a fairly large crowd, the weather as usual being perfect for the event.

In the top half of the draw the Preclinical III side prevailed and reached the final, beating Dr. Scowen's Firm (the holders) by a dubious knock-on. According to the rules, Law 2 in fact, a knock-on occurs "when the ball after striking the hand or arm, travels in the direction of the opponents' dead ball line." The referee had rightly decided it was a "Rebound" while the whole of Dr. Scowen's team made no attempt to prevent the score, awaiting the whistle which never came. Dr. Spence's Firm, in the lower half, defeated both the younger Preclinical sides in their inevitable march to the final.

During the interval, Sister Harvey kicked-off in the Registrars-Housemen game, which the Housemen narrowly won. The highlights were Arthur Wint's two tries, Mr. Capps refereeing, and the oxygen therapy instead of oranges at half-time for those overworked-hearts which had managed to survive thus far.

The final of the Sevens was a timid affair compared to the most spirited play of the earlier rounds. Dr. Spence's Firm beat Preclinical III by 15 points to 3, and this was due mainly to the speed of the backs, particularly Scott-Brown. It was poetically just that this very side had prevented the cup from reaching Dr. Spence last year. Sister Harvey presented the cup and Dr. Oswald was there to congratulate his team and restore their fluid loss.

To rugby purists, the two main faults might seem to be the aimless kicks to the opponents and 'not playing to the whistle'; but it was a pleasant end to the season and everyone enjoyed himself, which is all that mattered.

### CRICKET

**April 24 v. St. Thomas's Hospital. Won.**  
Bart's 180-8 Dec. (Roche 48 not out, Batterham 41) St. Thomas's 162 (Rosborough 4-42).

Bart's lost the toss, were put into bat, and soon were in the dismal position of having lost 3 wickets for 15 runs. The unfortunate running out of Nicholson soon added to our bad position. However, Morley came to the wicket and stayed there, soon being joined by Batterham who proceeded to plaster the bowling to the rather short boundary, scoring 5 fours and 2 sixes in a magnificent 41 runs. With Morley out for 22, Roche joined Batterham for some even harder and faster hitting including 4 sixes in 48 not out. Bart's eventually

declared at tea time for 180 for 8 wickets.

St. Thomas's started very aggressively, however, some good bowling by Rosborough took some useful early wickets, and St. Thomas's last wicket fell for 162, 7 minutes before time was up.

### ATHLETIC CLUB

#### The 1953 Season

Not since 1950, the last time we won the United Hospitals Championships, have we had anything cheerful to report—except that all our matches, whether won or lost, were pleasant social events.

During the last season we won 3 out of 5 matches, and in the United Hospitals Championships we were placed fourth. This last was a fine performance, since the Coronation Ball was held the night before! This was also the last time that A. S. Wint represented Bart's. We are grateful for his support, both as a member of the team, and in his efforts to help us in our training.

#### The 1954 Season

This coming season we hope to regain the United Hospitals Championships cup. This can only be done if members train regularly, and more people take an active part. We therefore appeal to those students, men and women, who are interested, to join the club and give us their support. We are also extremely grateful, like other clubs, for encouragement from spectators.

This season we have arranged seven matches, which are:—

May 12 v. Westminster Bank—Norbury.  
May 19 v. Chelsea Polytechnic—Chislehurst.  
May 26 v. St. Mary's Hospital—Chislehurst.  
June 2 v. London Hospital & Guy's—Honor Oak Park.

June 5 v. Westminster & Middlesex—Cobham.  
June 23 v. King's & St. Thomas's—Chislehurst.  
June 26 v. Goldsmiths College—Sidcup.

Also on June 12 the United Hospitals Championships will be held at Mottspur Park, and it is here that your vocal encouragement will be most appreciated.

#### Sports Day

On June 19 the 71st Annual Sports will be held at Chislehurst. This is a social occasion and therefore as many students as possible should take part. It is not purely a club competition, but in the past few years it has been difficult to raise any enthusiasm among non-members. This year, therefore, we are arranging an inter-year competition, the prize for the winning year being a barrel of beer. This should give added incentive, especially to members of one of our leading clubs.

Owing to the difficulty of dividing the clinical students into years, it is suggested that teams should

be chosen from the following groups:—

Preclinicals—1st, 2nd and 3rd years.  
Clinicals.

1. Clerks and Dressers.
2. Out-patients.
3. Children and Specials.
4. Midwifery and Gynaecology.
5. Second-time Clerks and Finalists.

Events will be the same as in previous years and points will be awarded, not only for places in the final, but also for entry and participation in the eliminating heats.

Further details will be posted on the club's notice-boards in Charterhouse and in the Hospital.

### HOCKEY CLUB

The 1953-54 Hockey season ended on Sunday, March 28, with the inter-hospital six-a-side tournament. In this competition, as in many of the matches during the season, we were not the winners, but this has never deterred us from hoping for better fortune in the next match. Now we must look forward to next season, but before closing the books on this, we offer a survey of this season's achievements.

Both teams have lost more matches than they have won, but of the two teams the 2nd XI have won the most. There have been too many dismal failures and too few glorious successes, but somehow the matches have been enjoyed.

In the Senior Cup we went down to London Hospital (2-1) in the second round, and in the

Junior Cup the 2nd XI had an unexpected and magnificent victory over Middlesex Hospital (4-1) in the first round, but were beaten by Mary's Hospital after extra time in the second round.

The Annual Dinner was held at the Magpie and Stump on the 2nd December, and was a great success. Sir James Paterson Ross, who was just back from the States, and Dr. George Cunningham spoke of America and Hockey and were strangely convincing in saying that they appreciated being President and Vice-President.

On March 5th the Combined Hockey Clubs gave a dance in the College Hall which was well attended and so enjoyable that it was resolved to hold another next year.

We offer our thanks to the President, Vice-President and all who have helped us to enjoy this season, and look forward to success next season.

### Combined Hockey Clubs' Dance

On March 5, the club joined with the Women's Hockey Club to hold a dance in College Hall, with music provided by the Derek Pyke Band. Refreshments by candle-light proved to be a popular innovation. We were very glad to welcome Mr. Lawrie White and Mrs. White—Mrs. White kindly consenting to make the draw for the prizes.

The club would like to take this opportunity to congratulate the Women's Hockey Club on providing the first team to wrest the cup from the Royal Free since the institution of their competition.

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## BOOK REVIEWS

**MODERN TRENDS IN DISEASES OF THE EAR, NOSE AND THROAT.** Edited by Maxwell Ellis. Butterworth. Pp. 471 and Figs. 140. 65/-.

In the last twelve months more text books in oto-rhinolaryngology have been published than in as many years. This one, the latest, does not pretend to be comprehensive and when it is judged by what it sets out to be—a review of current ideas in E.N.T.—it is highly successful. Published by Butterworth at 63s., in their *Modern Trends* series,

- \*MAXWELL, James. The production of pleural adhesions by kaolin injection. *Thorax*, 9, 1954, pp. 10-13.
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- \*SHOOTER, R. A. Recent developments in the use of antibiotics. From: *Modern Trends in Dermatology* (2nd Series), by R. M. B. MacKenna. Chap. 15, pp. 276-295.
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\*Reprints received and herewith acknowledged. Please address this material to the Librarian.

it is well produced, clearly illustrated and cleanly printed.

The Editor discusses his problem in the Preface. "The presentation of ideas," he writes, "has been the chief concern of contributors rather than routine descriptions more properly found in text books." It is not therefore surprising that the chapters on otology, where considerable advances in diagnosis have taken place, seem the most successful. The problem of aural vertigo and hearing tests are exceptional in making a difficult subject clear.

All chapters cannot be as good as the best, and by comparison the standard of the Rhinology chapters is low, possibly because there are fewer modern trends. It is more the pity that recent work on Nasal Allergy and atrophic rhinitis is not discussed. There is no mention of facio-maxillary work, plastic surgery of the nose, hare lip and cleft palate, though there is a good chapter devoted to speech therapy in the latter edition. Until Rhinologists can show that they too have ideas and contributions to make on these subjects, more and more of this interesting and rewarding work will be lost to the plastic surgeons.

The chapters on the oesophagus and the larynx, one of which is contributed by the Editor, are on the whole good, and the last chapter on radiology excellent.

This is a book which discusses primarily ideas not techniques, its contributors having been selected because they are original thinkers, and it is probable that when the Editor considers a second edition, the chapters which have to be entirely re-written will have been the most worth-while.

ADRIAN GRIFFITH.

**COMMON DISEASES OF THE EAR, NOSE AND THROAT**, by Philip Reading. 2nd Edition. J. & A. Churchill Ltd., 1953, pp. 286, illus. Price 22s. 6d.

Few students buy an E.N.T. book, which is, perhaps, rather surprising in view of the frequency of E.N.T. afflictions in general practice. However, to those seeking a reasonably short and clear account of E.N.T. diseases, this book from Guy's can be strongly recommended. The diagrams are helpful, and the drawings of the numerous special E.N.T. instruments will greatly assist the student just beginning his "specials." There is an excellent colour plate of the various conditions affecting the ear-drum.

The text is easy to read, with the important points in a disease clearly emphasised. The section on the use of antibiotics is first class, and the account of the diagnosis and treatment of acute otitis media is particularly good. If all medical books for students were as well written as this one, medical students would be saved many headaches.

D.P.I.

**LYLE AND JACKSON'S PRACTICAL ORTHOPTICS IN THE TREATMENT OF SQUINT**, by I. Keith Lyle and M. Walker. 4th Edition, 1953. Lewis. pp. 371. 195 figs. (including 3 coloured plates). 63/-.

This book, intended for orthoptic students, is also of absorbing interest to eye surgeons dealing with the problems, and sometimes these are complex, of strabismus. The authors treat their subject in an essentially practical manner and their findings represent the sifted evidence of years of patient and painstaking work in a large out-patient department devoted to extra-ocular muscle disorders.

One hundred pages have been added to the preceding edition, there are 44 new illustrations, and there are also new chapters on ocular neurosis and nystagmus. The principles of orthoptic treatment, its successes, limitations and failures are lucidly set down and the book is characterized by a receptivity to ideas which will lead to further advances.

The reviewer suggests that in the next edition "the hand" test might with advantage be described,

for small children grasp its meaning quicker than the "E" test.

There are two trifling criticisms in the chapter "Principles of Operation". One concerns the proportions of the diagrams illustrating recession, marginal tenotomy and resection of certain extra-ocular muscles. In these the muscle insertions are placed too close to the limbus and the relative sizes of the muscle to the limbus are incorrect. The other criticism is that the illustrations showing free tenotomy of the medial rectus and advancement of the lateral rectus and their mention in the text be omitted for the authors rightly deplore both these obsolete procedures. The production, paper, print and illustrations are all admirable.

H. B. STALLARD.

**THERAPEUTICS IN INTERNAL MEDICINE**, 84 Authorities, edited by Franklin A. Kysner. 2nd Edition. Cassell, 1953, pp. 830. Price £5 10.

This is the second edition of an American text-book. The men who have contributed to it are of such high standing that it is not necessary to discuss whether what they say is wrong or right. There can be no doubting the authority of the book. This review is written from the point of view of a junior student faced with the vast subject of therapeutics, and wondering which of the several textbooks will help him best. With medical textbooks to-day it is not so much a problem of finding one which is right, so much as finding one which is readable.

Aesthetically, this is a beautiful book to look at and to handle. So it should be at the price. It is well bound, printed on fine paper, and the format suggests that as well as the eighty-four contributors, there must have been an art director. Too much is not crowded onto one page. The technical excellence of the layout is not art for art's sake; the skilful use of typography adds to the clarity of the book.

For each disease the treatments are listed. The approach though is not simply to list treatments and leave it at that. It is not the sort of book that simply makes statements. It discusses and assesses, and because of this, it is not only informative but it is also interesting, and all the more easy to learn from. As well as giving in detail the various specific treatments, it discusses the general approach to the therapy of each condition. The sections on the treatment of hypertension and of valvular heart disease are particularly good in this respect. There is a first-rate discussion on the therapy of the common cold (including the therapeutic use of whisky), and a very good discussion of the treatment of coronary thrombosis.

Some of the sections obviously differ from the usual English teaching. This is one of the difficulties for a student who reads an American text-book and then presents his knowledge to English examiners. What's good enough for Alabama and Louisiana may be very good indeed, but it may not be quite what Queen's Square expects of every Englishman. For instance, the balance given to the different treatments of chronic bronchitis is not what is taught here. There is a long account of aerosol therapy, anti-histamine aerosols, antibiotic aerosols, and lytic enzyme aerosols. The expectorants advised are more complicated than those used in this hospital. Again, on the section on heart failure, the maintenance dose of digitalis

leaf is given as "0.5 to 1 cat units." However, with a background of ward rounds and lectures, it is unlikely that anyone will be lead into serious heresy.

The style in which the book is written is, for the most part, clear and enthusiastic. There are flashes of sudden informality. The book says of a patient with cardiac neurosis that "he will no more keep away from an electro-cardiograph than a dipsomaniac is able to keep away from a bottle of whisky." Discussing the approach to psychosomatic illness, the author writes, "It also helps in treating patients if the physician is past middle age, if he looks well and and strong and healthy, and if he has a clean, neat attractive office. . . ." For relaxation one can turn to such exotic things as the treatment of the bite of *Latrodectus mactans*, the black widow spider.

This book is superbly produced and very well written. It has the qualities of a first-rate textbook. It deviates in places from the usual English teaching, and its price is large. I think this book is worth buying, but buying a book is a very personal matter.

G.E.

**DIETETIC TABLES**, Compiled by G. F. Walker. John Wright & Sons Ltd. Price 1s.

Here is an easy method of putting a patient onto a diet containing a given amount of carbohydrate, protein or fat, without the help of a dietician. It consists of a folded card on which the foods in common use are listed with their carbohydrate, protein and fat content in three separate columns. All that is necessary is to give a figure for the appropriate column corresponding to the total daily allowance: if, for instance, this is 75 grammes of protein, the patient is free to choose any foods in the list up to a total of seventy-five in the protein column.

These tables fill a real need for those who may want to order fixed protein or fat diets in practice outside hospital. They are unlikely, however, to supplant the 5-gramme and 10-gramme carbohydrate portion schemes and, since they give no indication of the proportion of carbohydrate to be taken at different meals, they would not be suitable for diabetic patients having insulin. Among minor discrepancies are the omission of the food value of oranges, the low value assigned to eggs and the inclusion of foods of such variable composition as cakes and pastries.

K. O. BLACK.

**A SYNOPSIS OF CHILDREN'S DISEASES**, by 620, illus. Price 32s. 6d.

This is a new book, and, of its type, an excellent one. It is up to date, concise and not too dogmatic about controversial matters. There are liberal sprinklings of useful physiological data. All the newly recognised disorders of infancy and childhood are described, and the approach to many old problems has been fresh. It is probably the first time that infantile hypercalcaemia has been described in a textbook, being unrecognised until 1951. Less space might have been devoted to "over-feeding" of healthy infants, because in practice, it is an extremely rare condition, and the diagnosis practically always turns out to be something else. It is a pity that books continue to perpetuate the condition.

The chapter on infantile gastro-enteritis is very good and covers all aspects of fluid balance and

electrolyte disturbance.

The section on premature infants reflects the progressive methods of care which the Cardiff school adopted a few years ago and which are now permeating the country.

The only omissions of importance are in recent advances in treatment of a few rare conditions, e.g. cortisone in Letterer-Siwe disease. Publishing delays are probably responsible. Otherwise there is very little to criticise, and this book can be recommended to paediatric housemen and those working for higher diplomas. Senior students will find much information of use for final exams, but it is really better suited to postgraduate needs.

R. C. ROXBURGH.

**BASIC PATHOLOGY AND MORBID HISTOLOGY**, by D. B. Cater. John Wright & Sons Ltd. 1953. pp. 330; 266 illustrations, including 20 coloured plates. 42s.

Teachers of preliminary Pathology are all aware of the necessity of making the subject a living one if it is to maintain the interest of the student. Dr. Cater has attempted to achieve this by bridging the gap between Physiology and Pathology and by introducing some elementary Clinical Medicine.

The earlier part of the work dealing with inflammation has an enlivened style in which analogies are freely employed. The occasional analogy is of inestimable value and used by all good teachers but it should have the effect of suddenly dispelling a difficulty if it is to be successful. When overdone it is apt to become very wearisome and the complexity of a string of analogies may even exceed that of the subject which it is designed to simplify. The linkage of Physiology and Pathology is well illustrated by two most useful chapters on cardiac failure and renal disease. The final third of the book is devoted to tumours, a subject dealt with in much detail. The amount of information given here will serve the student not only through his first year of pathology but indeed throughout his whole medical course.

The single-author of a work on general Pathology to-day faces a formidable task. The great difficulty is to maintain the balance of the work as the author's interest and experience is bound to be greater in some fields. But in a work on basic Pathology the principles must be clearly set out. The student commences his course with those principles and indeed it is largely on these that he will be questioned in his qualifying examinations. It is in this respect that the present work calls for some criticism. The important question of repair is dealt with in rather summary fashion and the student who sets out to obtain information as to the nature of hyperplasia and regeneration is going to have a hard task finding it.

As a whole Dr. Cater is to be greatly commended for his courageous effort and the book will appeal to many students for the large amount of information it contains and for the easy style in which it is written. The illustrations are excellent and vastly superior to those in the average text-book.

G. J. CUNNINGHAM.

**MODERN MEDICINE FOR NURSES**, by Patricia Asher, 3rd Edition. Messrs. William Heinemann. Price 21s.

It has been interesting to see the changes that have happened to this book in its three successive editions. It began as a lively attempt to make medicine in some of its aspects interesting to

nurses, and has now turned into a complete textbook for nurses in general training. The revised syllabus of the General Nursing Council which came into force on January 1st has been studied. A brief chapter on "Social Aspects of Disease" has been introduced, and the consideration of the patient in his environment has always been a feature in each edition.

Among the new sections are such items as haemolytic disease of the newborn, infant feeding, the value of lung resection in tuberculosis and aureomycin. A change in the style is also noticeable, the abbreviations and colloquialisms of the first edition have disappeared as the author turned it into a standard textbook. The highest praise should be given to Messrs. Heinemann, who have maintained the high standard of production, slightly increased the size of their book, and yet reduced the price by 4s. Dr. Asher and the publishers should be congratulated.

**HOSPITAL AT WORK**. Photographed by Derek Adkins. Max Parrish. 48pp., 3s. 6d.

This book contains one hundred and fifty photos, showing what goes on at the Middlesex Hospital. There are pictures of operations, of the milk arriving, of the casualty department, of the chaplain,

pictures of many people doing the many things that make a hospital work.

Why was the book produced? The publishers send out a two-page staccato blurb about it. They say that it "will be of interest to the medical, nursing and administrative staffs of hospitals throughout the world". It won't. To anyone who works in a hospital the disappointing thing about these pictures is that although they show this or that happening which we all see happening every day, they are quite unable to catch the spirit of a hospital. The book does not make us aware of anything of which we are not already aware. It is not, in fact, art. You cannot show the spirit of a hospital by asking it to pose.

The publishers also say that the book will appeal "above all . . . to the general reader." Here would seem to be the good reason for producing this collection of photos. There is an introduction to the book by Col. J. J. Astor, in which he says that he hopes that the pictures will help ordinary people to understand what nurses and doctors do, and increase the patient's confidence in the people who are looking after him. The idea of making the wards seem less frightening, and the hospital a less strange place is very well worth while. Here the book will probably succeed.

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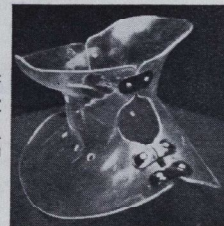
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# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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## OVER TO CHARTERHOUSE

To sell an article nowadays it has to be advertized. Most firms will agree with this. In addition, the article being sold must be good. Potential purchasers flock to the grocers when free soap coupons are sent to them; or when they see a delicious dish colourfully magnified on a large hoarding, they will immediately have a craving for it. Most purchasers are satisfied.

In contrast is the hungry medical student seen ascending the stairs from the Refectory, notably on Fridays. Full of expectation I have seen him enter the Refectory aching with hunger and salivating at the thought of food, only to see a menu on which there is the most disappointing display. One particular dish there may be that is worthy of his appetite. On asking for it, he is told that either it is not ready for another half an hour, or that it has already all gone. Downhearted he again scans the menu, his face drops, and he turns to leave the Refectory with an empty stomach.

It is a long way to Charterhouse, and normally no person of reasonable I.Q. would even have entertained the idea of walking so far for his dinner; but that is what confronts our student. The weather may be at its worst — but he still goes, he may have to queue at Charterhouse—but he still goes; once there he may be confronted with a similar menu—he still goes. Many a West-End cafe has been well patronized by the people 'next door', not so much because it an excellent repast, but because of its proximity. I used to know a man who had a five

mile walk to school in his childhood, his journey was a necessity. Local village preachers walk miles to deliver a sermon; they receive their spiritual reward. Some members of the Hospital Sailing Club travel over one hundred miles into Essex and back every weekend; they enjoy sailing. But what I have often asked myself is to be gained from walking 'over to Charterhouse'? The scenery en route could never be underrated. The journey often means passing the Bank, which may bring to mind columns of figures in the red, and may be a life-long liking for tripe or pigshead is dispelled after seeing the way it is handled in the Market. Besides there is the return journey to be made afterwards: and return journeys can be so dull. I always envy Sir Francis Drake in that by sailing right round the world, he obviated the necessity of a return journey.

A possible explanation of such a painstaking operation is that there is a psychological effect. I remember reading in a textbook of Pharmacology that much of the pleasure to be gained from smoking a pipe lay in the preparation. Perhaps the journey to the hostel prepares the appetite, the more pleasant appearance of the College Hall makes the food more succulent, and the journey back aids the digestion.

Whatever the cause of this daily trek, it does seem out of place in a community such as ours that one still has to search so far for the wherewithal to feed. Is the fault in ourselves or in our stars that we are underlings at the mercy of the whims of fancy.

### Memorial Services

The *Journal* was represented at the Memorial Service for the late Professor Frank Lloyd Hopwood, which was held in St. Bartholomew-the-Less, at noon on Friday, 21st May. The service began with the 121st Psalm, which was followed by the lesson read by Mr. R. S. Corbett. The address was given by Professor A. Wormald, who briefly recounted the exemplary life of Professor Hopwood as he and his associates had known it. An appreciation by Dr.



Malcolm Donaldson appears elsewhere in this edition of the *Journal*.

### Rid'em Cowboy

One of the *Journal's* readers is a Texas citizen, but his address is in England, and he is also a British citizen. To explain this paradox, Dr. Philip Gosse of Cambridge has written to tell us how it happened. An article of his in an American Literary Journal was read by the Governor of Texas, who, liking it so much, stated that a man who could write like that should have been born in Texas. As reincarnation in this instance was out of the question, the Governor decided upon the next best thing—that Dr. Philip Gosse should be made an Honorary Texas Citizen. An impressive document with the golden seal of Texas State was sent, signed by the Governor himself

and the Secretary of State. This endows all the rights, privileges and emoluments of "such office" upon the Hon. Citizen.

We are reminded of a College Professor who had recently returned from America, lecturing in a five gallon hat, and displaying the badge of deputy sheriff of the County of Houston.

### The Good Old Days

It is hard to realize that less than a half century ago the Hospital had a very different

appearance. Not only have buildings changed but also uniforms and layout of departments. Of this we have been informed by Dr. M. B. Reichwald who writes: "Here is a photograph of the Outpatient Department, date 1906—1907, discovered during spring cleaning operations on my desk. Sister Surgery is on the left and with her Nurse Garnett. The names of the porters I cannot remember, though their faces are still familiar. The names on the board in the centre are Clarke and Forrester of the Bowlby firm. On either side of the porter's head are boards, one of which seems to bear the names of Berris and Glenn of the Bruce Clark firm. The other names I cannot read."

### No Explanation

It was very gratifying to see a photograph of the "Square", with its trees just budding

and looking beautiful, in one of the Evening newspapers some while ago. The picture showed two nurses walking in the direction of the Henry VIII gate, and the caption read "At Bart's". These two words would seem a very inadequate explanation of such a picture, and we can only hope that it was included because of its artistic merit.

### No Foundation

A pre-clinical student when asked about Rahere quite innocently asked who he was. The story of Rahere can be found in many of the histories of the Hospital, but for the present we will be content with publishing a picture of our founder.

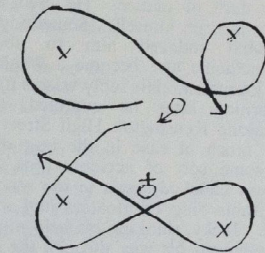


This photograph is one of a small statue presented to Mr. Hayes—Clerk to the Governors—when he retired some years ago.

In reality it is only about twelve inches high. We trust the artist was aware of the anachronism in Rahere's hand, and thank the photographic department for the reproduction.

### Fever

(Top)



This is a tracing: a better drawing would have the X's as the four corners of a square and the arrow-heads at the centres of its vertical sides.

Bart's students and nurses have many hobbies, some energetic and some idle. One of the most exhausting (if we exclude rugger and water polo) must be Scotch Hopping, which has become a hebdomadal habit in Little Britain. It is like an undulating fever appearing on Tuesday evenings and at important Balls. For enthusiasts an original reel is outlined above; it may be necessary to turn the page on its side or upside down before the moves can be fully appreciated.

### JACKY HORNER

May an old friend and fellow-student be permitted to add a few words to the excellent obituary notice of N. G. Horner which appeared in the May number of the *Journal*.

As a student at Bart's from 1899 onwards, one remembers Jacky Horner as a lively, amusing, and popular young man, fresh from Cambridge. He was keen on games, a good cricketer, and a courageous, if not very proficient, rugger player. But it was as an amateur actor he excelled, particularly in the part of a young lady, indeed he was one of the stars of the amateur Dramatic Society. In those benighted days, before the happy incursion of women students, all

the female parts were played by men, the very best of all, after of course R. C. P. Berryman, was Jacky Horner. These two lady impersonators were our only "actresses" who could be relied upon to sit down on a chair or a victorian sofa and resist the masculine urge to hitch up their skirts as a man does the knees of his trousers.

As Hugh Clegg truly said, Horner had a keen sense of humour, often spiced by a delicious dash of malice. He used to tell this story against himself. Somebody once asked what induced him to abandon clinical medicine and become a whole-time medical journalist. His reply was as follows. The morning after he qualified, as he strolled along Kensington High Street, feeling very much at ease in the best of best worlds, some sort of accident took place: a man was knocked down in the road, and the inevitable ring of gloaters had quickly gathered. Jacky, thinking his help might be needed, elbowed his way through the crowd to find a policeman already kneeling by a prostrate figure, applying first aid. Jacky, in his rather high-pitched "refined" voice said "Officer . . . I am a medical man." To which the policeman responded by giving him one glance, then cocking a thumb over his shoulder, shouted "Ere, you 'op it," and the shame faced doctor hurried away determined never again to engage in any sort of practice.

Although Horner and I were fast friends for more than fifty years, I only saw him from time to time after we qualified. Usually it was at the Thursday meetings of the Fountain Club, of which most friendly intimate fraternity he was a regular diner and beloved member. Also he was generally to be found at another club, the Savile, where for many years he had his own room and it was his home until, owing to increasing ill-health, he was compelled to retire into a hospital.

PHILIP GOSSE.

#### AN APPRECIATION

The sudden death of Professor Hopwood came as a great shock to me, as it will to his many friends.

I first met Hopwood when he was assistant Physicist to the hospital, when he helped me with some experiments I was doing in connection with "Blood Pressure". From that time on for over thirty years he was to be my "Guide (in all things physical),

Philosopher and Friend". Never was there such a staunch friend.

Whenever he thought my point of view in any controversy (and there are always some in any virile hospital) was the right one, he was prepared to discuss it with my opponents and to back me up, but always equally prepared to give the arguments against such views and to expose any fallacy, in short he was "judicial" in all he said or did. Perhaps the happiest years of my life were those in which I took a minor part in helping Hopwood and Canti in their many combined works, such as planning the deep X-Ray Department with its million volt apparatus, those tissue culture experiments, and many others. To watch those two brilliant brains at work, was a privilege and a pleasure.

His work for Cancer Research, both in the hospital and in the British Empire Cancer Campaign, of which he was a founder member, is well known to everybody interested in that disease, but here I only want to refer to him as a man. He was never heard to say an unkind word about anybody, although he may have been "judicially critical" about their actions, and I have never heard an unkind word said about Hopwood. Never "self seeking", indeed he was selfless in his effort to help other people, he was the "Whitest Man" I ever knew. Although his active life was over at the time of his death the loss to the hospital of such a sound source of good advice is very great.

MALCOLM DONALDSON.

#### DEATHS

BOWEN, John Edmund. On April 19th, aged 69. (Qualified 1921 at Middlesex and Bart's.)

GOULD, H. V. On April 14th, aged 78. Qualified 1902.

SHEEDY, Thomas Patrick. On May 4th. Qualified 1910 (Cork and St. Bart's).

#### COLLEGE PRIZES

##### TREASURER'S PRIZE

Awarded to: A. R. M. Al-Adwani

Certificates: P. Farren  
L. J. Farrow  
D. J. Tooby  
A. Warrander

#### Staph Conference

"You are old, Father Staph," the young coccus said.  
"And your skin is remarkably rough,  
"Yet you seem to survive despite all the drugs,  
"What has made you so awfully tough?"  
"In my youth," said the Sage, "I'd occasion to meet  
"Some red prontosil powder, one day,  
"So I founded an abscess and went off to sleep  
"Till the plasma had washed it away."  
"But times have now changed," his junior said.  
"And the antibiotics are here,  
"Pray how do you manage to keep quite so fit,  
"While the rest of us tremble with fear?"  
"I lived as a lad," the old staph, made reply,  
"On a diet of agar and broth;  
"And if you can stick that you've little to fear  
"From the worst pharmaceutical wrath."  
"You are old," said the germ, "one would hardly suppose  
"That your toxins were quite at their best  
"Yet you're giving your host the most terrible pains.  
"Don't you feel that it's time for a rest?"  
"Just a day or two back," the old fellow then said,  
"A young leucocyte said much the same,  
"But a small dose of toxin—just given in fun—  
"And he quite lost his taste for the game."  
"With your knowledge of life," the young germ went on.  
"Is there any advice that you'd give,  
"On National Health and susceptible hosts  
"And the pleasantest places to live?"  
"The young," said the old chap, "want always the same,  
"More security, pleasure and ease,  
"Pray kindly remember your object in life  
"Just be off now, and cause a disease!"

#### CASES FROM DR. PENRY ROWLAND'S NOTEBOOK

##### Cold Welcome For Baby

Urgent call out at 5 a.m. by ancient old-type midwife. Hasty arrival in 10 or 12 minutes to unlit house—no hot water no fire! Midwife seated at the top of the stairs wringing her hands.

"Where's the patient, nurse?"

"In the toilet."

"Is the baby born?"

"Yes."

"Where."

"In the pan."

Quick orders to helpless neighbours for hot water, fires, gas, lights. Mother removed to better quarters on the landing floor. The baby and placenta found by candle light in two inches of cold water.

"See to the patient, nurse!" "Hot blankets and hot tea."

Baby had apparently not breathed, but occasional heart-beats were heard. Artificial respiration carried on by the doctor in an unprofessional temper. Pulse improved in frequency and artificial respiration was continued. After nearly a quarter of an hour, the baby's chest was seen to move. A minute later there were three or four breaths taken. In twenty minutes breathing was regular. Baby was presented to her mother—now warmed up.

There followed a few words with the midwife.

Next day. Everything normal.

Sequel: Fourteen years later baby was Captain of the school hockey team

**Aphrodite and Hermes**

And the next object to diagnose was brought in on a stretcher by two policemen.

Question No. 1. "Any serious injuries?" "No." "Was the patient very ill?" "No." "Or drunk?" "No." "Upset emotionally?" "Yes—very much."

"What did examination reveal?" "All attempts at examination were violently rejected—until the two indignant policemen had been sent away."

"After examination what was the first

question put to the patient?" "Are you a man or a woman?"

"And the answer?" "Floods of tears—and the statement that he or she had never known—and a pitiful story followed—of alternating boys' and girls' schools, dismissal from jobs, arrests, lock-ups, friendlessness and misery.

Carried off, with a note, to reply to a charge of being "drunk and disorderly".

*A very unsatisfactory case—half a century ahead of its treatment.*

**A Psychologist Addressing A Class**

Gentlemen!

At times when noon's brilliance thrusts past the great rock  
In the measureless deeps of Loch Ness  
In a sequence of loops the unclean Jabberwock  
Greets the surface with slimy caress.

Then he's gone!

As if slain by a gleam of a dim vorpal blade  
That must be obeyed.

(Here Patient enters in bath chair, and soon silently acts out a drama)

So—across this unruffled and trouble-free brow  
Move wavelets, mere shades of emotions  
Recalling in silence the fears of a child,  
Dim aisles, half remembered devotions,  
The well muffled dark where confessions are heard  
Where by whispered pronouncements the heart strings are stirred.  
Watch the head bowing low and tense hands interlocked  
The eyes that are veiled, wordless moving of lips  
They each add their hints from a soul sadly shocked  
In this drama that's still in eclipse  
There! it's over!

(Exit Patient back stage)

Well Gentlemen

We've been watching a film on an unlifted curtain  
With all the lights on and sounds off—that is certain.  
Have we learned very much of the plot? Not a lot.  
Of the actors and decor, we confess rather less  
And no aid was forthcoming from smart dialogue  
So perforce we remain in a fog or, if you like, smog.

**Gallipot**

Mr. John Langton is beginning his very stately round.

"I should like you to see a new case first, sir."

"What's your diagnosis?"

"Well, you had better read the G.P.'s notes, sir."

Patient has been suffering from Tapeworm for 2 or 3 years. He was advised to get a pound gallipot, put a little sugar in it, place it at night under the anus and was assured that the worm would come down. He carried out the instructions, woke in the small hours in violent rectal pain and could not find the jar anywhere."

"Where is it now?"

G.P. says it is occupying the Pelvis."

"Where is the Doctor?"

"He's here."

"Well, doctor, do you believe this man's story?"

"Yes, Mr. Langton."

"Why?"

"Well, I've felt the gallipot in situ."

Patient is turned on his side and finger introduced. Amusement changes to amazement on the surgeon's face—he takes his dressers to mid-ward. "It is there, gentlemen, what can we do about it? Midder forceps and blunt hook."

Every attempt was made locally without any result, so Laparotomy was tried but there was no movement possible and patient died of "Acute Obstruction due to Foreign Body".

P.S.—Removal of Coccyx or Symphysiotomy might have been tried.

**Diagnosis of miliary tuberculosis:** A normal chest X-ray is often thought to make this diagnosis unlikely. The diagnosis was made by chest X-ray, taken up to 14 days before death, in only 18 of 52 children proved to have the condition (Emery and Lorber 1952). Choroidal tubercles were seen in 25 of 48 cases in the same series. Choroidal tubercles are thought by many to be a feature of tuberculous meningitis rather than of miliary tuberculosis, although Still had written (1927) that tubercles of the choroid are rarely found in tuberculous meningitis if uncomplicated by miliary tuberculosis, whereas they are found in the majority of cases of miliary tuberculosis. Illingworth and Wright (1948) found choroidal tubercles in seven of 14 cases of miliary tuberculosis without meningitis and in 18 of 28 cases with meningitis. Thus choroidal tubercles are of the greatest importance in diagnosis now that effective treatment of these conditions is available; their presence in a patient with tuberculous meningitis indicates that there is miliary tuberculosis also which seriously affects the prognosis. Perhaps I may presume to add to Sir William Osler's aphorism; "One swallow does not make a summer but one tophus makes gout, one crescent malaria, and one choroidal tubercle miliary tuberculosis."

**The Abuse of Atropine in the Treatment of Acute Pulmonary Oedema:** The rationale for the administration of atropine with the morphia for the treatment of this condition presumably stems from a desire to reduce secretion from the bronchial mucous

membrane. But this pulmonary oedema is, as far as is known, a passive transudate in the same way as is peripheral oedema. Thus atropine can do no good; it may do much harm because the tachycardia which follows its use is the last thing desirable in this emergency.

**Chest Sounds**

When bronchophony and pectoriloquy—increased clarity of spoken and whispered sounds respectively—have been demonstrated to them, most students find the deviation from normal much easier to spot than is the case with bronchial breath sounds. The three sounds have the same significance and where there is bronchial breathing there is also bronchophony or pectoriloquy. In certain cases of consolidation of the lung, one of these two signs may give the clue to diagnosis when the breath sounds are normal or cannot be heard at all.

**BIRTHS**

HAIGH, on May 7th, to Sandra and Dr. Adrian Haigh, a daughter, (Joanna Dorothy).

HEYLAND, on April 2nd, to Joanna and Dr. Ralph Heyland, a son.

MAITLAND, on May 12th, to Marian, wife of Dr. R. I. Maitland, a daughter.

MATTHEWS, on May 6th, to Jean and Captain P. D. Matthews, R.A.M.C., a daughter (Jane Linda).

KINNEAR, on May 19th, to Jean, wife of Dr. Angus Kinnear, a sister (Fiona) for Alistair and Neil.

## HISTOCHEMISTRY AND MEDICAL RESEARCH

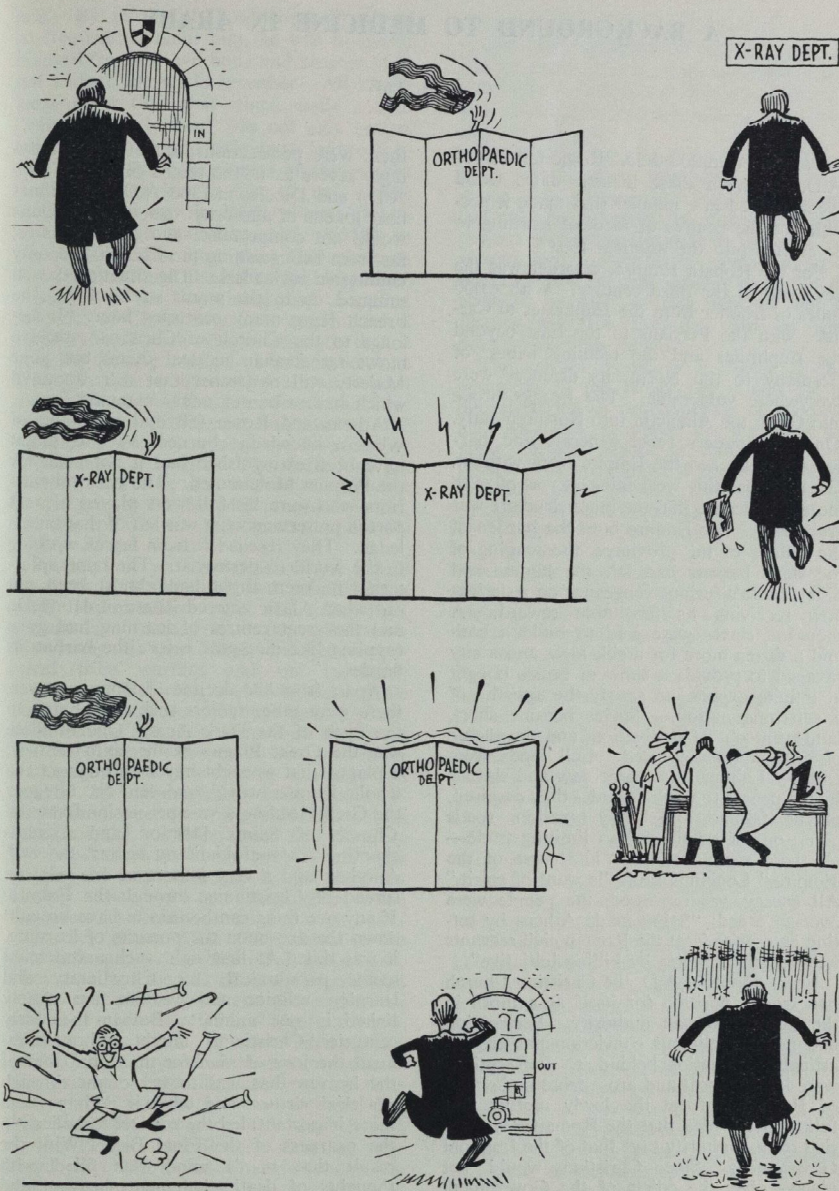
by G. H. BOURNE

Histochemistry is regarded by many as a recent development in research but in fact it is a very old one. During the 19th century the first histologists were greatly interested in the chemistry of the objects they could see in cells but the development of the dye-stuffs industry and the application of dyes to the staining of the cell focussed attention away from cell chemistry and on to cell morphology. In recent years, however, histochemistry has become of greater and greater importance as a research tool. Histochemistry may be described as the microscopical localization of specific chemical substances within organs and tissues; cytochemistry, on the other hand, refers to the localization of these substances within the cell. At the cytological level diffusion of reaction products may lead to erroneous conclusions as to the localization of a particular substance in the cell but this becomes of less importance at the histochemical level and for this reason the results of histochemical investigations are more reliable than those of cytochemistry. Some histo-cytochemical methods have been in use for a long time, e.g., those for glycogen and Nadi oxidase (now known as cytochrome oxidase) but the development in the last 10 or 15 years of the technique of autoradiography and of new methods for demonstrating the localization of enzyme activity have given a great fillip to histochemical investigation.

Autoradiography depends upon the use of radio-active isotopes of certain elements as "tracers". The compound containing the radio-active element is given by mouth or injected into an experimental animal or a human being and after a suitable period the animal is killed and one or more pieces of tissue taken or, in the case of the human being, a biopsy specimen is removed. The tissues are then fixed and sectioned and mounted in association with some photographic film. This may be done in a number of ways—by mounting the section directly on

a photographic plate; by splitting off the emulsion from a plate and laying on top of the section (special stripping emulsions are available); by melting photographic emulsion and pouring it over the section or simply by pressing the mounted section against a photographic plate or film. Such contact between section and emulsion is allowed to continue for some time, i.e., about 6 days for radio-iodine and about two weeks for radio-phosphorus. The emulsion is then developed in the usual way and the section may be stained before or after being brought into contact with it. With the first three methods the section and emulsion remain in contact after development of the latter, and are mounted together, usually in balsam or other standard mounting medium. The radioactivity of the isotopes blackens the photographic emulsion and black granules appear close to the sites of isotope concentrations. For various reasons the resolution obtained with this technique is not very good, i.e., it is possible to discern without much difficulty which group of cells in a composite organ are most active in concentrating any particular isotope but it is more difficult to localize in any particular cell where the locus of concentration might be. Despite this difficulty, however, some workers have obtained autoradiographs which show a concentration of radio phosphorus in chromosomes.

Autoradiography has already been used in the study of bone growth, of normal and pathological thyroid function, of cartilage physiology and a host of other problems. Up-to-date, the technique has been limited by the fact that only simple compounds of radioactive elements have been available (e.g., radio-iodine was available as potassium iodide) but now more and more organic compounds containing radio-isotopes are becoming available. Examples of these are glucose, vitamin C, thyroxine and even cortisone and many interesting results will no doubt follow from their use.



## A BACKGROUND TO MEDICINE IN ARABY

by J. A. TAIT

Galen died in 200 A.D. Rome fell in 410 A.D. Between these historic dates world events moved in a manner that made it possible for the centres of medical learning to be carried into the mystical East.

For the Roman Empire, disorder was the key-word to the third century. With 6,000 miles of frontier from the Euphrates to Carlisle, with the Persians to the East beyond the Euphrates and the teeming tribes of Germany to the North, its defences were everywhere vulnerable. The Franks broke into Gaul; the Alcmanni into Northern Italy. On the frontiers rebel generals and barbarians weakened the Empire from without. Great as was this weakening, it was of even more significance that the inner structure was crumbling. The Empire bore the burden of the pillage of the provinces, the reaping of the slave harvest had left the human soil bitter; Sulla's furious vengeance on Asia was now receiving its inevitable reward. A thousand slaves were sold to build a bath and a dozen more for a silk toga, and a city ravaged to provide a show of beasts bought at infinite expense to satisfy the appetite of a softening nation. Slaves became short, land went out of cultivation, and the theme of Greece was repeated. Full lands were empty. Labour was scarce, law and slavery forced people to work at trades they despised, plague, famine, and heavy taxation, roads going out of repair and so limiting trade—all these spelt decline. "The curse of the Empire," Longinus said, "is want of spirit." All energy was repressed, the people were over-governed; "Solon made Athens by setting enterprise free; the Roman civil servants wrecked the Empire by killing initiative".

From about 60 A.D. the Christian Church had won a position for itself as a thorn in the side of Roman authority. Persecution had neither religious conviction nor ecclesiastical organisation behind it. Persecutions were largely local and arose from no conflict of Faith but from the lowly motive that followed the idea that the Roman Rule was that of no authority save that of the Imperial Government. Since Christians would not always obey the edicts of the Government

there were persecutions; sometimes horrifyingly severe as in the reigns of Decius (250 A.D.) and Diocletian (300 A.D.) sometimes near tokens of authority. But the Christians would not compromise, and the massacres, far from extinguishing the Church had only embittered its leaders. The situation is well summed up in the words of Beza to the French King many centuries later: "It belongs to the Church of Christ to receive blows rather than to deal them; but your Majesty will remember that it is an anvil which has worn out many hammers."

Athens and Rome fell and the lamp of Western knowledge burned low. It might have been extinguished had it not been for the Prophet Mohammed. The pastoral warriors who were his followers played a great part in preserving what was left of that knowledge. They rescued it from forces working in the world to destroy it. The lamp spluttering to keep alight had almost been put out when Alaric entered Rome in 410 A.D., and the great centres of learning had gone toppling like nine-pins before the barbarous hordes.

Apart from the decline of Roman power, there were other factors that contributed to the birth of the Dark Ages. One of these was the Great Plague of the sixth century, a plague that wrought havoc throughout the whole Roman world and had St. Gregory the Great, leading a vast procession from the Church of Saints Damion and Cosmos chanting a sevenfold litany against the evil. Another, and a very important one was the spread of Christianity through the Empire. If any one thing can be said to have brought down the axe upon the pursuits of learning, it was this. At first sight such a statement seems paradoxical, for Christianity and learning, religion and wisdom, are closely linked in our minds. But in the early centuries, Christianity taught without comment the love of man for man, and told of the heaven that was to be sought through practical virtues, and what is perhaps even more important, led the convert to believe in the nearness of the Final Day. With the result that man's mind was filled with thoughts of death, judgment, heaven and

hell. By means of those practical virtues so frequently taught him, he was to purify his soul from his evil body and prepare himself to face the world hereafter. All knowledge other than that which made a man "wise unto Salvation" was not only useless but a dangerous and subversive influence to lead him from the way where all things were "counted dung but to win Christ". His encyclopaedia was the Bible wherein all law and knowledge that man ever needed to know. To know more than God chose to show man through the Bible was blasphemy.

Such was the restraining and crippling influence of Christianity upon man's natural curiosity, and such was its strength that it held the seeking intellect of man in bondage for more than a thousand years, until such men as Bacon and Descartes freed man from the chains of Providence and asserted the supremacy of reason and the invariability of the laws of nature. The decline of the Western world is not without significance to the growth of the Mohammedan world, for, this could not have occurred but for the decline of the West.

Arabia (not yet known as Araby) before the birth of Mohammed, was peopled by a rough and primitive race, not unlike their present-day successors, the Bedouins. Wandering all their lives, engaged in bitterest tribe warfare and the inevitable vendetta. The weak and sick went down before the strong, cunning and healthy. Primitive indeed they were, but they were also intelligent, resourceful and extremely courageous, and it was these qualities that bought for them lands from Spain to Samarkand, once the miracle of their union had occurred. There were two qualities possessed of these hardy people that were to play an important role in the story unfolding. They had a great language of which they were immensely proud, and even nowadays they praise God "Who created the Arabic language, the best of all languages". They also had the gift of observation which was to make them good chemists and in the realms of medicine reliable clinical recorders. Almost the whole of pre-Mohammedan Arabia was composed of these scattered warlike peoples whose allegiance was to their petty chiefs and who knew no authority but this. But there were parts of Arabia adjacent to the Persian and Roman Empires (the kingdoms of Hira and Ghassân) where the civilisation of their neighbours had begun to

influence the Arabs and to give rise to some notion of knowledge, of advancement, of science and indeed to open their eyes to the possibility of improving themselves through new knowledge. But this was the exception and not the rule.

There must have been doctors in Arabia from earliest times, but quite what their status was is uncertain. They were doubtless more magicians than doctors and their powers of healing tinted with those of the supernatural. They must have had some skill in curing the war wounds so frequently acquired by their warrior patients, and in dealing with the everyday diseases that desert conditions inflicted.

The earliest record of a doctor of this period is by the biographer al-Qifî—he is one al-Hârith—a contemporary of Mohammed who had completed his studies at the great medical school at Jundî-Shâpûr in Persia. His knowledge, if we are to believe the biographers of later centuries, was restricted to an understanding of the principles of hygiene which were fairly sound as far as they went.

It is probably fair to assume that there were a few competent doctors trained at medical schools outside Arabia (mainly at Jundî-Shâpûr) and attached to the courts of the more important minor kingdoms. Out in the desert medical practice was probably left to the hereditary magical healers.

The years that include the life of Mohammed and the rule of his immediate successors, the four Orthodox Caliphs differed greatly from the earlier period in matters of Theology, ethics and politics, but there was very little difference in the state of knowledge as regards science and medicine. That medical science was beginning to be considered important is clearly shown on looking in the Koran and in the "Tradition of the Prophet".

"Teach science which teaches Fear of God; he who desires knowledge adores God; when he spreads it he is giving alms; he who has it becomes an object of veneration and goodwill. Science protects from error and sin; it lights the road to Paradise; it guides us through the pleasures and pains of life; it is an ornament amongst our friends and a shield against our enemy. Science is the remedy for the infirmities of ignorance, a comforting beacon in the night of injustice. The study of the sciences has the value of a fast; the teaching of them has the value of

prayer; in a noble heart they inspire the highest feelings, and they correct and humanise the perverted."

The Koran (Chapter V, v.35) reads, "God has not inflicted disease upon us without at the same time giving us the remedy". It would not be fair to quote this verse from the Koran without writing that the Prophet subsequently limits this broadminded observation by restricting methods of treatment to three. The administration of honey, cupping and the actual cautery, and he recommends his followers to avoid or make sparing use of the last of these. He mentions certain therapeutic aids which must have been the standard pharmacopoeia of those days. These include camel's milk, fennel flower, aloes, antimony, manna, and the ashes of burnt matting; and the diseases in which these are to be used are headache, migraine, ophthalmia, leprosy, pleurisy, pestilence and fever.

In 632 A.D. Mohammed died and obedient to the voice of their Prophet the Arabs went forth to conquer the world for Mohammedanism. A miracle had been performed: a country of pastoral warriors who had for centuries warred against one another had been united and inspired with a common Faith which carried them from the narrow confines of their land to become masters of half the then known world. Through their conquests they came to exchange the goatskin tent for marble palaces and the hoof-mark in the sand for learned texts, but this transition took time and in the meantime it was a horde of wild and ignorant barbarians who flooded through Persia, Syria, Egypt, North Africa and Spain. Ignorant barbarians mistaking salt for camphor and finding it insipid in their food, exchanging gold for silver—the yellow for the white—and selling priceless objects for nothing more than a thousand pieces of money because they could think of no number greater than a thousand.

The conquests were rapid and in the century following the death of Mahomet there is no evidence that the Arab invaders took any notice of the accumulated knowledge contained in the civilisations they overran. They came into contact with the more intelligent peoples who populated their new lands and we may postulate a naturally inquisitive people beginning, once the stress of fighting was over, to take a serious interest in the superior state of knowledge of

those that had become their servants. An envy for the better life perhaps. And we can understand a demand arising for the sources of their knowledge. And then in the middle of the eighth century we find the great stream of Greek, Egyptian, Roman and Syrian learning beginning to flow through the gates of the new Baghdad and after translation, on out to the whole Mohammedan world.

The period of acquisition of the knowledge from the old civilisations was the period of the Abbassid Caliphs, but before starting upon the history of that important era, a few more words about the conquests. To say that they were rapid is a horrible understatement, they were torrential. Mohammed died in 632 A.D. Syria was invaded in 634 A.D. and subdued in two years; in 637 A.D. Persia was invaded and by 650 A.D. conquered; in 644 A.D. India was invaded; in 669 A.D. Constantinople besieged (though it did not fall until much later and then at the hand of the Ottoman Turks). In Africa, Egypt fell in 642 A.D., Carthage had fallen by 697 A.D. and by 712 A.D. Spain too had been subdued. Westward expansion was halted by the defeat of the Saracens at the battle of Tours in 732 A.D., just 100 years after the death of Mohammed. Important amongst the factors that facilitated these conquests were the weakness through long wars of those whom they defeated, the tolerance of the Mohammedans towards all sects and religions, and the uniting of the Mohammedans and Berbers in North Africa. Far from being a planned campaign to conquer the world, the first assaults of the Arabs were plunder raids which, owing to the unexpected weakness of the foe, were substantiated and then increased. The Arabs took their Empire with little fighting and took it in functioning order from people who were glad to serve under their new and tolerant masters. In many cases in order to avoid taxation the people they had overrun accepted the Faith of Islam and this both united the Empire and because it was forbidden to translate the Koran, gave it a common language.

The Mohammedans were not a very religious people, and although we must remember the Prophet's edict to go forth and conquer the world for the true faith, it would be wrong to overlook the fact that many of their conquests were the result of the search for plunder and wealth and not for converts. I have already said that the conquered were

often willing to accept the religion of their new masters just as they were willing to pay taxes in order to make their lives easier. But whatever caused the conquered to turn their faces towards Mecca, the fact remains that with a universal Faith and a universal language the Mohammedan world was in a position to exchange knowledge. It is fortunate that the Mohammedan conquests were made with so little fighting, for had there been true fighting many of the libraries and centres of learning would have been destroyed and the Arabs would never have been able to acquire and concentrate the knowledge of the ancient world. We can thank their lack of fanaticism for much of the knowledge of the Ancients that we possess today. The Umayyad Caliphs who were the immediate successors of the Prophet and the four orthodox Caliphs and who reigned in the period 632-750 A.D. were even less fanatical than their successors the Abbassid Caliph whose greater religion and imagination was largely a product of Persian influence. When the change of Caliphate came it was marked by the removal of the capital of Araby from Damascus to Baghdad. Only one member of the old Umayyad dynasty escaped and he came to rule the Spanish Arabs and from that time on Spain became independent of the rest of the Arab world.

The Caliphate attained its greatest splendour under the early Abbasids, one of these Harun al Rashid, must be known to you all through Eastern romantic literature, "A Thousand and One Nights", "Hassan", and the like. Here then let me take up the tale of medicine in the courts of the Caliph, Harun-al Rashid as he is carried at the head of an endless retinue accompanied by his musicians, his dancing girls, his executioner—ready at a nod to do his master's bidding—and somewhere amidst that brilliant galaxy of persons and in that court whose luxury and poetry has capitivated the minds of our sober Western world, walks his physician.

The Abbassid Caliphate rose and fell in its splendour and finally ended in 1258 A.D. when the last Caliph along with 800,000 inhabitants of Baghdad was put to death by the Mongols. But the story never gets as far in time as that, for long before that date one known to us as Constantinus of Africa was furiously translating medical books back from Arabic to Latin, and returning the torch of learning to the Western world.

There was a medical school at Jundí-Shapúr in Persia which at the time of the birth of Mahomet was at the height of its glory. This centre of learning had been founded in the third century and Greek settlers had probably been there since its foundation. It had risen to fame in the fifth century largely through the intolerance of the Byzantine people who drove the Nestorians from Edessa and many of them had settled at Jundí-Shapúr. In the sixth century it is recorded that the Lord of the Persians sent his physician to India and that he returned with Indian medical books. Indian physicians, and the game of chess. This Indian influence was absorbed into the teaching of Jundí-Shapúr and later passed to the Arab world. And so it was that in Jundí-Shapúr medicine of the Middle East, Far East, and of the Mediterranean lands converged. In a consideration of the source of Arabian medicine too much stress must not be laid upon the conquests of the Mohammedans, and due significance must be allowed to the peaceful flow of knowledge from neighbouring countries. It is fair to suppose that a good deal of medical knowledge had passed from Persia to Arabia even before the Mohammedans had overrun Jundí-Shapúr. Already in 600 A.D. there were Syriac manuscripts of Galen and Hypocrites, and many of these were translated into Persian. These Syriac and Persian translations were probably the source of many of the Arabic translations that were to appear in the eighth and ninth centuries.

The medical teaching of Jundí-Shapúr was in the main Greek, but it was overlaid with Persian influence. Persia had twice reached the peak of contemporary civilisation; 500-300 B.C. and 200-640 A.D., and twice that civilisation had been overrun as a result of foreign invasion—Greek and then Arab. Learning and literature alike were destroyed and little true assessment of their value can be made but it must be assumed that the school of Jundí-Shapúr was one of the main influences upon the medical knowledge that we now know as Arabian medicine.

There were, it appears, three classes of healers. Those by prayers, those by diet and drugs, and those by instruments; the priest, the physician and the surgeon. Of the latter it is recorded that they had to operate successfully on three unbelievers before being allowed to attempt the cure of one of

the good religion—a very practical student-ship! This system is rather reminiscent of the scale of values named in the Hammurabi Code of Babylon (2000 B.C.), the oldest code of laws in the world. "If a doctor has treated the severe wound of a slave with a bronze lancet and has caused his death he shall render slave for slave."

"If he has opened his abscess with a bronze lancet and has made him lose his eye he shall pay money—half his price."

"If a doctor has treated a gentleman for a severe wound with a bronze lancet and has cured the man, or has opened an abscess of



*A Medical Consultation from an Arabic miniature in the State Library, Vienna.*

the eye for a gentleman with a bronze lancet and has cured the gentleman, he shall take ten shekels of silver."

"If he has caused the gentleman to die or caused the loss of the eye of the gentleman, one shall cut off his hands."

An unenviable system of 'lex talionis', an eye for an eye, a tooth for a tooth—safer to have a form for a death.

It is difficult to say how the school of Jundi-Shapur was affected by the Arab invasion of the seventh century. Its influence only began to be felt in Arabia towards the end of the eighth century when Baghdad became the centre of the Arabic world.

In 765 A.D. the second Abassid Caliph—al-Mansur—summoned from Jundi-Shapur Jurjis, the chief physician of the hospital there. He stayed four years with the Caliph (an honour that we must consider as a measure of his skill) and at the end of that time was allowed to return home, taking with him 10,000 dinars and having politely refused the Caliph's suggestion that he should embrace the Islamic Faith. I feel that this tale gives an idea of the esteem with which the school and hospital of Jundi-Shapur were regarded and perhaps also of the comparatively important position occupied by

doctors in the courts of the Caliphs. They could have been no mere slaves for 10,000 dinars was a vast sum of money and to turn down the Caliph's offer of the Faith of Islam with the words "I prefer to be with my fathers, whether in Heaven or Hell" might have cost him a limb or two if he had been less respected or less useful.

The family of Bakht-Yishu (of which Jurjis was one) remained as eminent physicians for 250 years, always being highly honoured by the rulers and nobles of their times. This picture of hereditary medicine is substantiated by al-Qifl when he says "that they only were worthy of this

science, and would not suffer it to go forth from themselves, their children and their kin." There was about the school of Jundi-Shapur an unwillingness to impart their knowledge to others. This might have done something to prevent complete exchange of ideas with their neighbouring countries before the Arab conquests, but once they had been overrun they could no longer keep the secrets of their trade.

Medicine in the time of the Caliphs was not always easy, for the passing fancy of an Eastern ruler had a way of causing effects that were all too final. Here is a tale that did not end quite so finally as it might have done. There was once a physician of Jundi-Shapur named Hunayn (known to mediaeval Europe as Johannitus) who had gained favour with the Caliph but his new master sought to test his professional honour and bade him make a poison to dispatch one of his enemies. Rich reward if he did, imprisonment or death if he refused. He refused, and was imprisoned. After a year he was once again given the chance to concoct the potion. Rich reward or "a short, sharp shock with a cheap and chippy chopper on a big black block". Hunayn's answer fell well within the Hippocratic code. "I have already told the Commander of the Faithful that I have skill only in what is beneficial and have studied nought else", and, as a final pass, he added, "I have a Lord who will give me my right tomorrow in the supreme uprising, so if the Caliph would injure his own soul, let him do so." But, like all good Eastern fairy stories, this one has a good end, for the Caliph smiled, and said that he had only wanted to test Hunayn's uprightness before confiding in him his innermost secrets. Such playful tests must have made a Caliph a trying patient.

The tale of Hunayn is told not merely by way of interlude but because he was an important character in the history of Islamic medicine. He was both the most celebrated and most productive of the great translators. He translated seven of the ten works of Hippocrates that were available to him and most of the works of Galen. Arabic, Syriac and Greek were languages known to him and he translated into both Greek and Syriac. Few of these early translations have survived which makes it difficult to assess their accuracy.

Hunayn and his disciples were by no means the only translators, but it is not intended

to give a detailed list of all these scholars who, by the close of the ninth century, had given the Moslem world translations of most of the great works of Greece and Rome: works of philosophy, astronomy, chemistry, mathematics and medicine. It was to an Empire with one language that these books came; and to an Empire and people ready to receive them. The demand for copies of these translations was great, for the rich of every town were competing to build libraries and learn.

To write upon medical matters it was both necessary and natural that the Arabs should develop an anatomical vocabulary, that was almost entirely new to their language. New things are pleasant to play with, but I find it surprising that a people so nervous and poetic in their language should have found a common use for these new terms in their poetry. New and strange words and particularly those of science never seemed to fit easily into poetry. When we find them in our own language as we do, not uncommonly nowadays, they usually appear ugly and are only suited to that vicious brand of poetry that is the particular product of our age—a poetry designed to shock us into recognition of the soulless metal age.

But for a people whose poetry was essentially romantic, it comes as a surprise to find that the Umayyad Caliph Yazid who died for the love of the slave girl Habbaba was deeply stirred by hearing her sing—

"Between the clavicles and the uvula is a burning heat

Which cannot be appeased or swallowed down and cooled".

Not only the words of the new science, but an understanding of medicine seems to have been a common accomplishment of the educated. And even of the less educated, if we are to believe the tale of Tawaddud the slave girl in the Arabian Nights. You may remember how this beautiful girl was offered to Haroun al Rashid for 10,000 dinars (that magical sum), and how the Caliph agrees to pay this sum provided she can answer questions put to her by his most learned professors of theology, law, astronomy, philosophy, rhetoric, chess and medicine. This she does and surpasses expectation at the end of her gruelling viva by asking her examiners a question which they cannot answer. For us the interest in the story must

lie not in her success and subsequent happiness but in the medical questions and answers. These might be said to give us some idea of the status of medical knowledge at that time. Facts that emerge from it are the fairly advanced state of knowledge of Osteology and the primitive account of the blood vascular system. Of the branches of the aorta Tawaddud says, "None knoweth the tale save He who created them." This is, of course, a distribution of knowledge that might well be expected. Dissection had not been allowed by Roman law and the Mahomedan religion forbade it. Galen had to go to Alexandria to learn Osteology, for there he had been told, were human bones. Other less durable parts were unobtainable, and a great deal of the current anatomical knowledge had been gleaned from the dissection of beasts. There is evidence that apes were dissected in lieu of human corpses. In 836 A.D. by order of the Caliph, apes of a type supposed to resemble humans were provided by the ruler of Nubia for dissection by Yuhanná. If his knife was as sharp as his tongue his work should have been good. It is told in the *Fihrist* (or *Index of Arabian sciences*, published in 987 A.D.) he once rebuked a courtier who had annoyed him, with these words: "If the ignorance wherewith thou art afflicted were converted into understanding and then divided amongst 100 beetles, each of them would be more sagacious than Aristotle." It is not my intention to dwell on the vexed subject of human dissection, but suffice it to say that an occasional hurried and furtive dissection of criminal corpses may have added something to their small store of existing anatomical knowledge.

The era of translation and acquisition of existent medical knowledge from the other civilisations filled that period of time that came between the Arabic conquests of 632-732 A.D. and the era of original Arabic discovery which began in the ninth century. It is in this latter period that the great names of Islamic medicine are to be found; those of Rhazes and Avicenna being the best known and appearing even in the briefest synopsis of medical history. Theirs are the key names to the new era.

Rhazes was one of the greatest physicians that ever lived. He was born in Raj (Ray) in North Eastern Persia in the middle of the ninth century, and died in Baghdad in 932 A.D. In the early days he studied physics,

alchemy and music, and was a most accomplished lute player. He was a friend of the aged dean of pharmacists at his local hospital, one Adudu'd-Dawla and was for ever questioning him on matters of medicine. His interest in medicine became so fierce that at the age of 40 he began his medical studies under Ali-ibn-Rabban (the author of "The Paradise of Wisdom"). He read the Greek, Roman and Hindu authors and rapidly became a successful physician. He took the post of chief physician to the hospital in his own town, and there himself taught students. In the *Fihrist*, the author writes, "I remember a man of Ra telling me that Rhazes was a serious old man with a large drooping head who seated his pupils in rows according to their grades and attainments. First, he would call upon the lowest class to examine a patient, and if they failed to diagnose the ailment, the next, and then the next would be tested, and only after the malady had eluded the knowledge of all his disciples did it come to the master's attention."

Later in life he was called to be chief physician of the new hospital in Baghdad. It is said that Rhazes was chosen for this post out of 50 applicants, and if this is true it throws light on the flourishing state of medicine. There is a well-known story of how when Rhazes was asked to choose a site for the hospital, he hung pieces of raw flesh about the town and chose the place where the meat resisted putrefaction longest.

There is the hospital at Baghdad—the finest perhaps in the world at that time—he practised, taught, and wrote. He was a prolific writer, and his works, by no means all of which were medical, number about two hundred.

Kitábul-Mansúri (the 'liber Almansoris' or the 'Almansor' of the Latin world), the first important book from his pen was dedicated to Al-Mansur, the ruler of his native province Khorassan; it was an encyclopaedic medical work in ten volumes largely drawn from the works of Galen, Hippocrates, Oribasius, Aetius, Paulus Aegineta, and devoid of much original work. It is interesting because its systematised encyclopaedic method of presentation was a forerunner to the method used by Avicenna in his great 'Canon', and because Rhazes' own magnum opus has often been criticised on the ground that he, Rhazes, could not be scientific in classification as was Avicenna. The ninth book on the treatment of diseases was particularly popular in the

middle ages and was widely used as a textbook.

"It was during an evening in the house of a virtuous man", writes Rhazes in the preface to his treatise on Small-pox and Measles, "who happened to be a prominent patron of the dissemination of useful science, that Small-pox was mentioned. I discoursed on the subject as far as my recollection permitted me that evening. My good friend, may Allah prolong his life, entreated me to compile an exhaustive and elaborate treatise on Small-pox, for he failed to find anything written on the subject until that time—either modern or ancient. So I have written this treatise in the hope of gaining the favour and the reward of the Almighty". The book contains excellent clinical descriptions, and there breathes in it a vigorous spirit of observation. It was one of the first treatises on a particular disease, and because of it Rhazes' reputation has become enhanced. Although today we might differentiate more accurately between the two diseases we could add little to Rhazes' description of the clinical picture.

Great as have been the claims for the originality of this book, Rhazes himself showed great humility and honesty in giving the credit to Galen. "Any physician," he says, "who claims that the good Galen did not mention Small-pox is mistaken. Such a person has either not read Galen's works at all, or if he has read them, his reading was very careless." But then Rhazes was a man of great honesty and humility as a quotation from 'Upon the circumstances which turns the heart of Most Men from Reputable Physicians', may show.

"Among those factors which make intelligent men turn away from the physician and place their trust in imposters, is the delusion that the physician knows everything and requires to ask no questions. If he inspect the urine or feel the pulse, he is supposed to know what the patient has eaten and what he has been doing. This is lying and deception and is only brought about by trickery, to artful questions and speech, through which the senses of the public are deceived. Many hire men and women to find out all the circumstances of the patient and report what is told them by servants, friends, and neighbours. I myself, when I began to practise medicine, resolved to ask no questions, later when it was seen that I made circumstantial enquiries, my reputation sank. When the

patient sees that the physician is in doubt concerning his cure" (he is speaking here of a minor ailment) "he draws it as a certain inference that the physician will understand still less of a severer or more extensive illness. This is a false analogy. The symptoms of such diseases are less obvious because they are slighter deviations from the normal, and their cure is more difficult because no drastic remedies can be applied. An official once complained of a difficulty in moving some of his finger-joints on account of a hard, but very small sore that had for some time resisted the remedies he had applied. He openly reviled the physicians, saying, 'If your art does not suffice to cure the small sore on the fingers, how can you treat broken ribs and arms?' He then sought treatment from women and from the vulgar."

The work upon which Rhazes' fame is chiefly based is the "Contiens" or "Al-Hawi". It was a huge compilation of fact running into 20 or 30 volumes. Its great merit lay in its originality and in its comparative freedom from Greek and Roman influence. Its style was difficult, and it lacked system and clarity, but this, it is generally thought, was due to the fact that it was compiled after his death by his students. Here are contained all his clinical notes, and here is the evidence of the wise and human mind that earned for him the title of the "Greatest clinician of the world of Islam". One example suffices to show how Rhazes laid emphasis on case history, on symptoms and signs, and how he made differential diagnosis and avoided theoretical speculation.

"Abdu'llah ibn Sawada used to suffer from attacks of mixed fever, sometimes quotidian, sometimes tertian, sometimes quartan, and sometimes recurring once in six days. These attacks were preceded by a slight rigor, and micturition was very frequent. I gave it as my opinion that either these excesses of fever would turn into quartan, or that there was ulceration of the kidneys. Only a short while elapsed ere the patient passed pus in the urine. I thereupon informed him that these feverish attacks would not recur, and so it was.

The only thing which prevented me at first from giving it as my definite opinion that the patient was suffering from ulceration of the kidneys was that he had previously suffered from tertian and other mixed types of fever,

and this to some extent confirmed my suspicion that this mixed fever might be from inflammatory processes which would tend to become quartan when they waxed stronger.

Moreover the patient did not complain to me that his loins felt light a weight depending from him when he stood up; and I neglected to ask him about this. The frequent micturition also should have strengthened my suspicion of ulceration of the kidneys, but I did know that his father suffered from weakness of the bladder and was subject to this complaint, and it used likewise to come upon him (that is the patient) when he was healthy, and it ought not to be the case henceforth, till the end of his life, if God will.

So when he passed the pus I administered to him diuretics until the urine became free from pus, after which I treated him with terra sigillata, Boswellia thurifera, and dragon's blood, and his sickness departed from him, and he was quickly and completely cured in about two months. That the ulceration was slight was indicated to me by the fact that he did not complain to me at first of weight in the loins. After he passed pus, however, I enquired of him whether he had experienced this symptom and he replied in the affirmative. Had the ulceration been extensive, he would of his own accord have complained of this symptom. And that the pus was evacuated quickly indicated a limited ulceration. The other physicians whom he consulted besides myself, however, did not understand the case at all, even after the patient had passed pus in his urine."

A whole paper could be written upon Rhazes, upon his scholasticism, industry, observation, humanity and insight, all of which carried him above his contemporaries, whose medicine at the best was inspired by the Ancients, and at the worst—well, for that, let Rhazes himself speak.

"There are so many little arts used by Moutebanks and Pretenders to Physick, that an entire treatise, had I a mind to write one, would not contain them: but their impudence, and daring boldness is equal to the guilt and inward conviction they have of tormenting and putting persons to pain in their last hours, for no reason at all. Now some of them profess to cure the Falling-Sickness, and thereupon make an issue in the hinder part of the head, in form of a cross, and pretend to take something out of the opening, which they held all the while in

their hands. Others give out, that they can draw snakes or lizards out of their patients noses, which they seem to perform by putting up a pointed iron probe, with which they wound the nostrils, 'till the blood comes: then they draw out the little artificial animals composed of liver, etc. Some are confident, they can take out the white specks in the eye. Before they apply the instrument to that part, they put a piece of fine rag into the eye, and taking it out with the instrument, pretend it is drawn immediately from the eye. Some again undertake to suck water out of the ear which they fill with a tube from their mouth, and hold the other end to the ear, and so spurting the water out of their mouths and pretend it came from the ear. Others pretend to get out worms, which grow in the ear, or roots of the teeth. Others can extract frogs from the under-part of the tongue; and by lancing make an incision into which they clap in the frog, and so take it out. What shall I say of bones inserted into wounds and ulcers, which, after remaining there for some time, they take out again? Some when they have taken out a stone from the bladder, persuade their patients, that still there's another left; they do this for this reason, to have it believed, that they have taken out another. Sometimes they probe the bladder, being altogether ignorant and uncertain, whether there be a stone or no. But if they don't find it, they pretend at least to take out one they have in readiness before, and show that to them. Sometimes they make an incision in the anus for the piles, and by repeating the operation often bring it to a fistula, or an ulcer, when there was neither before. Many things of that nature do they get out, which these imposters with great dexterity have put in; tending many times to the endangering of the health of their patients, and often ending in the death of them. Such counterfeits could not pass with discerning men, but that they did not dream of any fallacies, and made no doubt of the skill of those whom they employed: till at last when they suspect, or rather look more narrowly into their operations, the cheat is discovered. Therefore no wise men ought to trust their lives in their hands, nor take any more of their medicines, which have proved so fatal to many."

In old age Rhazes went blind and refused operation saying "No, for I have seen so much of the world, that I am weary of it".

Abn Ali Husan ibn Abdullah ibn Sina, known to Western Europe and to all of you as Avicenna was the most celebrated Islamic physician of the 11th century, and an intellectual prodigy. Born in 980 and brought up in places that we think exist only in poetry, he led his life like the leading character in a fantasy by Flecker, and when work, worry, wine and women had sapped every ounce of energy in his body he died in the year 1037. "Perhaps never before or since has there been

freedom of a prince's library. To celebrate his coming of age he published a 20-volume encyclopaedia.

When he was 24 he went to Khiva—"Lone Khiva in the waste"—but had to leave there to escape from being kidnapped by the Sultan Mohmūd of Ghazna. He wandered in search of a post to Jurján where Qúbús reigned—for he had heard of his patronage of learning. But at Jurján the murder of that Prince coincided with his arrival and he had



*A Medical Consultation. Miniature taken from a MS. of Rhazes "Contineus" in the Bibliothèque Nationale.*

so precocious, so facile and so wide an intelligence united with such extended and indefatigable energy."

At the age of 10 he knew the Koran by heart, before the years of puberty were passed he had acquired a miraculous knowledge of the ancient authors and had studied philosophy, logic, law and mathematics. When he was 16 he took up the study of medicine. In two years he was a famous physician; had treated royalty and had been given the

to move on. He moved to the Court of Amir Shamsūd-Dawla of Hamadán, cured him of the colic and was created Chief of Vizier. A strong military uprising caused his deposition and he found himself in gaol—once again the Amir suffered colic, once again he was Vizier. And so that sparkling stone rolled about the courts of Araby, gathering experience and fame.

"At home of nights by lamplight I read and I wrote, and when I grew so sleepy that

I felt my powers of work were failing me. I drank a glass of wine to restore my energy and resumed my labours. When at last I fell asleep I was still so full of my studies that often on waking I found problems which had perplexed me had been resolved during slumber." And all the time he was studying and writing by night he was obsessed with the cares of State and lecturing by day and satisfying his less refined senses at any or all times. "All his philosophy could not make him moral, nor all his physic teach him to preserve his health."

Later in life he settled at Ispahan and then at Teheran, there devoting himself to science. By the age of 58 his body could stand the pace no longer and since his physic could not save his body, nor his metaphysic his soul, they departed.

The writings of Avicenna were numerous and invaded all branches of learning. Authorities are at variance as to the actual number of his works, but 50 would be a conservative estimate, and several of these were in many volumes. Many were on theology and metaphysics, a large number on medicine, many more on astronomy and natural philosophy, and yet others in verse. Indeed, half his medical books were in verse, but these must count as the least significant in that branch of his learning. His poetry must not be underestimated, however, for it was, and still is, highly esteemed in the East. Omar Khayam must (according to some authorities) surrender at least one verse to Avicenna.

"Up from Earth's Centre through the  
Seventh Gate  
I rose, and on the Throne of Saturn sate,  
And many a knot unravelled by the Road,  
But not the Master-Knot of Human Fate."

One book only demands attention, that is the great Canon or Qânûn of which it might be said, it was the medical guide book of Europe from the 12th to the 17th century. It was the longest and most famous book that ever came out of Araby. A product of a clear and systematising mind that divided and sub-divided the book until the whole of medical knowledge fell within a composite plan. A book of drugs arranged alphabetically, a book of diseases of particular organs arranged from the head to the feet and so on. It was this simplification together with Avicenna's great fame in all the fields of learning that created the immense popularity which the book enjoyed: of almost

oracular nature and beyond question correct. Nizâmî-i-Arûdî of Samarkand wrote—"All this together with much more is to be found in the Qânûn, and from him who hath mastered the first volume thereof, nothing will be hidden concerning the general theory and principles of medicine, so that could Hippocrates and Galen return to life it would be proper that they should do reverence to this work."

In the Qânûn there is not the understanding and physicianly approach of Rhazes, but the clear dissected system of medicine. In contrast to a quotation from the Al-Hawi of Rhazes, here is one from Avicenna. Up to the time of the Islamic physicians, meningitis had been confused with acute affections accompanied by delirium. Avicenna defines it as follows:

"Acute sersâm is an inflammation or tumour of the envelopes of the brain. The prodromata of this disease consist of headache, disturbed sleep and mental depression without cause. As soon as the process becomes localised in the meninges, the first symptoms developing are restlessness, violent headache and pain in the neck. Occasionally there is Epistaxis and slight incontinence of urine. When the disease has fully developed all hope of cure is vain. There is intense fever and mental depression, and the patient remains perfectly silent and indifferent to what is said to him. Respiration is rapid and irregular; the thoracic movements are, however, ample and deep; localised or generalised convulsions occur; sleep is disturbed and accompanied by extreme restlessness and hallucinations, the patient cries out and is unable to bear light. At the terminal phase of the disease, the tongue becomes paralysed and insensibility is general; if the patient be touched with an instrument, even with considerable pressure, he feels nothing; finally the limbs become cold and the patient dies from asphyxia."

It would not be fair to infer from these quotations that all of Avicenna's work was as one and all of Rhazes' as the other, but in an unfair way they draw out the difference between these two great Islamic physicians. Rhazes was an imaginative man, Avicenna a logical thinker; Rhazes a clinician, Avicenna a systematist who saw in the individual patient what was true to type and like Galen he was always aiming to produce a water-tight system that might free the mind from doubt and exclude the hopeless groping

in the dark. In the hand of Avicenna medicine became a huge, unified, circumscribed, logical edifice embracing the whole of Greek and Arabian knowledge. Perhaps the whole difference is best summed up by saying "Rhazes was a better physician than philosopher, Avicenna a better philosopher than physician".

Avicenna and Rhazes are the supreme examples of the masters of Islamic medicine. There were many others whose names were great, and who were famous in their times. Time and space is less kind now than fame and honour was then, and a list of the great names that might otherwise escape notice must suffice. Alî ibn Rabbam was one of the earliest independent Arabic medical thinkers and wrote a well-known book "Paradise of Wisdom"; he also needs mention as a teacher of Rhazes. Alî ibnû'l Abbâs (Hali Abbas), wrote the Malikî, or as it was known in Europe the (Liber Regius), and this book enjoyed great popularity until Avicenna's Qânûn usurped its position. There was Abul Hasan, and Ahmed ibn Abî'l-Ash'ath who wrote one of the earliest known manuscripts of Arabian medicine. There was ibn Buttan, author of several books and Dean of the Hospital at Antioch. And in Spain that other outpost of Moslem learning, that has somehow escaped mention there was Abul Kasin Az Zahrawi well known in Europe as Albucasis, who lived in the 10th century and was perhaps the greatest of all the Arabian surgeons. And there was, too, Ibn Zuhr, better known as Avenzoar, author of At-Taisir and the greatest clinician from the Western Provinces of Islam. He was, to the West, what Rhazes was to the East. Ibn Tufail, statesman, philosopher, poet, physician and chancellor in the Court of the Caliph Yusuf and ibn Rashîd (Averroës) were other names that were famous in the realms of Arabic medicine.

The practice of medicine in the time of the great Abbassid Caliphs needs attention and a random selection of cases, stories and anecdotes substantiates what has been written of places and persons.

Firstly a word about examination. This habit was not acquired until the year A.D. 931 when the Caliph enforced an order that none should practise medicine in Bagdad, unless he was able to satisfy Sinân ibn Thâbit of Harrân of his competence and efficiency. That the examination was not always of a very searching character is shown by the

following incident. "Amongst the practitioners who presented themselves before Sinân was a dignified and well-dressed old man of imposing appearance. Sinân accordingly treated him with consideration and respect, and addressed to him various remarks on the cases before him. When the other candidates had been dismissed, he said, 'I should like to hear from the Shaykh something which I may remember from him, and that he should mention who was his Teacher in the Profession.' Thereupon the old gentleman laid a packet of money before Sinân and said, 'I cannot read or write well, nor have I read anything systematically, but I have a family whom I maintain by my professional labours, which, therefore, I beg you not to interrupt.' Sinân laughed and replied, 'On condition that you do not treat any patient with what you know nothing about, and that you do not prescribe phlebotomy or any purgative drug save for simple ailments.' 'This', said the old man, 'has been my practice all my life, nor have I ever ventured beyond oxymel and jalap'. Next day a well-dressed young man of pleasing and intelligent appearance presented himself. 'With whom did you study?' enquired Sinân. 'With my father,' answered the youth. 'And who is your father?' asked Sinân. 'The old gentleman who was with you yesterday,' replied the other. 'A fine old gentleman!' exclaimed Sinân; 'and do you follow his methods? . . . Yes? . . . Then see to it that you do not go beyond them!'"

And now a word from Hali Abbas the author of the Malikî. It concerns the importance of regular attendance at the hospitals and throws some light on their methods of teaching.

"And of those things which are incumbent on the student of this Art are that he should constantly attend the hospitals and sick-houses; pay unremitting attention to the conditions and circumstances of their inmates, in company with the most acute professors of Medicine; and enquire frequently as to the state of the patients and the symptoms apparent in them, bearing in mind what he has read about these variations, and what they indicate of good or evil. If he does this, he will reach a high degree in this Art. Therefore it behoves him who desires to be an accomplished physician to follow closely these injunctions, to form his character in accordance with what we have mentioned therein, and not to neglect them. If he does

this, his treatment of the sick will be successful; people will have confidence in him and be favourably disposed towards him; he will win their affection and respect and a good reputation; nor withal will he lack profit and advantage from them. And God Most High knoweth best."

It would not be right to give no indication of the scale of fees charged by these physicians. Like most things, in the East, they seem to have been somewhat exorbitant and slightly unbelievable. Al-Qifí speaks of an eminent physician Yichú "Who received out of public funds a monthly salary of 10,000 dirhams, and from the Privy Purse 50,000 dirhams at the beginning of each year, besides clothes to the value of 10,000 dirhams. For bleeding the Caliph Hárúnu'r-Rashíd twice a year he was paid 100,000 dirhams, and an equal sum for administering a biennial purgative draught. From the nobles of the Court he received in cash and kind 400,000 dirhams a year, and from the great Barmecide family 1,400,000 dirhams. According to al-Qifí's computation, the total amount which he received in these ways, apart from what he earned privately from lesser patients, during his 23 years' service of Hárúnu'r-Rashíd and his 13 years' service of the Barmecides, amounted to 88,800,000 dirhams, a sum equivalent to more than three and a half million pounds."

There was, then, in Araby a great interest in matters medical in all classes of the people, and amongst Arabic literature there are to be found collections of quaint anecdotes called Nawádir. Amongst these tales are many whose reference is directly to medicine and the men who practised it. For the truth of these tales no one can vouch, but they are at least in part historical and give some account of medical practice as seen from the other side of the fence. There is only time to recount a very few. Many of them were grotesque stories of parasitic invasion and of the therapeutic value of vipers and locusts such as the story supposedly related by Rhazes. It is told by a man named Abu Ali Umar ibn Yahya al'Alawi, and concerns a fellow pilgrim of his from Kúfa, who suffered from dropsy and was kidnapped, along with his camel, by Arab marauders. "One day his captors entered the hut where he was lying, bringing some snakes which they had caught, and which they proceeded to roast and eat after they had cut off their heads and tails. He, hoping that this unaccustomed

food would poison him, craved a portion and ate it, when, after falling into a deep sleep and waking in a copious perspiration found that he was quit of his dropsy."

And another story along the same lines is that "of a boy who suffered from violent pains and throbbing in the stomach, for which no cause or cure could be found, although he was examined by many physicians. Finally he was sent home, and there a passing physician cross-examined him at length, and discovered that his ailment dated from a day when he had eaten pomegranates stored in a cowhouse. The physician next day brought him broth, made with the flesh of a fat puppy, and bade him take as much of it as he could, while refusing to make known its nature. Then he gave him to eat a quantity of melon, and two hours later beer mixed with hot water, after which he informed him how the broth had been prepared. Thereupon the patient was violently sick, and in his vomit the physician presently discovered "a black thing like a large date stone which moved", and which proved to be a sheep or cattle tic which had entered the pomegranate, been accidentally swallowed by the boy and attached itself to the coats of his stomach, from which it was induced to detach himself by being presented with a more attractive substance."

There are other stories, demonstrating elementary methods of psycho-therapeutics and some of these have become so well known in Arabic literature as to have found their way into poetry and tales of romance. In one anger is employed in the treatment of rheumatism.

"The great physician Rhazes was summoned to Transoxiana to attend the Amir Mansúr, who was suffering from a rheumatic affection of the joints which baffled all his medical attendants. On arriving at the Oxus, Rhazes was so much alarmed at the small and fragile appearance of the boat in which he was invited to embark that he declined to proceed further, until the King's messengers bound him hand and foot, threw him into the boat, and carried him across by force, though otherwise they treated him with the utmost respect and even apologised for the use of violence, begging him to bear them no grudge. Rhazes assured them that he harboured no resentment and explained the motive of his resistance. "I know," said he, "that every year many thousands of persons

cross the Oxus safely, but, had I chanced to be drowned, people would have said, 'What a fool he was to expose himself to this risk of his own free will'. But, being carried across by force, had I then perished people would have pitied, not blamed me."

On reaching Bukhárá he tried various methods of treatment on the Amir without success. Finally he said to him, "Tomorrow I shall try a new treatment, but it will cost you the best horse and best mule in your stables." The Amir agreed and placed the animals at his disposal. Next day Rhazes brought the Amir to a hot bath outside the city, tied up the horse and the mule, saddled and bridled, outside, and entered the hot room of the bath alone with his patient, to whom he administered douches of hot water and a draught which he had prepared "till such time" says the narrator, "as the rumours in his joints were matured. Then he went out, put on his clothes, and, taking a knife in his hand, came in, and stood for a while reviling the Amir, saying, "Thou didst order me to be bound and cast into the boat, and didst conspire against my life. If I do not destroy thee as a punishment for this, my name is not Muhammad ibn Zakariyyá." The Amir was furious, and partly from anger, partly from fear, sprang to his feet." Rhazes at once fled from the bath to where his servant was awaiting him outside with the horse and the mule, rode off at full gallop, and did not pause in his flight until he had crossed the Oxus and reached Merv, whence he wrote to the Amir as follows:

"May the life of the King be prolonged in health and authority. Agreeably to my undertaking I treated you to the best of my ability. There was, however, a deficiency in the natural caloric, and this treatment would have been unduly protracted, so I abandoned it in favour of psychotherapeutics, and, when the peccant humours had undergone sufficient coction in the bath, I deliberately provoked you in order to increase the natural caloric, which thus gained sufficient strength to dissolve the already softened humours. But henceforth it is inexpedient that we should meet."

The Amir, having recovered from his anger, was delighted to find himself restored to health and freedom of movement, and caused search to be made everywhere for the physician, but in vain, until on the seventh day his servant returned with the horse and mule and the letter cited above. As Rhazes

persisted in his resolution not to return, the Amir rewarded him with a robe of honour, a cloak, a turban, arms, a male and female slave, and a horse fully caparisoned, and further assigned to him a yearly pension of 2,000 gold dinárs and 200 ass loads of corn."

In the Qánún Avicenna classifies Love as a mental disease, and says that a state of the pulse can often lead the physician to an understanding of this ailment. The great mystical poet Jalálu'd-Dín Rúmí (The Dante of Persia) tells us a tale on this theme.

"A King, while out hunting, saw a very beautiful girl, fell in love with her, and married her. To his great distress she forthwith sickened, nor could the physicians summoned to her bedside alleviate her malady or assuage her suffering, because, when assuring the king that they could cure her, they omitted the saving clause (istithná) 'Please God.' Hence all their drugs produced the opposite effects to those intended and desired; oxymel only increased her biliousness, and myrobolans desiccated instead of relaxing. Finally, in answer to the King's prayers, a 'divine physician' appears, and, after a careful examination of the patient, announces that the treatment hitherto pursued has been wholly mischievous and based on a wrong diagnosis. He then asks to be left alone with the patient and proceeds to question her about the towns where she has previously lived, since, he explains, treatment varies according to place of origin or sojourn. While talking to her about her past history he keeps his finger on her pulse, but observes no sign of emotion until Samarquand is mentioned, and again later at the name of the Sar-i-pul or "Bridge-end" quarter and the street called Ghátáfar. In short he finally discovers, in precisely the way indicated by Avicenna, that she is in love with a certain goldsmith living in that quarter of Samarquand. Thereupon, having reassured her and promised her recovery, he instructs the King to send messengers to Samarquand to invite the goldsmith to his court and offer him handsome remuneration. The unsuspecting goldsmith comes blithely, flattered by the King's gracious words, fine gifts and fair promises, and on his arrival, by the 'divine physician's' instructions, is married to the girl, who in the course of six months recovers her health and good looks. Then the physician begins to administer to the goldsmith a slow poison which causes him to become 'ugly, displeasing and sallow'.

so that the girl wearies of him before his death, which is not long delayed, places her once more at the disposal of the king, whose bride she now becomes." The allegorical meaning of the outwardly immoral story is obscure.

One last anecdote, once again told of Avicenna. This time a cure for melancholia

"A certain prince of the House of Buwayh was afflicted with melancholia and suffered from the delusion that he was a cow. 'Every day', says the author, 'he would low like a cow, causing annoyance to everyone, and crying, "Kill me, so that a good stew may be prepared from my flesh"; until matters reached such a pass that he would eat nothing, while the physicians were unable to do him any good.' Finally, Avicenna, who was at this time acting as Prime Minister to Dawla ibn Kákúya, was persuaded to take the case in hand, which in spite of the pressure of public and private business, political, scientific and literary, with which he was overwhelmed, he consented to do. First of all he sent a message to the patient bidding him be of good cheer because the butcher was coming to slaughter him, whereat, we are told, the sick man rejoiced. Some time afterwards, Avicenna, holding a knife in his hand, entered the sick-room, saying, 'Where is this cow, that I may kill it?' The patient lowed like a cow to indicate where he was. By Avicenna's orders he was laid on the ground bound hand and foot. Avicenna then felt him all over and said, 'He is too lean, and not ready to be killed; he must be fattened.' Then they offered him suitable food, of which he now partook eagerly, and gradually he gained strength, got rid of his delusion, and was completely cured." The narrator concludes, "All wise men will perceive that one cannot heal by such methods of treatment save by virtue of pre-eminent intelligence, perfect science, and unerring acumen."

Amongst all these tales are many wise aphorisms. The words of one in particular by an unknown physician strike a chord that rings with a perpetual truth. "Know that I and thou and the disease are three factors mutually antagonistic. If thou wilt side with me, not neglecting what I enjoin on thee and refraining from such foods as I shall forbid thee, then we shall be two against one and shall overcome the disease."

There are other sources that can be tapped to learn of the state of medicine, and amongst these are some most interesting biographical notes. In particular, there are some by the Amir Usáma, who lived at the time of the Crusades, and whose pictures of medicine at that time are both instructive and amusing. In the intervals of peace and even during the emergencies of war, there was a good deal of exchange of physicians, and the reports upon their relative knowledge and practice make excellent reading. But there is no time to quote these now, and it must be enough to tell of their existence. They contain more truth than the anecdotes, but this story has been more concerned with capturing the spirit in which Medicine was practised than in detailing a state of knowledge, and it is felt that anecdotes fit better into the pattern than would these stories of Usáma.

While Avicenna still lived, Europe was waking from five centuries of sleep and superstition, and she woke thirsty for knowledge. Constantine, the African, wandered through Araby, and with his acquired learning settled at Montecassino, and there set about translating Arabic works into Latin. At the medical school at Salerno, and through the endeavours of such men as Gerbert of Aurillac, or, as he later became, Pope Sylvester II, the knowledge of the Arabs began to be disseminated through Western Europe. And so the cycle is completed.

An attempt has been made to show how, with the decline of the Roman Empire, came the parting of the ways for Greek and Roman medicine: how the Church triumphed in the Roman world, and monastic medicine held sway from the 5th to the 9th century; how, while the West lay content in contemplation of the celestial world, there stirred in Arabia a spirit that sprang to life in the 7th century, and by its fierceness took the Saracen horde through half the world, creating the realms of Islam; how, amidst the splendour and poetry of the Courts of the Caliphs, there came first an era of acquisition and accumulation of knowledge through translation, and then an era in which Arab physicians came to lead the world in medicine; and lastly, how the wheel turned past its height and medical learning once more came back to Europe. It is a complete tale, a round tale, a tale of a journey that medicine took when she strayed into Araby, rested and returned.

## THIS ENGLAND

As a torrent from the highland comes stemming down the years  
Each drop of England's heritage was wrought in blood and tears,  
And every bond and charter wherein our freedom lies  
Was hammered on the walls of time with nails of sacrifice.

The mighty stones of Avebury stand up to tell their tale  
Of ancient priests who darkened the doorways of the frail,  
Then foundered in the silent flood that leaves these nameless things  
Like brutal battered effigies of long-forgotten kings.

The roads ran out like flaring weals across this little land  
To bring the warring eagles from their sunny southern strand;  
Now the bricks they slowly crumble and the grass is over all  
Where Romans shed their Roman blood and Hadrian flung the wall.

The likeness of some Wessex horse cut deep into the down  
Had seen the glinting armour and the black invader's frown;  
Yet windy heath and wood and fen each held a thousand eyes  
Of little men who rise again for every one that dies.

The Mark was set on England, and the fiery Cross was waved,  
And some were burned and branded, and many more were saved;  
When the faith had lost its fury and the ore had lost its heat  
The shining steel of Christian zeal lay forged at their feet.

When the ships of no returning from the cruel Nordic lands  
With their slaying and their sacking swept in across the sands,  
It was passing of the seasons that brought them to their knees  
Where the slow rivers wander by the mills among the trees.

When the stern avenging Spaniards brought out their fighting line,  
And the flaming beacons flickered up from Zennor to the Tync,  
Was it Drake or was it fortune in the wind that drove them forth,  
That tore among the tattered sails and swept them to the north?

Of all our island dangers two Queens have known the worst;  
On Elizabeth the Second falls the mantle of the First;  
The symbol of the sceptre, the glory of the crown,  
Have shared with common people their perils as their own.

For other storms have gathered and darker grows the sky,  
And blood red is the star above an eastern Calvary;  
But let this be remembered before that tomb is sealed—  
Not for nothing have we struggled; not for nothing shall we yield.

E. J. A. ALMENT.

## A CASE OF GAUCHERS DISEASE

### History

Phillippe Charles Ewert Gaucher first described a 'Primary Epithelioma of the Spleen' in 1882. In 1900, Bovaird of New York stated that Gaucher's Disease was not neoplastic but an endothelial hyperplasia in the spleen, liver and lymph nodes. In 1907, Schlagenhauer argued that the disease was a disorder of the reticulum cells of the lymphatic and haemopoetic systems. In the same year Moreland recognised the importance of the foreign substances in the production of the Gaucher cell. In 1916, Mendlebaum and Downey first suggested that the disease was a disturbance of lipid metabolism, and in 1924, Lieb and Epstein, by chemical analysis of a Gaucher spleen, showed that the lipid in the cell was Kerasin with some phosphatides.

### Aetiology

A disease of lipid metabolism in which the characteristic lipid is found in various parts of the body in a typical Gaucher cell. This cell is thought to arise from the reticulum cells of the Reticulo-Endothelial System. The condition is therefore classed among the reticuloses with such similar disorders of the lipid metabolism as Niemann-Pick Disease and the Hans Schuller Christian Syndrome.

### Discussion

Gaucher's Disease is a familial hereditary condition commoner in females in the proportion of 2:1. The disease is found in three types, which are not separate entities but differ only in the main site in which the deposits occur. They are:—

- i. The infantile type in which, in addition to the usual sites, the deposits are found in the pharyngeal tonsil and the Betz cells of the cortex. This form often produces a spastic paraplegia and is fatal in infancy. After the age of one year these tissues lose the ability to store Kerasin.
- ii. The bony type in which the main deposits are in bone. The usual sites are the femur and the tibia, the vertebrae and ribs. In extreme cases a pathological fracture may occur. In the vertebral column a vertebra may completely collapse and be followed by the union of the

two neighbouring intervertebral discs which are unaffected by the condition.

- iii. The type in which enlargement of the spleen and liver dominate the picture.

In addition to the signs mentioned above there are others which are commonly found. These are:—

- i. Deposits of Gaucher material in the deep lymph nodes; never in the superficial nodes.
- ii. Pingueculae due to thrombocytopoenia on the nasal side of the sclera, uncommonly on both sides.
- iii. Patches of yellow pigment in the skin mainly on the face, neck and hands. This does not occur in children.

There is no curative treatment for Gaucher's Disease but Splenectomy is often a good palliative measure. The indications for it are:—

- i. A severe degree of anaemia and thrombocytopoenia.
- ii. Interference with the function of other abdominal viscera by the enlarged spleen.
- iii. The good physical condition of a patient who is hampered by the gross weight of the spleen.

It has sometimes been observed that after splenectomy the bones become involved for the first time. The earliest sign of this is usually tenderness over the long bones and ribs. There is nothing to indicate that this involvement is caused by splenectomy.

Irradiation of the spleen produces only a temporary decrease in size.

### Prognosis

This is difficult to give except in the infantile type which is fatal in the second or third year. The density of the Gaucher deposits and the number of sites involved bear no relation to the prognosis. The whole process is extremely chronic and may continue for ten, twenty or thirty years. Death is usually due to intercurrent disease which is often pneumonia; in infancy it is caused by cachexia.

### The Patient

David G. Aged seven years. For the past three years his mother had noticed a gradual increase in size of his abdomen. In spite of the large abdomen David was symptom

free. He has led a normal active life and was captain of his football team.

### Past History

Birth weight—7 lbs. 14 ozs. Normal delivery.

Previous illnesses—Whooping cough, Measles. He catches colds easily. He has never been abroad.

### Family History

Mother and father both alive and well. They have no knowledge of a similar condition on either side of the family. David has a brother of 11 years and a sister of 7 months. Both are quite well.

### Examination

Weight—47 lbs. 9 ozs. Height—3ft. 10ins. Temperature and respiration normal.

A cheerful healthy looking boy with a distended abdomen. He was thin, but not abnormally so. The skin of the anterior abdominal and thoracic walls showed a number of bluish enlarged vessels. No 'caput medusae'. Umbilicus elliptical with long axis transverse. The whole abdomen was rounded but appeared slightly more so in the left upper quadrant. Abdominal reflexes—normal.

### Palpation

Whole of the left upper abdomen filled with a firm smooth tumour, not attached to the anterior abdominal wall. This tumour spread downwards and to the right from the left anterior costal margin. Two notches could be felt in its right border; one at the umbilicus and another midway between there and the costal margin. The tumour crossed the mid-line at the umbilicus. It did not move on respiration. Percussion showed the tumour to be continuous with the normal area of splenic dullness. Conclusion from the examination:—This tumour was a grossly enlarged spleen.

The liver was enlarged to two fingers breadths below the costal margin. It was smooth and firm. No bruit was heard over either enlarged organs.

### Urine

The first specimen showed a trace of albumen. Later—normal, except when David was taking aspirin, post operatively.

### Special Investigations

Bleeding time	—3 mins.
Clotting time	—9 mins. Control 11
Serum protein	—negative.
Serum bilirubin	—6.75 gm %.
Van den Bergh	—less than 0.2 mgm %.

E.S.R. —3 mm in first hour.  
 X-Rays of skeleton—no bony abnormality.  
 WR and Kahn —negative.  
 Red cell fragility —normal.  
 Hb —70% Haldane.  
 RBC—4,200,000. Reticulocytes 0.1%.  
 WBC—5,000. Distribution normal.  
 Oesophagoscopy and Sigmoidoscopy showed no varices.

### Differential Diagnosis

This consists of a consideration of those conditions which produce gross splenic enlargement.

- i. Chronic Congestive Splenomegaly or Banti's Disease.
- ii. The Reticuloses.
  - (a) Hodgkin's Disease.
  - (c) Gaucher's Disease.
  - (b) The Leukaemias.
  - (d) Follicular Lymphoma.
- iii. Blood Diseases.
  - (a) Polycythaemia Rubra Vera.
  - (b) Acholuric Familial Jaundice.
- i. There were no signs of portal hypertension. In this condition, splenic enlargement may develop before any anaemia but there is always a leukaemia.
- ii. (a) Hodgkin's Disease produces constitutional symptoms which are absent in this case. There is no involvement of lymph nodes at any of the typical sites.
  - (b) In the absence of any abnormal blood picture the leukaemias can be excluded. The one possible exception is Aleukaemic Leukaemia. Even with this condition it is unlikely that the blood count should remain normal for this length of time.
  - (c) Gaucher's Disease. This is the most likely diagnosis even in the absence of other signs.
  - (d) Follicular Lymphoma. This is the only neoplastic condition which produces a grossly enlarged spleen. The patient is out of the usual range of age incidence. There is, in addition, no involvement of superficial lymph nodes.
- iii. (a) Polycythaemia Rubra Vera can be excluded at once from the appearance of the patient and the red blood count.
  - (b) Apart from the large spleen there is no evidence of Acholuric Familial

Jaundice. David has never been jaundiced, has had no crises, and his red cell fragility is normal.

The diagnosis cannot yet be made with certainty but there are several procedures which would give the final answer. They are:—

- i. Splenic Biopsy.
- ii. Liver Biopsy.
- iii. Marrow Puncture.
- iv. Splenectomy.

Splenic Biopsy is dangerous owing to the ease with which the enlarged spleen may be made to bleed. Liver Biopsy is much safer

#### Treatment

Splenectomy by Mr. Hosford.

The spleen was smooth and pink. There was some free fluid in the peritoneal cavity. The Mesenteric Lymph nodes were slightly enlarged but not pathologically so. A liver biopsy was taken.

The spleen weighed 1.525 gm. Histologically the spleen and the liver showed the characteristic appearance of Gaucher's Disease.

We should like to thank Dr. Franklin for his permission to publish this case and for his help and encouragement in its preparation.

R. G. CHITHAM  
M. A. PUGH.

## MEDICINE AS RECORDED IN EDWARD BROWNE'S TRAVELS IN EUROPE

by JOHN L. THORNTON

The eldest son of Sir Thomas Browne (1605-1682) was born at Norwich in 1642, and was christened Edward. Educated at Norwich Grammar School and Trinity College, Cambridge, he graduated M.B. Cantab. in 1663. In 1664 he came to London and attended the lectures of Dr. Christopher Terne (1620-1673) at Barber Surgeon's Hall. Terne was Physician to Bart's, and in 1672 Edward Browne married his daughter Henrietta. Also in 1664, Edward Browne made his first trip to the Continent. At Paris he attended the lectures of Gui Patin (1602-1672) and other eminent teachers. In September he continued on to Montpellier, where he remained one month, before proceeding via Rome and Venice to Padua. In April 1665 he left Padua and retraced his steps.<sup>1</sup>

Edward Browne was elected a Fellow of the Royal Society in 1667, and the same year was awarded an M.D. at Oxford, but he resumed his travels in 1668. Journeying to Rotterdam from Yarmouth, he went on through Holland, Belgium, Germany, Austria and Hungary, spending some time in Vienna, before returning to England in 1669. He made a final trip to Cologne and the Low Countries in 1673.

Brown was elected a Fellow of the College of Physicians in 1675, and later

served as Treasurer (1694-1704), and as President (1704-1708). He was appointed Physician to St. Bartholomew's Hospital on September 16, 1682, supported by a letter from the King, and held office until his death on August 28, 1708, at Northfleet, Kent, where he was buried.

Son of the eminent author of *Religio medici*, Edward Browne was himself well-read and keenly interested in everything he saw. During his travels abroad, letters from his father told him what to look for, and proved a constant source of good advice. Edward's journals recording his travels are of great interest, and the following items of medical significance are gleaned from two works published together in 1685 and 1687, contained in a volume in the Library.<sup>2</sup> There were also Dutch and German translations.

The *Travels in Hungary*, published in 1673 contains little of medical interest, but Browne mentions the daily practice of the physician at Procupie, in Bulgaria:

"They had also a physician, who had some knowledge of simples, and ordinary compositions. His manner was to go into the market-place every morning, and to invite all persons who stood in need of his assistance, to resort unto him."

At St. Veit or St. Faith, formerly the chief city or Corinthia, and situated on the confluence of the Rivers Glan and Wunich, he mentions the prevalence of goitre, and also the association of the city with acute chorea, popularly known as Sydenham's chorea, or St. Vitus's Dance:

"We stayed at St. Veit, and had the divertisement of a Latine comedy at the Franciscan Convent, it was in May when the higher hills were covered with snow, but the lower were all green, full of fire and larch trees, it thundred and lightned very much, and as soon as it began they rang their Bells. Many here have great throats, some as big as their heads, many are blind, divers dumb and fools withall; without the town there is an hospital for such as have lost their voice, their wits, or are otherwise oppressed by their throats, many of them cover their throats, which otherwise are ill complexioned in cold weather. Men and women have them, the better sort of people which live well drink wine and good beer, are less subject to them. I saw bigger throats in these parts, then any I had observed in the Alpine parts of Savoy.

St. Veit whose name this place beareth was a zealous Christian who laboured much in the conversion of these parts, and was persecuted under Diocletian. Many churches and towns do carry his name in other parts of Europe, and the people have an opinion of St. Veit in the curing of that dancing disease called Chorea Sancti Viti."

At Clagenfurt, Edward Browne encountered a system of rough justice that was a little hard on the suspect:

"Among the odd customs of Corinthia there is an old one delivered of this place, that if a man were vehemently suspected of theft, they hanged him, and three days after judged of the fact; if he were found guilty they let his body hang till it be corrupted, if otherwise, they took down the body, buried it upon the publick account, and said prayers for his soul."

Edward Browne's second volume of travels deals with his experiences in Holland, Germany and Austria, where he met several eminent men, and records his visits to places of medical interest. At Leyden he visited the schools of anatomy:

"In the Anatomy Schools are a very great number of skeletons. Two legs of an elephant. The skeleton of a young whale, of a horse, deer, cow, cat, fox, and many

other animals; divers skeletons of men and women, some bodies preserved with their muscles, and one intire, the flesh, skin, and all parts defended from corruption. I saw also here what Monsieur de Bils\* pretended towards the preservation of bodies, but more accurately afterwards at Dr. Ruisch's house at Amsterdam. The Physick-garden, although but small, is well filled with plants, where are also many other both natural, and artificial curiosities to be seen, and many sorts of optick glasses."

At Haarlem he saw the home for aged men, and remarks on the cleanliness of the local hospital:

"The old mens house, or an hospital for sixty aged persons, is large and handsome; having a good quadrangle and a garden in it. The hospital also for the sick is very cleanly kept."

Amsterdam presented several interesting features, including hospitals for old men, for children, and for psychiatric cases:

"The *Weeshuis*, or Hospital for Children, where there are six-hundred orphans carefully looked after, and well educated.

The *Dolhuis*, or a house for such as are delirious, maniacal or melancholical of both sexes.

The *Gasthuis*, or Hospital for the Sick, being large, and hath a great revenue.

The *Mannenhuis*, or Hospital for old Men, and such as are no longer able to labour towards their own support."

"During my stay at Amsterdam, I had the opportunity of seeing divers learned men, and persons of note. Dr. Ruish† shewed us many curiosities in anatomy, as the skeletons of young children, and foetus's of all ages, neatly set together, and very white; the lymphatick vessels so preserved, as to see the valves in them. A liver excarnated, showing the minute vessels, all shining and clear. The muscles of children dissected, and kept from corruption: entire bodies preserved: the face of one was very remarkable, without the least spot or change of colour or alteration of the lineaments, from what might be expected immediately after death: he had then kept it two years, and hoped it would so continue. Dr. Swam-

\* Lodewyk de Bils (1624-1670).

† Frederik Ruysch (1638-1731), Professor of Anatomy at Leyden and Amsterdam, devised a method of injecting the vessels, which remains a secret.

merdam\* showed us divers of his experiments which he had set down in his treatise *De Respiratione*: and a very fair collection of insects brought from several countries; the Stagg fly of a very great bigness; an Indian scolopendria, or forty-foot; a fly called Ephemeron, and many other curiosities. Old Glawber† the chymist shewed us his laboratory; and we received much civility from Blasius\*\* the physick professor who hath wrote a comment upon Vestingius."

At the English Church at Utrecht, Browne found specimens of the "unicorn's horn", and mentions its supposed virtues as an antidote against poisoning:

"There are also three unicorns horns, little differing in length; the longest being five foot and a half: I drank out of one of them, the end being tipp'd with silver, and made hollow to serve for a cup. These were of the sea-unicorn, or the horn or long wreathed tooth of some sea-animal much like it, taken in the northern seas; of which I have seen many, both in public repositories, and in private hands. Two such as these, the one ten foot long, were presented not many years since to the King of Denmark, being taken near to Nova Zembla; and I have seen some full fifteen foot long; some wreathed very thick, some not so much, and others almost plain: some largest and thickest at the end near the head; others are largest at some distance from the head; some very sharp at the end or point, and others blunt. My honoured Father Sir T.B. hath a very fair piece of one which was formerly among the Duke of Curland's rarities, but after that he was taken prisoner by Douglas in the wars between Sweden and Poland, it came into a merchant's hands, of whom my Father had it, he hath also a piece of this sort of unicorns horn burnt black, out of the Emperour of Russia's repositorie, given him by Dr. Arthur Dee, who was son to Dr. John Dee, and also physician to the Emperour of Russia, when his chambers were burned, in which he preserved his curiosities. I have seen a walking staff, a scepter, a scabbard for a sword, boxes, and other

\* Jan Swammerdam (1637-1680), an early worker with the microscope, became renowned for his researches on entomology.

† Johann Rudolf Glauber (1604-1668), the eminent chemist.

\*\* Gérard Blasius [Blasius] (1626-1682), who achieved prominence for his studies in comparative anatomy.

curiosities made out of this horn, but was never so fortunate as from experience to confirm its medical efficacy against poisons, contagious discases, or any other evident effect of it, although I have known it given several times, and in great quantity. But of these unicorns horns no man sure hath so great a collection as the King of Denmark; and his father had so many, that he was able to spare about an hundred of them, to build a magnificent throne out of unicorns horns."

In Germany, Browne visited Altdorff, and mentions the Physick Garden there, and also the Anatomy School:

"The Physick Garden is handsome, and well stocked with plants, to the number of two thousand. Dr. Hoffman\* the Botanick and Anatomick Professour, shew'd me many of the most rare of them; and presented me with divers. The Anatomy School is not large; yet the only one in those parts of Germany; and they have divers curiosities preserved in it, as the skeleton of a hart, of a horse, of a man, of a bear bigger than a horse."

Passing on to Austria, Edward Browne made Vienna his headquarters for a considerable period, and the following observations were made during his stay there:

"During my stay at Vienna, I went unto a publick anatomy of a woman that was beheaded; the lecture lasted so long, that the body was nineteen days unburied. It was performed by a learned physician, Dr. Wolfstregel, who read in Latin to the satisfaction of all persons. What I most particularly observed therein was this, the pyramidal muscles very plain and large; the uterus larger than is usually observed; the cartilago ensiformis double; the lungs very black; the eye was very well shown: he produced an artificial eye of ivory, and another large one of pastboard and paper, contrived and made by himself; the muscles of the pharynx, larynx, os hyoides, and the tongue, after their dissection, he reduced very handsomely into their proper places again to shew their natural situation and position. The Anatomy-Theatre was of capacity to receive above an hundred persons; and according to the custome of other places, to avoid impertinent spectators, a piece of money was given for admission. Of anatomy-theatres; until of late, there have

\* Moritz H. Hoffmann (1622-1698).

been few in Germany, or none. And when I was in the Anatomy-School at Altorff [sic], near Nurenburg, that learned and civil professor, Dr. Mauritius Hoffmannus, told me that the same was the first in Germany."

"In treason and high crimes they cut off the right hand of the malefactor, and his head immediately after. I saw a woman beheaded sitting in a chair, the executioner striking off her head with a fore-blow, she behaved herself well, and was accompanied unto the market-place by the Confraternity of the Dead, who have a charitable care of such persons, and are not of any religious order, but lay men, among whom also in this place there are many fraternities and orders; as of the Holy Virgin, of the Holy Cross and others. Another person also executed after the same manner: as soon as his head fell to the ground, while the body was in the chair, a man ran speedily with a pot in his hand, and filling it with the blood yet spouting out of his neck, he presently drank it off, and ran away; and this he did as a remedy against the falling sickness. I have heard of some who have approved the same medicine; and heard of others who have done the like in Germany. And Celsus takes notice, that in his time some epileptical persons did drink the blood of the gladiatours. But many physicians have, in all times, abominated that medicine. Nor did I stay afterwards so long as to know the effect thereof, as to the intended cure. But most men looked upon it as of great uncertainty; and of all men the Jews, who suffer no blood to come unto their lips, must most dislike it.

At Presburg they have a strange way of execution, still used at Metz, and some other places, by a maid, or engine like a maid finely dressed up with her hands before her. The malefactor salutes her first, and then retireth. But at this second salute she openeth her hands and cuts his heart in sunder."

He also notes the custom of giving children trinkets at Christmas:

"They have a custome upon St. Nicholas-day to put some small gift into the childrens shoes; among other things they put in medals and dollars made of paper and flower gilded and silvered over, yet scarce worth a penny. They sell trochies or tablets in the markets, made of the pulpe of the fruit of hip-briar, made sharp with spirit of sulphur, very refreshing. Some carry about them a thunder-stone, as a defence again thunder; and they

rub their childrens gums with a wolfs tooth instead of coral."

Browne comments on the popularity of the Jewish physicians in Vienna:

"I have seen their circumcision at Rome, Padua, and other parts. Their physicians ordinarily profess great skill in urines; and the common people resort unto them rather than unto Christians, and are so credulous, and have such an opinion of them, that they might be made to believe they have some old receipts of King Solomon."

Finally, he makes some shrewd comments on the Germans as a nation, which have a modern ring, and stamp our traveller as a keen observer of human nature:

"Germany is a great hive of men, and the mighty destruction of men made by the last German wars, and by the plague is so repaired, that it is scarce discernible. They are fruitful, and full of children: they are not exhausted by sea, colonics sent forth, or by peopling American countries; but they have some consumption by wars abroad, when they be at peacc at home: few wars being made in other parts of Europe, wherein there are not some regiments of Germans; the people being naturally martial, and persons well descended, very averse from a trading course of life."

Although Edward Browne achieved high office in his profession as a physician, he contributed nothing original to its literature. Perhaps he was overshadowed by the fame of his eminent father; or maybe his extensive travels, and the duties of his various offices, left him little time for original research, apart from his early investigations into comparative anatomy. His travel books, however, were very popular during the years immediately following their publication, and remain as interesting records of the seventeenth century peregrinations of a person with an insatiable curiosity.

#### References

1. Browne, Edward. Journal of a visit to Paris in the year 1664, by Edward Browne. Edited by Geoffrey Keynes. *St. Bart's Hosp. Rep.*, 56, 1923, pp. 1-34; portrait.
2. Browne, Edward. *A brief account of some travels in Hungaria, Servia, Austria, Styria, Corinthia, Carniola and Friuli, [etc.]*. London 1673 [Keynes 509]. And, *An account of several travels through a great part of Germany in four journeys, [etc.]*. London, 1677 [Keynes 510].
3. Keynes, Geoffrey L. *A bibliography of Sir Thomas Browne, Kt., M.D.*. Cambridge, 1924.

## SPORT

**Cricket Results: 1st XI***Saturday, 1st May*

Bart's v. U.C.S. Old Boys—Lost.  
U.C.S. Old Boys 177 for 4 dec.  
Bart's 121 (A. Murley 31).

*Sunday, 2nd May*

Bart's v. London House C.C.  
Match Drawn—Rain.  
London House 132-5 Dec. (J. H. K. Taylor 3-42).  
Bart's 67-7.

*Saturday, 8th May*

Bart's v. R.A.M.C. C.C.  
Match Drawn.  
Bart's 99.  
R.A.M.C. 92-5 (F. Winton 4-25).

*Sunday, 30th May*

Bart's v. Riddells Rovers—Won.  
Riddells Rovers 82 (A. C. S. Bloomer 3-17,  
J. H. C. Taylor 3-9).  
Bart's 83-1 (J. R. Nicholson 43 not out,  
A. Murley 36 not out).

*Sunday, 9th May*

Bart's v. Hampstead C.C.  
Match Drawn.  
Bart's 196-6 Dec. (J. R. Nicholson 102  
not out, F. D. C. Ford 37 not out).  
Hampstead 127-7 (F. Winton 4-20).

*Sunday, 16th May*

Bart's v. Romany C.C.  
Match Drawn.  
Romany C.C. 175-9 Dec. (F. Winton 3-49).  
Bart's 117-8 (B. Gillett 32).

*Saturday, 22nd May*

Bart's v. Balliol College Oxford C.C.—  
Lost.  
Bart's 210-9 Dec. (A. P. Marks 59, D.  
Roche 36, D. Rosborough 39 not out).  
Balliol College 211-4.

## EXAMINATION RESULTS

## UNIVERSITY OF LONDON

## SPECIAL SECOND EXAMINATION

## March, 1954

Burles, P. G.  
Costley, S. R.  
Graham-Evans, J. N.  
Lemon, J. H.  
Martin, J. M.  
Simpson, K. I. D.  
Thomas, A. A.  
Watts, N. M.

Cochrane, T. D.  
Ellison, J. A.  
Grasset-Molloy, G. J. M.  
Lloyd, A. V. C.  
Parsons, D. F.  
Tallack, J. S. T.  
Thomas, S.  
Wilson, J. A.

Coltart, N. E. C.  
Garnham, J. C.  
Laurent, J. M.  
Marston, M. S.  
Plumptre, A. M. M.  
Thirlby, J. M.  
Tresidder, A. M.

CONJOINT BOARD  
FINAL EXAMINATION

## April, 1954

*Pathology*

Wyner, S. E. A.  
Brady, J. P.  
Graham, M. A. H.  
Ogden, W. S.  
Robinson, M. R.

Aldous, I. R.  
Clare, K. A.  
Bartlett, D. J.  
Smith, G. W. T.  
Barnes, J. M.

Bourne, W. R. P.  
Cunningham, G. A. B.  
Gawne, E. F. D.  
Winton, F. W.

*Medicine*

Wyner, S. E. A.  
Jones, H. D.  
Kneebone, J. M.  
Pagan, R. T.

Fieldus, E. R.  
Reid, K. M.  
Lindop, P. J.

Forget, P. Y. N.  
Kellett, P.  
Jones, A. R.

*Surgery*

Taylor, R. C.  
Lindop, P. J.  
Godwin, M. H.

Jones, H. D.  
Jones, A. R.  
Ogden, W. S.

Kellett, P.  
Cory-Wright, O. M.  
Smith, G. W. T.

*Midwifery*

Zilliacus, O. J.  
Jones, H. D.  
Mackay, A.

Fieldus, E. R.  
Reid, K. M.  
Godwin, M. H.

Forget, P. Y. N.  
Fletcher, L. O. A.

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

Jones, H. D.  
Lindop, P. J.

Reid, K. M.  
Jones, A. R.

Kellett, P.  
Godwin, M. H.

## FIRST EXAMINATION

## March, 1954

*Anatomy*

Costley, S. R.  
*Physiology*  
Costley, S. R.

*Pharmacology*

Graham, M. A. H.  
Ellis, C. D'A.  
Cairns, D. A. O.  
Arthur, T. I. F.

Nerney, J. M.  
Clare, K. A.  
McDonald, P.

UNIVERSITY OF LONDON  
M.D. EXAMINATION

## April, 1954

Turton, E. C.

## HOSPITAL APPOINTMENTS

The following appointments to the Medical Staff take effect from the dates indicated.

### Dr. Spence's Firm

Dr. Maurice F. Goodbody to be Junior Registrar for one year from the 1st July, 1954 (vice Mr. B. B. Reiss).

### Children's Department

Miss J. Cook to be Junior Registrar for one year from the 1st July, 1954 (vice Miss B. P. Melhuish)

### Department of Psychological Medicine

Dr. P. F. Johnson to be part-time Associate Chief Assistant (vice Dr. E. A. Burkitt).

### E.N.T. Department

Mr. R. F. MacNab Jones to be Senior Registrar for a period of four years from the 1st May, 1954 (subject to annual re-election).

### Ophthalmic Department

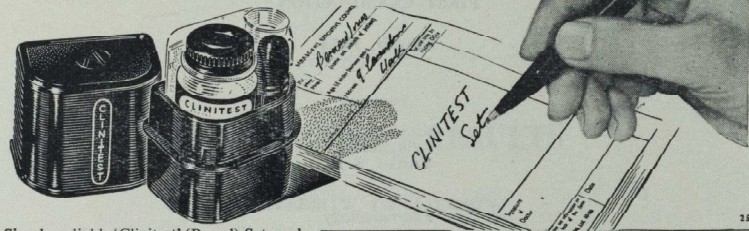
Mr. L. G. Fison to be Senior Registrar for a period of four years from the 1st June, 1954 (subject to annual re-election).

### Gynaecological and Obstetrical Department

Mr. J. D. Andrew to be Senior Registrar from the 1st April, 1954 (subject to annual re-election).  
Mr. G. Shawe to be Surgical Casualty Registrar for a period of one year from the 1st June, 1954.

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## BOOK REVIEWS

**ENDOCRINE DISORDERS IN CHILDHOOD AND ADOLESCENCE**, by H. S. Le Marquand, F. H. W. Tozer and W. J. Tindall. 2nd Edition. English Universities Press, 1954. pp. 332. 32/6.

The first edition of this book was pioneer work in a field which has developed and expanded tremendously since the time it was published. In addition, in 1943, the conditions under which any book could be published were most difficult.

These three factors alone, the progress in endocrinology, the need for such a book, and the improved conditions of publishing both justified and necessitated the almost complete rewriting of it. The changed conditions also demand a more critical approach on the part of the reviewer.

The fact that the book is the product of a County Hospital is certainly a source of satisfaction, but it has also some disadvantages. One of them, mentioned by the authors in the preface to the 2nd edition, is that many patients could not be investigated by the latest methods, as special facilities and assistance were lacking. Another is, that it reads in parts more like the collected clinical notes of a very keen team of observers, but lacks the careful layout, the meticulous planning, the precise definitions one finds, for example, in another recent endocrine textbook.

The book is well illustrated, but the same criticism applies: the definitions given are too vague for inclusion in a textbook to which reference should be made by the clinician when in doubt; for example case 99 is described (in the illustration) as "Possible mild hypopituitarism" (Plate 10A); case 126A (Plate 12A) as "mild hypopituitarism."

To sum up, this is a valuable book for the expert and connoisseur, and a most laudable effort for a County Hospital, but perhaps not ideal for those not well acquainted with the subject.

**PRELIMINARY ELECTRICITY FOR THE PHYSIOTHERAPIST**, by Brenda Savage, M.Sc., M.C.S.P. Faber & Faber, 21s.

This book is the first of its kind to attempt to cover this particular section of the syllabus of the Chartered Society of Physiotherapy.

It is attractively set out, the style is clear and the analogies well chosen. Certain sections deserve particular mention for their clarity; The introduction on atomic structure and the nature of electricity, the chapter on Magnetism and most of those on short wave diathermy and Radiations.

There are, however, a considerable number of errors and omissions throughout the text and it might be considered rather overdogmatic. This is particularly unfortunate in a text book for students and may lead to some confusion.

In later editions when considerable revision has been done this should prove a useful book.

FREDA WAREHAM.

**A SUMMARY OF MEDICINE FOR NURSES**, by R. Gordon Cooke, M.D. Faber & Faber.

At examination time "A Summary of Medicine for Nurses" will be in great demand. It is written in note form, and so makes no pretension to literary style, but a very great deal of information has been compressed into it.

**EMOTIONAL FACTORS IN SKIN DISEASE**, by Eric Wittkower and Brian Russell. Cassell and Company Ltd., London, 1953. pp. 214. 32s. 6d.

"It is amazing", Professor Cameron says, "how far medicine has been able to progress on the basis of the concept of the human organism as being essentially inanimate" (p. vi). This book, consisting mainly of papers previously published, attempts to combine dermatology and psychiatry by including a chapter on "Development, Neuroanatomy and Physiology of the Skin". Such an undertaking in just over 200 pages must mean many omissions. There is also a confusion of theory with clinical observation and hypothesis with fact. The beginner will be left with the dangerous impression of more being known than actually is known, and specialists will miss discussion of other work and points of view. The book has other faults.

Diabetes is classed as a "psychosomatic disorder" (p. 92) and epilepsy under "gross psychological disorders" (p. 126). Psychotherapy can hardly be compared to "making a needle on a much-worn gramophone record play in the proper groove again" (p. 6), or simply distinguished as "covering" or "uncovering" (p. 39). Description of patients as "emotionally immature" (p. 8), "impassive" (p. 10), "over-dependent" (p. 39), and having "a perverse need for appealing for sympathy" (p. 21), are moralistic judgments not calculated to increase respect for the mentally ill, nor advance understanding of psychodynamics. It is frightening and hardly psychiatric to read that in sleep man's "uncivilised ancestry reasserts itself" (p. 31). On page 37 it is stated that "At the hypothalamus irrevocable decision takes place between active or passive, sympathetic or parasympathetic response". Does it? "Psychodermatoses" (p. 48) is a particularly unfortunate term. Psychosomatic skin disorders are as little psychiatric disorders of the skin as they are dermatological disorders of the mind.

This book may be taken as the latest and perhaps last attempt at understanding psychosomatic illness on the basis of personality assessment and typing, an approach now condemned from many sides. The choice of descriptive terms alone shows why. Sufferers from eczema are classed as "resentful", "self drivers", "limelight seekers", "stay-at-homes", and "wallflowers" (pp. 94, 95), and from their study of seborrhoeic dermatitis the authors conclude that "Bashful" figures prominently in the brotherhood of seborrhoeics whereas "Happy", "Grumpy", and "Dopey" were not too common" (p. 126). Such findings hardly provide a basis for scientific discussion although they may appeal to Disneyites.

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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AUGUST 1954

No. 8

OUR DUTY

The sun blazed down from a cloudless sky. It was too bright to stare at except through the darkest of sun glasses. Heatwaves rose from the roadway and the roofs of buildings, distorting the appearance of objects viewed through them and sometimes giving the impression of rippling water on the highway. The atmosphere was heavy, so heavy that it seemed far more sensible to sit drinking iced fruit juice than to move around in the excessive heat. If there had been a slight breeze to bring some coolness from the sea, or even a land breeze to evaporate the perspiration running in beads down the forehead and stinging the eyes it might have made activity seem more reasonable. Only white-skinned people who must have been on urgent business seemed to be about at this time of day. The cool cafés, whose fans were constantly revolving, were moderately full of those who seemed to think that time belonged to another world. They seemed in no hurry to leave, to drink the varying drinks before them, or pay their bills; and, *mirabile dictu*, no one was very anxious to collect his dues. There was not a native to be seen anywhere. Despite the fact that their white robes—called white for want of a better word—are said to keep them cool, they must surely have been overcome by the heat if they had not retired to their dingy dwellings in the Medina. In one part of the town, however, work continued as usual. Very little of this work could be left until later. Urgency was the key word. The nurses were just as busy tending the needs of the patients as at any other time of day, the doctors were close at hand, and the rest of the staff were performing their duties without demur.

Our profession has a reputation for hard work that is performed under the most exacting circumstances. It is a case almost of "our's not to reason why, our's but to do and die," although perhaps not quite as drastic as that. It is so easy to become irritable and careless when conditions seem unbearable, and to relegate duties to inferiors. It is then that mistakes can, and frequently do, happen. The most successful upholder of the Hippocratic Oath must be he who submits to lack of comfort or even hardship to carry through that of which he is convinced, without being deflected by mood, derision or personal discomfort.

This being so, it is plain that many students must mend their ways. It is perhaps a rarity in this country to have a blazing sun and excessive heat, but when the thermometer rises and the sky becomes cloudless there is a tendency to a decrease in the amount of work done. It becomes unpleasant to work in the "pathlabs" and to attend lectures, and the prospect of an afternoon's sun-bathing has so great an appeal that many succumb to the temptation.

It may be uncomfortable to walk around the hospital with the collar and tie retaining the perspiration within the shirt, but it is a fact that it is the student's duty to put up with a little discomfort for the sake of others, and for the profession. If there were not those willing enough to do this, there would be no staff in the hospitals between Capricorn and Cancer. It is surely gratifying to say with Wordsworth: "Give unto me, made lowly wise, The spirit of self-sacrifice."

### All Alumni

We print this month an article on the Honorary Perpetual Students of the Medical College. Two of them have gone in for biographies on a large scale. Professor Gray Turner was largely responsible for the "Lives of the Fellows" of the Royal College of Surgeons. In June, *The Times* in a leading article entitled "A Masterpiece Completed," announced the publication of the final volume of another similar work on a larger scale. This is Volume 6 of Part II of Venn's Alumni Cantabrigienses. Volume 1 of Part I was published thirty-two years ago and the compilers were John Venn and his son. The son, Dr. J. A. Venn, has now completed the work, which is a 'biographical list of all known students, graduates and holders of office at the University of Cambridge from the earliest times (c. 1261) until 1900.' As *The Times* says, "No historian of English life, whatever his field and particular study, will be able to neglect the use of the magnificent instrument of enquiry which is now, completed, at his disposal."

### A Question on the Efficiency of the City Police.

Sir Ernest Kennaway writes:

Dear Editor, A few days ago a gigantic City policeman came into the room on the fourth floor of this Department where I work with five others and produced a small box containing a large and very beautiful moth, injured in some way so that it could not fly, which had been found on a crate in the Meat Market. Why he brought it to me, and how he even knew of my existence, I have no idea; if he had regarded the moth simply as an "accident," which it certainly was, he would have taken it to the surgery. Feeling an obligation to maintain at least some show of omiscience, I pronounced the moth to be a Lime Hawk moth, which was wrong; later Mr. Edwin R. Nye, Secretary of the St. Bartholomew's Hospital Natural History Society, identified it as a Privet Hawk moth (*Sphinx ligustri*). Of course the specimen should have been taken to him in the first place; apparently the Police do not yet know of the existence of this Society. I submit this item of news to you only after much hesitation, as I am not a Bart's man, and the moth was not a Bart's moth.

### No Parking

The parking problem outside the Hospital has recently become even more acute. Now that meat is derationed there is more market traffic than ever before. This has caused such congestion that it has been impossible to find parking space. In spite of this, students are still not allowed to bring cars into the hospital grounds. The matter has been taken up with the Students' Union who have approached the College Authorities, and it is to be hoped that at some time in the near future entry through the Henry VIII Gate will be permitted to students' cars.

### Student Tuberculosis

From time to time the *Journal* is sent bulletins from Companies and Associations of all descriptions. Recently a paper from the British Student Tuberculosis Foundation was received and it would seem worth comment in our columns. It relates how the Student Rehabilitation Unit at Pine-wood has been put to good use in the twenty months since it was opened. Forty-three students have passed through the unit, and it is interesting to note that they are from nearly twenty universities, and the faculties in which they had been studying were as varied as the location of their colleges. Much is being done for these unfortunate students to ensure that whilst they are at the Unit their university syllabus is maintained and their knowledge augmented. An Academic Sub-Committee arranges for lectures and tutorials in many subjects.

It is intended in the not too distant future to open two new units, one at Brentwood and the other at Swanley. There is also a possibility that a unit, for men in the active-treatment stage of the disease, will be established at Tor-na-dee, near Aberdeen.

As is common with such Foundations, there has been the problem of finding the money to proceed with plans. Donations are readily accepted, and it is hoped to overcome the financial difficulties in due course.

Anyone wishing to make further enquiries should contact:—

Donald Bell, B.A.,  
Secretary/Administrator,  
British Student Tuberculosis  
Foundation Ltd.,  
5a Gloucester Place,  
Portman Square, London, W.1.

### Not without the Keys

It is to be regretted that the piano in the College Hall was allowed to deteriorate as it did; but it is even more to be regretted that it is still thought advisable to keep the piano locked. A potential player has to "sign" for the keys. It was the custom in the Services to sign for everything given into one's possession for any length of time, but it should not be necessary for this system to be applied to the residents of College Hall.

### Clinico-Pathological Conference

On Wednesday, July 7th, at noon, another Conference was held. Professor R. V. Christie was in the chair and Dr. E. R. Cullinan presented his analysis of the case. He did so with clarity and wit which kept all both amused and awake. Although all the symptoms pointed to carcinoma of the liver, there seemed to be some differences of opinion on the likelihood of this being primary or secondary. As usual, Dr. Cunningham had last say in the matter, and pronounced in favour of the rarer of the two possibilities, and no amount of questioning and fine play would deflect him from his opinion.

### Journal Appointments

Griffith Edwards, the last Editor, has resigned from his position, and Alan Snart has been appointed Editor. R. E. Nottidge, also an ex-Editor, has been re-elected to the Publications Committee.

Dr. Bourne continues as Chairman of the Publications Committee. All Editors and *Journal* Staff feel indebted to him for the unobstrusive help he gives.

### COLLEGE PRIZES

#### JUNIOR SCHOLARSHIPS IN ANATOMY AND PHYSIOLOGY

1st Scholarship to: D. J. Tooby.

2nd Scholarship to: H. E. A. Smith.

#### WIX PRIZE

Awarded to: T. S. Malpas.

### Birthday Honours List.

C.B.E. (CIVIL).  
GROSVENOR, Chetwynd John Pershall,  
M.A., M.B.Camb.  
O.B.E. (CIVIL).  
COCKAYNE, Edward Alfred. D.M.Oxf.,  
F.R.C.P. for services to entomology.

### Degrees.

LONDON.

M.D.: TURTON, E. C.

CAMBRIDGE.

M.D.: BATES, D. V.; CURETON,  
R. J. R.; KEYNES, W. M.; M.Ch.:  
DINGLEY, A. G.

### Awards, Etc.

ADRIAN, Dr. E. D. Adrian appointed manager of the E. G. Fearnside's Fund until December 31, 1956, and a governor of the Darwin Trust until July 30, 1958.

GIBSON, J. H. Gibson awarded the 1953 Queen Charlotte's and Chelsea Hospitals Research Prize for a paper on "pyrexia in the puerperium", written in conjunction with Dr. R. M. Calman.

PETERS, Sir Rudolph Peters, F.R.S. will receive the Honorary Degree of Doctor of Science of London University on November 26.

ROBB-SMITH, A. H. T. Robb-Smith has been re-coopted by the Board of the Faculty of Medicine of the University of Oxford for a period of 2 years from the first day of Trinity Term, 1954.

SCOWEN, Dr. E. F. Scowen — The Imperial Cancer Research Fund Lectureship.

TAYLOR, Mr. G. W. Taylor awarded the Walter Dixon Memorial Scholarship (£250) for research into lymphoedema.

VERNEY, Dr. E. P. Verney, F.R.S., will deliver the Bertram Louis Abrahams Lecture on Thursday, July 8, at 5 p.m. at the Royal College of Physicians of London on "Renal excretion of water and salt".

WITTS, Prof. L. I. Witts has been elected to the Honorary membership of the Association of American Physicians, and of the Danish Society of Internal Medicine.

**Change of Address.**

Dr. D. S. Hayes,  
to 27, Kingsfield Oval,  
Basford,  
Stoke-on-Trent.

and

Dr. R. S. Morshead  
to 2, Drove Side,  
Steyning,  
Sussex.

and

Dr. H. J. Beddow  
to Nymet Rowland,  
Nr. Crediton,  
Devon.

and

Mr. Rees  
to 18, Harley House,  
Regent's Park,  
London, N.W.1.  
Telephone — Welbeck 5264.

**Engagement.**

THROWER—KITSON. Dr. William Rayner  
Thrower of Tye Green, Nettleswell,  
Essex, to Ruth, elder daughter of Mr.  
& Mrs. R. G. Kitson, of Bishops  
Lydeard, Somerset.

**Marriages.**

ROBERTS—CLARK. On Saturday, June 19,  
in the chapel of Jesus College, Cam-  
bridge, Dr. George Fulton Roberts and  
Miss Idina Rosemary Clark.

TAIT—NYE. On Saturday, June 12, Dr. Ian  
Tait and Miss Janet Nye.

**SOME MORE CASES FROM DR. PENRY ROWLAND'S NOTEBOOK****Melodrama**

Just towards the close of an Out Patient  
Clinic at the National Hospital for Nervous  
Diseases, the Physician is handed a note by  
the Sister. "It is labelled 'Urgent', sir."

"Excuse me, gentlemen." He reads the  
letter, looks up at the big clock over the  
entry door, looks at his watch, frowns.  
"This letter is about a case I wished to  
show you today but I have been delayed and  
I must be off at 12 o'clock. (One student  
whispers "Cinderella!")

"Her performance begins at noon, gentle-  
men, and takes just under ten minutes."

"If the hour can't be advanced, sir, per-  
haps the clock can. We could push the  
hands on." With the help of a colleague's

**Births.**

EBERLIE, On June 12, in Lilongwe, Nyasa-  
land, to Doreen, wife of Dr. John  
Eberlie, a son, brother for Peter and  
Susan.

HAIRE, on June 20, to Judith, wife of Dr.  
Ivor Haire, a brother for Belinda and  
Elizabeth (William James Campbell).

HARRIS, on June 17, to Sonia, wife of  
John W. S. Harris, M.R.C.O.G., a son.

IVENS, on June 14, to Daphne, wife of Dr.  
H. P. H. Ivens, a daughter, (Hilary  
Anne).

SHAERF, on June 19 to Valerie, wife of Dr.  
David Shaerf, a son, (Peter Simon).

TAYLOR, on May 22, to Molly, wife of Dr.  
D. G. Taylor, a sister (Jennifer) for  
Gillian.

LEVY, on June 18, in Johannesburg, to  
Charlotte and Leslie, a son, (Francis  
Derek).

**Deaths.**

LISTER, Septimus Rayner, on April 18.  
Qualified 1892.

O'NEAL, Arthur, on May 12, aged 76.  
Qualified 1907.

SHEEDY, Thomas, on May 4. Qualified 1910.

STANLEY, Hubert, on April 8, aged 90.  
Qualified 1890.

shoulders he reaches the hand and the clock  
stands at 11.57 ack emma. General smiles.

"Send this patient in at once, please."  
Door swings open and a girl is seen seated  
in a wheeled chair. She answers two or  
three simple questions, then fixes her gaze  
and for nearly 10 minutes goes quietly and  
slowly through a long series of dramatic  
symmetrical movements in the midst of 20  
silent, watching, students. Clasped hands,  
praying hands, raised arms, deep obeisances,  
she slips to the ground, gently taps the floor  
with forehead. Then the neighbouring  
church clocks strike the hour of noon and  
the patient seems to ring down the curtain.

"We will discuss this case, gentlemen,  
next week."

*No psycho-analysts in those days.*

**And the answer's a lemon . . .**

Hospital for Sick Children, Great Ormond  
Street. Sudden disturbances at entrance to  
the underground Out Patient Room.  
Clattering down the steps was a bulky Sea  
Captain in Reefer jacket, with a "Yard Arm  
for you" expression — behind him an A.B.  
carrying on a pillow, most carefully, a crying  
baby — behind him was a tall, graceful,  
anxious mother with clasped hands —  
number four was an Indian Ayah, very fat  
and waddly. Pillow and baby placed on  
table — room cleared — story told by mother  
of baby's failure to make good, of its being  
taken to Madras and was admitted to  
Hospital. After a few days, no change for  
the better. Advised sea trip to visit Great  
Ormond Street.

"And the food en route?"

"Carefully sterilized milk in bottles, re-  
newed at every port."

"No fruit?"

"Oh, no. Never."

"No goat on board?"

"No."

"Now please wait in other room and I will  
talk to you in 10 minutes."

Wretched little child, sufficiently fat but in  
perpetual pain — 4 teeth — gums in dreadful  
state — no limbs moved voluntarily by babe  
— very pale — large periosteal haemorrhages.  
The House Physician boldly said to the worn  
out mother, "Well, you have come to the  
right place. Leave the baby with us and you  
shall see it well in six weeks."

"Oranges and lemons and the Bells of St.  
Clements."

The four principal actors had made a finely  
dramatic entry and had a good crowded  
audience.

**Difficulties in Certification**

G.P. awaits impatiently the arrival of  
Magistrate, his clerk, and a taxi for the  
patient. At last he arrives flustered and  
cross.

"Is this the patient? She looks all right  
to me. What are her symptoms?"

"She states that she will be the mother of  
Our Lord on Christmas Day."

"Well, she looks over 60 to me. Anything  
else?"

"She has a name for the Town —  
Jerusalem, Brook Kedron for the river, and  
the Mount of Olives for the Station Hill, etc."

"Well, she can call 'em what she likes  
can't she?" he snaps out, "and I refuse to  
sign the certificate."

Doctor turns to patient and says, "Do you  
know who this gentlemen is?" She gives  
him the cold shoulder and says, "Of course,  
He is Pontius Pilate."

"She's a rude old woman."

"I think not, sir."

"And who am I, Miss K.?"

Patient goes down on her knees and looks  
up adoringly at G.P., "Your're the Arch-  
angel Gabriel."

"Why, the woman's mad."

"Quite so, sir. Would you be good  
enough to sign the paper?"

*Sequel*—Ten years 'expectant' and then a  
deliberate acceptance of General Verdict  
and came home, "just like that."

**Wizardry**

Methylene Blue go into this vein

And leave not a corner untouched by your stain.

Where is the young man who made up the dose

Over there, doing sums, and a bit Lachrymose.

The team's looking blue, and the patient is too!

Mucous membranes and skin are the same ghastly hue.

Envelope her wholly and ply her with drink

And a week from today she will be in the pink.

## Kidding

A case sent to G.P. as a 6-months pregnancy.

Mr. McAdam Eccles about to operate.

"By the way is the doctor present who sent in this patient?"

G.P. is pushed forward and is recognised as a recent dresser.

"You sent me a letter about this patient. How many alternative diagnoses did you suggest?"

"Sixteen, but I excluded all but one."

"And what was the sole survivor?" "Sarcoma of the Left Suprarenal."

"Ever seen one?" "No, sir."

"Ever read of one?" "No, sir." "Hm."

Laparotomy extended to full length—an attempt is made to isolate the tumour.

"It seems to originate from the left kidney. No! Here is the kidney displaced—but of normal size . . . . . I think it comes from behind the liver . . . . . the left suprarenal perhaps!

"Doctor! Had you any other suggestions about this tumour?"

"Only that I guessed it weighed twenty pounds."

"Nurse! take away these masses and get them weighed!"

"Gentlemen, these overlapping tumours cannot be removed and I must sew up" . . . . .

"Well, nurse—what is the weight?"

"Nineteen pounds, and a little over. Sir."

"Congratulations on your fortunate guesses, doctor!"

*Sequel:* Rapid recurrence.

## The Nurse

If you can be a nurse; when all about you,  
 Are socialites and debutantes so gay,  
 If you can go on working hard for others,  
 And toiling day and night for hard-earned pay . . .  
 If you can have the sense to stick to nursing,  
 And take the taunts that surely come your way,  
 Then, one day you will have the satisfaction,  
 To turn around and stand and firmly say  
 "It was in faith and true determination  
 I left my home and friends and ventured forth,  
 And now I'm S.R.N. and full of courage  
 And nothing you can do will stem my wrath!  
 I've worked and slaved and taken pain and trouble  
 And must admit, some consolations too,  
 And find for life I'm very nearly ready,  
 And say 'Yes I'm a nurse my friend,  
 And what are you?  
 You may be trained in one way or another . . .  
 And so equipped in one especial way,  
 But when a nurse, then you are ever able  
 To turn your hand to anything each day.  
 You cook, and lift such weights, and learn to tidy,  
 You have patience, some diplomacy and tact,  
 And can accept the smooth and yet the trouble  
 And be prepared for anything in fact!

## "Twenty Questions"

1. "Was the call urgent?" "Yes."
2. "What time?" "Six a.m."
3. "Male?" "Yes."
4. "Suffering from any chronic disease?" "Apparently not—I think it fair to tell you he was an athlete in good condition."
5. "Was he in bed?" "No. He was lying across it with his legs dangling over the edge."
6. "What was his chief complaint?" "He was unable to complain because he was unable to speak."
7. "He was paralyzed then?" "Yes"
8. "Was any movement possible?" "Yes. He could move both eyes to the left."
9. "Any recent injury?" "No."
10. "Any recent sore throat?" "No."
11. "Was his heart sound?" "Well, I've told you he was an athlete and in condition, but his apex beat was in mid axilla and diffuse, pulse regular 120."
12. "May we ask what the G.P. did?" "Yes—quite a fair question. He went quickly to rouse a physician—found that he would not be home until 11 a.m.; asked permission to look at his bookshelves, and there discovered "Rare Nervous Diseases". In a few minutes was able to pinpoint a short paragraph describing the patient's condition".
13. "And then?" "Went back to confirm symptoms."
14. "Was the patient better or worse?" "Better, and moving his head and lips".
15. "What was he saying?" "May I box on Saturday?"
16. "What was the G.P.'s answer?" "Yes, if you are fit."
17. "And did he?" "Yes, and won his match."
18. "What was the Physician's report at 11.0?" "He was unable to make a suggestion, so the G.P. told him the diagnosis is Family Periodic Paralysis."
19. "How did the Physician take the inspection of his library?" "Well, but that was months later and G.P.'s kudos slumped rather suddenly!"
20. Patient went to the Front 1914 with a cellulose covered card:—  
 "Don't hurry to bury me. I may not be as dead as you think."

## SO TO SPEAK . . .

The chest was full of rales and bronchi—*Doctor's letter.*

*Overheard conversation with a visiting American Student:*

"You had better introduce yourself to Sister."

"Sister? You mean they've got nuns in this place too?"

## The Journal

Matter for the *Journal* should be handed in at least one month before it is due to appear.

## FRANK LLOYD HOPWOOD

By Arthur Wormall:

By the death of Frank Hopwood, at the age of 70, we at Bart's have lost not only a very distinguished colleague and revered friend, but one of the principal founders of our modern Pre-clinical School. Our Hospital and Medical College are justifiably proud of the great leaders who, throughout the long history of the Hospital, have been prepared to devote themselves to the healing of the sick, the advancement of medical science and to the furthering of the best interests of the Hospital, its staff and its patients. To this group of distinguished pioneers and loyal servants, the name of Frank Hopwood will now be added. Fortunate indeed is the institution which is served by a man with Hopwood's supreme sense of duty, his wisdom and foresight, and his capacity for leadership.

At all times he was an inspiration to his colleagues and a tower of strength to all who sought to do good. As a colleague of ours has recently said, "Hopwood was everybody's friend and nobody's enemy." Thousands of students whom he helped to teach, all his old colleagues on the teaching and administrative staffs here, the technicians and other servants of the College and Hospital who came into contact with him, will all remember him for his kindness and consideration, his enthusiasm, his true Christian faith, his integrity and his unselfishness. The name of Frank Lloyd Hopwood will be indelibly recorded in the annals of our Medical College.

He was born in 1884 in Cheshire, where his father was a mining engineer, and he received his early education at Hawarden Grammar School and the University College of North Wales at Bangor. He retained very happy memories of his early life, and he could readily be persuaded to give entertaining reminiscences of boyhood exploits with his four equally stalwart brothers who were always ready to join him in a friendly prank or in forming what must have been a very formidable nucleus of a hockey team.

After periods of study in London at the Royal College of Science and at University College, he came to Bart's in 1906 as assistant physicist to the Hospital, and he remained at Bart's for the rest of his life;

officially until he retired from the Chair of Physics in 1949 and unofficially, as guide, philosopher and friend, for a further four and a half years until his death. Expressed as a bald statistical statement, this means that, including his national service during the 1914-18 war, he gave continuous service to Bart's over a period of 43 years, plus a further four years of "semi-retirement" during which he was continuously striving to further the interests of the College and his old colleagues. During the whole time that I have known him, I have never ceased to wonder at the frequency of the calls made for his aid and advice, not only by us but by many outside organisations. Never have I known him fail to give honest and helpful advice, full of wisdom and kindness.

The record books will show that he was an M.A. (Cantab.), a D.Sc. (Lond.) and a Fellow of the Institute of Physics, a former president and Silvanus Thompson Medallist and Memorial Lecturer of the British Institute of Radiology, and vice-president emeritus of the seventh International Congress of Radiology. On his retirement he was elected Emeritus Professor in the University of London and a Governor of our Medical College. But we who knew him so well need no chronological account of his appointments, and no list of his achievements and distinctions, to remind us of his contributions to medical education and medical science. We shall never forget his long term of office at Bart's: 43 years on the teaching staff. He was the first holder of the University Chair of Physics in our Medical College, and it was he who was mainly responsible for the development of a department which is the admiration of all those familiar with the teaching of Medical Physics. Inspired by faith, imagination, patience and enthusiasm, he succeeded in building up a department of which we can justifiably be proud.

Our future Archives will record also his pioneer work in the field of Radiotherapy, and his valuable contributions as a member of the Grand Council, and more recently Honorary Secretary, of the British Empire Cancer Campaign, and his outstanding service on our own Cancer Committee.



Frank Lloyd Hopwood

Many readers of this *Journal* will know of the leading part he took in helping to establish the Million-Volt X-ray Unit at Bart's as long ago as 1936, and some may know of the powerful support he gave to the Strangeways Memorial Laboratory at Cambridge. We may also recall his submarine detection work for the Admiralty during the 1st World War, a valuable piece of research for which he received commendation and a special award, or the severe injuries he received to his hands during pioneer work with X-rays. Few people know that it was in his laboratory in 1934 that Szilard and Chalmers carried out the first chemical separation of an artificially produced radioactive isotope.

His teaching and administrative duties were heavy, and frequent calls were made on his services for college and university committee meetings. There appeared, therefore, to be little time for him to carry out systematic research. It was characteristic of his real aptitude for research that during his retirement he published several important papers describing investigations which arose from observations he had made when using the kitchen tap and an ordinary household sieve. What an excellent director of a research institute he would have made, for rarely if ever did any researcher consult him without obtaining sound advice; and often he received real inspiration.

He was a man of wide vision, and amongst his other aspirations and aims, the further development of the pre-clinical departments of our College took a very prominent place. When, in September, 1939, it was necessary to move our pre-clinical School to Cambridge for its wartime exile there, there was never any doubt as to who should be our leader in Cambridge. Frank Hopwood was appointed Vice-Dean for this purpose, and he was the principal architect of what we believe was probably the most successful civilian evacuation scheme of the Second World War. For nearly seven years we lived in Queens' College, Cambridge, and it is a great tribute to Frank Hopwood that our relationships with that College were even happier in 1946 than they were in 1939. As an indication of their respect for him the University of Cambridge conferred on him the Honorary Degree of M.A., and the Fellows of Queens' elected him an Honorary Fellow. I know that the President and Fellows of Queens' have always regarded Hopwood as one of their most distinguished

Honorary Fellows, and I am also certain that they have always had for him the highest admiration and a most sincere affection.

Only those who were nearest to him throughout the war years can fully appreciate the immensity of his achievements for our Pre-clinical School during this period, and the very heavy burden which he so willingly and so cheerfully bore. Never did he lose his faith or his good temper. All too frequently he was called from his bed in Queens' during the early hours of the morning, sometimes to arrange sleeping accommodation for a new student who had misread the railway timetables, and sometimes to act as sponsor or surety for a student whose deeds had aroused the suspicions of men in uniform; very often it was to carry out fire-watching duties. However trying the circumstances, or however inexcusable the misdemeanour, Hopwood never lost his patience or withheld his powerful and reassuring aid. Indeed, his patience and his sympathy for those in trouble appeared to be inexhaustible.

Right up to the end of his life he retained to the full his youthful zest and keenness. It was typical of him that he agreed to preface his holiday in Devon in April with a talk on radioactivity to the Torquay Natural History Society and the next day he attended a special meeting of the local committee of the B.E.C.C. A few days later, when he and Mrs. Hopwood were enjoying their holiday, came the final attack of coronary thrombosis. He died on 2nd May in Hospital at Sidmouth, a sea-side resort which always had for him a special attraction and which always brought back memories of many happy holidays he had spent there with his family.

It was my good fortune to be his close colleague and intimate friend for 18 years, and I shall never cease to be grateful for that privilege. I shall remember him particularly as a man of absolute or complete integrity, a man who was incapable of a mean action, a staunch colleague, a loyal and generous friend, a wise counsellor and a delightful companion in all circumstances. In every respect he was a big man; big in stature, in heart and in spirit; and he was as happy in his work as he was so obviously in his married life and when amongst his close friends and relatives.

*By Joseph Rotblat :*

I have known Professor Hopwood personally for five years only but I came into contact with his work much earlier, when I started research in nuclear physics exactly 20 years ago. Those were the days when the foundations were laid for the momentous discoveries which were later to make such a profound impact on all walks of our lives. It is not as generally appreciated as it deserves to be how much Professor Hopwood has contributed to these discoveries. Amongst scientists on the Continent two laboratories in Great Britain were then best known for their advances in nuclear physics, the Cavendish Laboratory under Rutherford and the Physics Department at Bart's under Hopwood. The photodisintegration process, that is the production of neutrons by means of X-rays, a technique now used for neutron therapy, was discovered at Bart's, and so was the Szilard-Chalmers method of separating radioactive isotopes which has become a most important tool in the study of chemical and biochemical processes. Thus, strangely but appropriately, these discoveries started in nuclear physics have proved to be of great value to medicine.

It often happens that a person with a great reputation is somewhat disappointing on personal encounter, but this was not so with Professor Hopwood. The moment I met him I came under the spell of his personal charm,

and became aware that the great qualities of his mind were matched by equal greatness of spirit and heart. These first impressions were confirmed and amplified on later acquaintance. He had a real gift of inspiring enthusiasm in people. Amongst the great services which he has rendered to radiology and medical physics is not only the initiation of many new lines of investigation but the stimulating of so many people to work in these subjects. Most of the leading authorities in medical physics are either his former pupils or people whom he induced and helped to enter into this new field.

In all his dealings with people he displayed remarkable tact and selflessness. I noticed this particularly when I had the honour of succeeding him after his retirement. He had been in charge of the Physics Department for twenty-five years, but once he left he never made even the slightest attempt to interfere with its running. On the other hand, he was always available to give help, advice and comfort when asked for, and I leaned heavily on his experience, wisdom and sympathy. He took a prominent part in the endeavours to obtain the linear accelerator for Bart's and in the formulation of the programme of research with it. Up to the last he devoted much of his time, energy and thought to the project. His death is a real blow and a great loss to his friends, the College and the Hospital, and to science.

## THE PROLONGED PURSUIT OF FREEDOM

by Perry W. Rowland, M.D.,

with assistance from Rev. A. N. Rowland and Wilfred Rowland  
for which he is very grateful

A VERY pleasing photo of our beloved Square came to me some while past, and I began to analyse its renewed appeal—the playing fountain, the rare sunshine, the bubbling reminiscences and ah! girls on the seats resting and at home! What a story lies behind their freedom to enter the precincts!

Having leisure thrust upon me—unwanted and unwanted—I began to dip—no—to dig into the story told in a dozen or more hefty dry tomes of the obstructions to the coming of freedom finding little grain and very musty chaff.

The history of the present condition took me back to 1380, when I halted and decided not to pursue the story back to Abel, who was eliminated by his brother who disliked his manner of worship.

In 1382 John Wiclif, a learned doctor of divinity—"the most outstanding scholar of his day"—with the patronage of John of Gaunt, entered the King's service, being it is said, Master of Balliol, Oxford. Here brilliant minds "clumped" and became luminous. Some of these men had visited continental universities, others were self-educated. There were but six colleges with 75 members, and only ten undergraduates—all at Exeter.

There he translated and published the Bible in English—a great and revolutionary effort. Green, the historian, speaks of him as "the founder of our later English prose, a master of popular invective, of irony, of persuasion." He was the first to question and challenge the creed of the Christendom around him, to break through the tradition of the past, and with his last breath to assert the freedom of religious thought against the dogmas of the Papacy. He blazed his own trail to his fearless, magnificent and pitiful end.

His Lollard followers also saw visions and dreamed dreams, and they and their like kept the spirit of Liberty and Learning alive until the Reformation, many of them dying for the cause.

The New Learning was as revolutionary in its turbulent way as was the gentle discovery of Plastics, or Anti-biotics, or the unearthing of Fission power. This calm, cynical and generous age cannot picture the appalling cruelties and sacrifices involved. The ancient orthodoxies were in the furnace—glowing, spitting, burning, sparkling and overrunning the crumbling medieval moulds.

When the reign of the Tudors closed, King James with his Scottish experience behind him, was convinced that kingship as he understood it would not stand without episcopacy. At the Hampton Court Conference, where Bishops met the Puritan Divines, the King broke up the Conference with the significant words: "I will make these dissenters conform, or I will harry them out of the land, or do worse and hang them." It was this mental attitude, insisting on compulsory conformity to the views of those in power with the alternative of persecution, that has perpetually blotted our national copy-book. Church and State have both tried to impose uniformity, of course without success, and totalitarian powers still pursue the same futile policy. Unbiased history teaching is urgently needed in this and several other countries.

Up to a point James the First succeeded, for he drove Puritans into Holland, which benefited by this donation and transfusion of illustrious blood. Noteworthy sequels were the "Mayflower" voyage and other ventures—Plymouth Rock, Virginia, the U.S.A. and "all that".

As far as England was concerned the Restoration brought fresh attempts to enforce uniformity by means of the Act of Uniformity in 1662 and the various repressive acts of the Clarendon Code. Among other things the Act of Uniformity forbade all teaching which was not licensed by the Bishops. In spite of this the Non-conformists managed to establish many Academies, primarily to provide higher education for their sons. But many Anglicans also sought education in the

Academies, which provided a broader and more advanced education than the ancient universities. Among them were the famous chemist, Priestley, Bishop, Butler, Isaac Watts and Daniel Defoe. At least twenty of these institutions were begun before the passing of the Toleration Act in 1689. They were staffed by learned professors. The wealthy laity sent their sons to them because of the low and restricted standards of education at Oxford and Cambridge. Dr. Philip Doddridge, the first man to deliver academic lectures in English, was the Principal of Northampton Academy. In 1732 a prosecution was set on foot against him for teaching without having first obtained a licence from the Bishop. The proceedings, however, were stopped by the intervention of George the Second, who had resolved that there should be no prosecutions for conscience' sake in his reign.

Meantime the universities of Oxford and Cambridge were closed to all but those who could pass the theological tests of the State Church. Every Fellow had to submit to those tests. Henry Sedgwick, who trained Darwin to think, resigned his Fellowship because some of the Thirty Nine Articles failed to pass an obstruction in his pharynx. The brilliant Whewell of whom it was said—"Science was his forte, but omniscience his foible", took the same course. Later the poet Clough had to satisfy his conscience by resigning his post at the university. As late as 1861 and 1862 the Senior Wranglers were unable to accept their well-deserved Fellowships. Men of fine minds had either to cease the pursuit of knowledge or stifle their scruples as Clough did.

The army and navy and all state appointments including dustmen and aletasters presented similar obstacles. "Nonconformist officers who fought against the Pretender" had to be indemnified by a special act of indemnity.

Legislation is leisurely to impose, expose and depose. William Smith, M.P., chairman of the still existing body of Dissenting Deputies, introduced a Bill for the Abolition of Tests which was defeated by the Bench of Bishops, and forty years later was appointed "teller" in its final passing!

At last when the candles  
burnt low in their sockets  
Up rose William Smith with his  
hands in his pockets

On a course of morality  
fearlessly enters  
With all the opinions of all  
the Dissenters.

The emancipation of women came equally slowly. Daniel Defoe in his "Essay on Projects" issued in 1697 envisaged an Academy for women.

There are no finer examples of pertinacity and courage in the history of successful freedom. Bishop Watkinson, speaking against the entry of women into Universities, sternly said—"They would only be so many poppies in a cornfield, and, bless them, they do brighten the place up a bit!" Charles Kingsley—a very forward looking man, wrote to John Stuart Mill: "I have arrived at certain conclusions which in face of British narrowness I have found it wise to keep to myself. Do me the honour of looking on me as completely emancipated from those prejudices that have been ingrained in public opinion by the monastical and canon law about women, and open to any teaching which has for its purpose the doing of women justice in every respect."

In 1849 Fredk. W. Maurice founded Queen's College for women (which became Bedford College) and later Girton College was established. At that time young women were expected to simmer over samplers, shape wax flowers, knit purses or embroider on frames, and did these accomplishments amazingly well. Robert Browning, you remember, snatched one of these, Elizabeth Barrett, from "an utterly futile existence . . ."

Elizabeth Blackwell was English by birth but went to the States with her parents and their large family to become a doctor. Her struggle there was long and bitterly disappointing. She visited London in 1850 and spent a year or two at St. Bartholomew's, and with the help of James Paget—afterwards Sir James—her name was inserted in the first Medical Directory. "What better supporter could she have found; his voice, his manner, his delicacy of touch and his beautiful phraseology."

Elizabeth Garrett (later Anderson) was indelibly impressed by Miss Blackwell's personality and began her long efforts to enter the Profession in 1860. At last she was allowed to sign the book at Middlesex Hospital as a student, promising that "I will not smoke and will in every way comport myself as a gentleman." She reached her goal, qualification, in 1877!

We have been directed from General Education by the attraction of Sirens; one cannot omit a reference to Education in the Principality. There they were ahead of England. In 1588 they had their "authorised" version in the National language and so today their beautiful speech seems to be safe.

In 1760 there were 300,000 Scholars in their Circulating Schools, and the Eisteddfodau was their highly competitive University.

Schemes for more or less National school systems were being proposed by a clergyman called Lancaster who wished to compel conformity and Bell, a Quaker who would have no religious tests, classified his pupils and sent them to their chapels and churches on Sundays—"as much ink was spilt in the controversy as blood in the Wars between Lancaster and York."

London University was founded because of the Tests in the old Universities. It was called "the Godless University" because of the absence of religious tests. In 1895 there were 20,000 in London region demanding University training especially in Science.

Kings College was founded to supplement the teaching in London University where there was no College for the training of curates. Many of them were helped by "Ember Pennies"—church collections made on Ember days. The letters A.K.C. are still in use—Associate of King's College.

One should allude to a few of the nearly forgotten disabilities. A vexing bit of local legislation in London—the Corporation Act—made it illegal for a merchant to refuse to accept office, if his name was proposed. This involved conformity. Those refusing to serve were fined £400-£600 and after 13 years the large accumulated sum was used to form the Mansion House Fund.

Finally three deliberately chosen men refused, and were tried by Lord Mansfield, who said the whole affair was illegal, and gave the Corporation a handsome dressing-down.

In 1661 Quakers and Congregationalists were hauled from the Meetings and cast into goal. In that year 5,000 Quakers were so in bondage. In 1664 2,000 clergymen were evicted from their pulpits.

Oxford and Cambridge were not open even for matriculation until 1870 and for Fellowships not until 1871, until the 39 Articles were accepted. The old saint

Martineau was only granted his degree when he was 80.

In 1861 and 62 senior wranglers were not allowed to take their well deserved Fellowships.

A Commission to clean up Oxford and Cambridge Rules found much to put right. Queen's must have its Heads from Westmorland or Cumberland—all College Heads were to be in Holy Orders. Master of Gonville and Carns had to be a Norfolk man. All Fellows had to wear a "Lilliput" and always to be accompanied by another Fellow "under pain of anathema." All meals were taken in silence while a student read the Bible aloud. Greek, Latin and Hebrew were the only languages allowed to the students, except when escorting strangers!

Professors could change their professorships at will; one changed from Divinity to Chemistry of which he knew nothing!

In the House—pleading for the opening of Universities and Fellowships in 1891 a speaker said: "Lay open the prizes of your Universities to our youth. Let us out of the shade into the free air and sun—if we then fail in culture and power we fail to our shame. Let not our Episcopalian friends think it strange that there are still signs of discontent among us. There are many forms of social disparagement to which Non-conformists are exposed as such. There are few such decisions left and these chiefly among clergymen who crystallized out many years ago.

A dozen instances could be brought to your notice, but are only distantly associated with the Profession. Two samples may perhaps be permitted—one sad, one not so sad. A little girl of non-conformist upbringing had perforce to attend the Church School. The Vicar the virtual Head—found the child did not know her catechism. She was isolated from her friends, made to stand with her arm folded behind her and was held up to derision before the assembled school.

A village Rector hobbled into his doctor's waiting room and asserted that his painful feet were due to the fact that the shoes had been made by a nonconformist. The doctor, not realizing that this was said in good faith, laughed and said that it must be worse to let a nonconformist attend his children and grandchildren.

The Rector was shocked, and said: "I must change my doctor". "Quite", said

the G.P. "Take a note from me to Dr. D., who will look after you well". A hasty telephone call put Dr. D. wise—and he was asked to keep the fact dark that he was a Roman Catholic. For 18 months he attended him. When the doctor died and the Rector and his old G.P. met at the funeral, the Rector was most indignant. When he had eased his indignation the G.P. said, "Rector, have

you learned your lesson?" And an old friendship was renewed on a broader base. *I am Glad to Say*:—

Over to you Bart's. A nurse doing a dressing for a child behind a screen heard a patient admitted that day, ask her neighbour if she could tell what C. of E. meant—that was written on her board—I was puzzled too but found it meant Case of Emergency!

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## AN INTERESTING CASE OF PHAECHROMOCYTOMA

by T. E. T. Weston, M.B., B.S.

### Clinical findings

The patient—a lady of 44 years was admitted to the Medical Wards in May, 1951, with a 12 years history of frontal headaches dating from her first pregnancy, which had become markedly worse since her last pregnancy three years before, during which she had developed toxæmia. For the past three weeks the headaches had been particularly severe, she had vomited several times, and had the sensation of a black patch in front of her right eye, and blurring of vision in the left eye. She had been dyspnoeic on exertion for three years, but was not orthopnoeic. She had had one attack of nocturnal cardiac asthma two weeks previously. She also complained of periodic flushing of face and hands and attacks of profuse sweating. Six months ago she had begun to get frequency of micturition, but this had recently improved. There was no history of haematuria but she said she had had transient swelling below her eyes and on the backs of her hands. Her periods were irregular, but her menstrual loss heavy.

On examination the patient was flushed and anxious. Her hands were red and she was sweating profusely. Her pulse was regular and bounding. Her blood pressure was 250/145. Her jugular venous pressure

was slightly raised and her heart was moderately enlarged, but no murmurs were heard. There was no ascites or oedema. Examination of her fundi revealed bilateral papilloedema and early optic atrophy which was more advanced on the right than on the left. She had pronounced albuminuria. Her respiratory and central nervous systems were normal.

Chest X-ray showed hypertensive changes in the heart and aorta, and an ECG, left ventricular strain. Her Hb. was 104% and white blood count and differential count normal. Examination of a catheter specimen of urine showed few epithelial cells, red blood cells, but no casts. An Addis count of 1,393,000 red blood cells in a 12 hour specimen of urine was obtained. Blood urea 26 mgm%, and urea clearance 120% of average normal. Plasma proteins, serum chlorides and alkali reserve were normal. Lumbar puncture produced chemically normal cerebro-spinal fluid at a pressure of 140 m.m. water.

A diagnosis of essential hypertension was made and the patient was treated with Hexamethonium bromide with marked improvement. The blood pressure fell from 250/145 to 135/100. The headaches became much less severe and albuminuria decreased. The eye

changes were unaffected. Red blood cells disappeared from the urine. A month after admission, the patient developed right pyelitis and the Hexamethonium bromide was stopped. The blood pressure rose again to its original level and the symptoms returned. Within a further month (July) the patient was much worse. The urea clearance was now only 70% average normal, although the blood urea remained low; and the Addis count revealed 2,840,000 red blood cells and 27,000 casts in a 12 hour specimen of urine. The blood chemistry was still normal. The possibility of an adrenal tumour was considered and a 1:4 benzo-dioxane test was carried out. It proved to be positive, and the diagnosis of phaeochromocytoma was made and the patient referred to a surgeon.

#### Operations

A laparotomy was performed through an incision in the left loin. The kidney was normal, but the suprarenal appeared to be enlarged and it was removed. It was sectioned at the table by the surgeon and found to be a normal suprarenal embedded in dense fat. It was therefore cut into slices and these were implanted in the left psoas muscle. A left lumbar sympathectomy was then performed. Slight improvement followed this operation and the patient was discharged.

She was readmitted in February of this year for right lumbar sympathectomy. Her condition was very much worse. She was dyspnoeic at rest and had orthopnoea and frequent attacks of nocturnal cardiac asthma. She was sweating even more profusely and was coughing up quantities of mucoid sputum. On examination the bilateral atrophic changes in the fundi had progressed. The jugular venous pressure was further raised and she had pulmonary oedema and a loud blowing apical systolic murmur conducted to the axilla. Her blood pressure was now 300/140. Her liver was palpable two finger breadths below the right costal margin. She had pitting oedema of the ankles but no ascites. Gross albuminuria was present and red blood cells in the urine. The blood urea and other blood chemistry values were still normal.

On the 1st March the second operation was performed through a right loin incision. A blueish tumour 2in. in diameter was found on top of the right suprarenal. This was dissected off leaving as much suprarenal tissue behind as possible. Within a few minutes the patient's blood pressure fell

dramatically, and on leaving the theatre it was 100/70. On arrival in the ward it was 72/50.

#### l-noradrenalin therapy

An intravenous drip of 500 cc of 5% Dextrose in water was commenced and into this were put 2 cc of 1:1000 l-noradrenalin ("Levophed"). This is equivalent to a dose of 4 microgrammes per cc. In the first 4 hours 1500 cc of intravenous fluid containing a total of 6 cc of l-noradrenalin resulting in a dosage of 24 microgrammes per minute were given. During this period the blood pressure fluctuated rapidly within the range of 64/46 to 106/80. In order to avoid overloading the circulation the rate of transfusion was reduced by one-third to 500 cc in four hours, and the dose of l-noradrenalin adjusted to 16 microgrammes per minute, and from the 4th to the 7th post-operative hours the blood pressure remained very steady at 110/80. It then rose to remain 120/70 for the next two hours. At the end of this time it began to fall again, and the dose of l-noradrenalin was raised to 32 microgrammes per minute. For the next eight hours, the 9th to 17th post-operatively, blood pressure showed slight fluctuation round the level 103/60, rising from the 17th to 21st hour to 120/60. By this time the Hospital's supply of l-noradrenalin was becoming exhausted, and as it was a Sunday, difficulty was experienced in securing a further supply. In the meantime, the dose was reduced to 16 microgrammes per minute. This decreased dosage seemed to make no difference for two hours, but after this the blood pressure fell from 130/70 to 90/50 in a further two hours. The supply of l-noradrenalin then ceased altogether and the next 500 cc of fluid put up contained 180 milligrammes d-N-methylamphetamine hydrochloride ("Methedrine"). This seemed, in spite of the large dosage, to have no effect and in the next hour the blood pressure fell from 90/50 to 62/40. Following this the dose was further boosted by intravenous injections at 15 minute intervals of a further 30 milligrammes. This also did not raise the blood pressure.

At the 26th hour after operation, further supplies of l-noradrenalin became available, and 500 cc of 5% dextrose in water, containing 12 cc was run in two and a half hours, giving a dosage of 98 microgrammes per minute. In the first half hour the blood pressure rose from 62/40 to 100/60, and in a further two hours to 116/74. The same

dosage was continued but during the 30th post-operative hour the blood pressure fell from 116/74 to 70/40. The dose of l-noradrenalin was increased even further to 192 microgrammes per minute. Within a quarter of an hour the blood pressure rose to 120/80 and in an hour to 128/90. It then began to fall again and the patient died 35 hours after operation.

#### Post-mortem

At post-mortem it was found that three quarters of the normal adrenal gland remained on the right. No sign of the slices of left adrenal implanted in the psoas could be

found. The heart showed hypertensive changes and the kidneys arteriolo-sclerosis. It was considered that the function of the right adrenal had been largely taken over by the phaeochromocytoma, and that although three-quarters of an adrenal gland remained, and it would have been supposed from previous evidence that this was sufficient to maintain life, it was obviously not active enough to be able to do so.

I am indebted to Dr. A. A. Osman and Mr. Alan Small for permission to publish this case, and to Dr. Keith Simpson, who performed the post-mortem examination.

## PERPETUAL STUDENTS

By C. N. Hudson

*"I, the undersigned, hereby undertake, as a condition of my admission as a Student of St. Bartholomew's Hospital to conform to the rules and regulations of the Hospital and of the Medical College thereof; and I acknowledge that permission to attend is given on condition that my work and conduct remain satisfactory to the Treasurer of the Hospital and to the Medical Officers."*

Such is the declaration signed by all Bart's students when they come to the Hospital, and, provided they keep its conditions and pay the proper fees, they eventually become perpetual students of the Medical College, and as such, always entitled to attend ward rounds and lectures. There are many names in the register which contains this declaration, some of them illustrious, some notorious and the majority just names. But among them are thirteen men who have never paid any fees. Nor have these thirteen been students here in the ordinary sense; indeed three have never received any medical education anywhere. For they are the Honorary Perpetual Students of the Medical College. This title is the highest honour that the College can confer on strangers, and, by definition, cannot be conferred on Bart's men. The title carries no privileges other than those of all perpetual students, and no duties other than those contained in the declaration concerning "work" and "conduct." The ceremony of induction could

not be more simple; all that is required is the signing of the register and declaration. Nevertheless it is a rare and esteemed honour conferred only on strangers who have been of particular service to the College.

It was only after the College became a separate entity with its own charter that it began to elect Honorary Perpetual Students, although in the general sense, the term "perpetual student" had been in existence for a very long time. It is not known exactly with whom the idea originated as the contemporary College Records have been destroyed. However, Sir Girdling Ball states definitely in his book that the title was first conferred in 1922. In this year the governors of the Hospital began a scheme whereby Directors of Surgical Clinics elsewhere were invited from time to time to take charge of the recently formed Surgical Professorial Unit at Bart's. Such visits lasted about a fortnight and the Surgeon was appointed a Temporary Surgeon to the Hospital.

Following a visit to America by Mr. Gask, Dr. Harvey Cushing, Professor of Surgery at Harvard University, in charge of the Peter Bent Brigham Hospital, Boston, was the first to be invited. This was most appropriate as he had recently introduced such a scheme at his hospital, so that when he came here in June, 1922 to take up this position, a surgeon from St. Thomas' took his position in America. The *Journal* of the day

describes his visit as a great success, and only regrets that "we were not privileged to see him operate." At the end of his stay Dr. Cushing was invited to become the first Honorary Perpetual Student. He accordingly signed the register and declaration, and later when he wrote to the *Journal* it was under this title of "Perpetual Student" that he chose to sign his letter.

Before the next Temporary Director was appointed, another American Surgeon visited the Hospital and became the second Honorary Perpetual Student. This was Professor Hugh Cabot, Professor of Surgery in Michigan University in charge of the Genito-Urinary Clinic at Ann Arbor. He had been in charge of the Harvard Medical Unit in France during the Great War and later became Honorary C.M.G.. He came to Bart's for a fortnight in June, 1926, and took charge of one of the ordinary firms, that of Sir Holburt Waring. While here he lectured to the College on Prostatectomy, and the *Journal* departed from its usual practice and printed it in full. Also, in a lighter vein, he addressed the Abernethian Society on the subject of "North American Indians" and was elected an Honorary Member of the Society, the only Honorary Perpetual Student reported as receiving this additional distinction. Several years later Professor Cabot returned and lectured again on Progress in Prostatic Surgery.

The next year, 1927, saw the election of the third Student, this time an Irishman, Sir Berkeley (later Lord) Moynihan, P.R.C.S., and Surgeon to Leeds Royal Infirmary. During his fortnight's stay as the Second Temporary Director of the Surgical Unit he gave an impressive address to the Abernethian Society on "Medicine and Art."

He was followed in June, 1929, by Professor George Grey Turner, Professor of Surgery in Durham University at Newcastle Royal Infirmary. The *Journal* says that he intrigued everyone with his knowledge of history of everything from flint knives to radium, including, sometimes to local discomfiture, the history of this hospital. So it was not surprising that he chose to talk to the Abernethian Society on "Well-known names in Surgery." His son was later a student here and during the war Professor Grey Turner gave another lecture on "Medical Records."

Later that year appeared in the register the first non medical name. This was "Edward P." inscribed by H.R.H. the Prince of Wales, the President of the Hospital, on a visit to inaugurate an appeal for funds. On this occasion he consented to become an Honorary Perpetual Student and at the request of Dr. Morley Fletcher signed the register and declaration. Recently, as Duke of Windsor, he has written a book, and, following the custom of all Bart's men who publish works, he has presented a copy to the library.

The next election was of another Temporary Director. Professor D. P. D. (later Sir David) Wilkie, Professor of Surgery in Edinburgh University held this position in 1931. His address to the Abernethian Society was of particular interest, for he spoke on "Surgery in the time of John Abernethy." The *Journal* published this in full, and it is still worth reading.

After Professor Wilkie, came Professor Arthur Burgess, Professor of Surgery in Manchester University, to hold the same post in 1933. Three years previously he had been President of the B.M.A. and his address to the Abernethian Society was also on historical lines, though on a more limited subject, his title being "Stone-cutters and Stone-crushers."

In 1935 the invitation to take charge of the Surgical Unit went nearer home, and a rare temporary transfer within the University occurred with the visit of Professor C. M. (now Sir Max) Page across the water from St. Thomas Hospital, where he was Professor of Surgery. One wonders if he envisaged the effect of the forthcoming conflict on the two ancient metropolitan foundations with which he is associated, when he chose to address the Abernethian Society on "The Influence of War on the Practice of Medicine."

In 1937 from the North once more came the next Temporary Director and Honorary Perpetual Student. This was Professor R. E. (later Sir Robert) Kelly, Professor of Surgery at Liverpool University and noted also for his contributions to intra-tracheal anaesthesia. With a mind that probed beyond the confines of medicine, especially toward the dim territories where science and philosophy meet, he had a further extra-curricular hobby in "Colour Photography,"

and it was on this subject that he spoke with expert knowledge to the Abernethian Society.

In this year also, H.R.H. the Duke of Gloucester was installed in the Great Hall as President of the Hospital and at the same time accepted the title of Honorary Perpetual Student; so he signed the declaration "Henry" to complete the ceremony. Shortly afterwards he paid a private visit to inspect the Hospital and later consented to attend a Hospital Ball at Mansion House.

Two years later in the Indian Summer just before the war, there came across the Atlantic to Bart's to be Temporary Director a second pioneer in Surgery. This was Dr. Ewerts Graham, Professor of Surgery in St. Louis University. He was the first man to perform a pneumonectomy for lung neoplasm, but perhaps, by a quirk of fate, he is most familiar as the originator of cholecystography, sometimes known as Graham's test. However, probably few others could speak from a position of such authority as he did when he spoke to the Abernethian Society on "Transatlantic trends in medicine."

The Indian Summer could not last and the war was upon us in that year. The early unreality was soon shattered and much of the College and Hospital was dispersed "for the duration." The Preclinical School, so recently installed in Charterhouse Square, was exiled to Cambridge, where it took on an unfamiliar corporate existence in Queens' College. To-day, in Cambridge, Bart's arms dimly seen on the wall in King's Lane, a habit of hissing and stamping at lecturers in the Medical Faculty, explanatory post-scripts to the list of Rugger Cuppers winners and to the table of bumps, and, in Bart's, the occasional Rahere Student and those curious anachronisms, who wear light blue stripes on their Bart's ties, are the relics of this visit. In the exchange of courtesies

between the Colleges, which symbolize some real personal friendships, Professor Hopwood became an Honorary M.A. and Honorary Fellow of Queens' College, Professor Wormall became an Honorary Member of Queens' and Dr. J. A. Venn, President of Queen's College became an Honorary Perpetual Student of this Medical College and later one of its governors.

Finally, when the fires of war had burnt themselves out, and, Phoenix-like, the post-war Hospital and Medical College re-emerged but slightly scarred by Hitler's bombs and Nationalization, there came to Bart's in 1951 its most recent honorary alumnus and first post-war Temporary Director. Professor Emile Holman is Professor of Surgery at Stanford University, California and distinguished for his contributions to vascular surgery. But it was under very different circumstances that he first came to Bart's, some thirty-four years previously in 1917. A previous aggressor was dropping bombs by daylight on London. Casualties were brought into Bart's and to assist in dealing with them there came along to the Hospital a young American Rhodes Scholar, who happened to be on a visit to London. So it is fitting that after these years he should qualify to add his name to the distinguished dozen who have become Honorary Perpetual Students of this Medical College.

Today there are only six left who hold this title, which is, paradoxically, both useless and yet highly valued. Nevertheless one day, perhaps, when fishes fly and forests walk, one of them might decide to exercise his only privilege to attend a teaching session in the Hospital. But, having signed the declaration, he would naturally first obtain a white coat.

The author would like to thank Miss Craig, Prof. Sir James Paterson Ross and Mr. Thornton for their assistance and advice in the preparation of this article.

## RUGBY FOOTBALL CLUB

## 1st XV Fixtures for 1954-55:—

Sept. 22	Berkshire Wanderers	A.	Dec. 4	Esher	H.
25	Stroud	A.	11	Saracens	A.
Oct. 2	U.S., Chatham	H.	18	Old Cranleighans	A.
9	Woodford	A.	Jan. 1	Civil Service	A.
13	H.A.C. (kick-off 4.45 p.m.)	A.	8	Old Rutlishians	H.
16	R.M.A., Sandhurst	H.	15	Taunton	A.
20	Cambridge University LX Club	H.	19	London University	A.
23	Old Whitgiftians	H.	22	Catford Bridge	A.
30	Sutton	A.	29	Old Merchant Taylors'	H.
Nov. 6	Penzance & Newlyn	A.	Feb. 5	Oxford University Grey-hounds	A.
8	Devonport Services	A.	12	Old Paulines	H.
10	Paignton	A.	19	Old Millhillians	A.
13	Rugby	A.	26	Nottingham	H.
20	Old Alleynians	H.	Mar. 5	Old Haberdashers	A.
27	Metropolitan Police	H.	12	Streatham	H.
			19	Aldershot Services	A.
			26	Harlequin Wanderers	H.
			April 2	Inter-firm Seven-a-sides	H.

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

## HOUSE APPOINTMENTS

July 1 to December 31, 1954

<b>Dr. G. Bourne</b>	G. H. Bush	<b>Casualty H.P.</b>	S. G. Thompson
<i>Dr. Bodley Scott</i>	H. Poirer (until 30.9.54)	<b>Children's Dept.</b>	
	Mrs. J. S. Murrell	<b>Dr. C. F. Harris</b>	J. H. Fairley
	(from 1.10.54)	<i>Dr. A. W. Franklin</i>	Miss P. J. Lindop
<b>Dr. E. R. Cullinan</b>	D. M. Shaw	<b>E.N.T. Dept.</b>	
<i>Dr. K. O. Black</i>	J. F. Coplestone	<b>Mr. Capps, Mr. Jory</b>	Miss P. J. Brady
	(until 30.9.54)	<i>Mr. Hogg, Mr. Cope</i>	S. Shere
	J. S. Murrell (from 1.10.54)	<b>Skin and V.D. Depts.</b>	
<b>Dr. A. W. Spence</b>	I. G. Tait	<b>Dr. Mackenna,</b>	B. D. Hick
<i>Dr. N. C. Oswald</i>	L. N. Dowie (until 30.9.54)	<b>Dr. Nicol</b>	
	Miss F. E. Garrad	<b>Eye Dept.</b>	
	(from 1.10.54)	<b>Mr. Philips</b>	T. A. Duffy
<b>Dr. E. F. Scowen</b>	A. H. M. Rimmer	<i>Mr. Stallard</i>	
<i>Dr. W. E. Gibb</i>	A. L. A. Reid (until 30.9.54)	<b>Gynaec. and Obs. Depts.</b>	
	G. Scott-Brown	<b>Mr. Beattie</b>	C. Porteous
	(from 1.10.54)	<i>Mr. Fraser,</i>	M. V. J. Fitzgerald
<b>Prof. R. V. Christie</b>	B. S. Jones	<i>Mr. Howkins</i>	
<i>Dr. G. W. Hayward</i>	R. D. Clements		Interns
	(until 30.9.54)		Miss O. M. Cory-Wright,
	J. F. Pearce (from 1.10.54)	<b>Anaesthetists</b>	Junior H/S
<b>Mr. J. B. Hume</b>	M. Evans		
<i>Mr. A. H. Hunt</i>	Mrs. J. S. Murrell	<b>Dental Dept.</b>	W. R. Daniel
	(until 30.9.54)		L. Langdon
	H. Poirier (from 1.10.54)		R. T. Pattinson

**Mr. R. S. Corbett** R. J. Knight  
*Mr. A. W. Badenoch* G. Scott-Brown  
 (until 30.9.54)  
 A. L. A. Reid (from 1.10.54)

**Mr. J. P. Hosford** A. S. Wint  
*Mr. E. G. Tuckwell* J. S. Murrell (until 30.9.54)  
 J. F. Coplestone  
 (from 1.10.54)

**Prof. Sir J. P. Ross** J. E. Cairns  
*Mr. J. B. Kinmonth* J. F. Pearce (until 30.9.54)  
 R. D. Clements  
 (from 1.10.54)

**Mr. C. Naunton Morgan**  
 R. J. Blow  
*Mr. D. F. E. Nash* Miss F. E. Garrad  
 (until 30.9.54)  
 L. N. Dowie (from 1.10.54)

**Orthopaedic Dept.**  
*(Accident Service)* H. D. Jones  
*At Hill End*

**E.N.T. Dept.**  
 Miss J. P. Bradey  
 S. Shere

**Orthopaedic Dept.**  
 R. W. Ainsworth  
 F. W. Winton

**Thoracic Dept.**  
 J. G. Ross  
 G. W. Tamlyn

**Neuro-Surgical Dept.**  
 A. K. Thould

**Anaesthetists**  
 A. B. Lodge (until 31.8.54)  
 J. P. N. Hicks

The following appointments to the Medical Staff took effect from the dates indicated :

**Diagnostic X-Ray Department**  
 Senior Registrar : Dr. G. A. S. Lloyd (vice du Boulay) from June 8, 1954.

**Mr. Corbett's firm**  
 Junior Registrar : Mr. Philip P. Philip (vice Williamson).

**Department of Anaesthesia**  
 Senior Registrar : Mr. T. B. Boulton (vice Miss Alexander).  
 Resident Registrar : Dr. Stephanie Savill (vice Batier) from June 15, 1954.  
 Registrar : Mr. J. W. R. McIntyre (vice Boulton).

**Dr. Scowen's firm**  
 Senior Registrar : Dr. H. M. Lloyd, from June 1, 1954

**Department of Obstetrics and Gynaecology**  
 Registrar : Mr. N. O. Gourlay, from July 1, 1954.

## EXAMINATION RESULTS

### UNIVERSITY OF LONDON

#### HONOURS

Clements, R. D. (Distinguished in Medicine)  
 Thould, A. K. (Distinguished in Medicine)

#### Pass

Adam, R. M.	Fielding, M. E.
Anderson, M. G.	Foulds, H. P. S.
Baker, A. S.	Foy, B. N.
Brazenor, E. L. F.	Grant, M.
Blofeld, A.	Harris, F. A. S.
Britain, E.	Hazelton, S. F.
Cook, W. A.	Hicks, G. E.
Copplestone, J. F.	Holden, F. A.
Cory-Wright, O. M.	Hobbs, J. F.
Cree, J. E.	Jones, H. D.
Davies, J. R. E.	Kneebone, J. M.
Dowie, L. N.	Lindop, P. J.
Ellison, C.	Mackay, A.

#### Part I

Akinjagunla, A. M. O.	Cranston, C. J.
Allen, A. B.	Dunkley, A. H.
Arthur, T. I. F.	Gardiner, A. B.
Beasley, R. W. K.	Goss, G. C. L.
Castle, W. B.	Graham, M. A. H.
Clare, K. A.	Gray, A. J.
Craggs, D. F.	Hennessy, D. B. E.

#### Part II

Bromwich, L. R.	Staunton, M. H.
Gampell, B. I.	Crabtree, A. S.
Ivory, P. B. C. B.	Gray, A. J.

#### Supplementary Pass List

Ivory, P. B. C. B.
Kirk, A. G.
Macadam, F. I.
Macdonald, A. H.
Need, R. E.
Pagan, R. T.
Robinson, M. R.

Marker, H. R.	Rowley, H. E.
McLean, I. E. D.	Shirazi, A. M. R.
Meredith, H. D.	Smith, E. P.
Murrell, J. S.	Stevens, J. H.
Morlock, R.	Tamlyn, G. W.
Nye, J. F.	Thomas, H. A. J.
Pearce, J. F.	Ullmann, G. H. A.
Pickering-Pick, M. E.	Voysey, M. M.
Poirier, H.	Weir, D. A. D.
Pippert, D. J.	Whitting, H. W.
Prior, J. J.	Winton, F. W.
Reid, A. L. A.	Wooding, D. F. P.
Reiseger, G. M.	Young, S. J.

Taylor, R. C.
Thomas, D. P.
Topham, P. A.
Thoresby, F. P.
Wadge, D. A.
Wetherall, J. M.
Wheeler, B. R.
Wilson, D. M.

Mears, G. W. E.
Willing, R. J.
Forget, Y. N. P.

Hooper, M.
Perkins, M. V.

#### Part III

Bashford, A. E.	Cochrane, J. G.
Godwin, M. H.	Hooper, M.
Mears, G. W. E.	

#### Part IV

Bailey, R. D.	Martin, R. M.
Crabtree, A. S.	Bromwich, L. R.
Gampell, B. I.	Fletcher, L. O. A.

Perkins, M. V.	Ivory, P. B. C. B.
Cour-Palais, A. J.	Wyner, S. E. A.

Godwin, M. H.	Forget, Y. N. P.
Cochrane, J. G.	Gray, A. J.

## SPORT

### SAILING CLUB

#### Sherren Cup 1954

This cup is sailed for by the thirteen Hospitals belonging to U.H.S.C. Racing takes place over Whitsun, there being two heats and a final of six boats.

The 1st heat was sailed on a flood tide and in a light E breeze. Bart's, sailing Tourmaline, worked out a long lead in the initial windward leg, increasingly drawing away from the rest of the fleet on the reach to the Roach Buoy and on the run home, finally finishing some two miles ahead of the next boat.

The final, on Whit Monday, was sailed in a strong northwesterly wind over an upriver course round Cliff and Canewdon Buoys. Bart's again worked out an early lead, fortunately as it turned out, as a third of the way round the lower pintle parted, making the rudder useless. The course was completed using an oar over the stern and the lead held and slightly increased towards the finish. A protest lodged by St. Mary's Hospital over the use of an oar was not upheld.

It is the first time since the war that we have won this trophy. During the last 12 months all the inter-hospital sailing trophies have been won by Bart's. It is also pleasant to point out that in the last triangular match five out of the nine U.H.S.C. team members were from this hospital.  
 Crew: M. E. B. Hayes, J. J. Misiewicz, P. J. G. Smart.

#### Sailing Club Regatta

The Sailing Club Regatta is perhaps unique among annual sports meetings of the various clubs, in that it provides for active participation of everyone attending, beginners and old salts alike.

This year's Regatta was held at Burnham-on-Crouch on May 26, 27 and 28, about 40 people attending. A full programme of sailing was carried through, the standard being high and the competition keen, as can be judged by the fact that in one of the heats the first three boats finished within five seconds of each other.

Longer courses than last year were possible, thus adding interest to the racing. A variety of weather was encountered, ranging from ideal conditions of sunshine and light breeze on Wednesday and Thursday to flat calm followed by a fierce

squall on Friday. A protest meeting was held in the clubhouse after one of the races, newcomers to the sport being thus provided with an interesting introduction to sailing boat racing.

The Ladies' Race had to be sailed over a shortened course owing to very light airs, which made a good start essential. A fresh S.W. breeze sprang up after the gun and there was some confusion at the leeward mark out of which Miss M. Staley profited, gaining a lead which she held to the line.

A fine exhibition of how not to do things was provided by the Seamanship Race, the majority of crews making enough mistakes to last them a whole season. The winning crew: Miss M. Staley, D. Rosborough and J. Viner went round the tricky and complicated course in the least time and with only one penalty, winning the race very comfortably.

The final of the Commodore's Trophy, run after two heats, provided the greatest excitement and sport, as the fleet was hit by a thunder squall about a minute before the start. Nobody reefed, the boats moving very fast and surfing at times with Miss A. Thomas in the lead and J. Hunter well placed to windward. The lead was taken by the latter at the distance mark, J. Snow following close astern. On the reach down the Roach, J. Hunter took the wrong shore, letting J. Snow through, who later, tacking against a falling wind, sailed Amber into a well-deserved win, Miss A. Thomas taking second place.

The Commodore, Mr. F. T. Evans, brought Mrs. Evans to watch the racing on the second day. Dr. Coulson selflessly ferried wet and muddy crews in his car back to the clubhouse.

The Regatta was concluded by a Dinner, attended by Mr. Cambrook, who gave away the prizes.

In retrospect it is of interest to see how established helmsmen lost to the many newcomers. (One filling his boat with the "oggin" and having to retire and another starting too early in a squall and being unable to stop!) We hope that at least some who have tried their hand for the first time will fulfill their early promise.

It was disappointing to see a complete absence of preclinical students, in spite of all encouragement given to them. A highly unsatisfactory state of affairs.

**Results:—****Commodore's Trophy:**

1. J. Snow.
2. Miss A. Thomas.
3. J. Hunter.

**Ladies' Race:**

1. Miss M. Staley.
2. Miss R. Troughton.
3. Miss A. Thomas.

**Seamanship Race:**

1. Miss M. Staley, D. Rosborough, J. Viner.

**ATHLETICS****United Hospitals Championships**

This year we finished seventh in the Championships, the results being:—

St. Mary's	— 78
London	— 68
Guy's	— 63
University College H.	— 35
St. Thomas's	— 31
Middlesex	— 23
Bart's	— 22

The result was rather disappointing because we had hoped to improve on our position of last year. Although the members of our team performed as well as was expected in their events, this was not sufficient in most cases to gain the necessary places in the Finals.

Our positions in the Finals were:—

100 yds.—L. Pringle (5th). 440 yds. Hurdles—A. S. Tabor (3rd). 880 yds.—C. P. Roberts (4th). 3 miles—D. M. Stainton-Ellis (4th). High Jump—C. P. Roberts (4th). 4 x 110 Relay—P. McDonald, A. S. Tabor, B. Thom, L. Pringle (3rd). Medley Relay—C. P. Roberts, B. Thom, L. Pringle, P. McDonald (4th).

**Club Matches****v. Westminster Bank and Surrey A.C.**

1. Bart's; 2. Surrey; 3. Westminster Bank

For this match, the first of the season, we had our full team. There was some keen competition, and fine weather, which produced a very pleasant evening for all concerned.

**v. St. Mary's Hospital**

1. St. Mary's 63; 2. Bart's, 61

This was a very close match, which was not decided until the final relay which Bart's lost by two feet.

**v. London Hospital and Guy's**

1. Guy's; 2. London; 3. Bart's

Although we were decisively beaten in this match it was comforting to note that it was by teams containing a large number of University Purples. One of the best events was the half-mile in which C. P. Roberts ran a very good race.

**v. Westminster Hospital and Latymer Upper School**

1. Latymer, 88; 2. Bart's, 78; 3. Westminster, 71

This was a very interesting and enjoyable match, which was held on a Saturday morning at Latymer School. Although we beat the School in the track events we were not able to hold them in the field events, and so were only able to finish second. D. M. Stainton-Ellis won the half and one mile.

**Sports Day**

Sports Day, this year, seems to have been regarded as a success, and enjoyed by all who came down to Chislehurst. That this was so is due to the increased number of competitors, even though a mild form of blackmail was necessary; to the clemency of the weather; and to the numerous helpers who came to the aid of a much-harassed committee. We would like to thank Mr. J. C. Ainsworth-Davis for his sure and steady Presidency, and Mrs. Ainsworth-Davis for her gracious presentation of the prizes; Mr. and Mrs. White, whose troubles started some time before the great day and continued some time after; and Dr. A. S. Wint and the numerous other Judges, Timekeepers and Referees who "saw fair play." We should also like to congratulate the "backroom girls" who, under the leadership of Miss M. Bott, provided such excellent teas, and also those brave ladies who sallied forth with programmes—and managed to sell them. Finally, the Secretary and his assistant would like to thank their Captain, Mr. L. Pringle, who was the driving force and organising genius.

**Sports Day Results**

100 yds.—1. L. Pringle; 2. P. McDonald. Time 10.4 sec.

220 yds.—1. L. Pringle; 2. R. M. Phillips. Time 24.2 sec.

440 yds.—1. P. McDonald; 2. C. P. Roberts. Time 54.2 sec.

880 yds.—1. C. P. Roberts; 2. D. M. Stainton-Ellis. Time 2 min. 3.1 sec.

1 Mile—1. D. M. Stainton-Ellis; 2. C. A. C. Charlton. Time 4 min. 45.2 sec.

3 Miles—1. D. M. Stainton-Ellis; 2. R. Thompson. Time 16 min. 22.3 sec.

120 Hurdles—1. A. S. Tabor; 2. P. R. M. Ernst. Time 16.4 sec.

Javelin—1. D. Rosborough; 2. C. Garnham. Distance 122 ft. 6 in.

High Jump—1. C. P. Roberts; 2. P. R. M. Ernst. Height 5 ft. 6½ in.

Weight—1. J. C. C. Craggs; 2. K. E. A. Norbury. Distance 37 ft. 6 in.

Long Jump—1. P. R. M. Ernst; 2. K. J. Sugden. Distance 19 ft. 3 in.

Discus—1. D. A. Lammiman; 2. P. I. Taggart. Distance 97 ft. 8 in.

120 yds. Handicap—1. P. McDonald; 2. J. C. Craggs.

Inter-Year Relay—1. Clinical A; 2. Preclinical; 3. Clinical B.

Ladies' Invitation Relay—1. Students; 2. Nurses; 3. Physiotherapists.

Housemen's 100—1. Miss J. Cree.

Ladies' 80 yds.—1. Miss J. Wilson.

Tug-of-War—1. Clinicals; 2. Preclinicals.

Sack Race—1. M. J. Weatherley; 2. Miss J. Swallow.

Mixed Three-Legged Race—1. Miss H. Meredith and J. Owens; 2. Miss J. Swallow and J. Dobson.

Result of Inter Year Competition:

1. Preclinicals, 201 points; 2. Clerks, Dressers and Introductory Course, 98 points; 3. Out-patients, Children and Specials, 57 points; 4. Midder, Gynaecology and Finalists, 52 points.

**LAWN TENNIS****United Hospitals Cup.**

On Wednesday, June 2, on London Hospital's ground in the 2nd round of the United Hospital's Cup, St. Bartholomew's Hospital beat London Hospital by 5 matches to 3 with one unfinished.

It was a cloudy day with a strong gusty wind which made ball control difficult but happily it did not rain.

Before tea W.S.S. Maclay and J. W. Mellows won their first two matches easily. Mellows was playing particularly well. W. J. Walton and J. Bench though losing one match very easily won the other in two sets. C. G. Stephenson and J. Worthy lost both their matches although in their first match they led 5-2 in the third set before losing it 8-6. So we went to tea with the scores level at 3-3.

Refreshed by a good tea, Maclay and Mellows won fairly quickly in 3 sets and soon afterwards Walton and Bench won to put the result beyond doubt and Bart's into the semi-final. Meanwhile Worthy and Stephenson were fighting out a long first set which they finally lost 14-16 and as the result of the match was now certain and it was getting late it was agreed to leave the game unfinished.

**Results (Bart's names first).**

W. S. S. Maclay and J. W. Mellows beat Lennox and Bull 6-0, 6-3, beat Pollak and Wright 3-6, 6-3, 6-1, beat Hewitt and Hall 6-4, 6-4.

C. G. Stephenson and J. Worthy lost to Pollak and Wright 3-6, 6-3, 6-8, lost to Lennox and Bull 5-7, 3-6, drew with Hewitt and Hall 14-16.

W. J. Walton and J. Beach beat Hewitt and Hall 7-5, 6-2, lost to Pollak and Wright 1-6, 2-6, beat Lennox and Bull 10-8, 6-2.

**ROWING CLUB**

Two scratch crews raced for the first time in the Head of the River Races and rose 63 places and 36 places respectively, Saturday, May 1. The first eight entertained Queens' College May 1 Boat to a friendly outing to Richmond. The occasion was enjoyed by all, except, perhaps, those in the launch, which broke down at Barnes. After drifting for half an hour the guests and coaches were landed and left to find their own way back by their own devices.

**Hammersmith Regatta, May 8.**

The Junior-Senior four entered for this Regatta, lost its bow just before the race owing to illness. In the semi-final it lost by two lengths, after some peculiar steering, to Ibis R.C., who won the event.

Crew: D. A. Chamberlain, stroke; R. P. Doherty; 3; R. W. Beard; 2; C. C. H. Dale, bow; 2; steers.

**Chiswick Regatta, May 15.**

Thames Cup Eights lost to Crowland R.C. by 1½ lengths.

Crew: D. Fairbairn, bow; J. M. Gray; 2; T. P. Ormerod; 3; D. A. Chamberlain; 4; C. C. H. Dale; 5; R. W. Beard; 6; C. N. Hudson; 7; J. F. G. Pigott, stroke; M. J. Kieley, coxswain.

Junior-Senior Fours lost to Hammersmith R.C. on a foul. A collision occurred after about 30 strokes when Bart's led by ½ length.

Crew: R. P. Harrold, bow; R. W. Beard; 2; C. C. H. Dale; 3; D. A. Chamberlain, stroke.

Senior Fours. Heat 1: beat Ibis R.C. ½ length. Thames R.C. "B" 1½ lengths after restart following collision between Bart's and Thames.

Heat 2: beat R.A.F. (Medmenham) R.C. ½ length after collision on penultimate stroke when Bart's led by a canvas. The (3) in R.A.F. boat was catapulted into the water, a most dramatic finish to the fourth and last race between this four and the R.A.F.

Final: lost to Thames R.C. by ½ length after a very good race.

Crew: C. N. Hudson, bow; J. F. G. Pigott; 2; D. H. Black; 3; J. M. Gray, stroke.

**Vespa Dashes, May 18.**

Senior Fours lost to Thames "B," the eventual winner by 1 length after a crab. Crew as at Chiswick.

**Thames Ditton Regatta, May 22.**

Junior Eights Climber Division lost to King's College (London) B.C. ½ length after a good race.

Crew: R. White, bow; M. Bedford; 2; A. J. Ellison; 3; T. W. Bolton; 4; R. I. D. Simpson; 5; D. W. P. Thomas; 6; L. P. Doherty; 7; R. E. Nottidge, stroke; D. J. Price, coxswain.

Richmond and Twickenham Regatta, May 28. Junior Senior Fours. Heat 1: beat Walton R.C. easily after leading from the start.

Heat 2: beat Barclays Bank R.C. 4 lengths. Bart's nearly collided shortly after the start and then struck a buoy on their station. Barclays also struck a buoy.

Heat 3: beat R.A.F. (90 group) R.C. 3 lengths. R.A.F. had an early short lead, Bart's steered well and went ahead and then proceeded to wander somewhat.

Final: beat Chelsea Polytechnic R.C. 1½ lengths. Chelsea got an immediate lead of 1½ lengths but Bart's rowed past to win in the fastest time for any four on the day.

Crew: B. P. Harrold, bow; R. W. Beard; 2; C. C. H. Dale; 3; D. A. Chamberlain, stroke.

**CRICKET CLUB****Cup Match v. Guy's Hospital**

Played on Thursday, June 3rd at Chislehurst. Match lost.

This unlucky match was played on one of the few fine days of this season. The captain lost the toss and Guy's elected to bat. Soon, due to some good bowling by Rosborough we had three of their wickets down for 59 runs, and our team's spirits were high. However, Guy's third batsman, after playing himself in, went well ahead to score 104 in a fine attacking style while their Secretary, MacKenzie, stayed steadily at the other end to score 54. Ford then bowled well, taking four of the Guy's wickets; however, when they eventually declared—having lost nine wickets—they had left us with 263 runs to get.

Our batsmen, rather dismayed by this total they were asked to score, proceeded to get themselves out in rapid procession, and if it had not been for a fine innings of 67 by Braimbridge our total would have been far worse than the 132 we eventually scored.

## GUY'S HOSPITAL C.C.

Cooke, b Rosborough ... ..	12
Knapman, b Rosborough ... ..	15
Atkinson, b Rosborough ... ..	104
Tunnadine, b Winton ... ..	4
McKenzie, c Bloomer b Ford ...	54
Gunn, run out ... ..	21
Wells, b Ford ... ..	19
Bissoon-Dath, b Ford ... ..	7
Young, b Ford ... ..	10
Wills, not out ... ..	6
Extras ... ..	11
<b>Total (for 9 wks.) ... ..</b>	<b>263</b>

Lyon did not bat.  
Bowling—

	Overs	Mdns.	Runs	Wkts.
D. Rosborough ... ..	17	3	49	3
F. Winton ... ..	16	2	40	1
M. Bloomer ... ..	12	1	55	—
F. D. C. Ford ... ..	8.4	—	53	4
M. Braimbridge ... ..	7	—	27	—
J. H. K. Taylor ... ..	3	—	28	—

## BOOK REVIEWS

**MODERN PRACTICE OF ANAESTHESIA**, by Mr. Frankis Evans. Butterworth. pp. 622. Price 65s.

During the last few years there has been a great increase in the number of drugs and pieces of apparatus available for anaesthesia with a consequent increase in the variety of techniques available to the anaesthetist. This is necessary in view of the increasing field and severity of modern surgery and certain diagnostic investigations have introduced new problems.

The Editor of this book has gathered a group of distinguished contributors and together they have presented a survey of the methods by which these problems are being solved at the present time. The theoretical aspects are discussed and with the help of excellent illustrations the practical details are clearly given; due emphasis being placed on the fact that modern anaesthesia need not necessarily be novel anaesthesia, but the perfection of techniques which have stood the test of time. There are valuable chapters on subjects such as explosions and resuscitation; while the account of the control of respiration would do credit to any textbook of physiology.

It is a pleasant thought for the reader that the arduous task of collecting and presenting this information has been the lot of the writer and not his own. With the help of this book it has become a pleasure for anyone interested in the subject to gain insight into what is considered the modern practice of anaesthesia.

J. MCINTYRE.

P. G. Watson: **METABOLIC INTEGRATIONS**. W. Heffer & Sons Ltd., Cambridge. pp. 1-9. 4s.

Modern biochemistry has kept in step with the other sciences by diving into the whirlpool of

## ST. BARTHOLOMEW'S HOSPITAL

G. B. Gillett, b Atkinson ... ..	1
P. H. Chalk, b Lyon ... ..	0
M. Braimbridge, c Howells b Willis	67
A. P. Marks, b Atkinson ... ..	0
P. U. Rycroft, b Atkinson ... ..	0
F. D. C. Ford, c Howells	—
b Bissoon-Dath	27
M. Bloomer, lbw b McKenzie ... ..	12
D. W. Roche, b Willis ... ..	5
F. Winton, st Howells b Willis ...	1
D. Rosborough, c Howells	—
b McKenzie	11
J. H. K. Taylor, not out ... ..	1
Extras ... ..	7
<b>Total ... ..</b>	<b>132</b>

## St. Bartholomew's Hospital C.C. v. Middlesex Hospital C.C.

Saturday, June 5th. Rain stopped play.  
Bart.'s 113-4 (G. B. Gillett 34).

dynamic changes and cycles. This little booklet summarises schemes correlating chemical reactions with energy changes, the integration of "energy-rich-bonds" and "energy-poor-bonds" with oxidations and reductions. The intention is to help the student when he reads his textbooks and while he attends lectures on this subject. There is an extremely useful list of 37 main references at the end. Unfortunately the fundamental requirement for such an undertaking is to be absolutely correct and clear. Whereas in Chart III the phosphorylation of hexose monophosphate by ATP is irreversible, the master chart has arrows pointing both ways. If one really followed the arrows for the cytochrome reactions within the Krebs tricarboxylic cycle one would go round in small circles rather than entering a cycle. No reader who is not already fully informed will understand from Chart II that the steps from glycogen to glucose-1-phosphate or from hexose diphosphate to triose phosphate are as reversible as the conversion of glyceraldehyde phosphate to dihydroxy-acetone phosphate. For the last reaction arrows are pointing both ways, for the others in one direction only. The first phosphate transfer to be discovered, that between ATP and creatine, does not find its place at all in these metabolic integrations.

One hopes that the author will thoroughly review his arrows when he prepares this promising effort for the next edition.

H. LEHMANN.

**"THE HALLUCINOGENIC DRUGS"** by Donald McL. Johnson. Published by Christopher Johnson Publishers Ltd.

This publication is not a pharmacological study but a pamphlet calling attention to what the author considers is a serious loophole in the law. He suggests that no adequate legal safeguards exist

to protect a person to whom some unscrupulous third party might administer a sufficient dose of a drug such as hashish to produce a state of mental confusion so like a psychosis that the victim may be certified insane. While the victim languishes in a mental hospital, the poisoner has a splendid opportunity to assume the victim's position, wealth, wife and any other desirable pieces of property. A similar type of manoeuvre is said to be the standard practice among certain West African tribes whereby promotion, albeit temporary, is attained by occupying dead men's shoes. Problems of this nature may confront the District Commissioners in farflung corners of the colonies but it is doubtful whether they constitute a serious menace in this country. The author enlivens his text with details of a personal psychotic episode of uncertain aetiology as a result of which he was certified insane and was committed to an asylum. The evidence cited to support his thesis is largely hearsay and has not been critically evaluated in a manner that one is entitled to expect from an author with both a medical and a legal qualification.

J. P. QUILLIAM.

**AIDS TO DERMATOLOGY** by R. M. B. MacKenna and C. Lipman Cohen. Fourth Edition. 296 pp. Baillière, Tindall & Cox. Price 7s. 6d.

During the student's training skin diseases occupy a very small part of the medical curriculum, and the student, having only a limited time at his disposal, rightly wonders which skin book to read for maximum benefit without devoting a disproportionate amount of time to this subject. To this end I have read most recent editions of *Aids to Dermatology*, endeavouring to critically appraise it in its own right and to compare it with the two other most oft-recommended skin books.

*Aids to Dermatology* rises above the usual level of the *Aid* series. The book, by its very nature, is concise, but by the clarity of thought of its authors, the descriptions of all aspects of skin diseases, are marshalled forth in a friendly and understandable way, thus avoiding the decidedly inhuman and impersonal presentation favoured by so many books. This book is eminently readable, condensation has necessarily resulted in omissions, but remarkably few relevant and important facts or theories have been left out, especially in aetiology theories, and facts have been put forward, not with the usual irritating dogma, but in an acceptable scientific form. The reader is not left with the unsatisfactory feeling of only knowing half the story.

The whole range of skin diseases is covered in a clearly classified order, each disease being systematically described. As regards incidence, there is little mention of the commonest or rarity of the diseases. This omission might well be rectified in a future edition.

Special mention should be made on the excellence of the sections on pyosocial infections of the skin, the natural history of the schauric state, tuberculosis and tumours of the skin. The chapter on eczema clears up much of the confusion concerning the terms eczema and dermatitis, rightly making the broad division into exogenous and endogenous types.

The treatment is fully covered in every disease. Special emphasis has been placed on the treatment of the patient as well as his skin, the skin lesion being rightly regarded as only one manifestation of disease of the patient. Treatment, both general and local, is described in considerable detail, any special techniques being fully discussed. Although it is necessary to "ring the changes" of treatment in many lesions, and such changes should be known, however, some sections leave the reader in doubt as to which preparation is usually the most efficacious. An explanation is given in the foreword for varying the form of dosages, namely the Apothecaries, metric and percentage, but in spite of this, I found it rather confusing, and feel that dosage given as percentages would fix them more effectively in the reader's mind.

The only section that might have been enlarged upon was the introductory one on local therapy, and this could have been made at the expense of the long dissertation on the rarities, leprosy, blastomycosis and cutaneous leishmaniasis.

The criticisms mentioned are only minor ones, and certainly do not detract from the excellence of this book. Reading this book in conjunction with attendance at the out-patient clinics should enable any student to be reasonably competent at skins. My only regret is that I did not do so at the time, but read it afterwards. For the student this is the book to read above all others; it is a "MUST."

R. H. B.

**A JOURNAL OF THE PLAGUE YEAR**, by Daniel Defoe. Everyman's Library, No. 289. This work appeared in 1722 when the subject of the plague again became of public interest owing to an outbreak in Marseilles the previous year.

The introductory note to this book, by G. A. Aitken, speculates very interestingly on the origin of the narrative, which is in the first person but not ostensibly that of Defoe himself, supposedly that of a London saddler. In any event Defoe, himself six years of age at the outbreak of the Great Plague, was sufficiently contemporary to have a very fair idea of conditions at the time.

The journal is written in the phraseology of the period and gives considerable impression of a factual eye-witness account, even if Defoe was the true author.

The medical reader will find the book of added interest as it is possible to recognise the descriptions of the various forms of plague and to understand why methods of control attempted at the time failed so miserably in the complete absence of any knowledge of the natural history of the disease.

E. R. N.

**THE BIOCHEMISTRY OF GENETICS**, by J. B. S. Haldane. George Allen & Unwin Ltd., London, 1954. pp. 144. Price 15s.

The first sentence of the preface is: "This is emphatically not a textbook." I should recommend anyone who wants that type of information to get hold of the excellent monograph by H. Harris, "An Introduction to Human Biochemical Genetics," published for the Galton Laboratory by

the Cambridge University Press in 1953. Haldane's book is a survey aiming at a bird's-eye view of the whole field of biochemical genetics of unicellular organisms (which include bacteria) fungi, higher plants and animals; what it foregoes in detail it gain in balance. This, however, does not preclude it from giving much basic instruction. "If we cross a homozygous tabby (AA)—dominant genes are commonly denoted by capital letters, recessives by small letters—with a black (aa) cat, all the kittens are tabby (Aa). Tabby is said to be dominant to black, and black recessive to tabby. Heterozygous (Aa) tabbies give equal numbers of Aa and aa when mated to blacks (aa). In other words we cannot distinguish between AA and Aa cats except by breeding. One A gene can do the work of two . . . ."

Of particular interest is Haldane's discussion of the Lysenko polemic. As Hinshelwood in this country holds similar anti-Mendelian views the "iron curtain" aspect is not so prominent because Haldane argues both with Lysenko and Hinshelwood. His main point is that Lysenko has set up an Aunt Sally. "the immortal gene as an essential tenet of Mendel-Morganism," which he then proceeds to shoot down with fervour. Yet there is no "tenet" and to what extent genes are altered as a result of changed metabolic processes is a question of fact and not of principle. Haldane's opinion is that "they are surprisingly stable." Haldane disagrees with Hinshelwood that a character determined by a gene "should be absolutely present or absolutely absent." "Since the technique for doing so has been standardised, no one has had any difficulty in classifying a phenylketonuric; nevertheless it is possible that even Hinshelwood excretes a milligram of phenylalanine per day."

One hopes that this book will not remain entirely unnoticed by the readers of this *Journal*. One sometimes wonders whether Bart's students might not take a greater interest in biochemical genetics. In the U.S.A., for instance, medical men would not

## CLUB NEWS

### HOSPITALS' CHOIR

#### Concert

The centenary of the Mission of the Lady with the Lamp to the Crimea was commemorated on June 3 by a concert in the Albert Hall in aid of the National Florence Nightingale Memorial Fund, whose object is to assist advanced-level nursing study.

The London Symphony Orchestra, under Mr. Colin Ratcliffe, opened with a lively performance of the Academic Festival Overture, which was fol- by Dame Myra Hess playing the Schumann Piano Concerto in her usual youthful lyrical style. Her supreme mastery of the Romantics was admirably shown in the delightful *Intermezzo*.

necessarily connect the name of this Hospital with William Harvey, but usually with Archibald Garrod, his "Inborn Errors of Metabolism" and his role as the founder of human biochemical genetics.  
H. LEHMANN.

### TUBERCULOSIS IN CHILDHOOD AND ADOLESCENCE, by F. J. Bentley, S. Grzybowski and B. Benjamin. National Association for the Prevention of Tuberculosis, London, 1954. pp. 259. Price 30s.

For many years Highwood Hospital, Brentwood, Essex, has been the main centre for the treatment of tuberculous children drawn from Greater London. With its modern medical and educational facilities and its follow up of over ninety per cent of ex-patients, it possesses a wealth of clinical data which is unrivalled in Britain. When Dr. Bentley was appointed Senior Physician, a book of this sort became an inevitable consequence. His previous training both in tuberculosis and statistical methods are evident in his management of this difficult subject. Every aspect from aetiology to treatment is carefully analysed and he handles the Highwood material admirably. Examples of virtually every known variant of pulmonary tuberculosis in childhood are included, and for this reason alone the book must find a place as a standard reference in this disease.

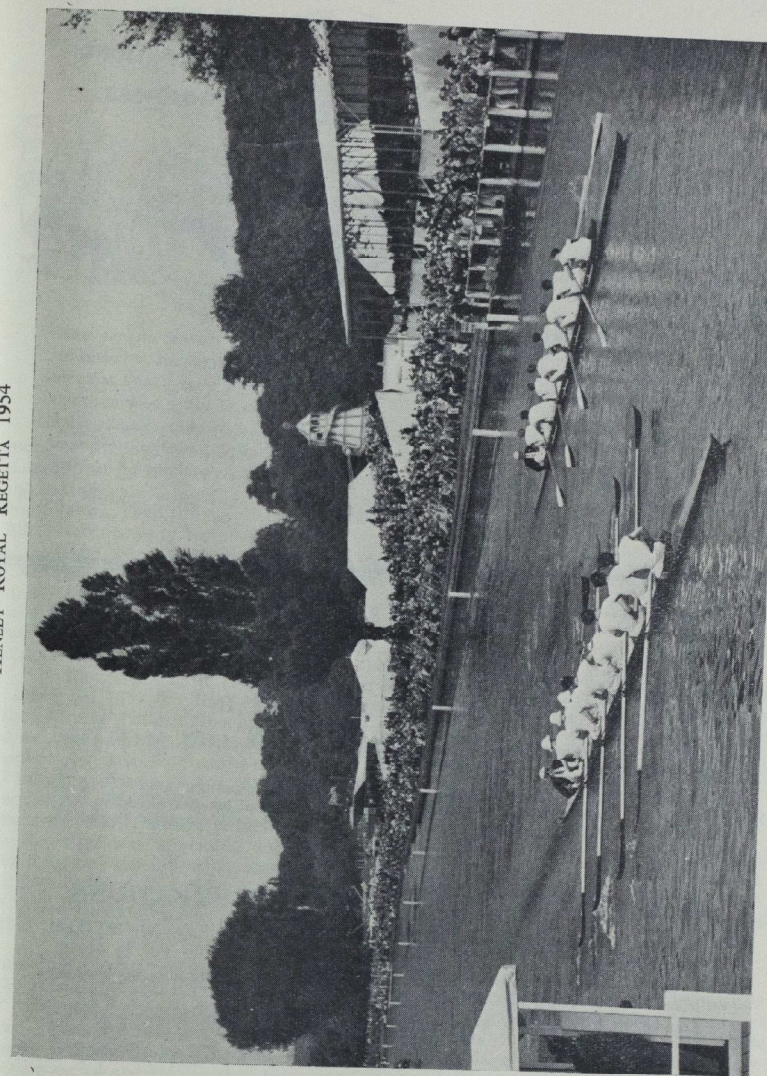
There are many short chapters, most of which end with brief "conclusions," so that much information can if necessary be gleaned in a short time. The absence of an index is a disadvantage.

A weakness in this otherwise admirable work is the method of referring to the experiences of other authors. Too often, conflicting views from other sources are enumerated without any sense of continuity, with the consequence that the references tend to confuse rather than to clarify the text.

The price, thirty shillings, is more than most students will care to spend on so specialised a subject.

NEVILLE OSWALD.

HENELEY ROYAL REGETTA 1954



St. Catherine's College, Cambridge, beating St. Bartholomew's Hospital by one third of a length in the Thames Cup Eights.  
By kind permission of *The Times*

(Cont. on page 244)

★ ★ ★  
**CHRISTIAN UNION**

**House Party**

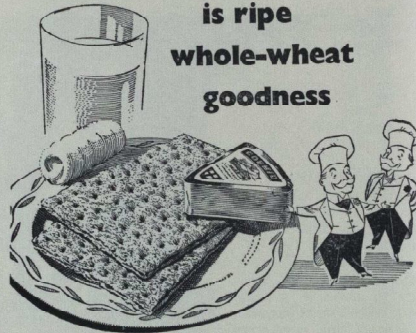
In the words of the invitation card, the purpose of our annual House Party was "to spend a thoroughly enjoyable weekend in the North Downs and at the same time to consider together some of the basic truths of our Christian faith and their implications in practical living".

This year, from May 21—24, thirty-five students went to "Fairhaven," a small conference centre near Dorking, tucked away in the woods, far from "civilization." The Rev. R. C. Lucas was our Speaker, and his Bible Study talks were an inspiration to all. The rambles in the surrounding woods and the informal chats and discussions and fellowship enjoyed, all combined to make the weekend a most memorable time.

★ ★ ★

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**ST. BARTHOLOMEW'S  
 HOSPITAL JOURNAL**

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**WHO KNOWS?**

Some time ago the Hospital Statistical Report for 1951 was published by the Department of Medical Statistics. The 71 pages of the report are attractively bound and contain a wealth of information in small print and columns of figures. The amount of work involved in making such a report is enormous but the information to be found must surely make its compilation justified. As with all other volumes on statistics, however, there are those who query the necessity for such works.

The word "statistics" was introduced 200 years ago by Professor Achcnwall, of Göttingen, who may be considered to have founded the science. Although today applied to most aspects of our daily existence, Statistics were formerly a branch of Political Science, and were used by governing bodies to accumulate and tabulate facts concerning the habits and conditions of the people. Since 1832 the Board of Trade has had a department making reports on the finances and activities of other branches of the government.

It was not until 1860 that St. Bartholomew's Hospital first produced any statistical tables. In 1859 the Treasurer had been asked for statistical information regarding some of the Hospital patients and had been unable to oblige, but an idea quickly took shape in his mind and he wrote, "I very much regretted my inability to comply with the request to the extent required, from want of sufficient data. After much careful consideration of the matter, I saw how extremely important it was that this Hospital should be in a condition to furnish not only to the Governors, but to the Medical Profession and Society at large, the important facts of Vital Statistics which such an institution can alone afford." As a result of this a Registrar was appointed, Dr. George Edwards, and the Tables for 1860 were published in February of the following year. They occupy less than half the space of the latest Tables and the information given is not as detailed, but it is nevertheless very clear and seems to have served its purpose. In successive years more detail was added but the form is only little changed.

Some of the early Reports included a "Statement of the occupations of patients admitted during the year." This is not included now, as people from all walks of life use the Hospital, but it is interesting to note that in 1867 the Hospital admitted, among others, one "gentleman" and three hundred and eleven "prostitutes." Also admitted in this year were one "glass bead maker," one "patent pill maker" and one "dust-sifter" surely three of the most exacting trades. It is to be hoped that these latter ladies and gentlemen were able to return cured and refreshed to their singular employments.

Over the past ninety-four years the Reports reveal the steady progress in Hospital technique and methods. The death rate has been reduced manifold and yet the number of people treated has increased enormously. With such advances as are taking place in medicine today, the Reports of ninety-four years hence may be almost unrecognizable. Who knows?